World Economic Situation and Prospects

2020

United Nations

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New York, 2020

The *World Economic Situation and Prospects 2020* is a joint product of the United Nations Department of Economic and Social Affairs (UN DESA), the United Nations Conference on Trade and Development (UNCTAD) and the five United Nations regional commissions: Economic Commission for Africa (UNECA), Economic Commission for Europe (UNECE), Economic Commission for Latin America and the Caribbean (UNECLAC), Economic and Social Commission for Asia and the Pacific (UNESCAP) and Economic and Social Commission for Western Asia (UNESCWA). The United Nations World Tourism Organization (UNWTO), UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS), and the International Labour Organization (ILO) also contributed to the report.

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Foreword

At the September SDG Summit in New York, world leaders called for accelerated implementation of the 2030 Agenda for Sustainable Development. In response, I launched the Decade of Action to deliver the Sustainable Development Goals by 2030. As we enter the new decade, we face a complex set of development challenges. The global economy is suffering a significant and widespread slowdown amid prolonged trade disputes and wide-ranging policy uncertainties; poverty rates are increasing in numerous countries; climate risks are more pressing than ever; and inequalities remain broad within and among countries. This is the backdrop as policymakers strive to advance on the SDGs.

The *World Economic Situation and Prospects 2020* warns that economic risks remain strong, aggravated by deepening political polarization and increasing scepticism about the benefits of multilateralism. These risks could inflict severe and long-lasting damage on development prospects. They also threaten to encourage a further rise in inward-looking policies, at a point when global cooperation is paramount.

Climate disruption also poses a serious and growing threat to short- and long-term economic prospects. That is why I will continue to push to keep the climate crisis at the top of the international agenda. The report stresses that investors underestimate the risks of climate change and are still making short-sighted decisions to expand investment into carbon-intensive assets. One of the primary ways to break the link between greenhouse gas emissions and economic activity is to change the energy supply mix, transitioning from fossil fuels to renewable sources of energy. This transition will require policies that steer nations towards carbon neutrality by 2050, including setting a meaningful price on carbon pollution, abandoning perverse fossil fuel subsidies and ending investment in and construction of coal-fired power plants by 2020. Well-balanced policy strategies should maintain economic stability while broadening access to clean, affordable and reliable energy.

The rise of living standards over the past century has also relied heavily on depleting the world's natural resources, such as forests and water—an economic model that is simply not sustainable. To live in shared prosperity within the capacity of our planet to support us, we must move away from carbon and resource-intensive industries, materials and value chains. We must instead prioritize sustainable consumption and production—a way of life that enables economic growth, while ensuring planetary protection.

I commend the United Nations Department of Economic and Social Affairs, the United Nations Conference on Trade and Development, the five United Nations Regional Commissions and other contributors for this joint report. The United Nations System will continue to work closely with Member States during the Decade of Action as we cooperate to implement the 2030 Agenda and deliver a sustainable, peaceful and prosperous future.

António Guterres
Secretary-General of the United Nations

Explanatory notes

The following symbols have been used in the tables throughout the report:

..	**Two dots** indicate that data are not available or are not separately reported.
–	**A dash** indicates that the amount is nil or negligible.
-	**A hyphen** indicates that the item is not applicable.
–	**A minus sign** indicates deficit or decrease, except as indicated.
.	**A full stop** is used to indicate decimals.
/	**A slash** between years indicates a crop year or financial year, for example, 2018/19.
–	**Use of a hyphen between years**, for example, 2019–2020, signifies the full period involved, including the beginning and end years.

Reference to "dollars" ($) indicates United States dollars, unless otherwise stated.

Reference to "billions" indicates one thousand million.

Reference to "tons" indicates metric tons, unless otherwise stated.

Annual rates of growth or change, unless otherwise stated, refer to annual compound rates.

Details and percentages in tables do not necessarily add to totals, because of rounding.

Project LINK is an international collaborative research group for econometric modelling, coordinated jointly by the Economic Analysis and Policy Division of UN DESA and the University of Toronto.

For **country classifications**, see Statistical annex.

Data presented in this publication incorporate information available as at **30 November 2019**.

The following abbreviations have been used:

AfCFTA	African Continental Free Trade Area
ASEAN	Association of Southeast Asian Nations
BIS	Bank for International Settlements
BRI	Belt and Road Initiative
CIS	Commonwealth of Independent States
CO_2	carbon dioxide
DSM	dispute settlement mechanism
ECB	European Central Bank
ECOSOC	United Nations Economic and Social Council
EU	European Union
FDI	foreign direct investment
GCC	Cooperation Council for the Arab States of the Gulf
GDP	gross domestic product
GHG	greenhouse gas
GNI	gross national income
Gt	gigaton
IEA	International Energy Agency
ILO	International Labour Organization
IMF	International Monetary Fund
IMO	International Maritime Organization
IPCC	Intergovernmental Panel on Climate Change
IRENA	International Renewable Energy Agency
LDCs	least developed countries
M&A	mergers and acquisitions
MTS	multilateral trading system
ODA	official development assistance
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of the Petroleum Exporting Countries
PPP	purchasing power parity
PV	photovoltaic
R&D	research and development
SAR	Special Administrative Region
SDGs	Sustainable Development Goals
SDT	special and differential treatment
SIDS	small island developing States
UNCTAD	United Nations Conference on Trade and Development
UN DESA	Department of Economic and Social Affairs of the United Nations Secretariat
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNECE	United Nations Economic Commission for Europe
UNECLAC	United Nations Economic Commission for Latin America and the Caribbean
UNEP	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCWA	United Nations Economic and Social Commission for Western Asia
UNFCCC	United Nations Framework Convention on Climate Change
UN-OHRLLS	United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
UNWTO	United Nations World Tourism Organization
VAT	value-added tax
WAEMU	West African Economic and Monetary Union
WEFM	World Economic Forecasting Model
WESP	World Economic Situation and Prospects
WTO	World Trade Organization

Acknowledgements

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The United Nations World Tourism Organization (**UNWTO**), and staff from the UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (**UN-OHRLLS**), and the International Labour Organization (**ILO**) also contributed to the report. The report has benefited from the deliberations in the Project LINK meeting held in New York on 17-19 June 2019. The forecasts presented in the report draw on the World Economic Forecasting Model (**WEFM**) of UN DESA as well as inputs from the United Nations regional commissions.

Under the general guidance of Liu Zhenmin, Under-Secretary-General for Economic and Social Affairs, and Elliott Harris, United Nations Chief Economist and Assistant-Secretary-General for Economic Development, and the management of Pingfan Hong, Director of Economic Analysis and Policy Division (**EAPD**), this publication was coordinated by Dawn Holland, Chief of the Global Economic Monitoring Branch of **EAPD**.

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The report was edited by Terri Lore.

Sustainable Development Goals

Goal 1. End poverty in all its forms everywhere

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 3. Ensure healthy lives and promote well-being for all at all ages

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5. Achieve gender equality and empower all women and girls

Goal 6. Ensure availability and sustainable management of water and sanitation for all

Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 10. Reduce inequality within and among countries

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12. Ensure sustainable consumption and production patterns

Goal 13. Take urgent action to combat climate change and its impacts

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Executive summary

The broad-based deterioration of global economic prospects may cause setbacks in the pursuit of development goals

A dynamic and inclusive global economy is essential to meeting the ambitious targets of the 2030 Agenda for Sustainable Development. Amid prolonged trade disputes and wide-ranging policy uncertainties, the world economy has seen a significant and broad-based deterioration over the past year. This threatens to impede efforts to reduce poverty, create decent jobs, broaden access to affordable and clean energy, and achieve many other Sustainable Development Goals. World gross product growth slipped to 2.3 per cent in 2019—the lowest rate since the global financial crisis of 2008–2009. This slowdown is occurring alongside growing discontent with the social and environmental quality of economic growth, amid pervasive inequalities and the deepening climate crisis. Even as global trade tensions ease along some fronts, the potential for relapse is high, as important issues underlying these disputes have yet to be tackled in depth. Based on the assumption that potential setbacks will not materialize, a modest uptick in global growth to 2.5 per cent is forecast for 2020, though policy uncertainties will continue to weigh on investment plans.

Trade policy uncertainty has taken a toll on global investment and exports

Rising tariffs and months of shifting between the escalation and de-escalation of global trade tensions have fuelled policy uncertainty, significantly curtailed investment, and pushed global trade growth down to 0.3 per cent in 2019—its lowest level in a decade. Bilateral trade between the United States of America and China has plummeted, with significant disruptions to international supply chains. The global electronics and automobile sectors, which have extensive cross-country production networks, have been hit particularly hard. Nonetheless, several countries have benefited from a rise in global export market share, as firms seek to source inputs from countries that are not directly affected by rising tariffs. Meanwhile, many of the least developed countries (LDCs), which are generally not well integrated into global trading networks, have remained relatively unaffected by trade disputes. Unlike most of the rest of the world, the majority of LDCs saw GDP growth accelerate in 2019.

Trade tensions have become intertwined with financial fragilities

The world economy is plagued by risks that threaten financial stability. Amid prolonged loose monetary conditions in developed economies and rapid credit growth in some emerging economies, high levels of debt are pervasive. Elevated debt levels not only pose financial

risks themselves but also reduce an economy's resilience to shocks, creating a source of fragility in cases of further deterioration in economic activity. An escalation of trade tensions could become intertwined with these fragilities if it were to trigger a "flight to safety" among investors, driving an appreciation of the United States dollar and an implicit tightening of monetary conditions in developing countries. As households and firms struggle to roll over debt, rising bankruptcies and tighter credit conditions could trigger a disorderly deleveraging process and large asset price corrections.

There are growing concerns that monetary policy has reached its limits…

Overburdened monetary policies have proven insufficient to stimulate investment, which in many countries is being held back less by financing costs than by uncertainty and a lack of business confidence. Much of the recently accumulated global debt has been channeled into financial assets rather than into raising productive capacity—illustrating a worrying disconnect between the financial sector and real economic activity. Strong demand for negative-yielding sovereign bonds suggests that many investors are more willing to endure small losses than to undertake productive investment, indicating a very pessimistic view about economic growth in the future. With no signs of a significant investment revival in the near term, productivity growth will remain weak over the medium term.

…and further easing may exacerbate risks

Overreliance on monetary policy is not just insufficient to revive growth; it also entails significant costs, including the exacerbation of financial stability risks. Low global interest rates and ample liquidity conditions have contributed to the underpricing of risks, pushing up asset prices and encouraging the rise in global debt. The more protracted period of easy monetary policy has the potential to fuel a further build-up of financial imbalances.

Risks remain strongly tilted to the downside

The modest rebound in global growth foreseen for 2020 is contingent on the assumption that numerous risks lurking on the horizon do not materialize—that trade tensions and tariffs do not intensify further; that Brexit is concluded with a transparent framework for the future relationship between the United Kingdom and the European Union; that geopolitical frictions do not escalate; that risks to financial stability remain contained; and that catastrophic climate shocks remain at bay. Even a small deviation from any of these stipulations could deliver a further slowdown in global growth in 2020. For example, a flareup of trade tensions that prompted firms in developed economies and in East Asia to postpone just 1 per cent of investment could see world trade growth slow to 0.6 per cent and world gross product growth to just 1.8 per cent in 2020. This compares to baseline projections of 2.3 and 2.5 per cent, respectively.

Any one of the downside risks is likely to aggravate other risks, potentially derailing the global economy. Compounded by deepening political polarization, increasing scepticism over the benefits of multilateralism and limited global policy space, these difficult near-term headwinds have the potential to inflict severe and long-lasting damage on society and pose a considerable threat to prospects for achieving the Sustainable Development Goals by 2030.

A more balanced policy mix is needed

Amid concerns about overstretched monetary policies, a more balanced policy mix is called for. While central banks have responded swiftly to the deteriorating global outlook, fiscal policy has generally been underutilized as a countercyclical tool. With interest rates at historic lows, Governments that have ample fiscal space and pressing public investment needs should make use of the current favourable financing conditions. However, high debt levels and sizeable fiscal deficits limit the room for fiscal stimulus in many cases.

As the scope for both fiscal and monetary easing to offset the global economic slowdown is limited in many countries, the emphasis on efficiency in policymaking takes on an increasingly important role. This requires moving away from a focus on short-term targets towards longer-term planning for inclusive economic development. Structural shifts in the design of fiscal policy should be carefully integrated with labour market initiatives, conducive business and financial regulation, effective social protection systems and prudently targeted investment incentives. It demands a balanced policy approach that stimulates economic growth while moving towards greater social inclusion, gender equality, and environmentally sustainable production and consumption. Although national priorities differ, some common overarching global priorities include scaling up investment and aligning policy to decarbonize energy, agriculture and transport; undertaking targeted infrastructure investment to broaden access to clean and renewable energy, clean water and transport links; and supporting equal opportunities in access to high-quality education, health care and formal employment.

National policies must be complemented by more effective global cooperation

Several of the development challenges faced by countries are global in nature and cannot be adequately addressed by domestic structural policies alone. National policies need to be complemented by more effective international cooperation in order to achieve shared goals, particularly in the areas of climate change, international trade and finance. As the global economic balance is shifting from the European Union, the United States and other developed countries towards China, India and other developing countries, global economic decision-making power is shifting as well. Global cooperation mechanisms will need to recognize this shifting balance while continuing to allow the underrepresented to be heard.

Headline GDP figures miss crucial aspects of the quality of economic growth

While GDP is the measure most widely used to assess economic prosperity and performance, it reveals nothing about how income is distributed within a country; the impact of economic activity on natural resources and the environment; or the quality of life enjoyed by the population in terms of education, health or personal safety. Along many dimensions, global well-being continues to fall well short of targeted levels. Deadly conflicts continue, the climate crisis is deepening, the number of people suffering from food insecurity and undernourishment is rising, and there is increasing recognition that inequalities in income, education, health and opportunity underpin profound social discrimination. Calls for change are widespread across the globe, reflecting a growing discontent with the quality of growth underlying the current economic, social and environmental status quo.

Progress towards higher living standards has stalled for many

In per capita terms, the global economy is projected to grow by 1.5 per cent in 2020. The baseline scenario projects a modest acceleration in GDP growth in many developing regions, with East Africa and East Asia expected to continue to exhibit rapid income growth. However, 1 in 5 countries will see per capita incomes stagnate or decline this year. Progress towards higher living standards has already stalled for many. In one third of commodity-dependent developing countries (home to 870 million people), average real incomes are lower today than they were in 2014.

Eradicating poverty will increasingly rely on tackling inequality

The share of the population living in extreme poverty has declined steadily and significantly over the past few decades, largely owing to successful experiences in China and India. Although progress has been achieved in global terms, the number of people living in extreme poverty has risen in several sub-Saharan African countries and in parts of Latin America and the Caribbean and Western Asia. Sustained progress towards poverty reduction will require both a significant boost to productivity growth and firm commitments to tackle high levels of inequality. In the absence of steep declines in inequality, eradicating poverty in non-LDCs in Africa would require an annual per capita income growth rate of 8.7 per cent—in comparison with the woefully inadequate rate of 0.5 per cent recorded over the past decade.

Climate risks increasingly pose threats to humanity…

Risks associated with the climate crisis are becoming an ever-greater challenge for many countries, and climate action must be an integral part of any policy mix. The only way to break the connection between greenhouse gas emissions and economic activity is to change the energy mix. Arresting global warming will require a strong political will and the full deployment of all available policy instruments.

… while many current policy actions lack long-term vision, aggravating global risks

Climate risks continue to be underestimated, encouraging short-sighted decisions that expand investment in carbon-intensive assets. The transition to a world that places a price on carbon, where polluters shoulder an increasing share of the environmental costs associated with their activities, will expose widespread vulnerabilities among holders of carbon-intensive assets. This will leave many Governments and investors exposed to sudden losses and stranded assets. More broadly, the current lack of a long-term vision will make environmental targets extremely difficult to achieve.

Many countries stand to gain from the energy transition…

The transition to a cleaner energy mix has the potential to bring not only environmental benefits but also economic benefits for many countries. For example, heavy importers of fossil fuels stand to benefit from the development of local renewable energy sources, leading to improvements in energy supply security and external balances. Meanwhile, some countries will see increased demand for resources used in low-carbon technologies, including metals and materials needed for renewable energy systems, efficient buildings and new forms of transportation. Ultimately, the transition will lead to greater value being placed on natural resources such as the sun, wind and waterways, and to increased support for the protection and expansion of forests as carbon sinks.

… but costs and benefits will not be equally shared

The economic and social consequences of the global energy transition will necessarily be far-reaching. The costs and benefits will be very unevenly distributed within and between countries; discrepancies must be recognized and addressed through cooperative agreements to ensure a fair transition. Measures to alleviate the burden on those who will face disproportionate losses are essential—both to protect the vulnerable and to safeguard the political viability of difficult but urgently needed policy actions.

Urgent action can accelerate progress towards achieving global energy-related Sustainable Development Goals…

A wide gap remains between today's world and a world in which the energy system is compatible with global goals for climate protection, universal access to energy and clean air. Strategies for the delivery of accessible, reliable and decarbonized energy are available but require political prioritization and public support. Achieving the necessary decline in emission levels will require a combination of technology change to enhance energy efficiency; behavioural change to promote energy conservation and the expansion of carbon sinks; investment in the infrastructure and technology required to change the composition of the energy mix; and the development and deployment of carbon capture and sequestration technologies.

… while a delay in decisive action will significantly increase the ultimate costs

The window of opportunity to act is narrowing. Any delay in decisive action will significantly increase the ultimate costs. Member States of the United Nations have declared this a decade of action to deliver the Sustainable Development Goals by 2030, and rapid progress towards achieving the energy transition must feature high on this agenda.

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Global growth

Slower world growth threatens to set back sustainable development efforts

In the current environment of protracted trade tensions and high policy uncertainty, the global growth outlook has weakened significantly. This threatens to undermine progress towards eradicating poverty, raising living standards, and creating a sufficient number of decent jobs. The broad-based growth slowdown in the world economy over the past year has been accompanied by a sharp slowdown in international trade flows and global manufacturing activity. Amid rising tariffs and rapid shifts in trade policies, business confidence has deteriorated, dampening investment growth across most regions. Softening demand has also weighed on global commodity prices, in particular crude oil and industrial metals. While the global shift towards more accommodative monetary policies has eased short-term financial market pressures somewhat, long-term fault lines create significant uncertainty.

Risks are strongly tilted to the downside

Against this backdrop, the United Nations estimates that global growth slowed to a 10-year low of 2.3 per cent in 2019. A modest acceleration is expected going forward, with average world gross product growth projected at 2.5 per cent in 2020 and 2.7 per cent in 2021 (see figure I.1).[1] Per capita income growth is projected to average only 1.5 per cent in 2020 and 1.7 per cent in 2021, with wide disparities across regions. The pickup in global activity will likely be driven by somewhat faster growth in developing regions, where several large economies are expected to recover from adverse shocks. The risks to the baseline forecasts are strongly tilted to the downside, however. These risks include a further escalation of trade disputes, a sharp decline in investor risk appetite, and an increase in geopolitical tensions. Financial fragilities, in particular elevated indebtedness, represent a source of risk to financial stability and reduce economies' resilience to shocks. At the same time, short- and long-term risks associated with the climate crisis are becoming an ever-greater challenge for many countries. Compounded by deepening political polarization, these difficult near-term headwinds pose a considerable threat to the prospects for achieving the Sustainable Development Goals by 2030.

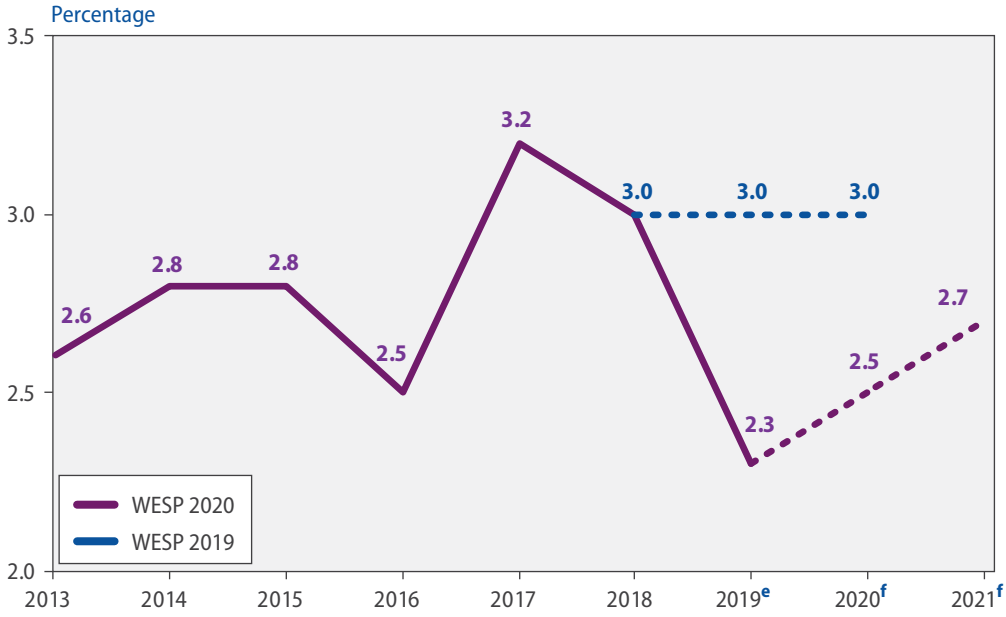
Fundamental macroeconomic challenges impede robust and inclusive growth

Beyond these immediate risks, the world economy faces a series of fundamental macroeconomic and structural challenges that stand in the way of robust and inclusive growth.[2] Despite loose monetary conditions and soaring debt, productive investment in many countries has remained weak over the past decade. In many economies, the socioeconomic impact of low labour productivity growth has been aggravated by declines in labour shares and increases in wage inequality. For many developing economies, continued overdependence on commodities remains a key challenge. A significant number of countries are still suffering from the effects of the 2014-2016 commodity price downturn, which has resulted in persistent output losses and setbacks in poverty reduction.

1 When using purchasing power parity (PPP) for aggregation—a methodology that gives greater weight to developing countries—global growth is estimated to have slowed to 2.9 per cent in 2019. PPP-weighted growth is projected to pick up to 3.2 per cent in 2020 and 3.4 per cent in 2021, as reported in table I.1.

2 See UNCTAD (2019d).

Figure I.1
Growth of world gross product



Source: UN DESA.

Notes: The country level figures are aggregated using 2010 market exchange rates. **e** = estimates; **f** = forecast.

A more balanced policy mix is urgently needed

Without decisive policy action on multiple fronts, a significant and prolonged downturn in global economic activity is a distinct possibility. Amid concerns over the unintended effects of overstretched monetary policies, there are growing calls for a more balanced policy mix—one that includes a more active role for fiscal policies in supporting growth. Policymakers also need to remain focused on advancing structural reforms that strengthen economic resilience and boost long-term development prospects. Key priorities include climate change adaption strategies, policies to accelerate the energy transition, reforms of labour markets and pension systems, investments in infrastructure and education, and measures to promote economic diversification.

The global economic downturn has affected nearly all major economies

In 2019, the world economy expanded at its slowest pace since the global financial crisis. The downturn in economic activity has been highly synchronized, with growth trending down in virtually all major economies (see table I.1). Annual growth decelerated in all geographic regions except Africa. About two thirds of the world's countries are estimated to have seen lower growth in gross domestic product (GDP) in 2019 than in 2018. While trade negotiations are ongoing, a high degree of uncertainty remains, contributing to a global economic environment that is likely to remain challenging over the outlook period.

The global growth slowdown is largely attributed to weaker trade and investment activity

The slowdown in GDP growth across developed and developing regions in 2019 is mainly attributed to weakening trade activity and more subdued domestic investment. In tandem with slowing merchandise trade, world industrial production weakened and the Global Manufacturing Purchasing Managers' Index (PMI) fell to its lowest level since 2012 (see figure I.2). By contrast, private consumption held up relatively well for most countries during the year, supported by firm labour markets and modest inflationary pressures. Nevertheless, there are signs that household spending has started to moderate in several large economies, with consumers becoming less optimistic.[3]

3 In October 2019, the OECD consumer confidence index fell to its lowest level in four years.

Table I.1
Growth of world output and gross domestic product

						Change from WESP 2019	
Annual percentage change	2017	2018	2019[a]	2020[b]	2021[b]	2019	2020
World	3.2	3.0	2.3	2.5	2.7	-0.7	-0.5
Developed economies	2.4	2.2	1.7	1.5	1.7	-0.4	-0.4
United States of America	2.4	2.9	2.2	1.7	1.8	-0.3	-0.3
Japan	1.9	0.8	0.7	0.9	1.3	-0.7	-0.3
European Union	2.6	2.0	1.4	1.6	1.7	-0.6	-0.4
EU-15	2.4	1.8	1.2	1.4	1.6	-0.6	-0.4
EU-13	4.8	4.3	3.8	3.3	3.2	0.2	-0.2
Euro area	2.5	1.9	1.2	1.4	1.5	-0.7	-0.5
Other developed countries	2.6	2.3	1.7	1.8	1.9	-0.5	-0.4
Economies in transition	2.2	2.7	1.9	2.3	2.5	-0.2	-0.3
South-Eastern Europe	2.5	3.9	3.1	3.4	3.4	-0.6	-0.3
Commonwealth of Independent States and Georgia	2.1	2.7	1.8	2.3	2.4	-0.2	-0.3
Russian Federation	1.6	2.3	1.1	1.8	2.0	-0.3	-0.3
Developing economies	4.5	4.2	3.4	4.0	4.3	-0.9	-0.6
Africa	2.9	2.7	2.9	3.2	3.5	-0.5	-0.5
North Africa	4.0	2.6	3.4	3.6	3.7	0.0	0.0
East Africa	5.4	6.3	6.0	6.0	6.2	-0.3	-0.5
Central Africa	0.3	1.6	2.7	2.9	3.1	0.1	-0.9
West Africa	2.7	3.3	3.5	3.6	3.8	0.0	-0.2
Southern Africa	1.1	0.9	0.3	0.9	1.9	-1.8	-1.7
East and South Asia	6.1	5.7	4.8	5.2	5.2	-0.7	-0.4
East Asia	5.9	5.7	5.2	5.2	5.2	-0.3	-0.2
China	6.8	6.6	6.1	6.0	5.9	-0.2	-0.2
South Asia	6.8	5.6	3.3	5.1	5.3	-2.4	-1.0
India[c]	7.2	6.8	5.7	6.6	6.3	-1.9	-0.8
Western Asia	2.6	2.3	1.0	2.4	2.8	-1.3	-1.0
Latin America and the Caribbean	1.2	0.9	0.1	1.3	2.0	-1.6	-1.0
South America	0.7	0.4	-0.1	1.1	2.0	-1.4	-1.2
Brazil	1.3	1.1	1.0	1.7	2.3	-1.1	-0.8
Mexico and Central America	2.4	2.3	0.5	1.6	1.9	-2.0	-0.7
Caribbean	-0.2	1.6	1.2	5.7	3.4	-0.8	3.7
Least developed countries	4.5	4.6	4.9	5.1	5.4	-0.1	-0.6
Memorandum items							
World trade[d]	5.7	3.9	0.3	2.3	3.2	-3.4	-1.6
World output growth with PPP weights[e]	3.8	3.6	2.9	3.2	3.4	-0.7	-0.5

Source: UN DESA.
a Partly estimated.
b Forecast.
c Fiscal year basis.
d Includes goods and services.
e Based on 2010 benchmark.

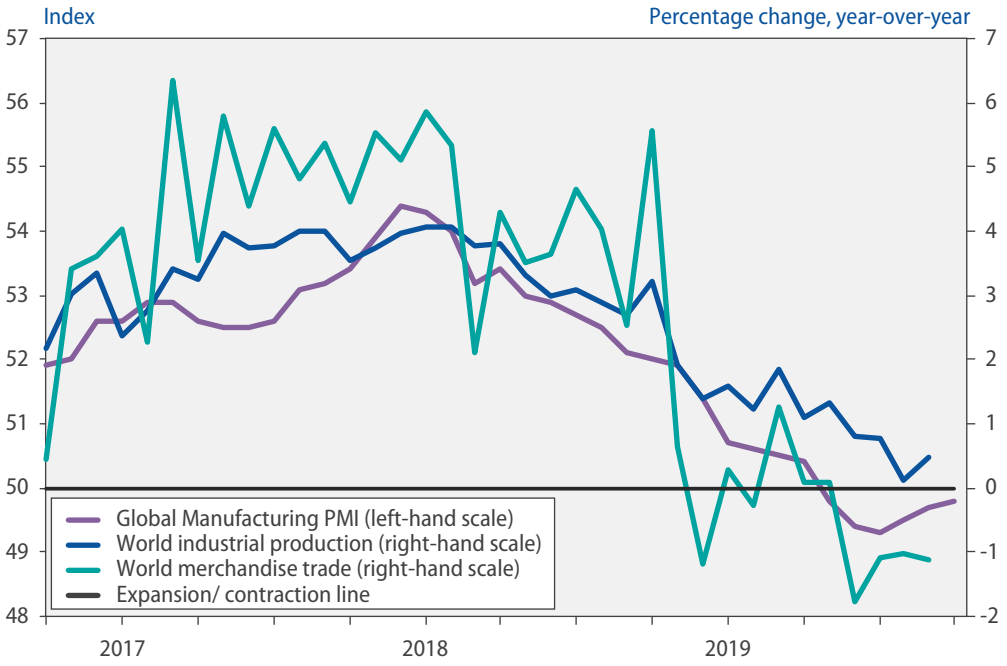
Table I.2

Growth of world output and gross domestic product per capita

Annual percentage change					
	2017	2018	2019[a]	2020[b]	2021[b]
World	2.1	1.9	1.2	1.5	1.7
Developed economies	2.1	1.9	1.3	1.3	1.4
United States of America	1.7	2.3	1.6	1.1	1.2
Japan	2.1	1.0	1.0	1.2	1.6
European Union	2.4	1.8	1.3	1.5	1.6
EU-15	2.0	1.5	0.9	1.2	1.4
EU-13	5.1	4.6	4.1	3.6	3.5
Euro area	2.3	1.7	1.0	1.3	1.5
Other developed countries	1.5	1.2	0.7	0.9	1.0
Economies in transition	1.7	2.4	1.5	2.0	2.2
South-Eastern Europe	2.8	4.2	3.4	3.7	3.8
Commonwealth of Independent States and Georgia	1.7	2.3	1.4	1.9	2.1
Russian Federation	1.5	2.1	1.0	1.7	2.0
Developing economies	3.2	2.9	2.1	2.8	3.1
Africa	0.3	0.1	0.4	0.7	1.1
North Africa	2.0	0.6	1.5	1.7	1.8
East Africa	2.5	3.3	3.1	3.2	3.4
Central Africa	-2.3	-1.1	0.0	0.2	0.4
West Africa	0.0	0.6	0.8	0.9	1.1
Southern Africa	-1.2	-1.4	-1.9	-1.3	-0.3
East and South Asia	5.1	4.8	3.9	4.3	4.4
East Asia	5.2	5.1	4.6	4.6	4.6
China	6.3	6.1	5.7	5.6	5.5
South Asia	5.6	4.4	2.1	3.9	4.1
India[c]	6.3	5.8	4.3	5.6	5.4
Western Asia	0.8	0.6	-0.7	0.7	1.2
Latin America and the Caribbean	0.2	0.0	-0.8	0.4	1.1
South America	-0.1	-0.5	-1.0	0.3	1.2
Brazil	0.5	0.3	0.2	0.9	1.6
Mexico and Central America	1.2	1.1	-0.6	0.5	0.8
Caribbean	-0.8	1.0	0.6	5.1	2.8
Least developed countries	2.1	2.2	2.5	2.7	3.0

Source: UN DESA.
a Partly estimated.
b Forecast.
c Calendar year basis.

Figure I.2
Global Manufacturing PMI, industrial production and merchandise trade



Sources: J.P. Morgan; CPB Netherlands Bureau for Economic Policy Analysis.

Note: For the Global Manufacturing Purchasing Managers' Index (PMI), a value above 50 signals an improvement in comparison with the previous month. World industrial production and world merchandise trade are seasonally adjusted.

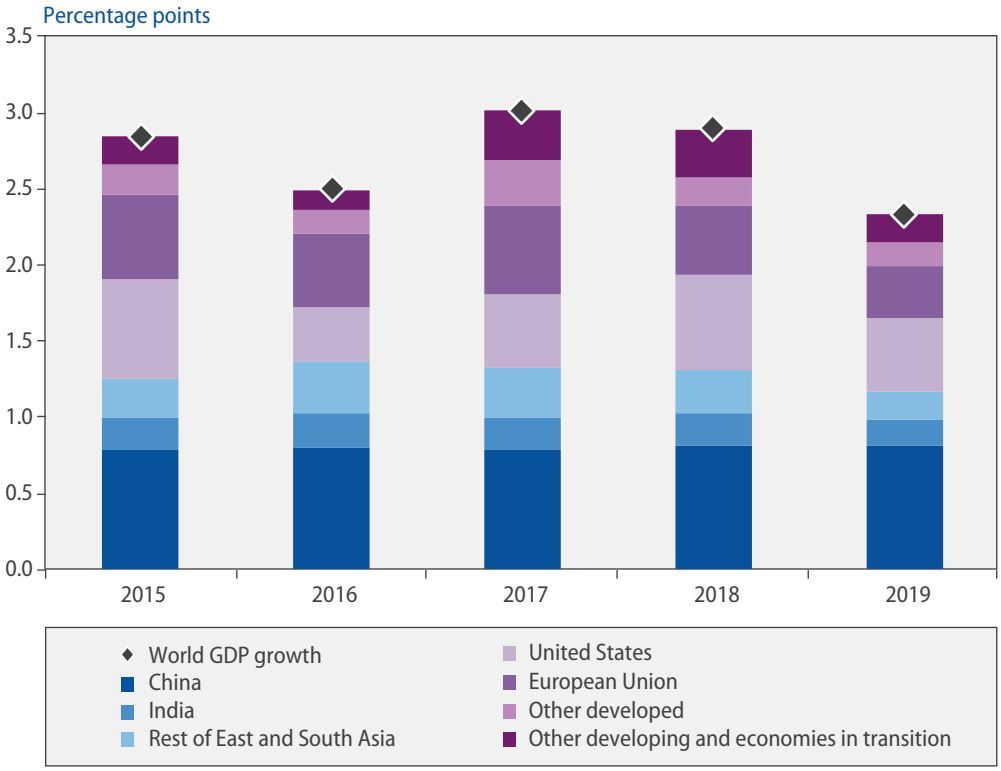
Headwinds in developed economies will likely persist in 2020

Across the developed economies, the growth momentum has slowed considerably since mid-2018. In the United States of America (hereafter referred to as the United States), the pace of expansion is projected to moderate further in 2020, though the recent cuts in the federal funds rate may lend some support to economic activity. Continued policy uncertainty, weak business confidence and slowing job growth are likely to weigh on domestic demand. In Europe, average growth is expected to remain modest in the outlook period. The manufacturing sector will continue to be adversely affected by international trade tensions, the economic slowdown in China, and elevated policy uncertainty, including over the exit of the United Kingdom of Great Britain and Northern Ireland (hereafter referred to as the United Kingdom) from the European Union. This will be partially offset by continued solid growth in private consumption on the back of robust labour markets and additional monetary stimulus. Economic performance in Japan will remain subdued in 2020 as a consumption tax rise, declining real wages and sluggish exports to East Asian economies drag on growth.

The challenging global environment and policy uncertainty weigh on the outlook for developing countries

Growth prospects across developing and transition economies have been revised downward. In several countries, domestic weaknesses such as heightened political uncertainty, financial fragilities and supply disruptions are compounding the difficulties linked to the challenging external environment. Despite facing significant headwinds, East Asia remains the world's fastest growing region and the largest contributor to global growth (see figure I.3). Going forward, more accommodative monetary and fiscal policies will support domestic demand. The region's average growth is projected to remain stable, even with the continued gradual economic slowdown in China. In South Asia, economic growth is expected to recover in the outlook period following a weaker-than-expected performance in 2019. In India, economic activity will regain some momentum as the effects of a credit crunch ease and fiscal stimulus measures kick in. The economy of the Islamic Republic

Figure I.3
Contributions to world GDP growth, by region



Source: UN DESA.

Iran is projected to further contract as the impact of subdued oil prices is compounded by the United States sanctions and domestic social unrest. The economic outlook for Africa, Western Asia, Latin America and the Caribbean, and the economies in transition is clouded by relatively low commodity prices and protracted weaknesses in some large countries. While average growth in Africa is projected to pick up during the forecast period, the pace of expansion will remain insufficient to address pressing development challenges, especially in West, Central and Southern Africa. There is a need for further structural reforms to raise potential growth and promote economic diversification in the medium term (see box I.1). Western Asia is expected to see a moderate recovery in 2020 on the back of stronger domestic demand. However, subdued oil prices and geopolitical issues will continue to weigh on the region's growth performance. Latin America and the Caribbean remains mired in a prolonged economic slump amid adverse domestic and global conditions. A slow and uneven recovery is projected in the outlook period, supported by expansionary monetary policy and improved business confidence in several large economies, including Brazil and Mexico. However, the region faces significant downside risks, especially given the limited policy space going forward. Among the economies in transition, average growth in the Commonwealth of Independent States (CIS) and Georgia is projected to strengthen moderately in the forecast period, driven by increased fiscal spending in the Russian Federation and other energy exporters.

Box I.1

Exporters in Africa: what role for trade costs?

Exports are a major factor in growth fluctuations and strongly influence development trajectories. In the short term, exports are a crucial source of foreign exchange, promoting economic growth and reducing balance-of-payments constraints. In the medium term, the diversification of exports leads to higher and more sustainable growth, and exports are also crucial to productivity growth through "learning by exporting".

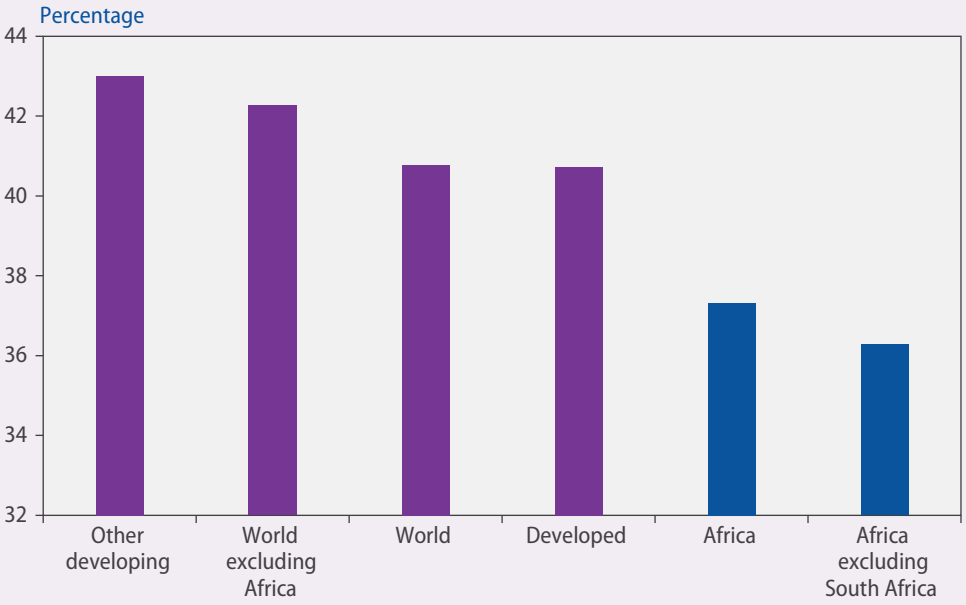
A critical aspect that shapes the performance and competitiveness of exports is trade costs. Trade costs not only include tariffs and tariff equivalents such as quotas and trade barriers, but also factor in connectivity, logistics, regulations, and cultural and historical aspects of international trade. In Africa, trade costs remain relatively high and continue to exert an enormous influence on trade activity (World Bank, 2015). The lack of transport infrastructure, ineffective enforcement of laws (in particular those related to property rights), poor business services and logistics, and regulatory deficiencies all have a negative impact on trade costs. Elevated trade costs affect comparative advantages, limit access to technology and intermediate inputs, and preclude participation in global value chains, making economic diversification more difficult.

Afonso and Vergara (2019) analysed the performance of exporters in Africa and the role of trade costs using a range of export indicators from the World Bank's Exporter Dynamics Database. The results show that exporting firm entry and exit rates are higher in Africa than in other regions of the world. This high turnover means that many firms in Africa begin exporting but stop almost immediately. Box figure I.1.1 illustrates the exceptionally low survival rate of exporting firms in Africa. On average, less than 30 per cent of firms in Cameroon, Guinea and Malawi continue exporting after their first year, in comparison with 41 per cent in developed countries and 43 per cent in other developing regions.

African countries also exhibit higher rates of entry and exit for export products and low rates of export product survival. Among incumbents in Botswana, for example, more than 70 per cent of exported products, on average, had not been exported the year prior. At the same time, over 70 per cent of products exported the year prior were not exported the following year. This contrasts with rates of only

Figure I.1.1

Average entrant first-year survival rate, 2009–2012



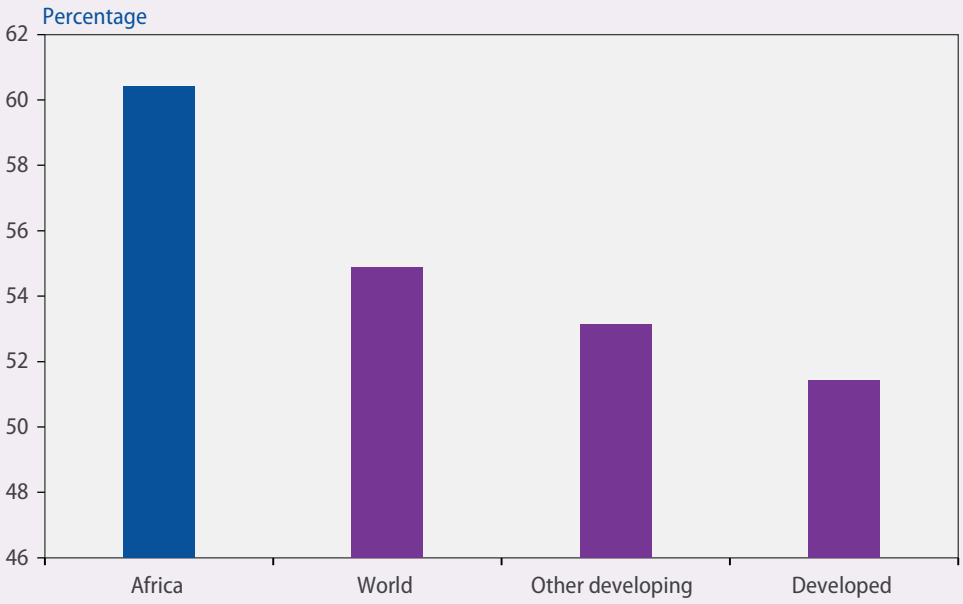
Source: Authors' calculations, based on data from the Exporter Dynamics Database (World Bank Group).

(*continued*)

Box I.1 (*continued*)

about 40 per cent of products in developed countries. Entry and exit (turnover) rates for export destinations are also higher in Africa (see box figure I.1.2). In Guinea and Senegal, about 40 per cent of markets were new destinations (not explored the previous year), and about 40 per cent of export destinations used the year prior were not used again the following year.

Figure I.1.2
Average destination turnover rate, 2009–2012



Source: Authors' calculations, based on data from the Exporter Dynamics Database (World Bank Group).

Note: Turnover is the sum of entry and exit rates.

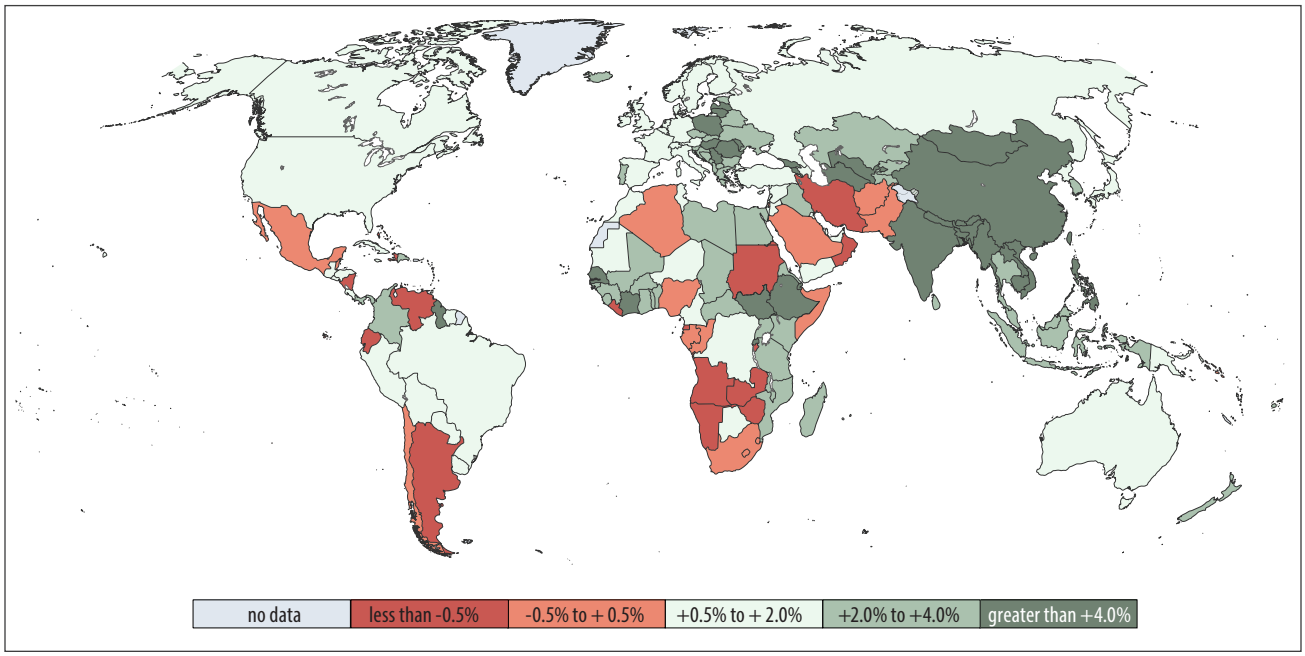
The elevated rates of entry and exit for exporting firms, export products and export destinations underscore the volatility of export activity in Africa. This reflects a lot of experimentation, but it also suggests that African exporters have difficulties in maintaining trade relationships. While this is certainly associated with the level of development, there are many underlying factors that could be at play as well, including market inefficiencies, profit uncertainties, a lack of information about foreign markets, and limited productive capacities.

Econometric analysis confirms that trade costs are a key factor explaining differences in the behaviour of exporting firms in Africa compared to exporting firms in other regions. In addition, trade costs partly explain differences in the characteristics of exporting firms among African countries (Afonso and Vergara, 2019). In fact, trade costs play a disproportionate role in affecting the size and survival of new African exporters in comparison with exporters from other regions. For instance, a reduction of 20 per cent in trade costs has been associated with a 14 per cent increase in the average size of new exporters and a 0.5 per cent increase in the one-year survival probability. In addition, differences in trade costs across African countries are a relevant factor in explaining the lower market diversification of exporters from landlocked countries. However, trade costs seem not to play a significant role in product diversification.

A key implication of the analysis is that reducing trade costs through the measures outlined in the Agreement establishing the African Continental Free Trade Area (AfCFTA) may yield significant benefits in the medium run in terms of export flows and the diversification of destination markets. Yet empirical evidence suggests that the effects on product diversification will remain limited unless productive capacities are strengthened. This is consistent with the established development view that while trade liberalization can allow countries to exploit comparative advantages, liberalization is insufficient for diversification and structural change. Thus, there is a need for a much broader, strategic and targeted set of productive and industrial policies that are aligned with national development priorities.

Authors: Helena Afonso and Sebastian Vergara (UN DESA/EAPD).

Figure I.4
GDP per capita growth, 2020 [a, b]



Source: UN DESA.

a Disclaimer: The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

b The map represents countries and/or territories or parts thereof for which data is available and/or analysed in *World Economic Situation and Prospects 2020*. The shaded areas therefore do not necessarily overlap entirely with the delimitation of their frontiers or boundaries.

Average growth in the least developed countries is projected to accelerate

In the least developed countries (LDCs), economic growth is projected to accelerate moderately in the outlook period. After increasing at an average rate of 4.3 per cent over the past five years, aggregate GDP is expected to expand by 5.1 per cent in 2020 and 5.4 per cent in 2021. This acceleration will be driven mainly by stronger domestic demand in many countries, including some large economies (Angola, Ethiopia, Myanmar and Sudan). Angola and Sudan are projected to recover from major downturns experienced in recent years. Given the importance of domestic drivers of growth, the LDCs as a group have remained largely unaffected by the global slowdown. Still, the economic outlook is not improving across the board; more than a third of these countries are expected to witness slower growth in 2020 in comparison with 2019. Furthermore, LDCs collectively remain far from achieving "at least 7 per cent gross domestic product growth per annum", as spelled out in target 8.1 of Sustainable Development Goal 8. Only 15 per cent of the countries—Bangladesh, Benin, Cambodia, Ethiopia, Rwanda, Senegal and South Sudan—are growing at about that rate. The following countries are scheduled to graduate from LDC status in the coming years: Vanuatu in 2020; Angola in 2021; Bhutan in 2023; and Sao Tome and Principe and the Solomon Islands in 2024. This process will further advance the "African-ization" of the LDC group.

Many commodity-dependent countries are still suffering from the downturn in prices

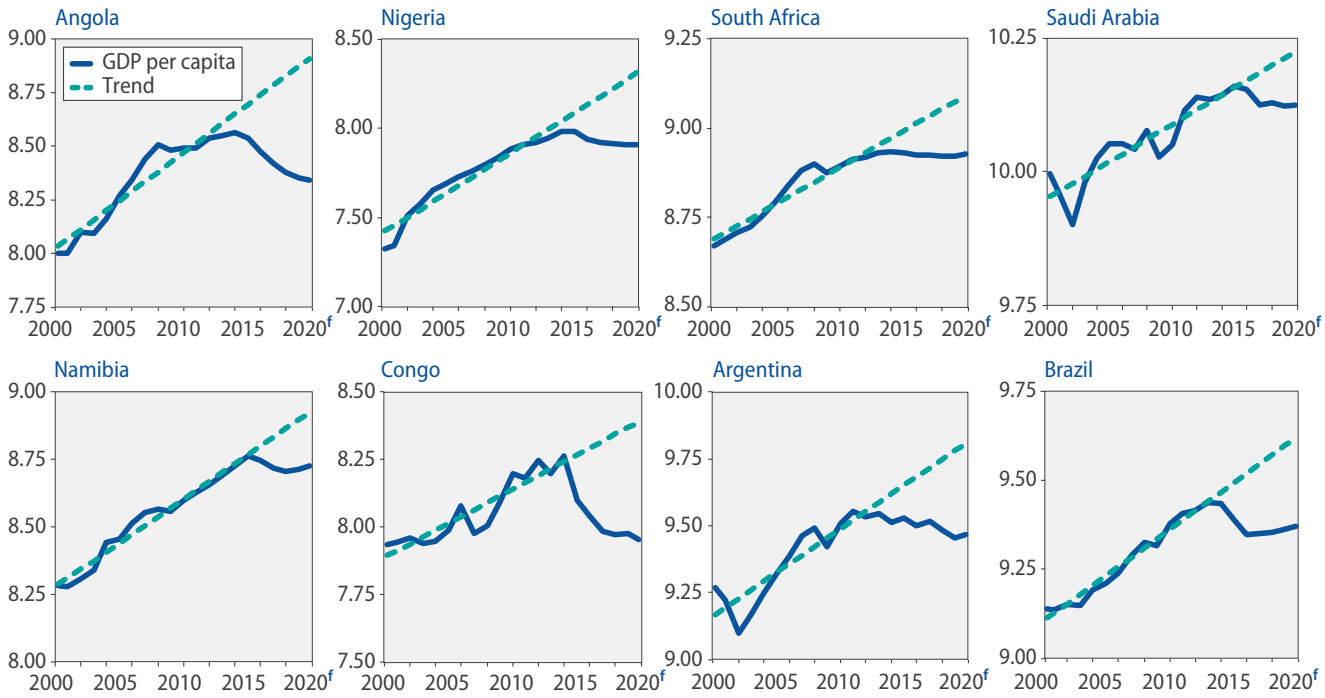
Although the baseline scenario forecasts a modest acceleration in growth in 2020 in many developing regions, per capita GDP is projected to stagnate or fall in a significant

number of countries (see figure I.4). Many commodity-dependent countries, in particular oil exporters, are still suffering from the 2014-2016 commodity price downturn.[4] Average (population-weighted) growth of GDP per capita for commodity-dependent developing countries has fallen from 2.9 per cent per annum in the period 2010-2014 to only 0.5 per cent in 2015-2019. Most worryingly, in about one third of the countries, average real per capita incomes are lower today than in 2014. What initially appeared to be a temporary negative shock to the terms of trade of commodity exporters has in many cases transformed into a more fundamental and longer-lasting economic slump. Figure I.5 illustrates the persistent income losses incurred by selected countries following the commodity price shock. As shown, these countries have not been able to recover the output losses they suffered. Compounding this, many of them have experienced a marked downward shift in trend growth. This suggests that potential output growth today is significantly lower than it was in 2014 and that the gap between the pre-crisis trend and actual output will widen over time.[5]

The commodity price decline exposed major weaknesses in economic structures

These recent trends raise the question as to why the commodity price downturn has been associated with such profound and lasting economic slumps. While the specific dynamics vary between countries, there is a common thread: rather than simply causing a

Figure I.5
GDP per capita trends for selected commodity exporting countries



Source: UN DESA.

Note: Scale expressed in terms of log of GDP per capita. Figures for 2018-2020 include UN DESA estimates and forecasts.

4 The downturn was most pronounced for energy prices, which fell by 70 per cent between June 2014 and January 2016. For non-energy commodities, which include agricultural products, metals and minerals, the downward trend had already begun (in early 2011), with a peak-to-trough decline of about 42 per cent.

5 This finding is in line with previous research studies that found large and highly persistent output losses associated with the Asian financial crisis and the global financial crisis (Cerra and Saxena, 2008; Ball, 2014).

deterioration of the terms of trade, the commodity price decline has exposed major weaknesses in the economic structures of countries. Excessive reliance on commodity revenues to finance public spending has required dramatic fiscal adjustments. Moreover, in many cases, governance deficits and the lack of institutional capacity have precluded effective policy responses to support economic activity. Sharp declines in public and private investment have weighed on current growth while also constraining productivity going forward. Often, these economic challenges have been exacerbated by political factors, triggering a vicious cycle of increasing uncertainty and weakening activity. The magnitude of the existing challenges not only clouds the medium-term macroeconomic outlook, but also hampers progress towards achieving the Sustainable Development Goals—especially poverty eradication.

Inflation

Inflationary pressures remain muted

Amid weakening economic activity and lower commodity prices, global inflation has moderated further. In developed economies, the trend of persistently low inflation observed since the global financial crisis continues. Headline consumer price inflation in the major developed economies ranged from 0.7 per cent in Japan to 1.8 per cent in the United States in 2019. The escalation of tariffs in major economies has pushed up producer prices in some sectors, but lower energy prices and limited services sector inflation have generally more than offset any impact on average consumer price inflation. Anchored inflationary expectations, slow wage growth and weakened pass-through from wages to inflation are contributing to the low inflation rates. In some developed economies, the persistent undershooting of the inflation target is weakening the credibility of central banks.

Inflation in developing countries is lower and more stable today than in previous decades

The inflation picture is more heterogenous in transition and developing economies. In the CIS, average inflation rose in 2019 following a value added tax (VAT) rate increase in the Russian Federation. As this effect dissipates, inflation is expected to moderate. Average inflation in developing countries remained fairly stable in 2019, with price pressures falling in Africa and Western Asia while increasing in South Asia and Latin America and the Caribbean. Going forward, most developing countries are expected to see low to moderate inflation. There are, however, some major exceptions that will continue to drive up regional and subregional averages. Annual inflation in 2019 will continue to exceed 30 per cent in several countries experiencing severe macroeconomic imbalances or supply constraints, including Argentina, the Islamic Republic of Iran, South Sudan, Sudan, and the Bolivarian Republic of Venezuela.

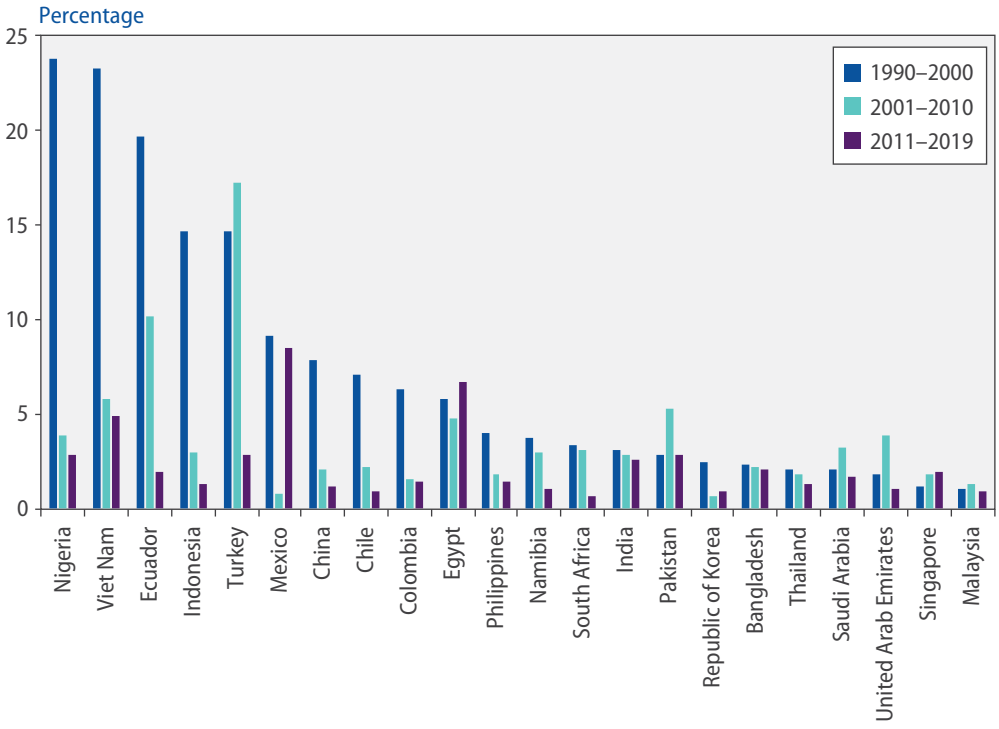
With the exception of these cases, inflation in developing countries today is significantly lower than in previous decades and is also more stable. Figure I.6 shows that the volatility of inflation rates for many developing countries has declined significantly in comparison with the 1990s and 2000s.

Central banks are once again the main line of defence against a slowdown

With the deteriorating economic outlook, increased downside risks and falling inflation, central banks around the world have once again become the main line of defence. By the end of November, a total of 64 central banks had reduced interest rates in 2019 (see figure I.7). About 85 per cent of all changes to the monetary policy stance have gone towards easing rather than tightening. This marks the broadest shift in monetary policy since the global financial crisis.

Among the major central banks, the United States Federal Reserve reversed course, cutting interest rates for the first time since December 2008. Between July and October 2019, the benchmark federal funds rate was reduced by a total of 75 basis points. While

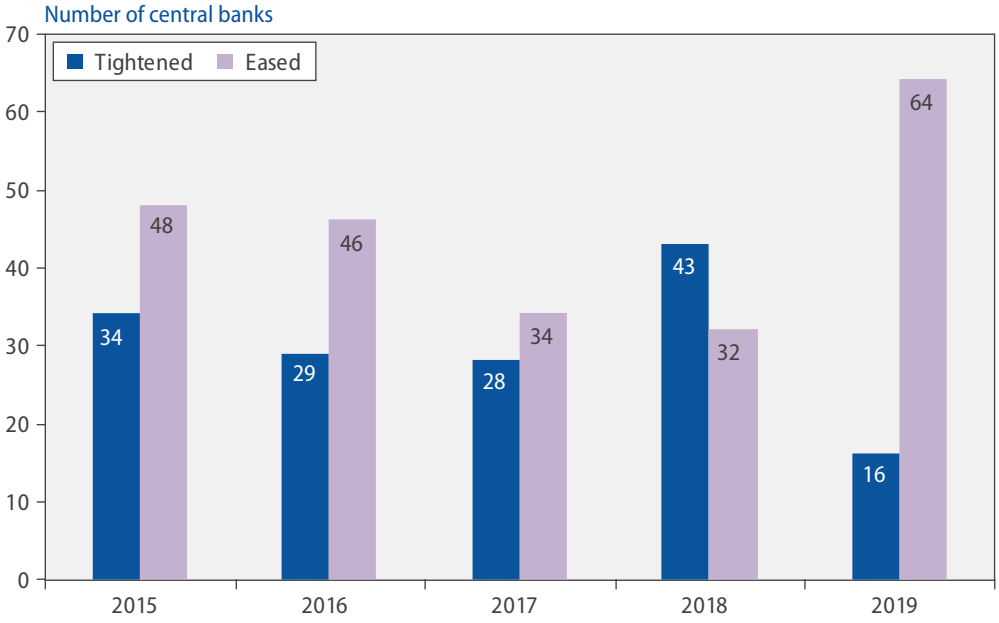
Figure I.6
Inflation volatility in selected developing countries



Source: UN DESA and national sources.

Note: Volatility is measured as standard deviation for the respective period.

Figure I.7
Monetary policy stances



Source: UN DESA, based on data from Central Bank News.

Note: As at 30 November 2019. Sample covers 95 central banks.

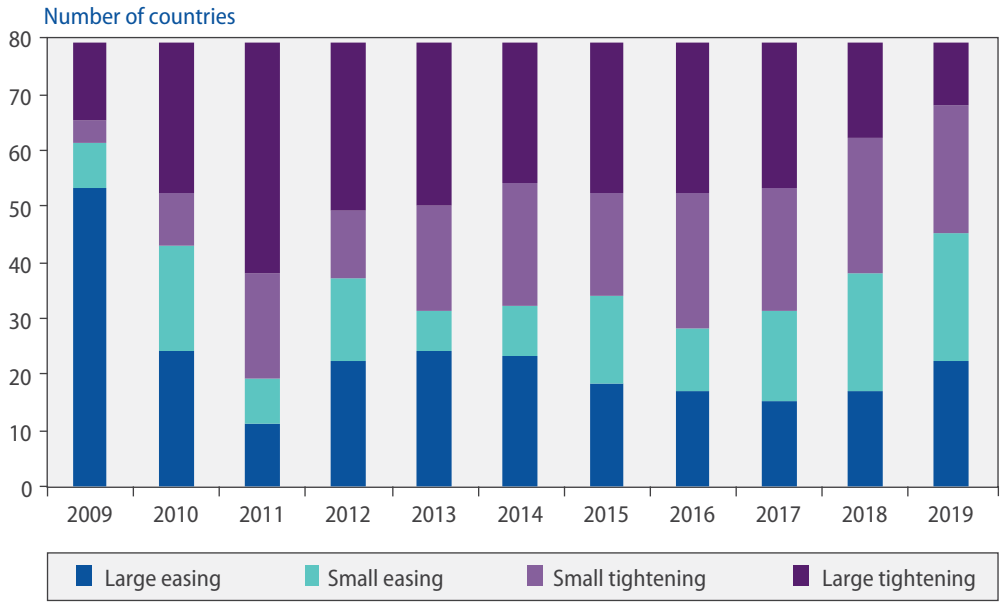
the baseline scenario foresees no further reductions in the policy rate over the coming year, the authorities have left open the possibility of additional easing. Meanwhile, the European Central Bank (ECB) took interest rates deeper into negative territory, while also launching a new large-scale bond-buying programme to stimulate the economy. The Bank of Japan maintained its ultra-easy monetary policy while hinting at the possibility of additional measures, including a further cut to short-term interest rates. As monetary policy was loosened in developed economies, many developing and transition economies followed suit; among others, the central banks in Brazil, China, India, Mexico and the Russian Federation lowered their policy rates in 2019.

With interest rates being at or near historical lows, the room for further monetary easing in developed countries is limited. Moreover, it is unclear how effective additional monetary easing measures—such as more negative policy rates or further bond-buying programmes—would be in stimulating the real economy and what side effects this would have. Developing and transition economies will generally have more room for further cuts in 2020.

Some fiscal easing is taking place, but no significant shift is in sight

While central banks have responded swiftly to the deteriorating global situation and outlook, changes in fiscal policy have so far been generally modest. Figure I.8 shows that a growing number of countries moved towards fiscal easing in 2019. Aggressive fiscal expansions have occurred in a few East Asian economies, which have relatively ample fiscal space. Despite record-low yields on government bonds in developed economies, a broad-based move towards a more expansionary fiscal stance is unlikely. Many developed countries, including large economies such as the United States, Italy and Japan, have high public debt levels and elevated budget deficits. Moreover, in developed economies with stronger fiscal positions, such as Germany and the Netherlands, there is a reluctance to significantly loosen the fiscal stance and boost spending.

Figure I.8
Fiscal policy stances



Source: UN DESA, based on data from IMF, World Economic Outlook database, October 2019.

Notes: Small easing/tightening is defined as a change in the structural fiscal balance of less than 0.5 per cent of GDP. Large easing/tightening is greater than 0.5 per cent of GDP.

Figure I.9
Economic policy and trade uncertainty indices

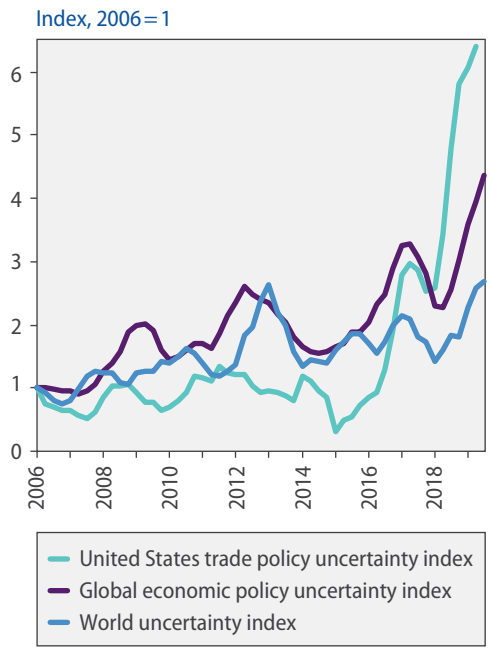


Figure I.9

Source: Economic Policy Uncertainty project (https://www.policyuncertainty.com).

Note: Values are four-quarter moving averages.

Figure I.10
Business confidence

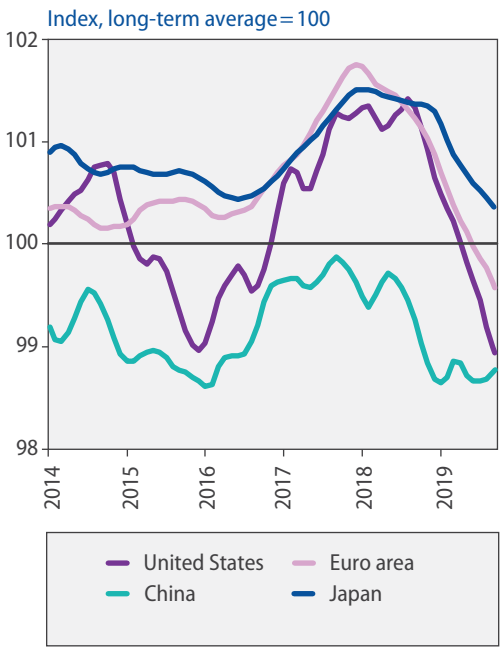
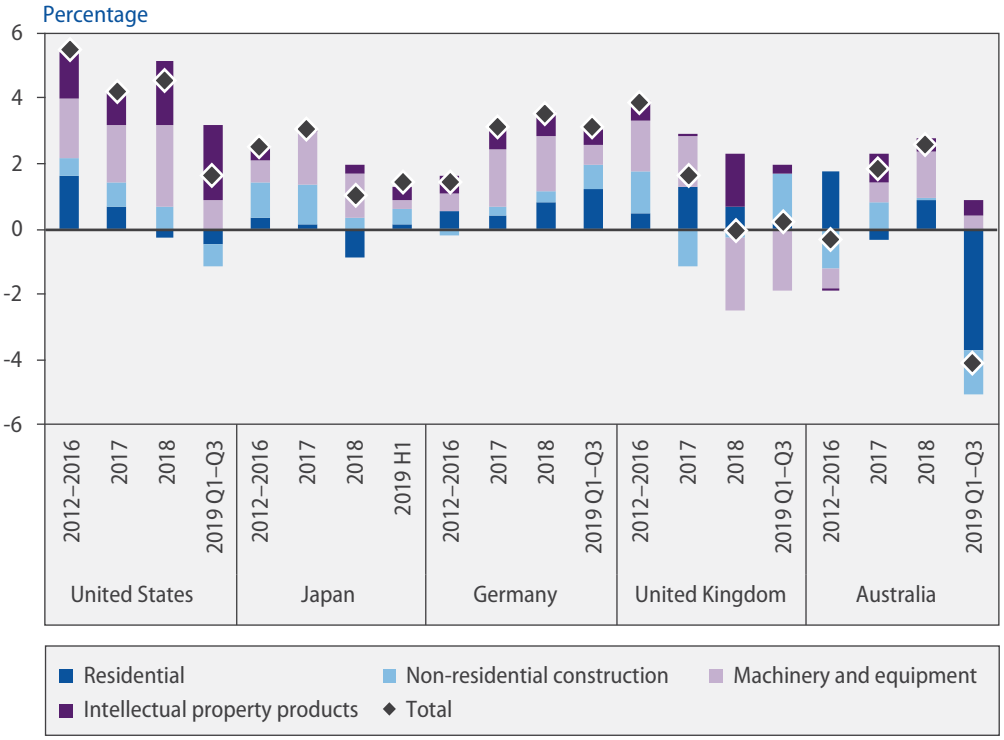


Figure I.10

Source: OECD (2019a), Business confidence index (BCI) (indicator). doi: 10.1787/3092dc4f-en.

Note: Values below 100 indicate pessimism towards future business performance.

Figure I.11
Annual investment growth in selected developed economies, decomposed by asset type



Sources: UN DESA, based on data from United States Bureau of Economic Analysis; Japan, Cabinet Office; Eurostat; Australian Bureau of Statistics.

Notes: Figures are in constant prices. Data for Germany, Japan and the United Kingdom are for total investment; data for Australia and the United States are for private investment.

Investment and productivity

Amid mounting uncertainty, firms have become increasingly pessimistic

Since the introduction of new trade-restrictive measures in mid-2018 and as trade tensions have intensified, trade policy uncertainty has soared in the United States and globally (see figure I.9). In its wake, economic and financial uncertainty have also been increasing, albeit less dramatically. Factors other than the trade disputes—including more elevated geopolitical risks, shifts in monetary policy among major economies, and uncertainty over "Brexit"[6]—have also contributed to rising global uncertainty.

Against this backdrop, firms have become increasingly pessimistic about near-term prospects. Business confidence fell sharply during 2019 (see figure I.10), and investment took a hit in many countries. Among developed economies, investment in machinery and equipment weakened significantly as a result of the sharp slowdown in industrial production, and residential investment also slackened (see figure I.11). In the United States, this was accompanied by a contraction in non-residential investment, which was negatively affected by economic uncertainty and lower capital investment in the oil and gas sector. In most large developing and transition economies, investment also performed poorly in 2019 (see figure I.12). Factors contributing to this weakness included low commodity prices, slowing global trade, heightened policy uncertainty and, especially in Argentina and Turkey, an adjustment to severe macroeconomic imbalances. Moreover, in many commodity-exporting countries, public investment remained weak amid ongoing fiscal consolidation pressures.

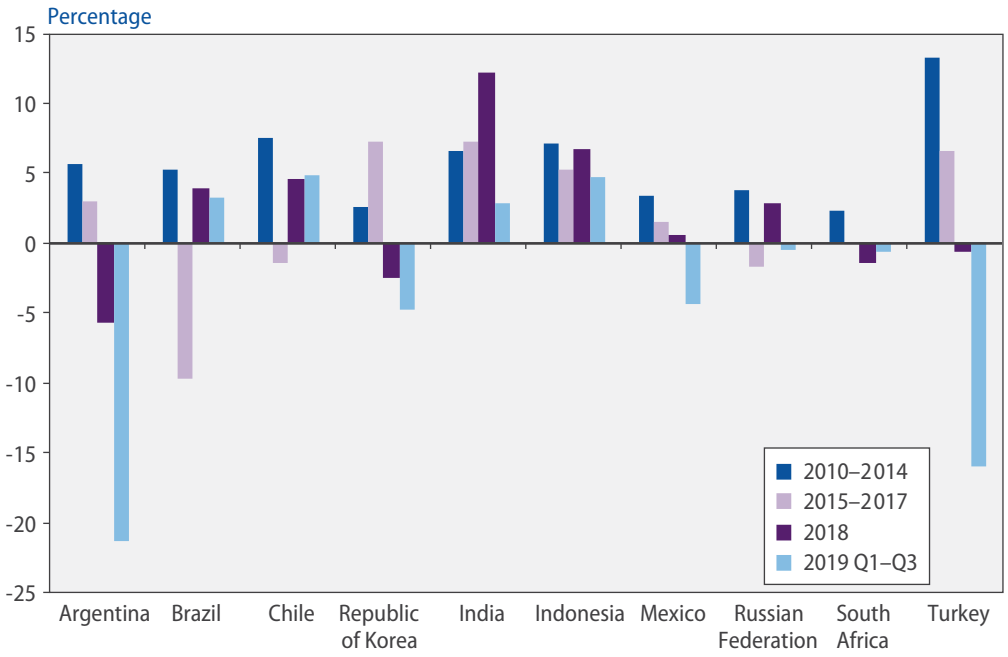
Weak investment is weighing on productivity growth

As firms around the globe have become more reluctant to invest, productivity growth has continued to decelerate. Figure I.13 illustrates the downward trend in labour productivity growth experienced by major developed economies over the past few decades. Much of the slowdown is attributable to significantly lower contributions from capital deepening—especially non-information and communications technology (non-ICT) assets—and from total factor productivity (TFP). Since there are no signs of an investment revival in the near term, labour productivity growth across the developed economies will likely remain subdued during the outlook period.

Average labour productivity in developing and transition economies is also growing more slowly than in the decade before the global financial crisis. However, aggregate figures mask stark differences among the various world regions (see figure I.14). While East Asia and South Asia continue to see rapid productivity growth, this is not the case in the other developing regions. In Western Asia and Latin America and the Caribbean, average labour productivity declined between 2016 and 2019 following sluggish growth during the period 2011-2015. In Africa, labour productivity growth fell to one seventh the rate of the period 2001-2010. Slowing capital accumulation and weakening labour productivity growth do not bode well for the long-term economic development prospects in these regions. Without strong policy measures to boost productivity—including large-scale infrastructure investment, improvements to the quality of education, and the promotion of innovation capacity—solid progress towards achieving the Sustainable Development Goals will remain elusive in many countries.

6 Brexit is a term coined from the combination of Britain and exit and represents the decision of the United Kingdom to leave the European Union.

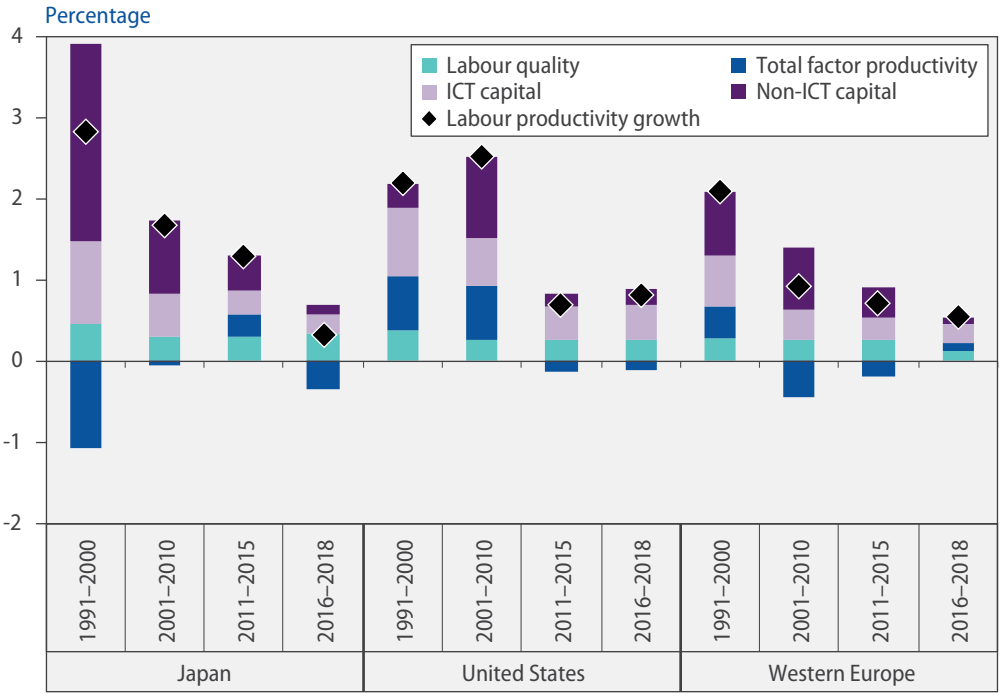
Figure I.12
Annual investment growth in selected developing economies



Source: UN DESA, based on data from national authorities.

Note: Data for Argentina, Mexico and the Russian Federation up to 2019 H1.

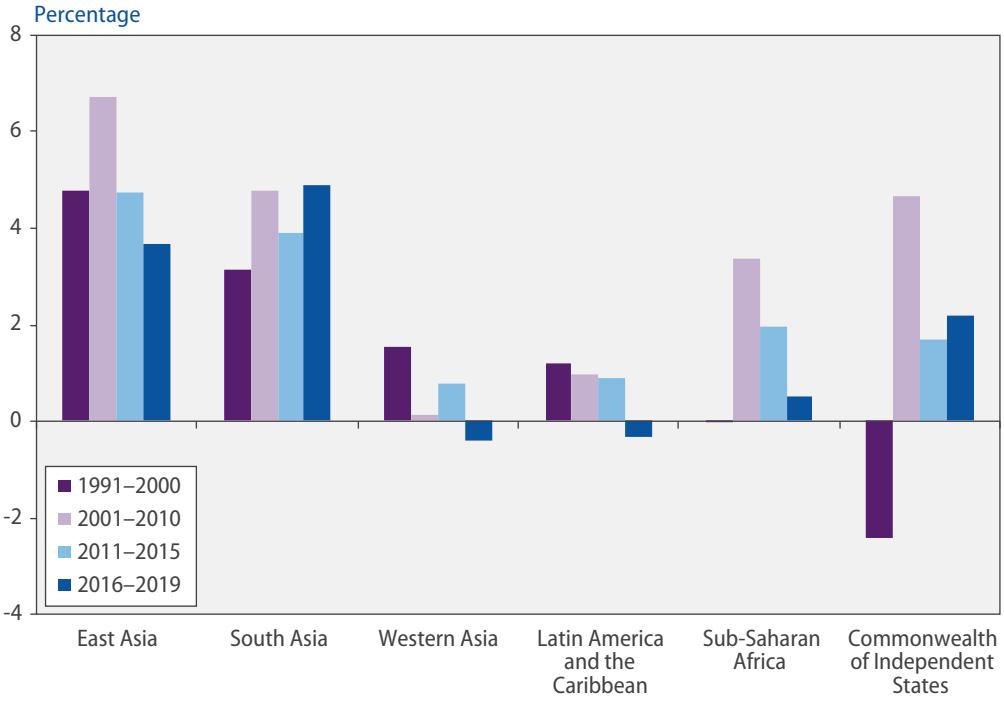
Figure I.13
Decomposition of labour productivity growth in developed economies



Source: UN DESA, based on data from The Conference Board Total Economy Database.

Note: Regional growth rates are weighted by real GDP.

Figure I.14
Labour productivity growth in developing countries



Source: UN DESA, based on data from The Conference Board Total Economy Database.

Notes: Labour productivity is measured as output per person employed. Regional growth rates are weighted by real GDP. Data for 2019 are estimated.

Labour markets

While unemployment figures have so far remained largely insulated from the global economic slowdown, the overall labour market situation is less rosy. In several regions, real wages continue to grow slowly due to subdued productivity gains or rising productivity-pay gaps. The quality of employment is often poor, especially for the most vulnerable. Informal employment and working poverty are still very common and are worryingly persistent in many developing countries. Women, the young, the poor and the uneducated, in particular, often struggle to secure labour market access and find decent employment. The current precarious economic situation and global trends such as the expansion of non-traditional employment threaten to make these problems even more severe in the coming years.

Unemployment has thus far been insulated from the global slowdown

On the surface, global employment trends were generally positive in 2019; according to the latest estimates from the International Labour Organization (ILO), the world unemployment rate fell to slightly under 5 per cent—about the same level as before the global financial crisis (ILO, 2019). Unemployment averages 5.4 per cent for women, compared with 4.7 per cent for men, though women have a lower labour participation rate than do men. The decline in global unemployment over the past year is mainly the result of further job gains in major developed economies. In the European Union, the average unemployment rate declined to an estimated 7.4 per cent, the lowest level since 2008. In the United States, unemployment fell in 2019 to a 50-year low of 3.6 per cent. Unemployment in Japan stands at 2.2 per cent, its lowest rate in 27 years. During 2019, however, the outlook for unemployment trends became more uncertain. Employment growth in the European Union is projected to decelerate in 2020 and 2021, but as the labour force is shrinking, the average unemployment rate may decline a little further, especially in Eastern Europe.

Unemployment figures could worsen considerably if the slowdown in economic activity turns out to be more severe than what is predicted in the baseline forecast. More importantly, headline unemployment rates provide only a partial picture of labour market dynamics and often mask underlying structural weaknesses. A comprehensive assessment of employment trends reveals a more nuanced—and in many countries a more worrisome—picture.

Real wage growth has stagnated in many countries…

One concern is that in many countries labour market shortages have not been accompanied by a significant rise in real wages, despite ongoing productivity growth. Japanese companies, for example, are struggling with labour shortages, yet real wages have been declining, while inflation is sticky at 0.7 per cent. Across Organization for Economic Cooperation and Development (OECD) countries, real median wages grew by an annualized rate of only 1.0 per cent between 1995 and 2018. While productivity in the United States increased by 1.6 per cent per year in this period, average real wage growth was only 1.3 per cent. Moreover, real median wages grew by only 0.5 per cent per year, implying a stark decoupling of wages from productivity growth as well as increasing wage inequality. The same patterns of a decoupling of wages from productivity and increasing wage inequality have been observed in many other developed countries. In several developing regions, real wages have been adversely affected by slowing productivity growth in recent years. In Latin America and the Caribbean, for example, average real wage growth in 2018 fell to the lowest level in a decade, potentially contributing to inequality and increasing the incidence of working poor. In all regions of the world, gender pay gaps remain significant (see box I.2).

…and employment is often informal or of poor quality

A second concern is that employment is often of low quality, with poor labour conditions. In developed economies, many of the new jobs that have been created in the construction sector, market services (mainly trade, transportation, accommodation and food, and business and administrative services) and non-market services (public administration, community, social and other services) are of low quality. Temporary and part-time employment are on the rise and are often resorted to involuntarily. In East Asia, vulnerable employment still accounts for around half of total employment in Cambodia, Indonesia, Myanmar and Thailand. The expansion of non-traditional jobs in the digital economy and the continued increase in the size of the self-employed workforce pose further challenges in terms of working conditions.

Informal employment (especially in the agricultural sector), accompanied by insecurity, low pay and a lack of social protection, remains a serious challenge globally. Informality is most prevalent in parts of Latin America and the Caribbean, Eastern Europe and Asia and in sub-Saharan Africa, where the bulk of the population lives in rural areas and relies on subsistence farming. Most of the new jobs in Latin America and the Caribbean have been created in the informal sector, though in some countries active employment policy measures have helped bring workers into the formal labour market. The widespread prevalence of informal employment is associated with the persistence of working poverty in many developing countries. Globally, around 700 million workers are estimated to live in extreme or moderate poverty.[7] While substantial progress has been made in reducing the number of working poor in China and some other middle-income countries, the opposite is true in sub-Saharan Africa, where almost two thirds of workers live in poverty. With rapid labour force growth expected to continue in sub-Saharan Africa, employment pressures are likely to increase further over the coming decade.

7 As defined by the World Bank, the extreme poverty threshold is $1.90 per day and the moderate poverty threshold is $3.20.

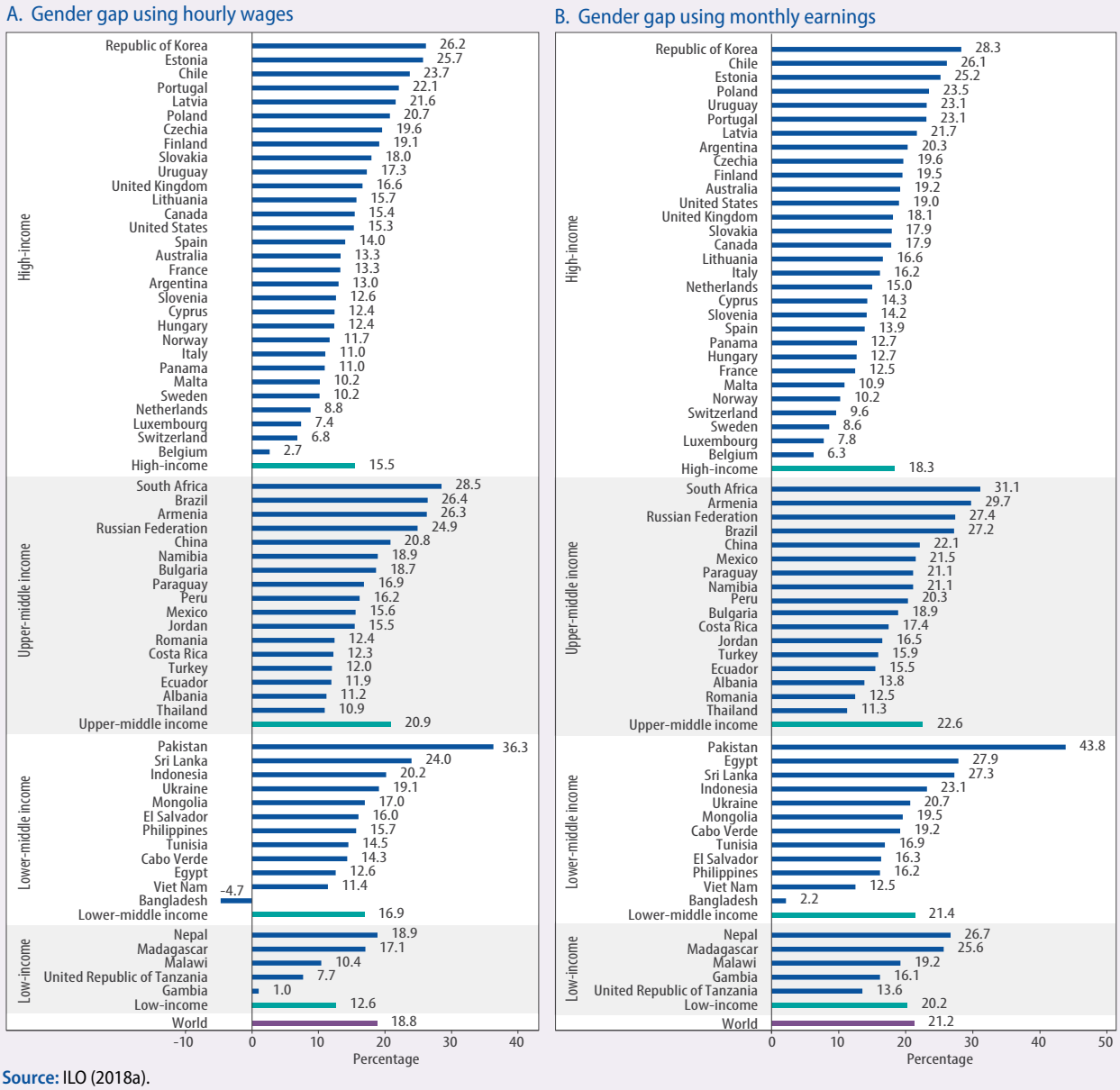
Box I.2

Gender pay gaps: latest estimates and policy implications[a]

Despite the advances made by and for women over the past century, particularly in education and labour market participation, gender inequalities in the labour market persist. One of the measures that best reflects such inequalities is the gender pay gap (GPG), typically estimated as the percentage difference in pay between men and women. Box figure I.2.1 shows estimates of the GPG for a broad range of countries,

Figure I.2.1

Factor-weighted mean gender pay gaps, most recent years



Source: ILO (2018a).

Note: The factor-weighted gender pay gap is a summary measure that estimates gender pay gaps for subgroups based on education, age, part-time/full-time work, public/private work, and so on, then takes a weighted average of these subgroups. This corrects for estimation biases that may arise as a result of "compositional effects" stemming from gender differences in key labour market characteristics.

(*continued*)

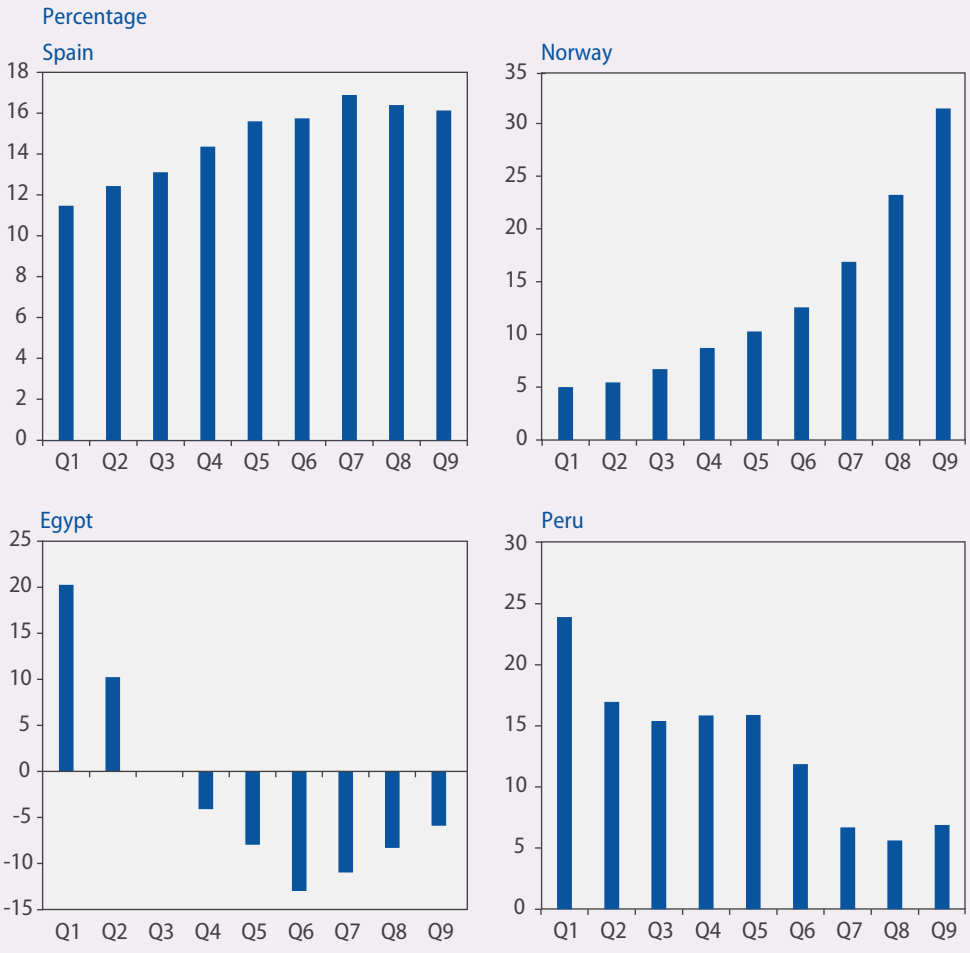
Box I.2 (*continued*)

ranked highest to lowest according to income group; together, these countries represent all regions and about 75 per cent of the world's wage employees. The figure demonstrates that pay gaps between men and women are positive across all regions in the world, confirming that the GPG is a universal phenomenon. Globally, the hourly GPG is about 19 per cent. Estimating the GPG in monthly earnings rather than hourly wages raises the weighted global average to about 21 per cent, reflecting the greater incidence of part-time employment among women, which is often involuntary.

To identify the most effective policies to address the GPG—minimum wages, collective pay agreements and corporate pay policies, for example—it is helpful to further explore the depth of the GPG across the wage distribution. Box figure I.2.2 highlights the differences in GPGs across the wage distribution for a selection of countries. Whereas the gap tends to be higher at the upper end of the income distribution for high-income countries—evidence of the glass ceiling effect for women at the top—the gap is much higher at the lower end for low- and middle-income countries. There are several possible explanations for this pattern. In high-income countries, effective minimum wage policies (statutory or via collective agreements) reduce the gap at the low end, whereas gender-biased corporate pay policies lead to a substantial gap at the top. In low- and middle-income countries, women at the lower end of the wage distribution are typically in informal employment, diminishing the effectiveness of minimum wages at lowering the gap.

Figure I.2.2

Gender pay gaps across the wage distribution for selected countries, most recent years



Source: ILO (2018a).

Note: Gender pay gaps showing the difference in logarithm at each quantile of the wage distribution. The term "Q(j)", for j=1,…9, corresponds to the j-th quantile at the threshold value.

(*continued*)

Box I.2 (*continued*)

Although wage-related policies can go some way towards helping reduce the GPG, the reality is that pay differentials between women and men are the result of multiple factors that vary from one country to another. Therefore, the progressive reduction of the GPG will require a range of country-specific policies and measures. There is a clear need for better survey data in low- and middle-income countries, whereas in better-resourced countries there is an urgent need to include gender-pay-specific modules in panel data structures. Better measurement will help in the design of better policy. Action needs to be taken to move beyond summary measures and explore pay gaps across the wage distributions to identify the underlying factors. In several countries, the decomposition of the gender pay gap shows that women need access to better educational outcomes, particularly in emerging economies and low-income countries. Drawing more women into science and technology studies could help address the gender stereotyping that leads to a high concentration of women in lower-paying occupations and industries.

Much of the pay gap remains unexplained by objective differences between women and men. Therefore, effective legislation and transparency measures are needed to eliminate gender pay gaps. To this end, countries can make substantial progress by adopting the full principle of "equal pay for work of equal value" (as opposed to the narrower principle of "equal pay for equal work") through proactive pay equity laws that compel enterprises to examine their compensation practices. The undervaluation of work in highly feminized occupations and industries (in the health and education sectors, for example) will need to be addressed to also attract more men to these areas of work. Finally, the motherhood gap remains a reality, resulting from an unequal distribution of family duties between women and men and from inadequate childcare and elder care services. Equality in parental leave options would in many instances lead to more equitable labour market choices.

a This box draws from ILO (2018a).

Authors: Patrick Belser and Rosalia Vazquez-Alvarez (ILO).

Youth and women find it particularly difficult to secure access to employment

Finally, there are still significant disparities in access to employment among different population groups, with age and gender representing key factors. Labour underutilization (persons neither looking for a job nor available to start working within a short time) is estimated at almost 1.5 million in the United States. The incidence of long-term unemployment also remains high, particularly among the older generation, increasing the risk that substantial numbers within this group will become permanently stranded. Youth unemployment and underemployment is a major concern throughout much of the world. A significant share of the population remains outside of the labour force altogether, and young people have seen their share continue to increase, with a sizeable proportion not in education, employment or training (NEET). In South Asia, a third of the youth in Afghanistan, Bangladesh, Pakistan and Sri Lanka are NEET, and in India the rate is over 40 per cent. Gender barriers in accessing labour market opportunities lead to large discrepancies between the labour force participation rates for men and women around the world. In South Asia, for example, only around one in four women participates in the labour force. Situations such as these undermine efforts to achieve gender equality goals and reinforce the significant underutilization of labour.

Poverty, inequality and well-being

A dynamic and inclusive global economy is central to delivering on the ambitious targets of the 2030 Agenda for Sustainable Development. The recent slowdown in global economic activity poses an enormous challenge as countries strive to reduce poverty, develop essential infrastructure, create jobs, and broaden access to affordable and clean energy. Weak economic performance is also linked to insufficient investment in quality education, health services, social protection, programmes for marginalized groups, and climate change mitigation and adaptation—all of which are essential to advance the 2030 Agenda.

Risks of further setbacks in poverty eradication

Progress towards poverty reduction has slowed in recent years, reflecting the weak growth in per capita incomes in many regions (United Nations, 2019a). Close to 10 per cent of the world population continues to live below the extreme poverty line of $1.90 per day. A number of countries, notably commodity exporters, have even experienced setbacks in poverty reduction in recent years. The number of people living in extreme poverty has risen in several sub-Saharan African countries, where poverty levels are already very high. Poverty rates have also edged up in parts of Latin America and the Caribbean and Western Asia.

Over half of the world's extreme poor live in middle-income countries

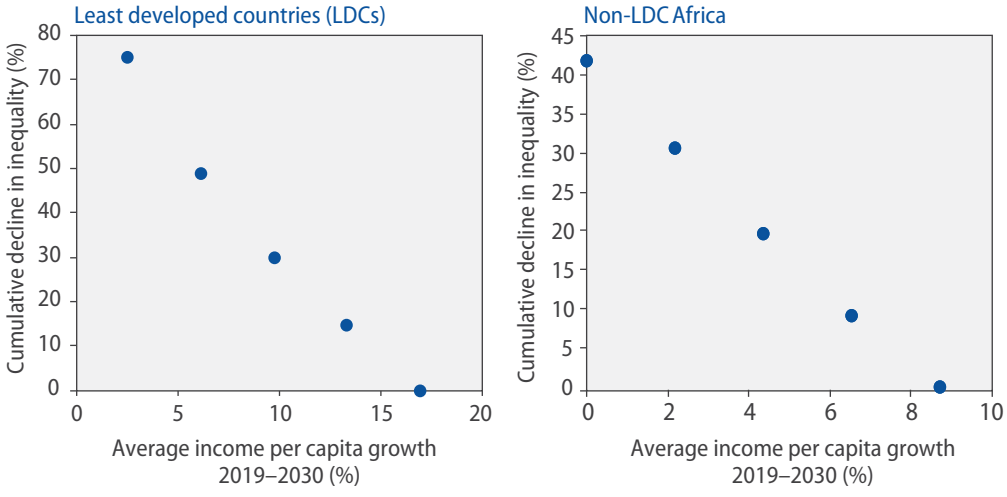
As per capita income growth is expected to remain weak in many countries, poverty eradication will increasingly rely on efforts to address high levels of inequality. Ensuring an adequate standard of living for all inhabitants of a country depends critically on how income is distributed across the population. Even in a country where the average level of income is high relative to the extreme poverty threshold of $1.90 per day, poverty may be pervasive if income is very unequally distributed. In fact, over half of the world's extreme poor live in middle-income countries, with India and Nigeria together accounting for roughly one third of the extreme poor.

Eradicating global poverty will require much faster income growth and steep declines in inequality

Eradicating global poverty by 2030 will require both a sharp acceleration in income growth and a steep decline in inequality. In the LDCs, for example, if per capita income continues to rise at the average yearly pace of 2.5 per cent seen over the past decade, income inequality would need to decline by 75 per cent to come close to the Sustainable Development Goal poverty targets (see figure I.15). This is roughly equivalent to a decline in the Gini coefficient from among the highest in the world to the absolute lowest in the world and quite some more. The highest ten-year decreases observed since the World Bank began calculating the Gini coefficient are somewhere around 30 per cent in several CIS countries. Even if per capita income growth were to rise to an average annual rate of 6 per cent, income inequality would still need to be reduced by half to eradicate poverty. Eliminating extreme poverty in the non-LDCs in Africa (home to a large share of the world's extremely poor) without any improvement in inequality would require per capita incomes to rise at an average annual rate of 8.7 per cent until 2030. This compares with average growth over the past decade of less than 0.5 per cent, a rate that is woefully inadequate to meet development goals.

Figure I.15

Per capita income growth and decline in inequality required to meet poverty targets



Source: UN DESA, based on projections and scenarios produced with the World Economic Forecasting Model (WEFM).

Note: The decline in inequality is measured as the percentage decline in the standard deviation of log income. The iso-poverty curves illustrated assume income follows an approximate lognormal distribution, with the poverty headcount ratio modeled as the cumulative distribution function of the lognormal distribution, evaluated at the $1.90 per day poverty line, as described in Bourguignon (2003).

Tackling inequality will require significant structural change

Amid rising perceptions that inequality is increasing not only in income and wealth but also in opportunities, there is a strong mandate for policies that ensure a fairer distribution of resources. Key elements are a progressive fiscal structure, a sound social protection system, labour market policies that provide an adequate supply of quality employment, and measures to broaden access to education, health care and jobs. Accelerating progress towards greater income equality is essential for achieving many other Sustainable Development Goal targets and improving well-being across society more generally.

A healthy and well-functioning economy is one that can deliver an adequate standard of living for all its inhabitants—both now and in the future. A closer look at the quality of growth underpinning the headline figures of GDP is needed to understand the way in which income is distributed across the population, the impact of the production and consumption underpinning economic activity on natural resources and the environment, and the quality of life enjoyed by the population (based on indicators such as education, health, personal safety and leisure time).

Headline GDP growth does not reflect crucial aspects of sustainability and well-being

While GDP is the measure most commonly used to assess economic prosperity and performance, it cannot capture all the diverse aspects of well-being. It measures the monetary value of officially recorded final goods and services produced in a country in a given period of time but largely excludes informal activity and the damaging effects of production (such as environmental degradation). Nor can it account for distributional effects, and behavioural economics emphasizes that "relative" well-being is at least as important as "absolute" well-being. Relying only on this single metric as a yardstick for policymaking can therefore be counterproductive or even harmful to society.

Policymakers around the world are increasingly adopting a multidimensional framework or dashboard of both objective and subjective indicators of well-being, and growing emphasis is being placed on composite measures and systems of accounts that allow a broader understanding of key aspects of the quality of economic growth. For example, natural capital accounting, standardized by the System of Environmental-Economic Accounting (SEEA),[8] provides a more comprehensive view of the interrelationships between the economy and the environment (see box II.4). The framework integrates standard economic data with the energy use, water consumption, air emissions and waste associated with production.

Composite measures provide a broader assessment of well-being

Prominent composite measures of well-being include the Human Development Index created by United Nations Development Programme (UNDP),[9] the OECD Better Life Index,[10] and the United Nations Sustainable Development Solutions Network's World Happiness Report,[11] each produced with the aim of providing a more holistic assessment of the state of a country's human development, well-being or happiness. Figure I.16 compares rankings of these three composite measures of well-being and GDP per capita relative to that of the United States for twenty large countries that are ranked highest in the Human Development Index. The figure illustrates that the relationship between GDP per capita and well-being is not always straightforward. Most countries in the sample have a lower level of GDP per capita than the United States but score higher on the measures that include

8 See https://seea.un.org/.

9 The Human Development Index is a composite of per capita income, education and life expectancy indices (UNDP, 2019).

10 The Better Life Index assesses countries' relative positions against measures relating to housing, income, jobs, community, education, environment, civic engagement, health, life satisfaction, safety and work-life balance (OECD, 2017).

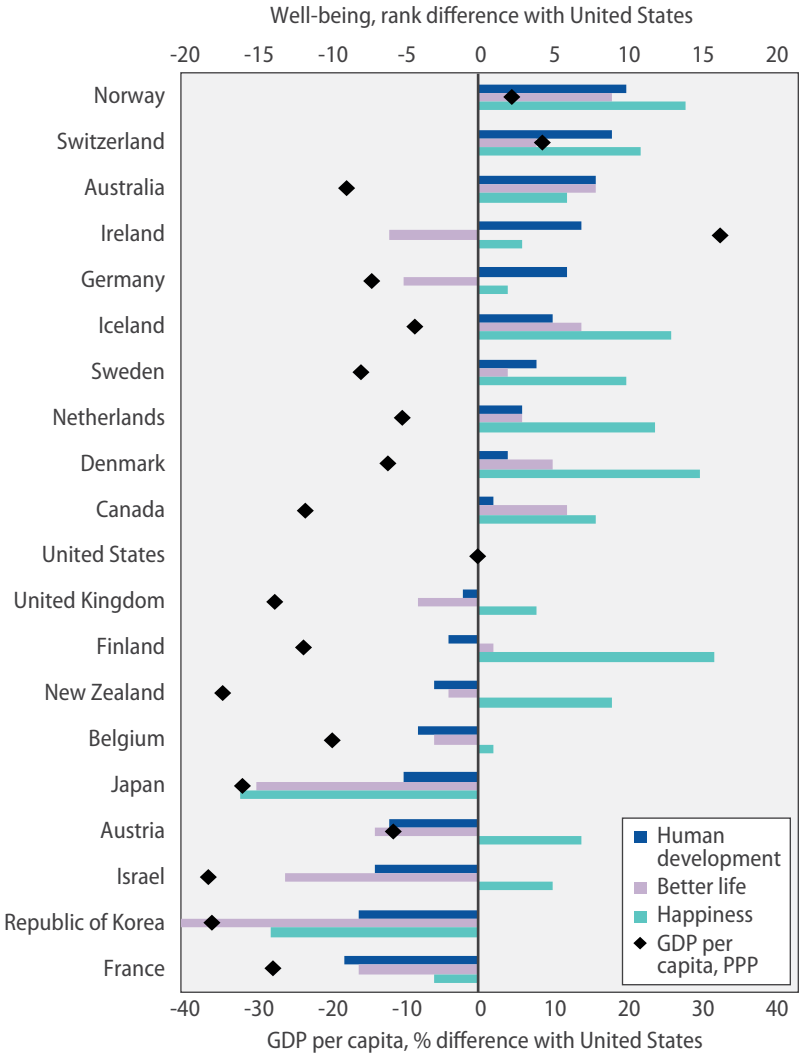
11 In addition to income and health measures, the World Happiness Report rankings are based on subjective answers to the main life-evaluation questions in the Gallup World Poll on social support, freedom to make life choices, generosity, perceptions of corruption and mood (Helliwell, Layard and Sachs, 2019).

non-monetary dimensions of well-being. While there is some correlation between well-being measures, several stark discrepancies also emerge. Notably, the inclusion of subjective measures of well-being from the Better Life Index and Happiness Index appears to boost the performance of several Northern European countries while deflating that of Asian countries in the comparison.

Countries are increasingly including broader measures of well-being in policy frameworks

Assessing quality of life and well-being is highly subjective, differing among individuals and across cultures and encompassing emotional, physical, material and social dimensions. The OECD-hosted High-Level Expert Group on the Measurement of Economic Performance and Social Progress advises policymakers to adopt a multidimensional framework or dashboard of both objective and subjective indicators of well-being that are identified through public consultations (OECD, 2018a). This type of policymaking framework has already been developed in many countries, including Bhutan, Colombia, Costa Rica, Ecuador, France, Germany, Israel, Italy, Mexico, the Netherlands, New Zealand, Slovenia, Sweden and the United Kingdom. The choice of indicators and the application of the

Figure I.16
Comparison of well-being indicators and GDP, 2017



Sources: UN DESA, based on data from World Bank, World Development Indicators database; UNDP (2019); OECD Better Life Index dataset; and Helliwell, Layard and Sachs (2019).

Note: The abbreviated key reflects the Human Development Index, the Better Life Index, the Happiness Index, and GDP per capita (on a PPP basis).

framework are very diverse in these countries, but it is encouraging to note the strong institutional backing deriving from the adoption of accountability mechanisms, parliamentary resolutions or even constitutional grounding, matched by investments in building the capacity of the national statistical systems to produce the required data. Given the universal nature of human development and well-being, it is equally encouraging to note that such frameworks are being embraced in developed and developing countries alike.

The quality of life continues to fall short along many dimensions

Globally, the quality of life continues to improve along some dimensions; for example, life expectancy is continuing to rise, and there have been reductions in infant and child mortality. However, deadly conflicts, the climate crisis and stark inequalities persist, with serious effects on the quality of life across the globe. Food insecurity and the number of undernourished people in the world have been on the rise since 2015, reflecting pockets of rising unemployment, currency depreciations and high food prices, often allied with conflicts or natural disasters. By many metrics the global quality of life falls well short of adequate levels.

International trade and commodity prices

International trade flows

Word trade growth fell to a post-crisis low in 2019

Protracted trade tensions and slowing economic activity have exacerbated a slump in global trade. In 2019, growth in the volume of global trade in goods and services decelerated sharply to a post-crisis low of 0.3 per cent from 3.9 per cent in 2018. During the year, global trade tensions also became more pervasive, extending beyond China and the United States to involve more countries and product groups; sources of these tensions included trade uncertainty related to Brexit, complaints against Indian tariffs by several countries, mutual allegations of protectionism between the European Union and the United States, and a trade dispute between the Republic of Korea and Japan. As trade tensions have escalated, there have been signs of disruptions to global supply chains. Notably, the trade disputes have amplified cyclical headwinds in the electronics and automobile sectors, both of which have extensive cross-country production networks. High uncertainty surrounding future trade actions has resulted in a deterioration in business confidence, denting investment growth in many countries. These developments have in turn suppressed global demand for capital and intermediate goods, contributing to the slump in international trade activity.

Global trade is likely to see a modest recovery, but the outlook is subject to high risks

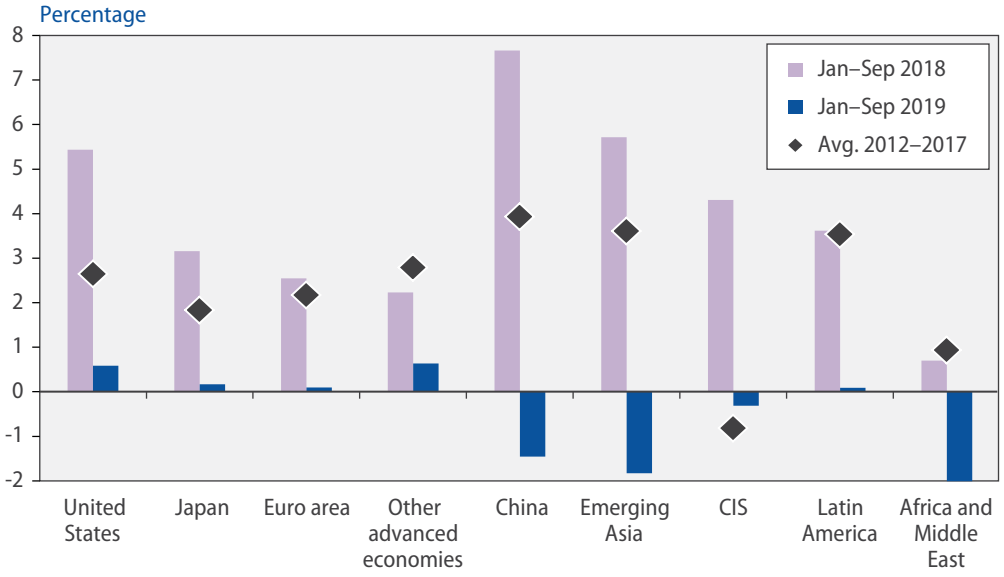
Looking ahead, global trade growth is expected to rebound only modestly to 2.3 per cent in 2020 and 3.2 per cent in 2021. These projections assume that trade uncertainties will persist but not further escalate. While an easing of the tensions between the United States and China would lead to higher global trade growth than the baseline, the trade effects of Brexit have yet to be fully priced in. Meanwhile, the trade dispute between the Republic of Korea and Japan could disrupt the highly globalized value chain of semiconductors, affecting all electronics and high-tech industries that require these components. As such, the modest rebound projected for 2020 is subject to high risks.

Escalating trade tensions contributed to a collapse in global import demand

World merchandise trade registered a mild contraction in the first nine months of 2019 in comparison with the same period the previous year. Figure I.17 shows that across developed and developing regions, merchandise trade growth has not only weakened significantly since 2018 but has actually fallen well below the average growth rates for the preceding six years.

The sharp downturn in global merchandise trade growth in 2019 was mainly driven by a contraction in import demand from China and the other emerging Asian economies

Figure I.17
Annual growth in merchandise trade volumes, by region



Source: UN DESA, based on data from CPB Netherlands Bureau for Economic Policy Analysis.

Note: Trade is computed as the average of exports and imports. Regional groupings are not strictly comparable to those in the *World Economic Situation and Prospects 2020* but are illustrative of regional tendencies.

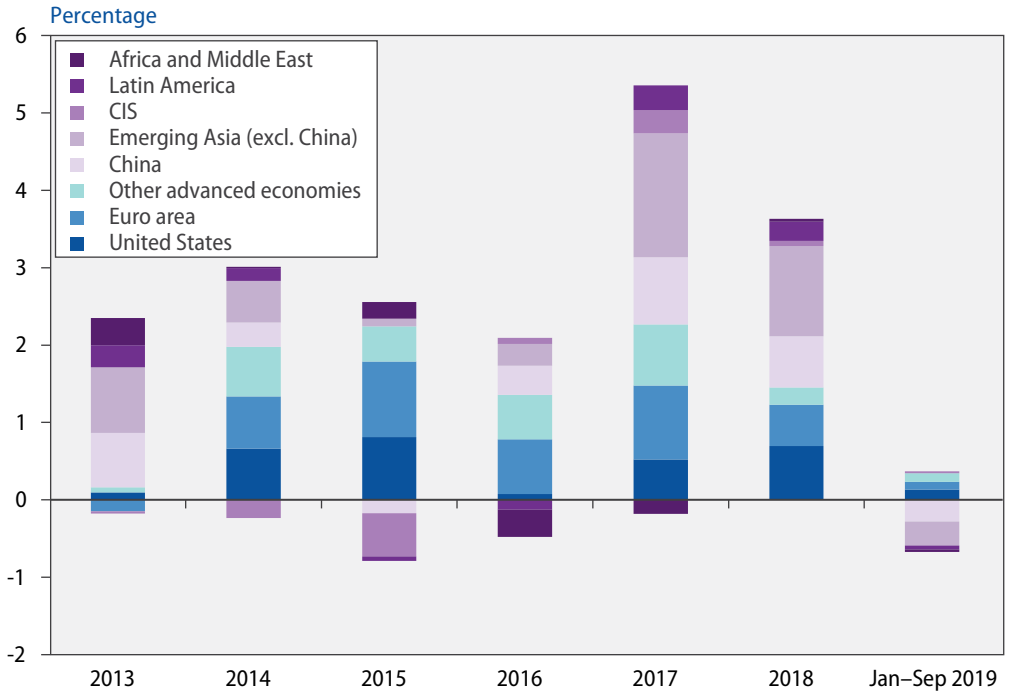
(see figure I.18). To a large extent, this reflects the impact of trade tensions on the region's vast cross-border production networks, as well as slowing domestic demand in China. In the United States, overall import growth slowed considerably, as the increase in tariffs contributed to a double-digit decline in imports from China during the year. Amid weak business sentiment, slowing capital expenditure as well as disruptions in the automotive industry dampened import demand in the euro area.

Among the other developing regions, the impact of trade tensions on import growth has been exacerbated by country- or region-specific factors. For the large commodity exporters, including several economies in Africa, Western Asia and Latin America, import growth has remained weak, as subdued commodity prices continue to weigh on domestic investment activity. In Latin America, the deepening economic crisis in Argentina has resulted in a collapse in import demand amid a sharp contraction in capital spending. An economic slowdown in India and other large economies in South Asia has similarly supressed demand for merchandise imports.

Global trade in services has been more resilient but has started to lose momentum

Global trade in services—exports of which account for about a quarter of world exports—has exhibited more resilience to rising trade tensions than has world trade in goods. In 2018, global exports of services (as measured in current United States dollars) sustained strong growth of 7.7 per cent, even as exports of goods moderated during the year (UNCTAD, 2019c). As investor confidence continues to worsen, however, there are signs that the impact of the trade conflict is spreading from the manufacturing sector to the services sector. Most recent PMI surveys indicate that the services sector in several major countries, including China, Germany and the United States, is expanding at a slower pace. According to the World Trade Organization (WTO), growth in the volume of world services trade lost momentum through the second quarter of 2019, with passenger air travel, financial services and construction services expanding below their respective trends (WTO, 2019). Amid an increasingly challenging global environment, international tourism lost some momentum during 2019 (see box I.3).

Figure I.18
Contribution to global merchandise import volume growth, by region



Source: UN DESA, based on data from CPB Netherlands Bureau for Economic Policy Analysis.

Note: Regional groupings are not strictly comparable to those in the *World Economic Situation and Prospects 2020* but are illustrative of regional tendencies.

Box I.3
International tourism

Growth returns to historical trends in the first half of 2019

International tourist arrivals grew 5 per cent and hit the 1.4 billion mark in 2018, two years ahead of the long-term forecast published by the United Nations World Tourism Organization (UNWTO) in 2010, which projected this figure for 2020. Global arrivals have seen nine consecutive years of 4 per cent growth or higher, with a peak of 7 per cent in 2017.

Strong outbound demand from major source markets, in particular China, India and the United States, fuelled growth in 2018, supported by enhanced air connectivity and visa facilitation in many parts of the world. The UNWTO Visa Openness Index shows that the share of the world population requiring a traditional visa to travel abroad declined from 75 per cent in 1980 to 53 per cent in 2018 (UNWTO, 2018).

During the period January-June 2019, international arrivals increased 4 per cent in comparison with the same period a year earlier, reflecting sustained demand for international travel in a generally favourable economic environment. This figure is more in line with the historical trend of 4.2 per cent average annual growth recorded in the past ten years (2008-2018) (UNWTO, 2019).

Results for the first half of 2019 show that growth was led by the Middle East (8 per cent) and Asia and the Pacific (6 per cent), followed by Europe (4 per cent), Africa (3 per cent) and the Americas (2 per cent). By subregion, the Caribbean (11 per cent) enjoyed the highest growth in arrivals as the recovery from the 2017 hurricanes consolidated in many island destinations; North Africa (9 per cent), South Asia and North-East Asia (both 7 per cent) also performed strongly in this part of 2019.

(*continued*)

Box I.3 (*continued*)

UNWTO Confidence Index points to slower growth in the last months of 2019

Confidence in global tourism remains positive yet cautious for the remainder of 2019. Weakening economic indicators, trade tensions and Brexit-related uncertainties have started to take a toll on business and consumer confidence. The UNWTO Confidence Index points to more moderate growth in arrivals during the period September-December 2019, particularly in Europe and the Americas.

The collapse of the travel group Thomas Cook and several small European airlines has disrupted some tourism flows, though existing travel service providers have moved in to absorb the current demand and offset the decline in capacity. Uncertainties surrounding Brexit are prompting a wait-and-see attitude among British tourists, which is affecting travel bookings to some European Union destinations. Spending in the United Kingdom on outbound travel continued to grow in the first half of 2019, while inbound tourism flows decreased. Trade tensions between the United States and China are exerting some influence on destination choice by Chinese travelers. The devaluation of the renminbi moderated Chinese spending on international tourism in the first half of 2019.

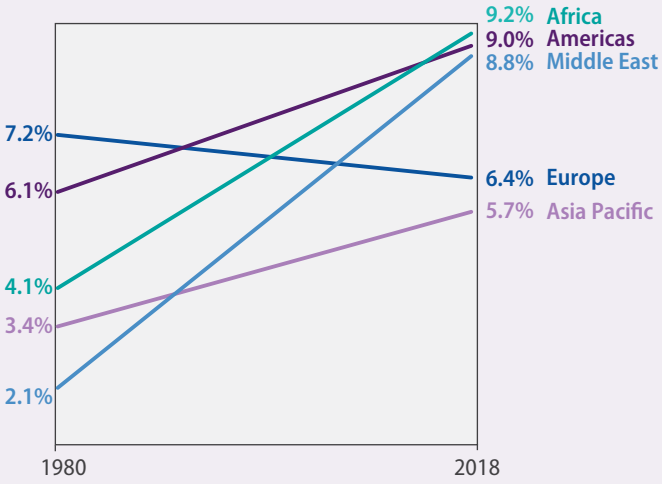
UNWTO estimates 3 to 4 per cent growth in international arrivals globally for 2019, reflecting rising tourism demand overall, though at a slower pace. At the regional level, prospects are strongest for Asia and the Pacific, where arrivals are expected to have grown 5 to 6 per cent.

Preliminary projections for 2020 suggest slightly higher growth, in line with a modest improvement in the global economic outlook.

Tourism has become a growing pillar for export policies

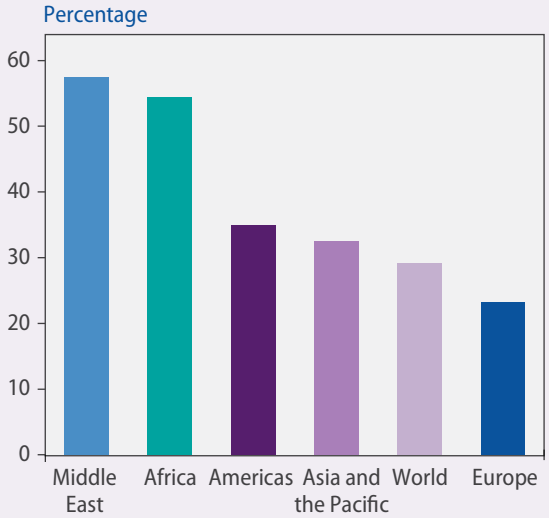
Total export earnings (travel and passenger transport) from international tourism amounted to $1.7 trillion in 2018, or almost $5 billion a day on average. For the seventh year in a row, growth in exports from international tourism (4 per cent) was higher than growth in merchandise exports (3 per cent).

Figure I.3.1
Share of international tourism (BOP travel and passenger transport) in total exports of goods and services



Sources: UNWTO and World Trade Organization.
Note: BOP = balance of payments.

Figure I.3.2
Share of international tourism (BOP travel and passenger transport) in services exports, 2018



Sources: UNWTO and World Trade Organization.
Note: BOP = balance of payments.

(*continued*)

Box I.3 (*continued*)

International tourism accounts for 29 per cent of the world's services exports and 7 per cent of overall exports of goods and services. Export earnings from tourism are an important source of foreign revenue for many destinations around the world, helping to create jobs, promote entrepreneurship and develop local economies.

As such, tourism is an increasingly important component of export diversification policies for both emerging and advanced economies, often with a strong capacity to reduce trade deficits and to compensate for weaker export revenues from other goods and services.

This points to the importance of mainstreaming tourism in national export policies and strategies, as doing so would provide policymakers with a major opportunity to maximize exports and address trade deficits through the effective coordination of trade and tourism policies.

By region, the share of international tourism in total exports is highest in Africa, the Middle East and the Americas, where it represents 9 per cent of regional export earnings. In Europe and Asia and the Pacific (both 6 per cent), the corresponding share is slightly below the world average of 7 per cent.

Most relevant is the significant increase in the share of tourism in exports over the past several decades in the Middle East (from 2 per cent in 1980 to 9 per cent in 2018) and in Africa (from 4 to 9 per cent). The Middle East, in particular, has seen remarkable growth in export revenues from international tourism (though from a lower base), thanks to infrastructure and product development, the establishment of major airport hubs and enhanced connectivity. International tourism accounts for more than 50 per cent of services exports in both Africa and the Middle East.

In Asia and the Pacific, the share of tourism in exports increased from 3 to 6 per cent, with rapid economic growth, rising middle classes and market openness contributing to the surge in tourism. Asia is the world's second largest earner of international tourism receipts, accounting for 30 per cent of the world total (up from 16 per cent in 2000). It is also the world's most open region in terms of travel facilitation.

International tourism in the Americas represented 9 per cent of total exports in 2018 (up from 6 per cent in 1980) and one third of services exports in the region, benefiting many smaller economies—particularly island nations such as the Bahamas or Aruba, where tourism accounts for 80 per cent or more of total exports. Tourism also has huge growth potential in many commodity-based economies in the region, such as Brazil, Argentina or Chile, where tourism revenues represent less than 10 per cent of total exports of goods and services.

Authors: Sandra Carvão, Michel Julian and Javier Ruescas (UNWTO).

Rapid shifts in trade policies have further fuelled investor uncertainty

The trade dispute between China and the United States first escalated in early 2018 and extended into 2019. During the year, the trade policies of the two countries fluctuated rapidly between the intensification and de-escalation of tensions, fuelling the already elevated uncertainty in the international trade environment. Figure I.19 illustrates the share of bilateral trade between China and the United States that has been the target of tariffs during the three phases of the trade conflict. In the initial phase, the United States focused its tariffs on Chinese machinery, transport equipment and precision instruments. In contrast, retaliatory tariffs imposed by China on the United States targeted the agri-food sector and transport equipment. In the subsequent stages of escalation, the United States expanded its tariffs on China to encompass almost all bilateral trade between the two countries. However, United States imports of some precision instruments from China were excluded from additional United States tariffs. Meanwhile, imports by China of some communication equipment (such as microprocessors) and transport equipment (including large aircraft) from the United States were excluded from Chinese tariffs.

The trade conflict has had a significant impact on trade between China and the United States

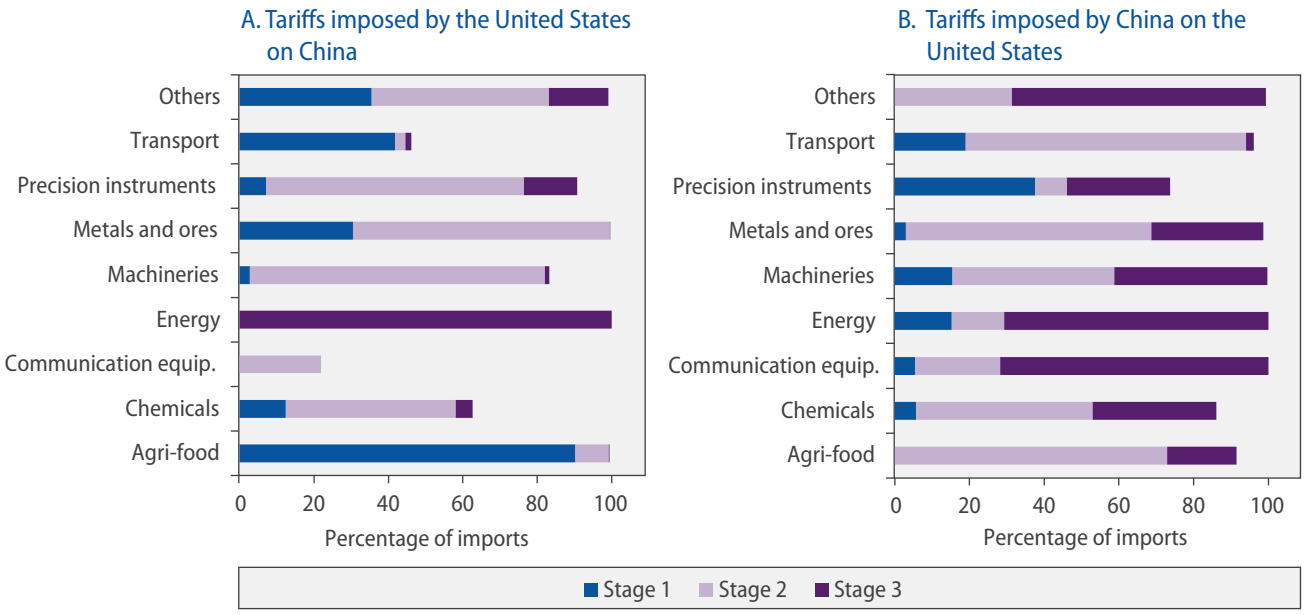
The trade conflict between the United States and China has had an immediate and direct impact on trade between the two countries. In the first three quarters of 2019, the value of United States imports from China fell by about 13 per cent in comparison with the first three quarters of 2018. During the same period, United States exports to China fell

at a slightly faster pace, declining by about 16 per cent.[12] The United States goods deficit with China has been shrinking steadily but remains substantial at $263.2 billion for the first three quarters of 2019.

The trade dispute has had varying impacts across sectors in both countries (see figure I.20). Exports of mineral products from China to the United States were hit particularly hard during the first three quarters of 2019, declining by 44 per cent, and exports of animal products fell by 27 per cent. Among the largest declines in United States exports to China, mineral products decreased by 57 per cent, base metals by 35 per cent, and aircraft, railway equipment and ships by 32 per cent. In contrast, the United States saw an increase in exports of vegetable products to China, with the upturn linked to a low base level in 2018 and an easing of the Chinese quota on soybean imports. Nevertheless, exports of vegetable products from the Unites States to China are still significantly below pre-2018 levels.

The prolonged trade tensions have also led to some trade diversion. A recent study by Nicita (2019) shows that the United States tariffs on China resulted in trade diversion amounting to an estimated $21 billion in the first half of 2019, with several countries experiencing a surge in exports as firms sought to source inputs from countries not directly affected by the tariffs (see figure I.21). There are also indications that manufacturers are beginning to relocate production from China to other countries, particularly those in East Asia. Mexico, meanwhile, is said to have benefited from a trade diversion effect in the vehicles, auto parts, electronics and machinery sectors. Nevertheless, reconfigurations to exist-

Figure I.19
Tariffs by sector and by stage

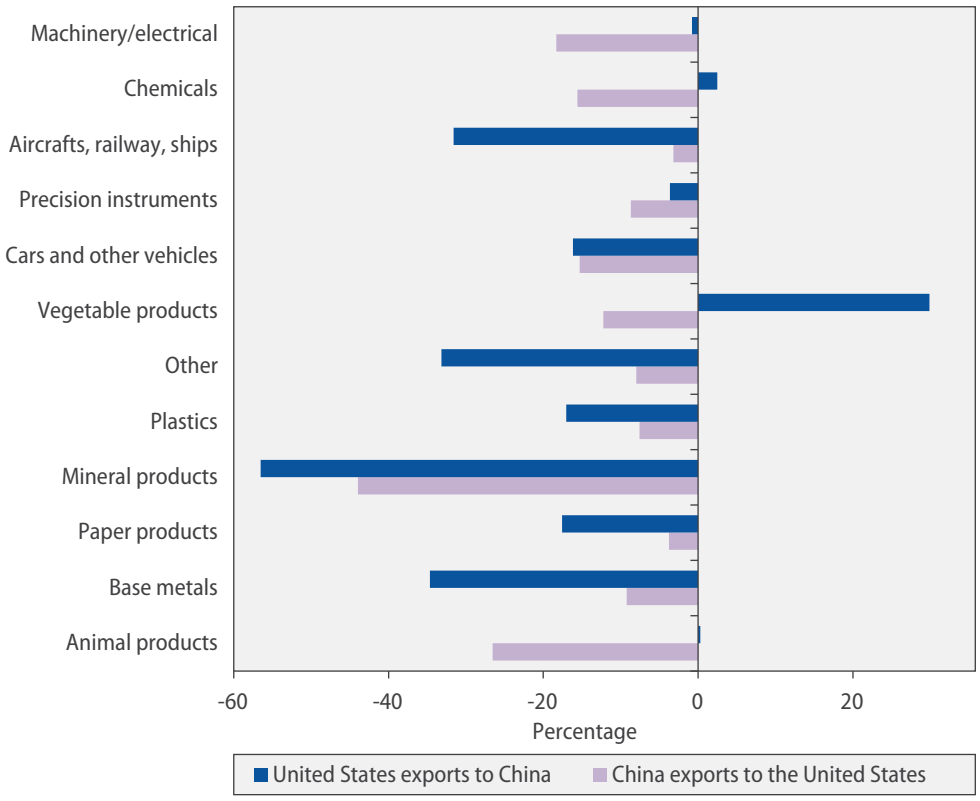


Source: UNCTAD, based on data from the United States International Trade Commission and the Ministry of Finance of the People's Republic of China.

Note: Stage 1 of the trade conflict occurred in early 2018, stage 2 in September 2018, and stage 3 in September 2019.

12 See United States Census Bureau (2019).

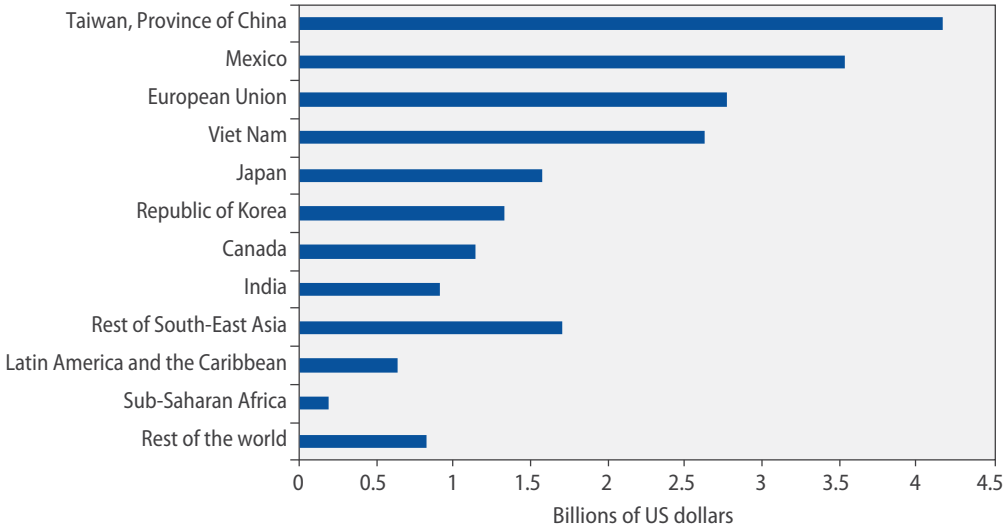
Figure I.20
Change in China – United States bilateral trade, 2019Q1–Q3 vs. 2018Q1–Q3



Source: UN DESA, based on data from the United States International Trade Commission.

Note: Trade is in value terms. Categories are sorted by size (largest at the top).

Figure I.21
Estimated trade diversion effects of United States tariffs, by economy and regional grouping



Source: Nicita (2019).

ing global value chains (GVCs) are likely to take time given the complexity of production processes and uncertainty over the future policy landscape.

While trade tensions persist between China and the United States, several other countries have continued to make progress on the formation of regional trading blocs or the negotiation of new trade agreements. In 2019, the European Union reached a tentative trade agreement with the Southern Common Market (MERCOSUR) States, which include Argentina, Brazil, Paraguay and Uruguay. Asia has also moved forward on a few large trade agreements, including the Japan-led Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), signed in 2018, and the Regional Comprehensive Economic Partnership (RCEP) agreement, which will be signed in 2020.

Commodity prices

Weak demand prospects weigh on commodity prices

Commodity prices remained subdued in 2019 as slowing global growth and high trade tensions weighed on demand. In August 2019, the UNCTAD free-market commodity price index, which tracks the price movements of primary commodities exported by the developing economies, was about 12 per cent lower than a year earlier and well below the 2011 level (see figure I.22.A). In a few commodity markets, including crude oil, supply disruptions during the year triggered bouts of speculative purchases of futures contracts. Nevertheless, the resultant price spikes were mostly short-lived as increasing concerns over weakening global demand continued to depress prices. Looking ahead, most commodity prices are forecast to remain weak as the softer demand outlook outweighs supply constraints.

The extension of crude oil production cuts led by the Organization of the Petroleum Exporting Countries (OPEC) and the Russian Federation has prevented oversupply in the context of weakening global demand and rapidly growing supply from the United States. In some smaller oil-producing countries, production capacities have fallen owing to weak

Figure I.22
Major commodity prices, 2009–2019

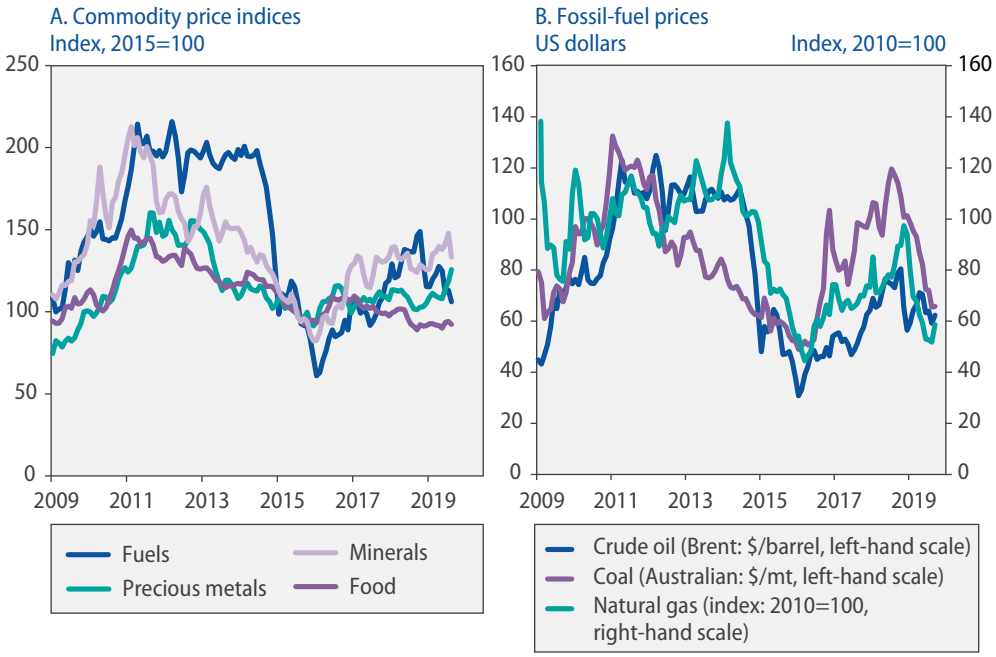


Figure I.22.A

Source: UNCTAD free-market commodity price index.

Note: The minerals category includes ores and non-precious metals.

Figure I.22.B

Source: World Bank Pink Sheet.

capital investments since the oil price plunge in 2014. Crude oil prices fluctuated violently in September 2019 after the armed attack on a critical crude oil processing facility in Saudi Arabia, shooting up by $8 from $62 per barrel of Brent crude, but the prices soon plummeted below the $60 mark once again owing to demand concerns. Oil markets are forecast to remain volatile in 2020, with Brent crude averaging $59.50 per barrel.

The prices of coal and natural gas have dropped significantly from 2018 levels (see figure I.22.B). Lower natural gas prices have accelerated coal-to-gas conversions in thermal power plants in North America, where demand for coal has been in decline. In East Asia, however, demand for coal is still on the rise, despite growing environmental concerns.

The price recovery for minerals, ores and non-precious metals that began in late 2015 appears to have plateaued. Iron ore prices surged in the first half of 2019 due to supply disruptions in Brazil but fell considerably in the third quarter amid concerns over demand growth in China, the largest importer of iron ore. Other commodities in this category, including copper, lead, zinc and aluminium, have entered the downward phases of mid-term price cycles owing to lower industry demand. As demand for non-precious metals depends heavily on the growth prospects for China, prices of these commodities are forecast to remain subdued in 2020. By contrast, the subindex for precious metals shows a continuing upward trend, reflecting rising prices of gold, platinum, palladium and silver, as risk-averse investors have been fleeing to these commodities. The copper-to-gold price ratio, an indicator of the risk appetite in commodity markets, reached a historic low in October 2019.

Food prices have shown a flat trend, fluctuating around 2015 levels (see figure I.22.A). Heavy rains in the Midwest region of the United States in May 2019 caused a price spike in grains internationally. Average food prices are projected to remain flat in 2020. Recent extreme weather events, such as drought in Australia, are expected to cause poor grain harvests in several areas. However, as grain stocks remain at comfortable levels, such events are expected to have limited impact on international grain prices. Nevertheless, food prices continue to be prone to area-specific price hikes, particularly in developing countries.

Global financial flows and sources of vulnerability

Financial market trends

Trade tensions, the growth slowdown and monetary policy shifts drive financial market trends

Recent trends in global financial markets have been shaped by the evolution of trade tensions between the United States and China, deteriorating growth prospects for the world economy, and adjustments to monetary policies across major central banks. As trade policies shifted rapidly during 2019, global financial markets experienced episodes of heightened volatility. In May and August, new rounds of tariffs between the United States and China triggered a sell-off in equities. At the time, rising fears of worsening global economic conditions fuelled an increase in investor demand for safe assets, depressing sovereign yields in several developed countries. But as central banks responded by easing monetary policy, global liquidity conditions remained highly accommodative, pushing some major stock markets to record highs. The United States Federal Reserve embarked on a series of rate cuts in 2019, and the major United States stock indexes reached all-time highs in November.

Financial markets and real economic activity have become increasingly disconnected

The simultaneous occurrence of deteriorating global economic prospects and rising stock markets illustrates the disconnect between financial markets and real economic activity—a problem that has been affecting the world economy since the global financial crisis. Abundant liquidity has further incentivized search-for-yield behaviour by encouraging

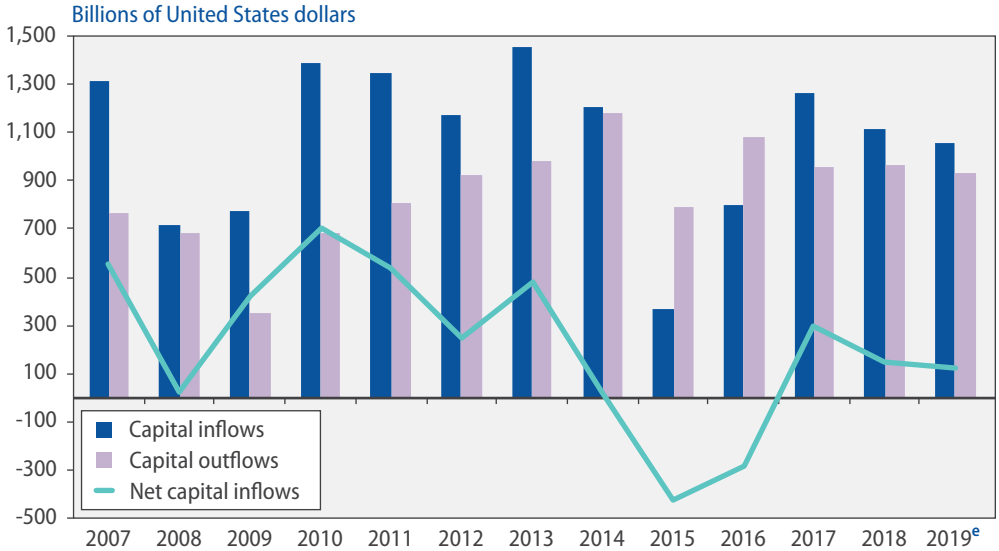
short-term investments such as mergers and acquisitions (M&A) and share buy-backs rather than encouraging productive investment. This has boosted asset valuations in some market segments, including stock markets in the United States, creating a source of financial risk. More generally, the decoupling of the credit channel from productive investment in the global economy is a worrisome trend, particularly given the large investment needs associated with the 2030 Agenda for Sustainable Development. Clearly, there is a need to make debt finance play a more relevant development role in the world economy, which requires channelling funds towards financing productivity-enhancing investments.

Amid the synchronized global monetary easing, the United States dollar remained relatively stable against other developed economy currencies. Lower interest rates in developed countries and easier global liquidity also allowed for more accommodative monetary stances in emerging economies. However, some emerging market currencies experienced downward pressure as external and domestic headwinds intensified. The renminbi depreciated to a multi-year low against the dollar amid weak capital inflows and the decision from the People's Bank of China (PBOC) to modify the official reference rate for the Chinese currency to above 7 yuan per dollar. Several Latin American economies, including Brazil, Chile and Colombia, also experienced significant currency depreciations.

Total net capital flows to emerging economies are expected to gain some momentum

Against this backdrop, net capital flows to emerging economies remained broadly stable in 2019 and are expected to gain some momentum in the near term, driven by easier monetary policies and the search-for-yield behaviour among investors. According to the Institute of International Finance (IIF), private non-resident capital inflows to emerging economies are estimated to have totalled slightly over $1 trillion in 2019 (see figure I.23). There were, however, significant differences across emerging economies owing to the diversity of their economic and political situations. For example, non-resident capital inflows increased in Brazil and the Russian Federation amid a gradually improving economic outlook and in Indonesia due to stable and relatively robust growth. By contrast, non-resident capital inflows to China declined visibly amid fears that trade tensions would have a more pronounced impact on economic activity. Capital inflows to emerging econ-

Figure I.23
Capital flows of emerging economies



Source: Institute of International Finance (2019a).

Note: e = estimate.

omies in crisis or with poor growth prospects, elevated debt or high political uncertainty declined significantly, with examples including Argentina, South Africa and the Bolivarian Republic of Venezuela. In Argentina, financial conditions deteriorated visibly amid an escalating economic crisis that forced the Government to impose capital controls.

Portfolio flows to emerging economies remain sensitive to trade tensions

Portfolio flows (including both equity and debt flows) to emerging economies recovered in 2019. Africa, emerging Europe and some countries in East Asia saw the most significant increases (Institute of International Finance, 2019a). However, equities remained sensitive to trade tensions, not only in China but also in other large emerging economies such as Indonesia, Mexico and Taiwan, Province of China. Portfolio flows to China declined throughout 2019, with large sell-offs in stock markets and a visible widening of corporate spreads in May and August. In contrast with the general recovery for portfolio flows, cross-border banking flows showed weaker performance in 2019. This decline, which was relatively consistent across regions, is largely explained by falling cross-border flows to China as trade tensions led to heightened uncertainty.

Total FDI flows to emerging economies remain largely stable

Estimates for 2019 indicate that foreign direct investment (FDI) flows to emerging economies remained fairly stable at about $535 billion—a trend that is likely to continue in the outlook period (Institute of International Finance, 2019a). Moderately higher inflows than in previous years are expected for East Asia, especially Thailand and Indonesia, amid relatively robust growth. Meanwhile, FDI flows have remained weak in several other regions, most notably Latin America.

Greenfield FDI (the establishment of new productive capacity) in developing countries has fallen significantly since its 2008 high point, though it recovered somewhat in 2018 (UNCTAD, 2019e). By contrast, M&A flows are largely on par with pre-crisis levels. This has important implications, as greenfield investments are far more beneficial for growth than are M&A flows (Harms and Méon, 2018).

The sectoral composition of FDI flows raises concerns

The development impact of FDI also depends on the sectoral composition. Foreign investments in technologically advanced sectors tend to generate positive spillover effects through gains in productivity and wages as well as technology transfer. Investments in the primary sector and extractive industries, by contrast, are often less beneficial for the host country. They can have a detrimental impact on the environment while creating only limited linkages with the domestic economy (Farole and Winkler, 2013). Data show that greenfield investments in developing countries have been largely concentrated in mining, petroleum extraction and refining, construction, and electricity, gas and water services (UNCTAD, 2019e). This suggests that recent FDI flows may not have been very conducive to long-term sustainable development.

More worryingly, an increasing share of FDI seems to pass through empty corporate shells rather than being invested in productive activities in the receiving economies (Damgaard, Elkjaer and Johannesen, 2019). This type of FDI is concentrated in a few tax havens or in special-purpose entities that can be used for intra-company financing or to hold intellectual property and other assets.

Official development assistance continues to decline

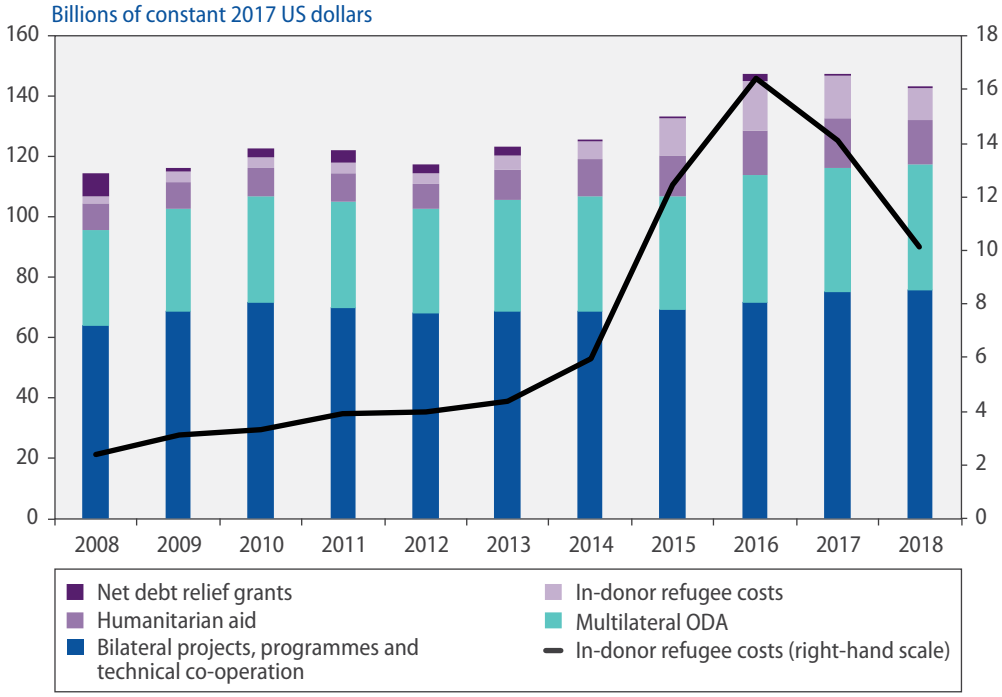
Net official development assistance (ODA) flows declined in 2018 for the second consecutive year, despite pledges from donor countries to increase development finance. ODA flows from the 30 members of the OECD Development Assistance Committee (DAC) amounted to $153 billion in 2018 (OECD, 2019b). This amount was calculated using the grant-equivalent methodology, recently adopted to improve the measuring of donors' efforts.[13] Using the previous cash-flow-basis methodology, ODA totalled $149.3

13 For more details, see http://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/modernisation-dac-statistical-system.htm.

billion in 2018, 2.7 per cent lower in real terms than in 2017 (see figure I.24).[14] ODA flows are equivalent to less than 10 per cent of global military spending and remain well below the United Nations target of 0.7 per cent of gross national income (GNI) for donor countries. As of 2018, only five DAC members—Denmark, Luxembourg, Norway, Sweden and the United Kingdom—had met or exceeded the target. Notably, non-DAC donors such as Turkey and the United Arab Emirates provided about 1 per cent of their GNI in development assistance in 2018—including coverage of expenses for refugees living in the donor countries.

In-donor refugee costs continue to be the most volatile component of ODA. Excluding aid spent on processing and hosting refugees, ODA was relatively stable in 2018. Meanwhile, bilateral ODA to LDCs fell by 3.0 per cent in real terms, mostly because of lower flows to African countries (OECD, 2019b). This worrying trend could undermine development prospects, as ODA represents a substantial share of external finance in many LDCs.

Figure I.24
Net official development assistance, by expenditure component



Source: OECD, International Development Statistics (IDS) database.

Global debt and financial vulnerabilities

The rise in global debt has been most pronounced in the non-financial corporate sector

High indebtedness is a key feature of the global economy, with global debt more than four times world gross product (UNCTAD, 2019b). Debt expansion has been most pronounced in the non-financial corporate sectors and to a lesser extent in government sectors. In developing countries, total debt reached about 190 per cent of GDP in 2017—the highest level

14 The total ODA figure for 2018 is slightly higher than the sum of the components in figure I.24, as the full breakdown is not yet available.

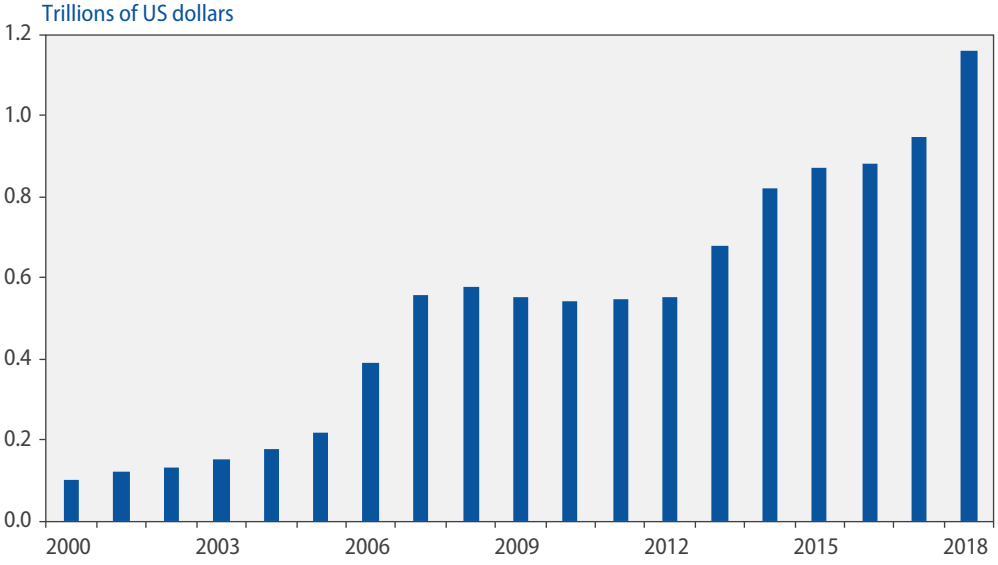
on record (UNCTAD, 2019d). The synchronized easing of monetary policy in the world economy reduces short-term risks but may increase medium-term risks, as it encourages a further rise in debt and necessitates a sharper adjustment for negative shocks that occur in the future.

Overvaluation and leveraged loans in the United States

Amid loose financial conditions, asset valuations in the United States increased further in 2019. The cyclically adjusted price-earnings ratio of the Standard and Poor's 500 index (S&P 500) remains well above its long-term average. In the context of a slowing economy, this suggests an underpricing of risk and represents a significant source of financial vulnerability going forward. Share buy-backs have played a prominent role in boosting equity valuations. In the current challenging environment, stock markets are prone to sudden and large corrections amid a widespread deterioration in sentiment, with significant spillovers to economic activity.

The rise of leveraged loans in the United States represents another source of vulnerability and a potential risk for financial stability.[15] The leveraged loan market is about $1.2 trillion, more than double the size of a decade ago (see figure I.25) and larger than the high-yield corporate bond market. The rise in leveraged loans has been facilitated by abundant financial liquidity, the search for yield, and the increase in securitization through collateralized loan obligations (CLOs), where payments from multiple firms are pooled together and then sold to investors in tranches. Highly indebted firms have also favoured this type of financing, which is more flexible than bonds and easy to repay.

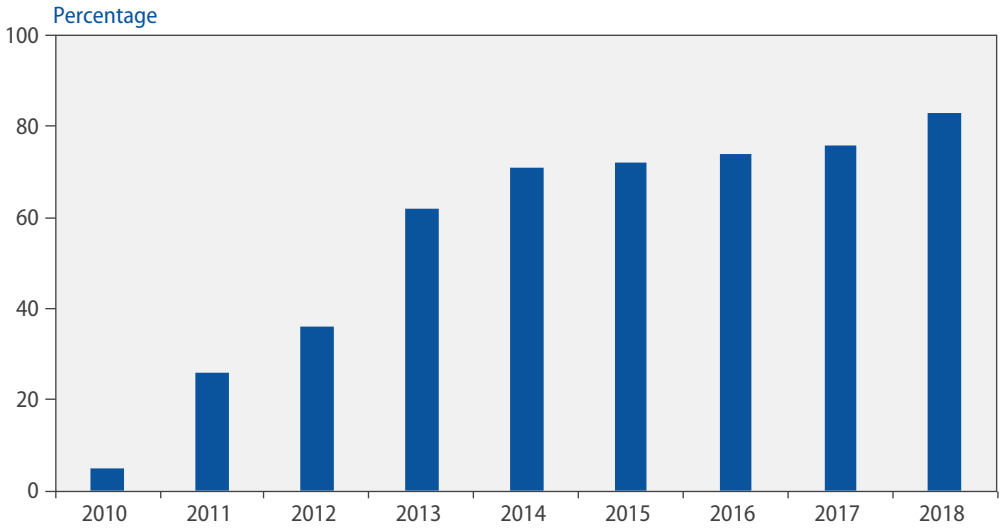
Figure I.25
Total outstanding leveraged loans in the United States



Source: Standard and Poor's Leverage Commentary and Data via Financial Times (2019).

15 While there is no universal definition, leveraged loans are typically described as syndicated loans at floating interest rates given to firms that have relatively high levels of debt relative to earnings and poor credit standards.

Figure I.26
Share of "covenant lite" leveraged loans



Source: Standard and Poor's Leverage Commentary and Data via Financial Times (2019).

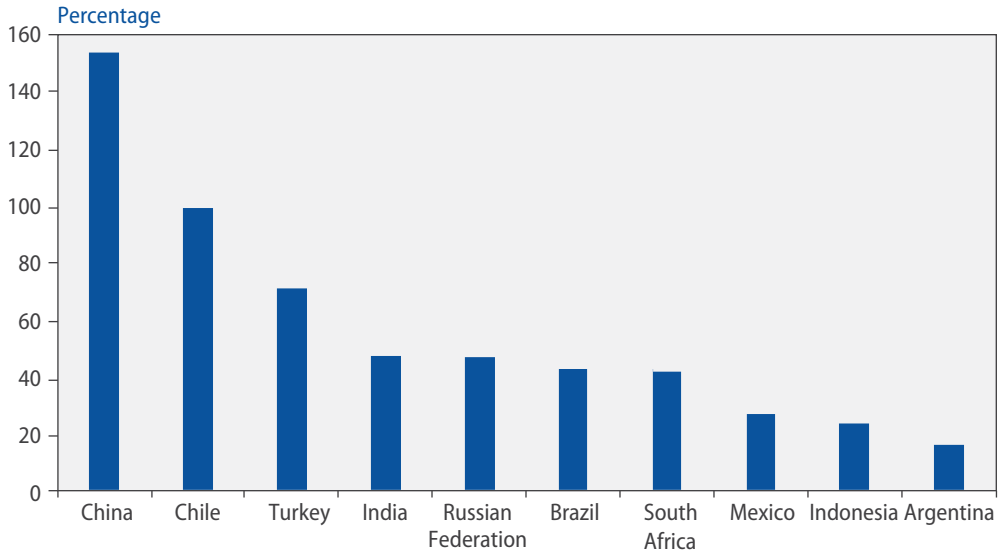
The issuance of leveraged loans is expected to have slowed in 2019 as a result of lower interest rates, which make flexible interest rate loans less attractive. Yet there are still concerns over a continued build-up of vulnerabilities. Rising demand among investors, coupled with the willingness of firms to take on more debt, has led to a deterioration in underwriting standards and credit quality. The share of "covenant lite" loans—for which investors do not require borrowers to maintain certain financial ratios—has risen to a record high of about 80 per cent in recent years (see figure I.26). The leverage of borrowers, coupled with more liberal repayment terms, has also visibly increased (Bank of England, 2018). In addition, borrowers in the leveraged loan market depend on capital markets for their refinancing needs, which make them vulnerable to liquidity stress and potential defaults.

Corporate debt in China and other large emerging economies

In the past decade, corporate debt in emerging economies has increased visibly amid abundant global liquidity and search-for-yield behaviour. Between 2008 and 2019, the combined corporate debt of 30 large emerging economies increased from about 63 per cent to more than 90 per cent of GDP (Institute of International Finance, 2019b). The levels of corporate debt are especially elevated in China but are also quite high in countries such as Brazil, Chile, India, the Russian Federation and Turkey (see figure I.27). Corporate debt in China, mainly held by State-owned enterprises, increased from about 100 per cent to 155 per cent of GDP over the past decade. In India, corporate debt exceeds 40 per cent of GDP, and the share of non-performing loans in the banking system is relatively high.

Amid slowing global growth, rising trade tensions and, in some cases, heightened political uncertainty, high corporate debt in emerging economies represents a major source of financial vulnerability. In some countries, the vulnerabilities are aggravated by a rising dollar-denominated debt. In addition, some indicators show that a significant part of this corporate debt has been channelled neither to productive investments nor to high productivity sectors (UNCTAD, 2019d). This trend has adversely impacted medium-term growth and has also raised concerns over debt sustainability.

Figure I.27
Corporate debt-to-GDP ratio in selected economies, 2019 Q1



Source: Bank for International Settlements, total credit statistics.

Note: Data show the amount of outstanding credit to the private non-financial sector at the end of March 2019, relative to annual GDP.

Risks to the outlook

Trade risks

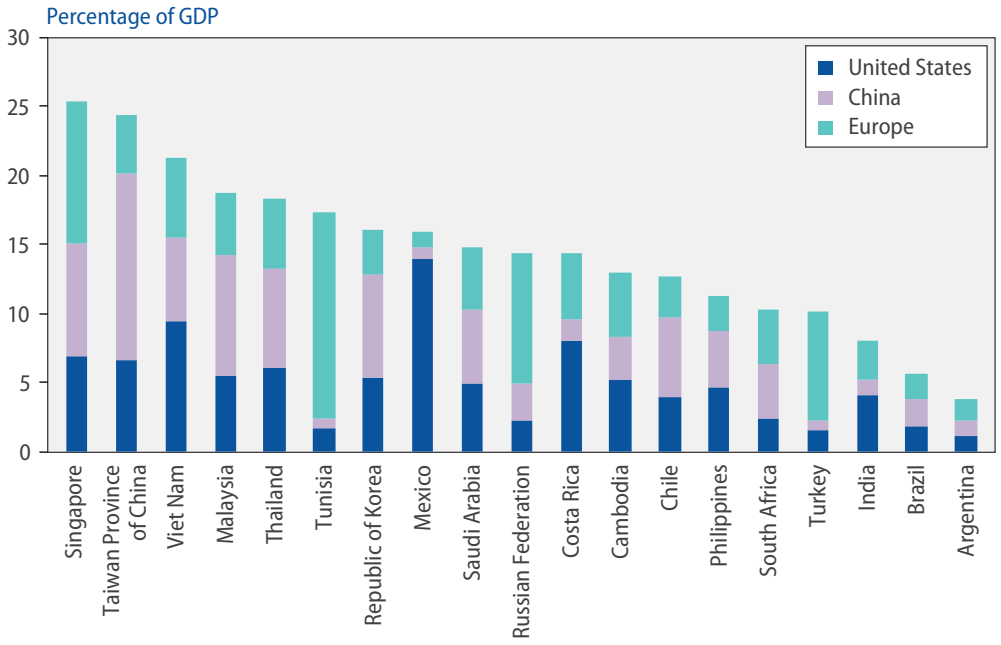
Further intensification of trade tensions could inflict long-lasting damage on growth prospects

While the Phase One Trade Agreement between China and the United States in December 2019 has provided temporary respite for financial markets, a final resolution to the trade dispute in the outlook period is far from certain. In fact, there is a high risk that trade tensions may continue or even intensify going forward. For example, the United States reserves the possibility of raising tariffs on automotive products and parts, which would affect an estimated $350 billion in imports from major trading partners such as the European Union and Japan; if introduced, this would likely trigger retaliatory measures. Other trade tensions that might extend into 2020 include the trade dispute and rising bilateral tariffs between the European Union and the United States and the trade dispute between Japan and the Republic of Korea. Increased trade-restrictive measures could spread beyond the involved parties, impacting economies around the world through both direct and indirect channels. Moreover, the rules-based trading system has come under particular pressure as countries, out of discontent with perceived design flaws in multilateral institutions, increasingly resort to unilateralist strategies to resolve their disputes.

Prolonged trade tensions could significantly dampen domestic demand growth in all major economies, including China, Europe and the United States, which would directly affect economies with a high final demand exposure to these large markets. Figure I.28 shows that China is presently the main source of final demand for many East Asian exporters, including Malaysia, the Republic of Korea and Thailand.[16] Resource-rich countries with a high exposure to China are similarly at risk, as a slowdown in Chinese demand growth and improved efficiency in production will weigh on Chinese resource imports. Meanwhile, Costa Rica and Mexico are highly vulnerable to a demand slowdown in the

16 UNESCAP (2019a) provides a comprehensive assessment of the regional impact of China's economic transformation.

Figure I.28
Selected economies' exposure to final demand from China, Europe and the United States



Source: UN DESA, based on data from OECD Trade in Value-Added (TiVA) database, December 2018; and World Bank, World Development Indicators database.

Note: Data reflect economic structures in 2015.

United States, while the Russian Federation and Turkey are more sensitive to changes in European demand. Slower growth in China and the United States would also weigh on global demand for commodities, significantly impacting commodity-dependent countries. Some countries, however, would see an increase in exports to the countries engaged in trade disputes thanks to trade diversion effects. Indeed, this is already occurring; Nicita (2019) has estimated that about 63 per cent of the bilateral loss in trade between the United States and China in the first half of 2019 was diverted to other countries, with Taiwan, Province of China, Mexico, the European Union and Viet Nam enjoying the largest gains.

Worsening trade tensions would hurt countries around the world through several other channels. First, trade tensions affect countries that are deeply integrated into global value chains, as these countries suffer lower demand for intermediate inputs. Furthermore, the intensification of trade conflicts and the resulting increase in trade policy uncertainty would lead to a prolonged slump in investment activity, dampening future productivity growth and thus damaging growth prospects in the medium and long term. Trade policy uncertainty particularly reduces investments in export entry and technology upgrading, effectively decreasing trade flows and real incomes (Handley and Limão, 2017). Indeed, the increase in trade policy uncertainty over the past year may have decreased aggregate investment in the United States by over 1 per cent (Caldara and others, 2019). Recent data reveal that investment growth has slowed sharply across developed and developing economies amid such policy uncertainty, softening global demand and country-specific issues. Finally, the increase in prices of goods as a result of tariffs would lower household

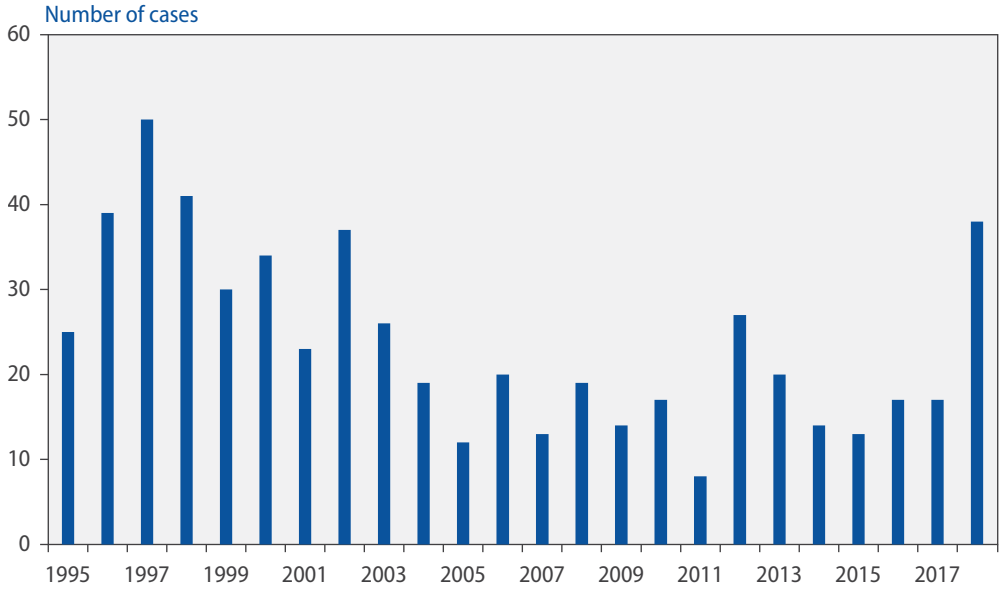
purchasing power and consumer welfare, particularly if domestic and imported goods were not easily substitutable.

Global trade is threatened by rising pressures on the multilateral trading system

The prolonged trade dispute between the United States and China reflects the increasing pressure on multilateral cooperation under a rules-based trading system. Unilateral trade barriers and retaliations, running counter to the spirit and integrity of the rules-based multilateral trading system (MTS), pose a significant risk to global economic governance. A further erosion of the MTS would hurt global economic growth by weakening international trade activity and deterring investment. Worryingly, this is coming at a time when international trade, with the MTS at its heart, is expected to play a crucial role in the achievement of the Sustainable Development Goals.

The dispute settlement mechanism (DSM) of the WTO, widely regarded as the cornerstone of the rules-based multilateral trading system, has come under pressure amid increasing unilateralism in global trade policy. Since its establishment in 1995, the DSM has received 590 requests for consultations, and it has facilitated the resolution of most of these disputes. Figure I.29 shows that the number of dispute cases initiated in 2018 rose to the highest level since 1998. However, the WTO DSM is at a critical juncture: its Appellate Body faced the risk of paralysis in December 2019 owing to disagreement among WTO members over the selection of new Appellate Body judges and concerns regarding the timeline for completing the Appellate Body review. In addition, the principle of special and differential treatment (SDT) for developing countries has increasingly been challenged, as their importance in global trade has grown rapidly. Volatility in international trade and the frequency and severity of trade disputes are expected to increase unless these issues with the MTS are resolved satisfactorily for all parties.

Figure I.29
Number of WTO dispute cases initiated



Source: WTO, Dispute settlement activity.

Financial risks

High debt levels could create a vicious cycle in an economic slowdown

The world economy is facing substantial financial stability risks stemming from protracted loose monetary conditions, rapid credit growth in many emerging economies, and high levels of debt. High global debt is not only a financial risk in itself but also a source of fragility in case of a further deterioration in economic growth. A worsening outlook or a negative shock can increase investor risk aversion and push up debt-servicing costs, with knock-on effects on economic activity, investment and job creation. Meanwhile, elevated sovereign debt constrains the fiscal policy space in many countries, limiting their ability to respond to the ongoing slowdown and to mobilize necessary investments to achieve the Sustainable Development Goals.

Corporate debt in the United States and China is a financial risk

Amid continuing trade tensions, corporate debt in the United States and China is a particular source of financial risk (see the section on global debt and financial vulnerabilities). In the United States, the leveraged loan market could come under pressure in the event of a severe slowdown. A substantial increase in credit defaults would hit investor confidence, inducing fire sales and a downward spiral in asset prices. In September 2019, liquidity concerns in the United States bond markets surfaced when a sharp rise in borrowing costs in the overnight money markets forced the United States Federal Reserve to inject $140 billion of liquidity. In China, high levels of corporate debt pose a major risk to financial stability, particularly in the current environment of high trade tensions and slowing growth. Over the past year, corporate bond defaults have increased, raising concerns over the potential for a sharp and disruptive deleveraging process in the future.

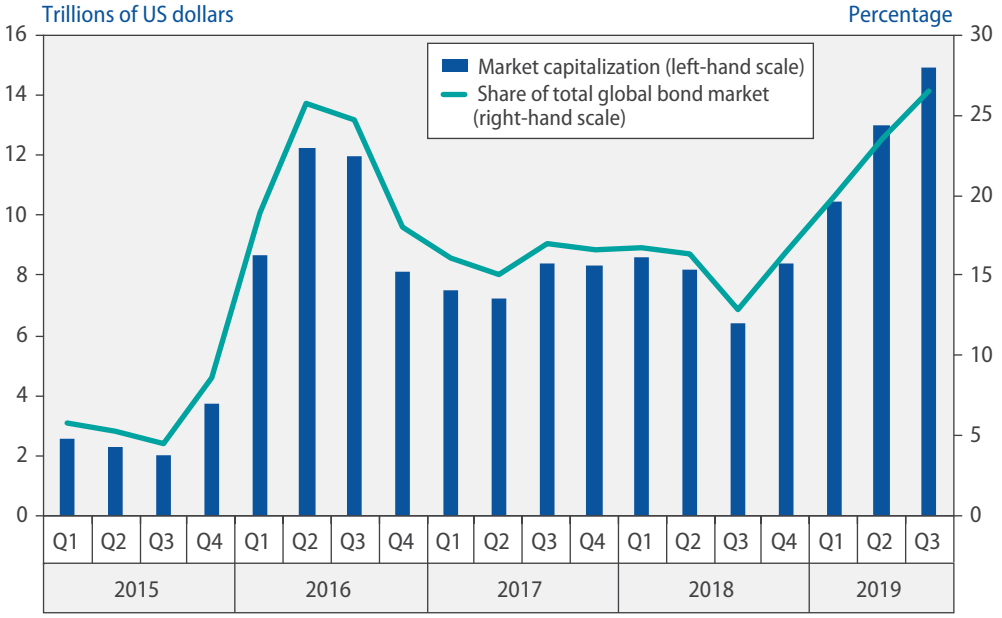
Brexit and potential negative feedback loops pose risks in Europe

The euro area is subject to a range of interrelated risks, raising doubts over its resilience to shocks. First, the uncertainty around the anticipated departure of the United Kingdom from the European Union continues to be a major source of concern, given the significant cross-border financial and economic interlinkages, with wider economic implications for businesses and households in both continental Europe and the United Kingdom. Little has been decided thus far, and changing expectations about the nature, terms and timing of Brexit continue to generate volatility in asset and currency markets. Second, amid significant institutional deficiencies—notably the absence of a banking union and a fiscal union—the euro area struggles to address financial fragilities, including low profitability in the banking sector and elevated public and corporate debt. High levels of sovereign debt continue to plague many economies; in Belgium, Cyprus, France, Greece, Italy, Portugal and Spain, public debt is close to or above 100 per cent of GDP. The financial system and the real economy could be affected through myriad negative feedback loops, with potentially serious consequences for the world economy.

Global monetary policy may further exacerbate financial risks

The conventional and unconventional expansionary monetary policies from major central banks have exacerbated financial risks in the world economy. A more extended period of negative interest rates could erode bank profitability, resulting in weaker balance sheets and reduced lending capability. Negative yields have resulted in lower investment returns for insurance companies and pension funds in several countries, making it harder for them to meet their obligations. Furthermore, abundant liquidity conditions, coupled with deteriorating prospects for the world economy and higher demand for safe assets, have depressed bond yields and led to a rising share of negative-yielding debt—a distinctive and unchartered feature of the global financial landscape. The amount of fixed-income securities with negative yields reached a record high in the third quarter of 2019; in September, the amount of bonds with negative yields rose to $15 trillion (see figure I.30), with about 50 per cent denominated in euros and 40 per cent in yen (BIS, 2019b). While sovereign bonds

Figure I.30
Global value of negative-yielding bonds



Source: IMF (2019a).

constitute the bulk of this debt, the amount of corporate debt bearing negative yields has also increased visibly. Should this trend become more pervasive, it could threaten financial stability, as it distorts market perceptions of risk while creating potential sources of volatility.

Geopolitical risks

Geopolitical risks pose a major threat to the world economy

The outlook for the global economy is also marred by a number of geopolitical risks. Amid a weakening commitment to multilateralism—whether in the economic or political arena—the capacity of the international community to contain and resolve conflicts has decreased. More polarized political landscapes in several countries are contributing to an overall environment of uncertainty. The internal political landscape in the United States will likely remain confrontational in the near term, creating ambiguities with respect to the future direction of economic and trade policies, including those related to taxes and tariffs. In such a precarious environment, even a minor conflict may have major repercussions.

Regional tensions may have global implications

Geopolitical concerns have grown or intensified in several regions, including Kashmir, the Korean Peninsula, the Middle East, the Persian Gulf, the South China Sea and Eastern Ukraine. Escalations in local conflicts may have larger-scale political and economic repercussions, including the disruption of trade flows. In 2019, tensions in the Persian Gulf increased following the withdrawal of the United States from the international nuclear agreement with the Islamic Republic of Iran, further tightening of the restrictions on Iranian oil exports, and several local incidents, including drone attacks on a Saudi oilfield and oil processing facility. Any escalation of hostilities could further disrupt oil production and transport, causing a spike in oil prices and leading to a further deterioration in global economic conditions. Ongoing instability in Libya, the Bolivarian Republic of Venezuela and other oil-exporting countries is exacerbating risks to the global oil supply.

Despite ongoing international mediation, hostilities in Eastern Ukraine continue. The restrictive economic measures imposed on the Russian Federation by most OECD countries as a result of the Crimea conflict (as well as the reciprocal measures imposed by the Russian Federation) remain in place. This impedes trade and finance flows and undermines growth prospects, with tangible regional spillovers. Political tensions are also weighing on trade between Japan and the Republic of Korea, potentially disrupting global semiconductor supply chains.

Climate risks

Climate risks are becoming increasingly perilous for economic growth

The changing climate poses an increasingly critical risk to forecasts. Extreme events that once were considered remote tail risks, such as hurricanes, flooding and droughts, have become much more probable, with potentially catastrophic outcomes. This has important implications for the baseline forecasts presented in this report, as the bands of uncertainty around the forecasts have become wider, especially for countries in higher-risk areas.

In early 2020, sea surface temperatures in the tropical Pacific are expected to remain neutral (El Niño-Southern Oscillation [ENSO] neutral) (World Meteorological Organization, 2019). Global temperatures are therefore less likely to surpass previous peaks in the short term. However, the last five years have ranked especially high in the overall record, and the upward trend in global air and water temperatures is unlikely to change. As global temperatures rise, weather-related shocks will continue to increase in frequency and severity. Intense heatwaves and dry spells are likely to cause widespread wildfires and agricultural losses. Rising temperatures also load the atmosphere with more vapour, leading to more variable rain patterns.

All regions are vulnerable to the consequences of climate change

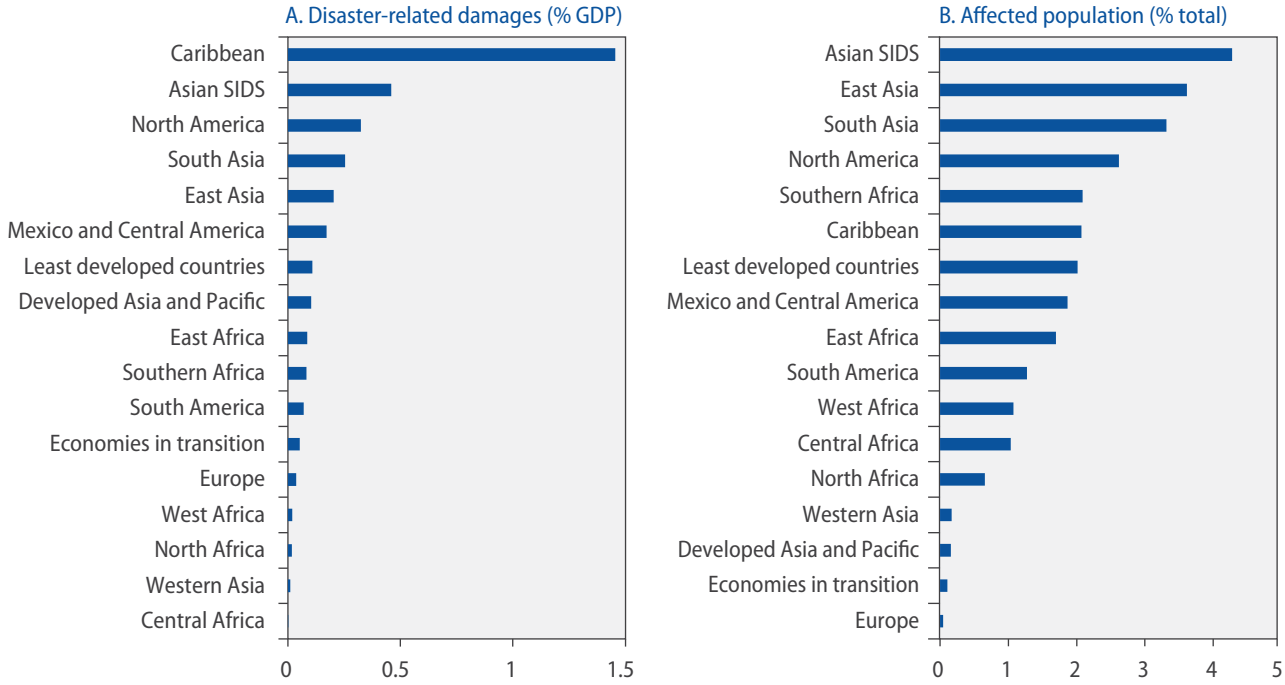
The effects of climate change can be observed across regions. In Europe, for example, heat waves have become more frequent and intense. This has caused extensive damage in agriculture and forests to the point that some forest areas are on the brink of collapse. Atlantic hurricanes, Pacific typhoons, and North Indian Ocean cyclones have also become more frequent and damaging. In 2019, the strongest hurricane on record (Hurricane Dorian) hit the Bahamas, leaving 60 per cent of Grand Bahama Island submerged. Meanwhile, one of the worst tropical cyclones on record (Cyclone Idai) affected Africa and the Southern Hemisphere. Figure I.31 illustrates the impact of weather-related shocks across regions over the past decade.[17] Damages and economic losses directly or indirectly related to disasters have been exceptionally high in the Caribbean region during this period, averaging close to 1.5 per cent of GDP per annum. The number of people affected by disasters, which includes those injured, made homeless or requiring immediate assistance during an emergency situation, has been particularly high for Asian small island developing States (SIDS) and across East and South Asia.

Immediate action is needed to address the uncertainties around climate risks

The heightened climate risks are further aggravated by the enormous uncertainties surrounding the global climate over the coming decades and its interaction with human activity. International benchmarks specify that the increase in global temperatures is to be limited to no more than 2°C above pre-industrial levels. This creates the impression that climate is a controllable variable and that setting limits on variables such as carbon dioxide (CO_2) emissions can ensure that the temperature remains within a certain range. However, there are multiple uncertainties and unknowns when it comes to understanding global tem-

17 This includes meteorological, hydrological and climatological disasters, as defined in the International Disaster Database of the Centre for Research on the Epidemiology of Disasters (emdat.be)

Figure I.31
Regional exposure to weather and climate related disasters, 2010–2019



Source: UN DESA, based on data from EM-DAT: The Emergency Events Database - Universite catholique de Louvain (UCL)– CRED, D. Guha-Sapir.
Notes: Includes meteorological, hydrological and climatological disasters. Data for 2019 is up to 29 July.

peratures and climate. In May 2019, the concentration of CO_2 in the atmosphere hit 415.39 parts per million, the highest level in about 3 million years—since before humans existed. There remains great uncertainty about how this concentration will impact the climate, even if all emissions were stopped today. This uncertainty and the potential for catastrophic outcomes warrant policy actions that err on the side of caution. Putting policy instruments and market adjustments in place to bring about a dramatic reduction in CO_2 emissions is an urgent priority (see chapter II).

The costs of climate change need to be accurately priced in

Natural disasters have significant and long-term economic effects, including loss of income, destruction of physical and human capital, and widening inequalities. Infrastructure disruptions may impact the provision of electricity, water and fuel, creating health and safety emergencies. While rebuilding may give a temporary boost to economic growth, it also diverts scarce resources away from other development needs. Debt levels inevitably rise as Governments borrow to finance recovery efforts (see box III.5), as is evident from the very high levels of debt across many Caribbean countries (Ötker and Srinivasan, 2018). Furthermore, rising climate risks reduce the creditworthiness of countries, driving up borrowing costs and burdening fiscal budgets so that financing resilience against shocks becomes increasingly expensive. This highlights the crucial role of financing bodies such as the Green Climate Fund (GCF) in supporting adaptation and mitigation efforts in developing countries (see box II.6).

Financial markets continue to underestimate climate risks, including the potential damage of weather-related shocks, costs of adaptation and mitigation efforts, and risks associated with new regulations and shifting demand patterns for carbon-intensive prod-

ucts (Griffin and Jaffe, 2019). This leaves economies exposed to climate-related shocks with the potential to destabilize financial markets. Major central banks, including the Bank of Canada, Bank of England and ECB, as well as the U.S. Commodity Futures Trading Commission, have all warned of potential climate-related systemic financial risks.

As climate change becomes more a present (rather than a future) concern, insurance companies are rethinking climate risks. After years of focusing mainly on loss events such as earthquakes and tropical cyclones (so-called primary perils), which are well-monitored by catastrophe models, insurers are increasingly focused on what they term "secondary perils" such as wildfires, storms, flash floods and hail, which are often triggered by primary perils. In the past decade, average insured losses caused by secondary perils were almost double those from primary perils—a dramatic change in comparison with earlier decades. Globally, insured losses tend to account for less than half of total losses, as insurance penetration is low in many developing regions that are heavily exposed to risks, exacerbating global inequalities.

Policymakers should lead the way on climate action

Looking ahead, both public and private efforts will be required to stem the release of greenhouse gases into the atmosphere. An increasing number of private initiatives and citizen-led movements are taking place, including school strikes by children in several countries and coalitions of corporations against climate change; however, ambitious government policy, including at the multilateral level, remains the most significant lever to trigger wide-reaching change.

Downside scenario—materializing risks

The global economic outlook is subject to a plethora of risks

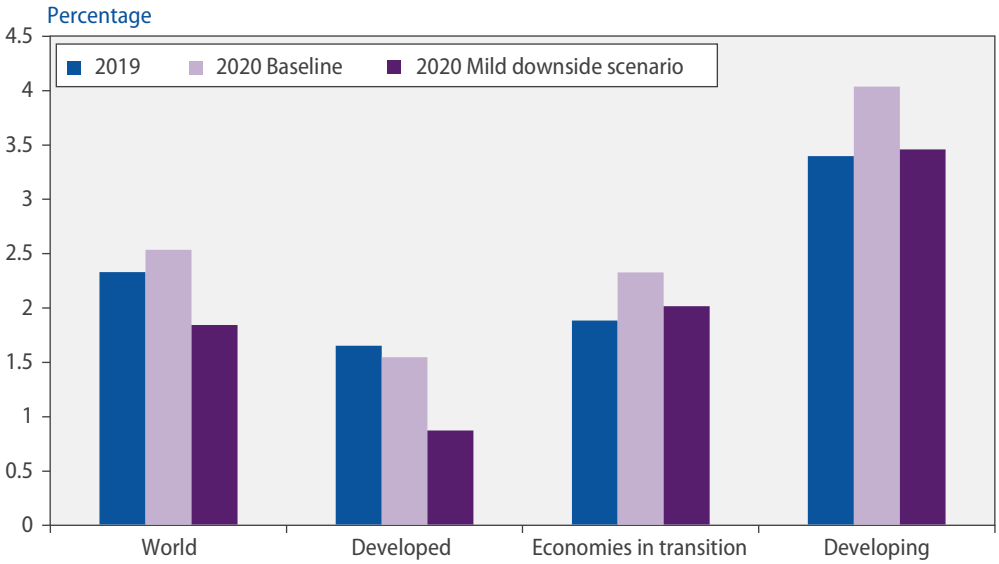
The modest rebound in global growth foreseen for 2020 is contingent on the assumption that current risks will not materialize. It is assumed, for example, that trade tensions and tariffs will not further intensify, that Brexit will be concluded with a transparent framework for the future relationship between the United Kingdom and the European Union, that geopolitical frictions will not escalate, and that financial conditions will remain largely favourable. Even a small deviation from any of these risk factors could deliver a further slowdown in global growth in the outlook period.

Downside risks are highly interconnected

The downside risks—and the consequences of their realization—are often interconnected. For example, a further escalation of trade tensions between the United States and China or the European Union could prompt an increasing number of firms to postpone or cancel near-term investment plans. Not only would this dampen future productivity growth, but the prolongation of uncertainty would eventually spill over to consumer behaviour. Figure I.32 illustrates how even a mild downturn could derail prospects for stronger growth in 2020 if rising tensions caused just 1 per cent of investment in developed economies and in East Asia to be postponed, accompanied by a modest slowdown in consumer spending. Such a scenario would bring world gross product growth down to 1.8 per cent in 2020, compared with the 2.5 per cent growth projected in the baseline scenario. World trade growth would slow to 0.6 per cent.

Any single downside risk or a combination thereof could aggravate other risks, potentially derailing the global economy. If the scenario described above were to trigger a "flight to safety" by investors, driving an appreciation of the United States dollar and implicit tightening of monetary conditions in developing countries, trade tensions would become intertwined with the current elevated levels of debt. Many developing countries could face increasing difficulties in meeting debt-servicing obligations, a rise in bankruptcies, and tighter credit conditions.

Figure I.32
GDP growth under baseline and mild downside scenario



Source: UN DESA, based on projections and scenarios produced with the WEFM.

Note: The mild downside scenario postpones 1 per cent of baseline investment in 2020 for two years in developed economies and East Asia and applies a shock to household consumption in the same subset of countries so that consumption growth slows by 0.8 percentage points in comparison with 2019 estimates. Trade spillovers spread the shock to other regions.

Macroeconomic policies

The current difficult economic environment calls for proactive and decisive policies

With the global economy slowing sharply and uncertainties looming large, risks of setbacks to sustainable development have increased. Weakening investment and insufficient productivity growth in many parts of the world impede efforts to achieve the ambitious targets of the 2030 Agenda. Massive investments from both private and public sources are needed in all regions to further reduce global poverty, address inequalities and advance the energy transition.[18] The current difficult economic environment calls for proactive and decisive policies. Since development priorities and macroeconomic policy space differ markedly across countries, policy measures must necessarily be tailored to national contexts. Nonetheless, some general principles should guide the policies that are required to support sustainable and inclusive economic growth.

First, Governments need to shift their focus from short-term targets towards longer-term planning for inclusive economic development. Rather than focusing narrowly on promoting GDP growth, policymakers should aim to enhance well-being in all parts of society. This requires a long-term horizon for investment in sustainable development projects to promote education, expand access to electricity, develop renewable energy, and establish resilient infrastructure. Emerging short-term issues will need to be addressed with due consideration given to the long-term impact and potential trade-offs of corrective policies.

Second, the macroeconomic policy response needs to be balanced and integrated, relying on a broad set of measures. Since the global financial crisis, too much of the burden of stimulating economic activity has fallen on monetary policy, especially in developed countries. Fiscal policies need to be stepped up to support demand in the short run while also raising the potential for inclusive growth in the medium run. Structural policies (including employment, income and industrial policies) can also play a much more active role in the policy mix.

18 UNESCAP (2019b) provides a comprehensive assessment of the region's investment needs to achieve the Sustainable Development Goals.

Third, improved efficiency in policymaking and policy execution is critical. This includes more effective use of the available resources in the various policy areas as well as better coordination between these areas. In many countries, a reallocation of spending priorities can help improve development outcomes. Strong governance and accountability mechanisms, supported by the right statistics, will help to ensure quality and efficiency in policy implementation.

Fourth, much greater attention needs to be paid to the distributional and environmental implications of policy measures. Inequalities in income, health, education and opportunity remain high in all regions. Amid growing frustration over a lack of inclusive growth, political polarization has deepened in many countries and social discontent has become more widespread. At the same time, there is a need to speed up the energy transition. Mainstreaming these key cross-cutting issues—the environment and equality—into policy actions can have a significant positive impact.

Fifth, global coordination is critical to resolving cross-border issues. The biggest challenges of this age cannot be addressed by national policies alone. Strong global leadership and a commitment to change will be required to achieve sustainable economic growth and improve well-being for all.

The sections below take a closer look at the current major challenges in the areas of monetary, fiscal and structural policy. The chapter concludes with a call for more effective global cooperation.

Monetary policy

The global pivot in central bank stances towards monetary easing has to some extent alleviated fears of an imminent sharp tightening of global financial conditions. As external headwinds persist, however, additional monetary stimulus is likely to provide only temporary relief to financial markets. In many developed and developing countries, there are growing concerns that monetary policy has reached its limits. In the current highly challenging environment, overburdened monetary policies are less effective in reviving economic growth and also entail significant costs, exacerbating financial stability risks and ultimately depressing productivity growth. As downside risks to the global outlook continue to rise, the risk of policy mistakes is high. In the developed world, central banks are operating in unchartered territory, with no historical precedent to guide them.

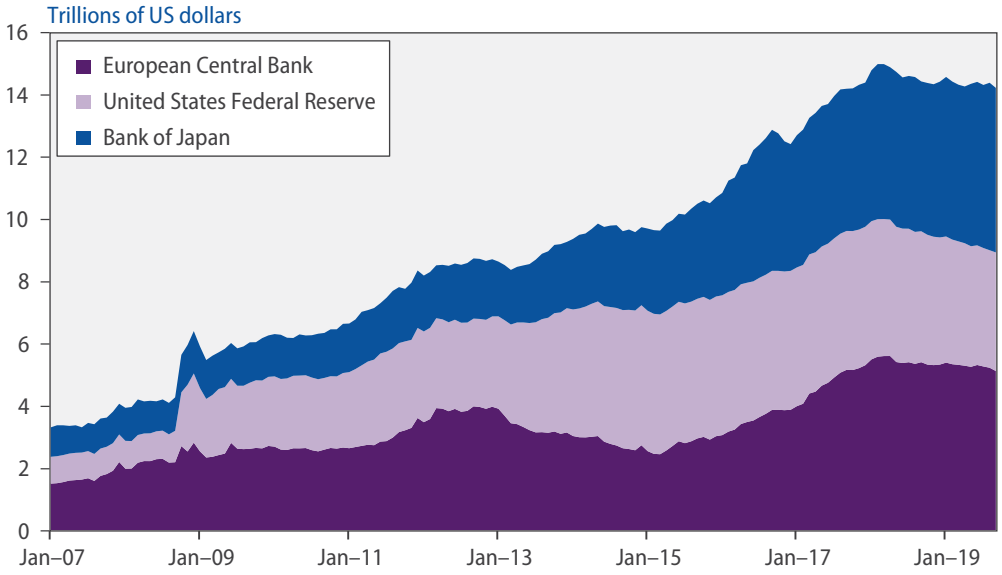
Interest rates are near zero or negative in many developed economies

In the aftermath of the global financial crisis, unprecedented monetary policy interventions by central banks worldwide played a crucial role in averting a deeper and more protracted recession. Today, with policy rates close to historical lows in many countries, central banks have very limited room to undertake similar large-scale monetary easing to boost economic growth. Among the major developed economies, interest rates have fallen to near zero or negative, while central bank balance sheets remain bloated (see figure I.33). Currently, five central banks, including the ECB and the Bank of Japan, have resorted to a negative-rate policy. While several other central banks have also signalled their willingness to adopt this new policy tool, there are doubts as to its effectiveness in stimulating bank lending to the real economy.

Reducing borrowing costs alone will not be enough to stimulate investment

Against the current backdrop of elevated policy uncertainty and darkening growth prospects, lower interest rates alone would not materially stimulate real investment. As the future direction of trade policies and global demand conditions remains highly uncertain, investors are more likely to postpone or cancel new capital spending plans, regardless of

Figure I.33
Total assets of major central banks



Sources: Bank of Japan, ECB and United States Federal Reserve.

the financing costs. The strong demand for negative-yielding sovereign bonds implies that some investors are more willing to endure small losses on safe financial assets than to undertake productive investment. This indicates a weak global risk appetite and a very pessimistic view about medium-term economic growth.

Further monetary stimulus increases risks to financial stability

Importantly, a more protracted period of easy monetary policy could fuel a further build-up of financial imbalances, increasing medium-term risks to financial stability. Low global interest rates and ample liquidity conditions since the crisis have contributed to the underpricing of risks, which has in turn encouraged the significant rise in global debt. In part, this debt has helped finance infrastructure, energy projects and other productive investments. However, a significant part has also been channelled into financial assets, raising sustainability concerns. Many firms in developed economies have been using the financial space to fund share buy-backs, higher dividends and acquisitions. As global economic activity slows, elevated debt levels represent a key source of risk, as households and businesses find it more difficult to roll over debt. Such a scenario could trigger a disorderly deleveraging process, large asset price corrections, and spikes in risk aversion. Thus, many central banks are facing an increasingly difficult policy trade-off in their efforts to boost growth without exacerbating domestic financial vulnerabilities. To preserve financial stability, policymakers could utilize a wider range of tools, including macroprudential policies and capital flow management measures.

As investor sentiment remains highly fragile, effective communication of monetary policy strategies is crucial. Any unexpected policy decisions could trigger a major shock to confidence, causing disruptions to financial intermediation. These challenges for policymakers in preserving financial stability are further aggravated by the rapid growth of fintech innovations, especially crypto-assets (see box I.4). Financial sector legislation will have to be adapted to meet these challenges and to strengthen the resilience of the financial sector against potential systemic shocks.

Box I.4

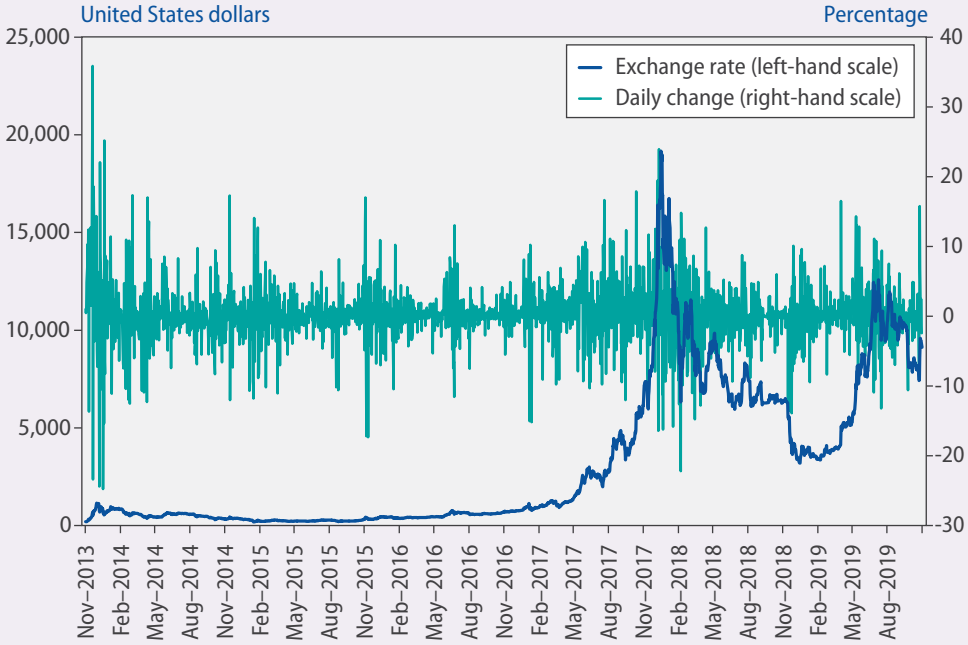
Crypto-assets and implications for the international monetary and financial system

In June 2019, major payments processors Visa and Mastercard, digital businesses Uber and Lyft, and the world's largest social media network, Facebook, announced a joint initiative to create a new global crypto-asset called libra that they hoped would become a new form of currency. While some of the backers of libra have since withdrawn, the potential scale of this crypto-asset set off a wave of policy and regulatory discussions. Crypto-assets[a] are an emerging fintech innovation that has grown rapidly since the bitcoin network was first launched in January 2009. These assets could bring some benefits to financial systems, but they also carry significant consumer and macroeconomic risks that need to be understood and managed by regulators.

Currency is typically defined as having three functions in an economy, serving as a store of value, a unit of account and a medium of exchange. Proponents of crypto-assets argue that these assets can be substitutes for currencies issued by central banks. So far, however, no crypto-asset serves these three functions reliably.[b] Box figure I.4.1 shows the high volatility of one measure of the bitcoin-dollar exchange rate—volatility that prevents bitcoin, the most liquid crypto-asset, from serving as a true currency.

Figure I.4.1

Bitcoin valuations and daily change, November 2013–November 2019



Source: Coindesk.

Most crypto-assets rely on distributed ledger technology, which means that there is no one central authority that keeps track of balances in the market. Instead, this information is distributed among all users in the system. Some crypto-asset promoters suggest that the decentralized payment processing could bring greater efficiency and speed to international transactions, which currently rely on correspondent banking relationships.

Digital payments also have the potential to promote greater financial inclusion and access to formal financial services. Mobile money solutions have become popular in many countries with low pen-

(*continued*)

a Crypto-assets are private assets that depend primarily on cryptography and distributed ledger or similar technology. Examples include bitcoin, litecoin and ethereum.

b See BIS (2018).

Box I.4 (*continued*)

etration of formal financial services. International versions of mobile money, created through a crypto-asset trading network, could serve to further expand financial inclusion. Indeed, the association aiming to launch libra explicitly states that it aims to promote financial inclusion and have its tokens used by individuals without access to traditional financial services for payments in ordinary transactions (Libra Association, 2019).

However, the rapid growth of fintech has added complexity to the financial regulatory landscape. Crypto-assets, because of their anonymity and cross-border reach, raise concerns around illicit finance. It is also unclear how international crypto-asset exchanges will comply with capital account restrictions or currency exchange rules in those countries where they are in place. Currently, bitcoin and other crypto-asset transactions cannot be authoritatively traced to real identities because of the use of service providers that allow user anonymity. There is evidence that crypto-assets have proven fertile ground for financial crimes (Kaminska, 2018). In October 2018, the Financial Action Task Force (FATF) updated its standards and recommendations regarding crypto-assets. It defined a new group—virtual asset service providers—and called on jurisdictions to include these entities in anti-money laundering and combating the financing of terrorism (AML/CFT) regulations (FATF, 2018). If crypto-assets become more readily available, such as through a widely used libra token, the potential for their use in illicit financial transactions grows.

Crypto-assets also have broad implications for macroeconomic policies. The libra proposal, because of the major backers and their already large user bases, presents concerns of a different order of magnitude than those surrounding other crypto-asset and fintech innovations. The widespread adoption of such a crypto-asset would have potentially serious repercussions for developing countries. The Libra Association intends to create a stablecoin,[c] stabilizing the value of the libra to a basket of currencies and keeping a reserve of liquid assets for every libra token created. This reserve could retain large volumes of the money supply. In developing countries, residents could decide that it is easier to store financial assets in libra tokens rather than in the local banking system, leading to capital flight and sudden depreciations and seriously impeding the process of transmitting central banks' monetary policy to the economy. Such a scenario could also significantly impact the solvency of the domestic banking sector and reduce the availability of capital to finance productive investment. Worldwide, the stability and value of this reserve would vary according to global monetary conditions. Its operation might not be sustainable in an environment of negative real interest rates or high volatility among the reserve currencies.

Crypto-assets have historically been used as speculative assets—a practice that can exacerbate the volatility of valuations. There have also been many reports of market manipulation on crypto-asset exchanges, which are generally not covered by the regulations that protect traders in other financial markets. The activity surrounding initial coin offerings (ICOs) represents a good example. ICOs are transactions in which companies raise capital by creating digital assets related to a specific product or business model. Such offerings have gained in popularity, with about $7 billion raised in the first half of 2018. However, an often-cited study reveals that over 80 per cent of ICOs have ultimately been identified as scams (Satis Group, 2018).

A number of Governments and international institutions are monitoring the situation so that appropriate steps can be taken to address the challenges crypto-assets present. Regulators in several countries have already taken action. For example, in September 2019, France and Germany issued a joint statement declaring that the libra project "fails to convince that risks will be properly addressed" and concluded "that no private entity can claim monetary power, which is inherent to the sovereignty of nations" (France and Germany, 2019). Others, such as the United Kingdom, have started to apply investor protections to some ICOs because such offerings are considered to fall within the scope of existing regulatory frameworks (United Kingdom, Financial Conduct Authority, 2019). China has taken the strongest stand of the large economies, banning the trading of crypto-assets and refusing to recognize the use of such assets or any virtual currencies for payments since 2017 (People's Bank of China, 2017). China is one of many countries with central banks that are now speeding up their exploration of how they might issue their own central bank digital currencies based on distributed ledger technologies.

[c] A "stablecoin" can be defined as a crypto-asset designed to maintain a stable value relative to another asset (typically a unit of currency or commodity) or a basket of assets; see Financial Stability Board (2019).

Author: Peter Chowla (UN DESA/FSDO).

Further interest rate cuts may dampen productivity growth

Alongside elevated financial risks, there have been concerns that lowering interest rates further could harm rather than stimulate growth in some countries, as it promotes a less efficient allocation of resources. Liu, Mian and Sufi (2019) found that persistently low long-term interest rates encourage market concentration, reducing business dynamism and productivity growth. Prolonged low rates may also delay the shifting of resources from less productive sectors to more productive ones, which could result in an increase in zombie firms or overinvestment in private construction (BIS, 2019a).

Inflationary pressures have remained subdued despite easy global monetary conditions

Despite prolonged loose monetary conditions, inflation rates worldwide have generally remained subdued. Over the past year, rising disinflationary pressures and threats of deflation have also re-emerged. In several developed economies, the persistent undershooting of inflation targets and an increased likelihood of hitting the lower bound on policy rates could lead to the de-anchoring of inflation expectations (Carstens, 2019). Ongoing structural shifts in the macroeconomic environment also present new challenges for central banks. In particular, the weakening or apparent breakdown of fundamental macroeconomic relationships, notably the link between inflation and unemployment, has further complicated the conduct of monetary policy (see box I.5).

Box I.5

Cyclical uncertainties and the weakening inflation-unemployment relationship

To ensure the coherent design and conduct of macroeconomic policies (including fiscal and monetary policies, among others), it is essential to be able to foresee accelerations or decelerations in economic activity and to understand the position of an economy in its business cycle. Several theoretical concepts are used to assess the state of the economy with respect to its resource utilization. One of these is potential output—the level of output at which an economy operates at a sustainable rate, with full utilization of resources and without generating inflationary pressures. The deviation of actual output from its estimated potential, referred to as the output gap, plays an important role in economic policymaking—for example, in discussing tax or spending policies by the United States Congress or interest-rate setting by the Federal Reserve. The European Commission, IMF and OECD use their own assessments of potential output for individual countries, primarily for the purpose of calculating cyclically adjusted fiscal balances and projecting long-run fiscal trends.

There are multiple challenges in assessing the output gap, however, primarily because potential output is by nature unobservable and there are no universally agreed methodologies to estimate it. A wide variety of statistical, econometric and modelling methods are used for estimation, including univariate or multivariate time-series filters, production functions or advanced structural models of an economy, often generating conflicting results. Many of these techniques are also subject to the so-called end-point problem.[a] The estimates are conducted in real time and—especially in the case of forward-looking projections—are often revised later when more accurate or extensive economic data become available; these revisions are heavily influenced by the actual output, consumption and investment dynamics. The uncertainties increase further when the potential output path is projected in the aftermath of economic shocks. Distinguishing between cyclical and more permanent shocks to GDP is a serious challenge. Some shocks, such as changes in the tax code, may affect an economy on both the demand and the supply side and may have unanticipated long-run effects.[b] Despite constant improvements in the estimation methodologies leading to less frequent revisions, there are still numerous technical sources of error embedded in all estimates of potential output (Chalaux and Guillemette, 2019).

One of the key parameters regularly used in estimating potential output is the so-called natural rate of unemployment. The natural rate itself has to be estimated, however, with most of the estimates relying the concept of the Phillips curve (the supposition of an inverse relationship between changes in inflation and unemployment rates). Stronger wage bargaining power during periods of lower unem-

(*continued*)

a The increasing probability of an error at the end of the sample time period.

b See, for example, Coibion, Gorodnichenko and Ulate (2018).

Box I.5 (*continued*)

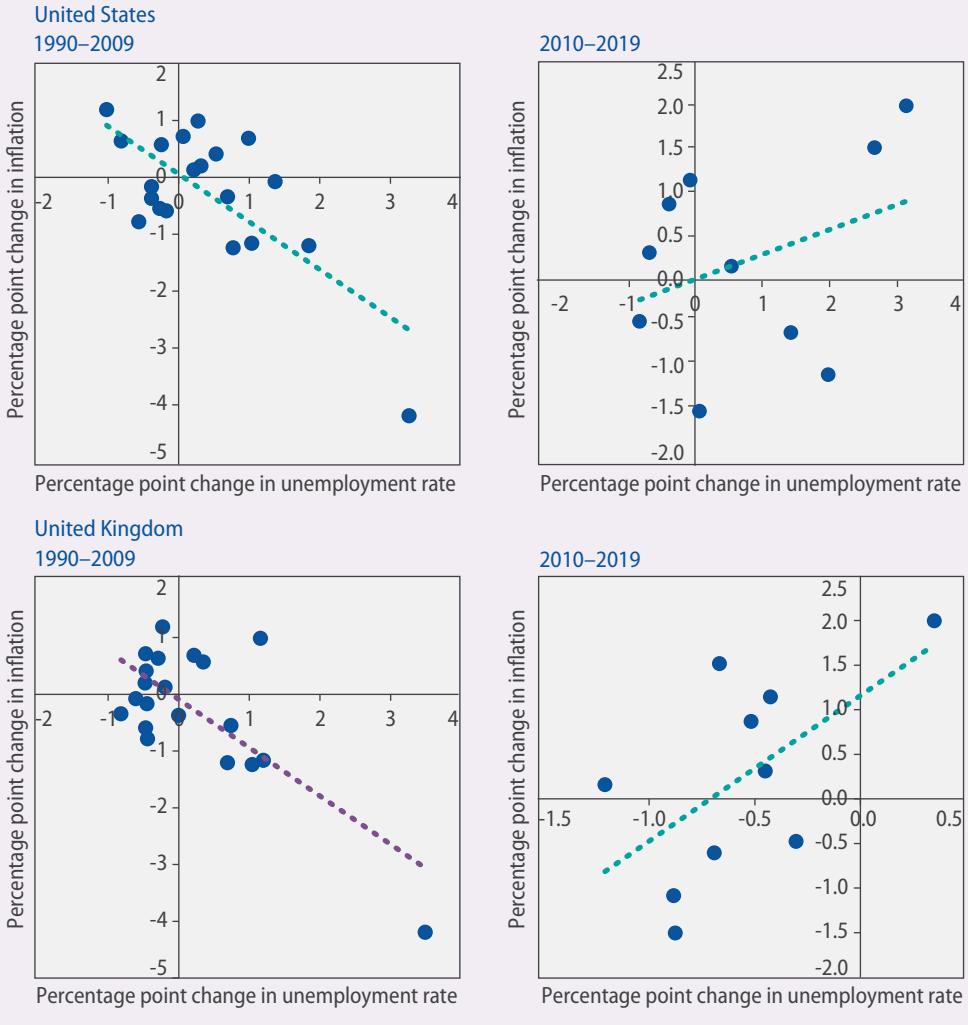
ployment is expected to cause a pass-through of labour costs to short-run inflation. Different theoretical frameworks of the Phillips curve have been developed; some include the output gap itself along with other unobservable variables such as inflationary pressures, further complicating the estimation. Phillips curve analysis has often been used to gauge the current phase of a business cycle and to guide economic policy, presenting a trade-off between higher inflation and rising unemployment.

Over the past decade, however, most of the developed economies have seen a persistent weakening in the traditional short-run inverse relationship between unemployment and inflation (see box figure I.5.1). The emerging ambiguity surrounding the relationship between the cyclical position of an economy, inflation and unemployment (and how they inform inflationary expectations) has led to a perception that the concept of the Phillips curve has become outdated.

A number of possible explanations for the weakening inflation-unemployment relationship have been offered. One hypothesis is that the less responsive inflation is explained by more strongly anchored inflation expectations, thanks to the improved credibility of central banks, or by nominal wage rigidities since 2009 for some segments of the population, even during downturns (Blanchard, 2016). A weakened

Figure I.5.1

The relationship between inflation and unemployment (Phillips curve)



Source: National authorities.

Notes: Each dot represents the change in inflation and change in unemployment rate in one year. Includes estimates for 2019.

(*continued*)

Box I.5 (*continued*)

ability or willingness to bargain for higher wages in the aftermath of the global financial crisis may explain why the recent improvements in the United States labour market have failed to generate inflationary pressures.[c] Although in the euro area the responsiveness of inflation to labour market conditions has been stronger than in the United States, it has also weakened since 2009, especially in countries with rigid labour markets and more advanced social protection systems. One of the possible outcomes of the weakened inflation-unemployment relationship may be a decline in the natural rate of unemployment, implying some degree of labour underutilization and further room for expansionary policies.

The cost of mistakes in estimating and forecasting potential output may be very high. In the 1970s, the slowdown in potential output growth was mistaken for a cyclical downturn in the United States economy, causing an inappropriate fiscal expansion and leading to a decade-long period of high inflation and episodes of stagflation. By contrast, in wrongly assuming that the output gap is closing and being wary of inflationary pressure, economic policymakers may miss the opportunity to implement much-needed countercyclical demand-side policies. The current business cycle in the developed economies is assumed to have passed its peak. However, the uncertainties mentioned above mask different possible trajectories, complicating policy design.

c Another explanation might relate to the increase in irregular working hours, especially against the background of the growing share of the digital economy.

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Fiscal policy

In the face of overstretched monetary policy, calls for fiscal policy to play a more proactive role in tackling the economic slowdown have become more frequent and forceful (UNCTAD, 2019d; ECB, 2019; OECD, 2019d; IMF, 2019c). Fiscal policy has generally been underutilized as a countercyclical tool to manage aggregate demand.[19]

Historically low interest rates benefit developed country Governments

From a fiscal perspective, financial market conditions continue to be very favourable, especially in developed economies. Interest rates on sovereign bonds are at historically low levels. In all of the six largest developed economies, real yields on 10-year government bonds have fallen below zero (see figure I.34).[20] Moreover, interest rate expectations for the coming decades have shifted downward, reflecting market perception that the low interest environment is here to stay.[21] Governments in developed countries benefit strongly from the historically low interest rates. Not only are they able to borrow very cheaply, but they also have greater fiscal space available since public debt sustainability has improved. In such an environment, the welfare costs of debt may be small or even negative.[22] This makes a strong argument for a more active role for fiscal policy.

Calls for more expansionary fiscal policy are still often met with scepticism, however. In part, this reflects ongoing uncertainty over the persistence and intensity of the worsening economic outlook. More importantly, though interest rates are at historic lows across developed countries, high debt levels and sizeable fiscal deficits may limit the room for fiscal stimulus.[23] Even for countries in which government debt has declined to moderate levels, such as Germany and the Netherlands, long-term projections point to substantial pressure on public finances over the coming decades (Guillemette and Turner, 2018).

19 This has been pointed out by Blinder (2016) and Blanchard (2019a), among others.

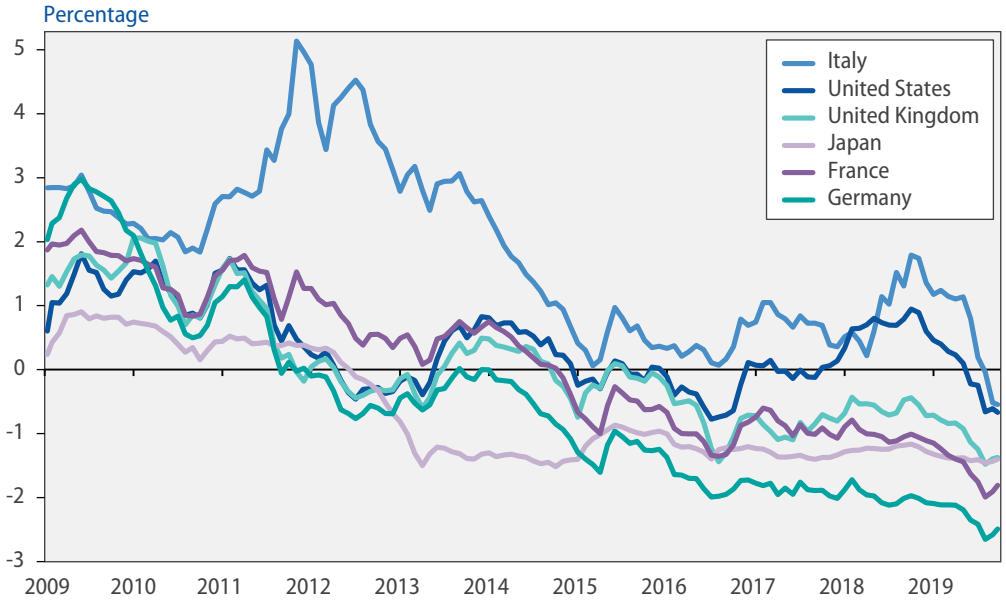
20 Long-term real interest rates recently became negative in countries such as Greece, Italy and Portugal.

21 Declines in long-term interest rates have also been driven by rising demand for government debt amid increased global uncertainty and monetary stimulus by central banks.

22 See also Blanchard (2019b).

23 General government gross debt as a share of GDP in 2019 stood, for example, at an estimated 237 per cent in Japan, 133 per cent in Italy, 107 per cent in the United States, 99 per cent in France and 86 per cent in the United Kingdom. In all of these countries, the general government balance has been negative every year since 2010.

Figure I.34
Real 10-year government bond yield for selected countries



Source: Darvas (2019).

Note: Nominal yields adjusted by 10-year-ahead inflation expectations as projected in the IMF *World Economic Outlook*.

Rising public costs for health care, long-term care and pensions, along with declining employment-to-population ratios, will weigh on fiscal budgets. In the event of a significant increase in real interest rates relative to growth, large debt stocks could eventually become more difficult to sustain.

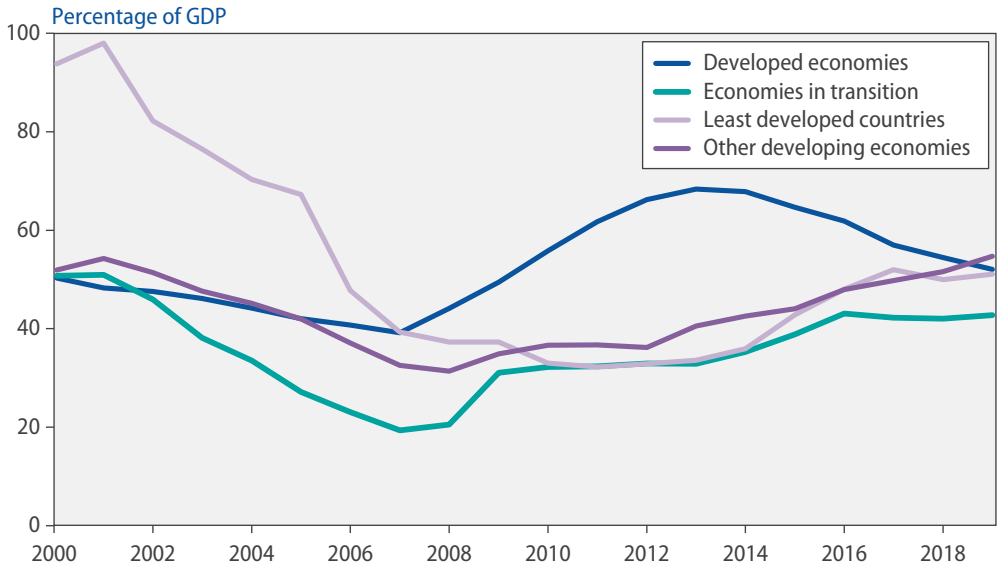
Against this backdrop, developed economies should tailor their fiscal policy to their changing needs and fiscal space. Given pressing public investment needs, Governments that have fiscal space should make use of the current favourable conditions. Fiscal spending should aim to lift the long-run growth potential while supporting sustainable development more broadly through investment in physical and digital infrastructure, education and health, research and development, and the transition to a low-carbon economy. Given the weakness in aggregate demand globally, fiscal stimulus measures will have positive spillover effects on the rest of the world. In countries with limited fiscal space, further fiscal easing should be reserved to address unexpected downturns in case downside risks materialize. As much as possible, Governments should try to lock in the current low rates, for example, by refinancing maturing short-term debt with low-cost long-term debt.

Developing countries are increasingly burdened by interest payments

While average debt levels and interest burdens in developed economies have declined over the past decade, fiscal trends across developing countries vary greatly. East Asian countries, in particular, have considerable fiscal space given their relatively low and stable debt-to-GDP ratios. In these countries, greater investment in sustainable development projects can support economic activity in both the short and long run.[24] By contrast, fiscal positions have weakened over the past few years in other developing regions, most notably Africa and Latin America and the Caribbean. The median general government debt-to-GDP ratio in developing countries rose from 31 per cent in 2008 to 55 per cent in 2019 (see figure I.35).

24 See UNESCAP (2019b).

Figure I.35
Median general government gross debt



Source: UN DESA, based on data from IMF, World Economic Outlook database, October 2019.

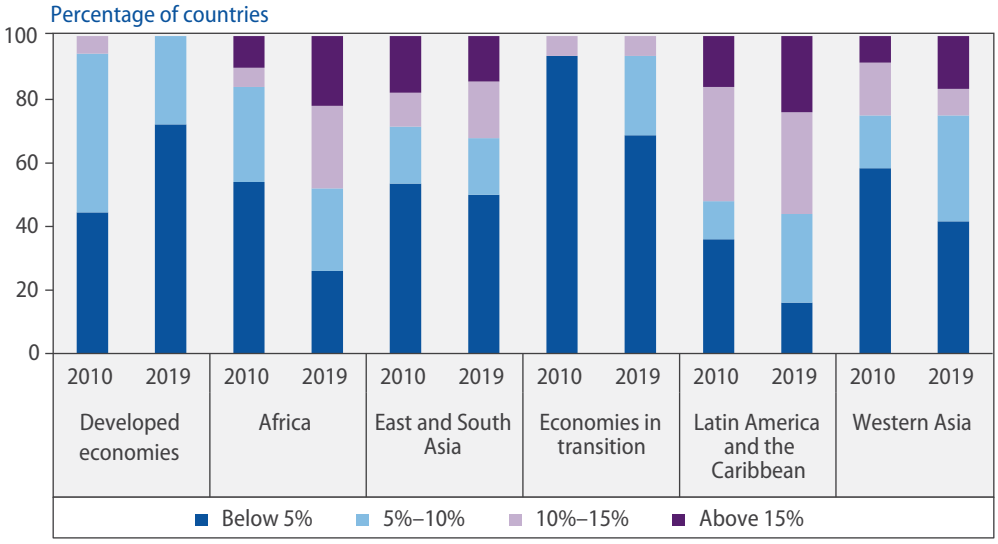
The number of low-income countries that are in debt distress or at high risk of debt distress has shot up in the past three years, rising from 19 in April 2016 to 34 in August 2019.[25] Seven of the eight countries currently in debt distress are in Africa. Interest payments are absorbing a growing portion of resources in many developing countries. Between 2010 and 2019, the interest burden, measured as the share of government revenue earmarked for interest payments, increased in more than 70 per cent of developing countries. In Africa and Latin America and the Caribbean, about half of the countries are spending more than 10 per cent of government revenues on interest payments (see figure I.36). In many cases, interest expenditures are approaching levels that have not been seen since the large-scale debt write-offs of the early 2000s. These rising debt-service costs severely constrain the resources available to Governments to invest in sustainable development, including education, health and infrastructure.

In part, this worrisome trend is attributable to shifts in the composition of government borrowing in developing countries. The share of long-term external public debt held by private creditors surpassed 60 per cent in 2017, an increase of more than 12 percentage points since 2007 (UNCTAD, 2019d). Public borrowing is also becoming less dominated by traditional Paris Club lenders. This has resulted in a move away from long-maturity concessional loans towards market-based short-term borrowing, which is often associated with higher interest rates (World Bank, 2019a) (see figure I.37).

Alongside these trends, limited progress has been made in strengthening domestic revenue mobilization, which would reduce dependence on external financing. Many LDCs have seen some improvement over the past decade, but government revenues as a share of GDP remain generally low (see figure I.38). Meanwhile, in most of the non-LDC developing countries, the government-revenue-to-GDP ratio has declined, primarily as a result of lower earnings from natural resources.

25 The classification is based on data released by the joint World Bank-IMF Debt Sustainability Framework for Low-Income Countries (https://www.imf.org/external/Pubs/ft/dsa/DSAlist.pdf).

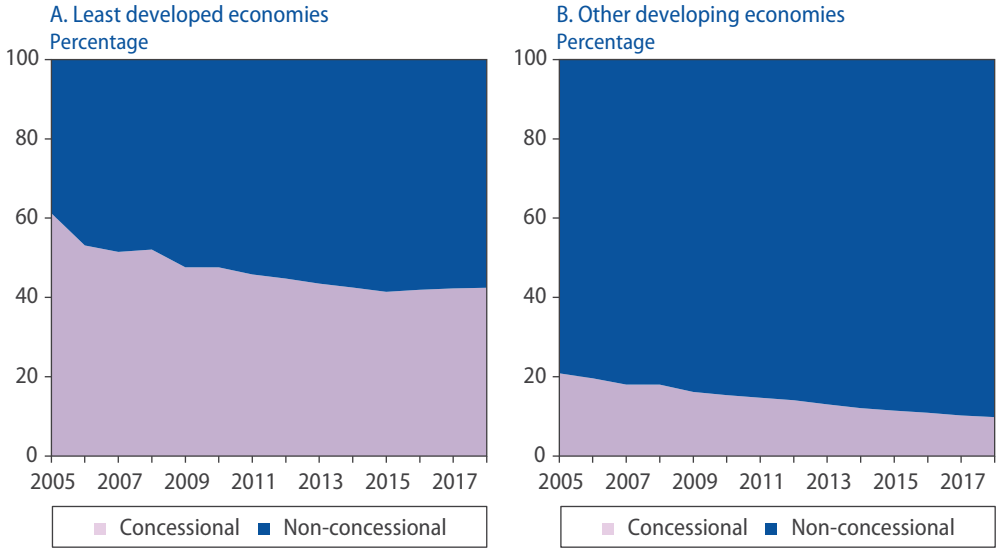
Figure I.36
Share of general government revenue spent on interest payments, 2010 vs. 2019



Source: UN DESA, based on data from IMF, World Economic Outlook database, October 2019.

Note: Based on 167 countries with available data.

Figure I.37
Share of total external debt

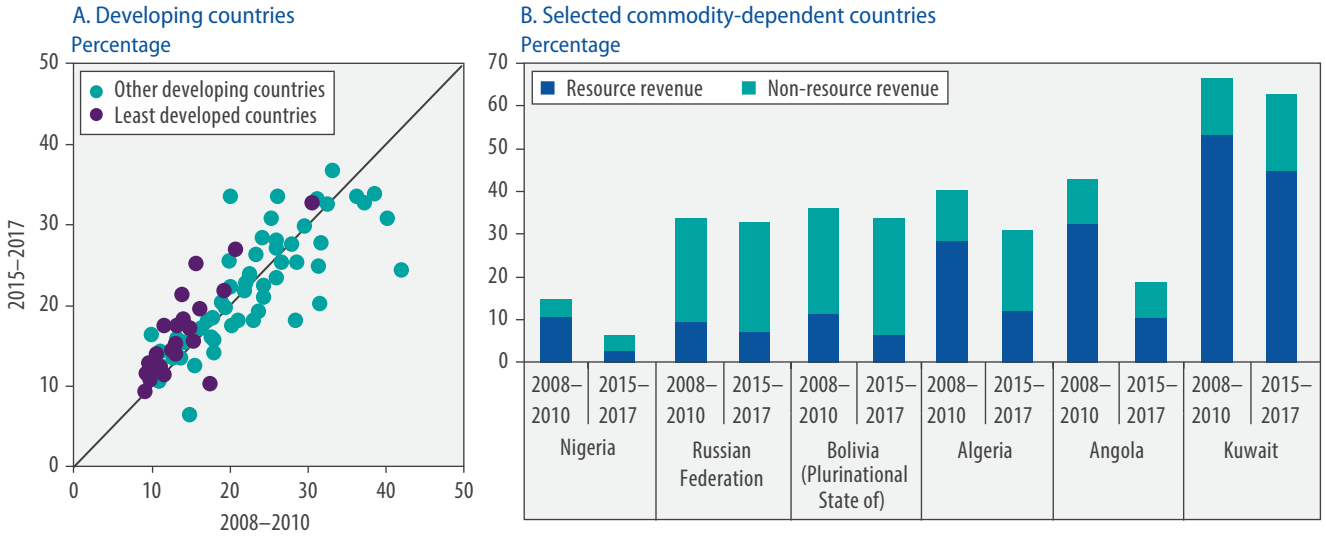


Source: World Bank, International Debt Statistics (IDS).

Fiscal policy can play a greater role in supporting development

Ongoing fiscal pressures limit the room for countercyclical policy measures in many developing countries outside East Asia. However, fiscal policy can still play a greater role in structural transformation and in efforts to achieve the Sustainable Development Goals. Fiscal measures have the potential to mitigate growing within-country inequalities and support more inclusive economic growth. In many cases, redistributive policies can be strengthened by making tax and benefit systems more progressive and reducing tax avoidance and evasion. Latin America, for example, needs tax instruments with more redistributive power (personal income tax collection remains weak) and more efficient and

Figure I.38
Government revenue as a share of GDP



Source: Government Revenue Dataset (International Centre for Tax and Development/United Nations University World Institute for Development Economics Research [ICTD/UNU-WIDER]).

Notes: Data are averages for the indicated periods. Government revenue excludes social contributions and grants. Figure excludes Kiribati, Kuwait and Lesotho.

Source: Government Revenue Dataset (International Centre for Tax and Development/United Nations University World Institute for Development Economics Research [ICTD/UNU-WIDER]).

Note: Non-resource revenue excludes social contributions.

effective public expenditure (UNECLAC, 2018). Similarly, enormous potential exists to increase domestic revenue mobilization in Africa. According to estimates from the United Nations Economic Commission for Africa (UNECA), widening the tax base, limiting tax incentives and reforming tax administration (for example, by introducing e-taxation) could boost government revenue by 12 to 20 per cent of GDP (see box III.2).

Structural policies

Structural policies need to be accelerated to realize the 2030 Agenda

As set out in the 2030 Agenda, policymakers need to implement cross-cutting strategies that address the entire spectrum of development objectives. This includes raising productive capacity in the economy while delivering an adequate standard of living for all people and preserving the environment. In particular, countries need to scale up investment and align policy to decarbonize energy, agriculture and transport (see chapter II). At the same time, they will need to undertake targeted infrastructure investment to broaden access to electricity, clean water and transport links. With limited scope for fiscal and monetary policy to offset the global economic slowdown in many countries, efficiency in policymaking takes on an increasingly important role. Policy trade-offs and synergies will need to be assessed carefully to simultaneously stimulate economic growth and advance social inclusion, gender equality, health and well-being, and environmentally sustainable production and consumption. Given the urgency of action in these areas, international cooperation in technology in areas such as clean energy will facilitate a more rapid diffusion of best-practice solutions.

Pricing mechanisms and regulation help promote environmental sustainability

Governments can stimulate long-term productivity growth while also promoting environmental sustainability. Behavioural shifts by firms and consumers can be encouraged via pricing mechanisms (such as a tax on pollutants or a subsidy to support investment in renewables and clean public transport) and via more stringent regulation and policies that restrict options (for example, banning the use of cars inside city limits or imposing energy-efficient building requirements). Many countries have scope to modify inefficient subsidy regimes that encourage environmentally damaging behaviour, such as energy subsidies that encourage fossil fuel use or agricultural subsidies that support intensive farming where soil nutrient levels are already high (OECD, 2019c). Since such reforms may adversely impact certain groups, they may need to be combined with compensatory measures during a transition period.

Closing infrastructure gaps is critical for development progress

With nearly 1 billion people lacking access to electricity or decent roads and 663 million without sources of safe drinking water (Rozenberg and Fay, 2019), global infrastructure gaps are a critical bottleneck for productivity growth. Closing these gaps not only poses a monumental financing challenge but could also raise tensions around environmental targets and the transition towards a low-carbon global economy. Expertise in procurement and contract negotiation is crucial to designing an efficient and effective infrastructure investment programme. Expanding access to electricity and developing public transport networks must be done with a long-term perspective, exploiting synergies and taking into account the potential trade-offs. Similarly, agricultural support such as direct subsidies or investment in irrigation networks must jointly consider the impacts on health, food security, equity and the environment.

Investment in education generates significant long-term payoffs

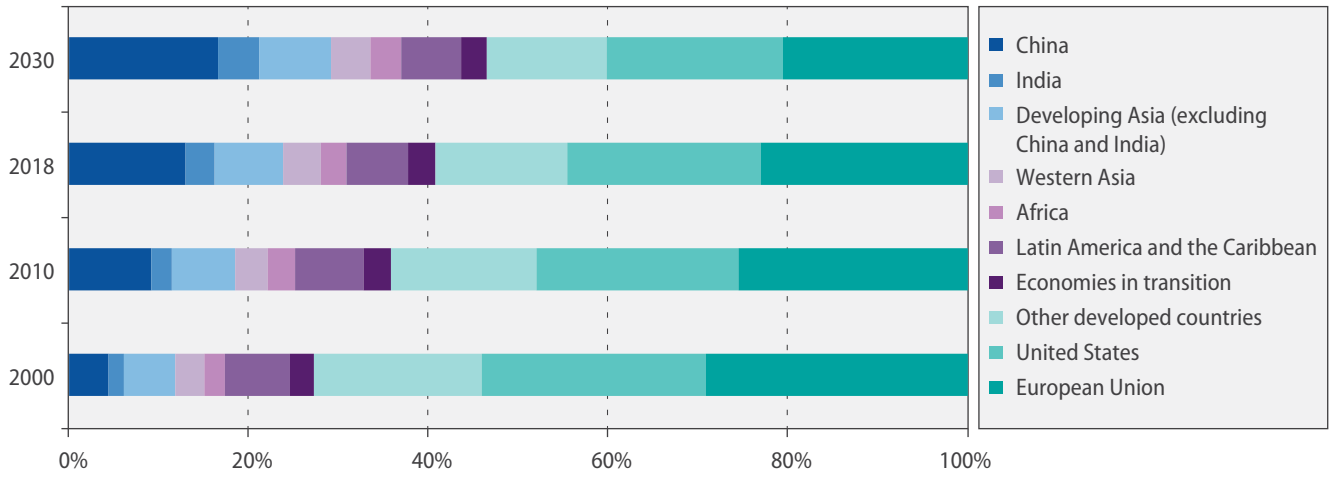
Ensuring equal access to high-quality education and training is among the most effective measures to tackle high levels of inequality and boost productivity over the medium term. Equal access to education will also encourage a more level playing field in access to quality jobs and wages. This can be further supported by broadening labour market engagement through, for example, the provision of childcare, the setting of limits on overtime work, the expansion of access to social protection, and improvements in wage bargaining mechanisms. The social returns from an educated workforce are substantial and generally include increased productivity and civic engagement and a reduction in crime. This may be supported by upgrading school infrastructure, targeting resources to disadvantaged students and schools, providing early childhood education, and establishing teacher training programmes.

Global cooperation

National policies need to be complemented by effective international cooperation

Domestic structural policies alone cannot address all development challenges. For shared goals and challenges, particularly in the areas of international trade, finance and climate change, national policies need to be complemented by more effective international cooperation. As the global economic balance is shifting from the European Union, the United States and other developed countries towards China, India and other developing countries (see figure I.39), global economic decision-making power is shifting as well. China and India alone will account for nearly a quarter of world GDP in 2030; this share derives from the use of market exchange rates to aggregate national data, but their growing importance is even more pronounced when purchasing power parity (PPP) exchange rates are used instead. Global cooperation mechanisms will need to recognize this shifting balance while continuing to allow the underrepresented to be heard.

Figure I.39
Geographical distribution of global GDP from 2000 to 2030



Source: UN DESA, based on projections and scenarios produced with the WEFM.

Note: GDP data are aggregated using market exchange rates.

As the nature of international trade changes, continuous technical and substantive reforms to the multilateral trading system will be needed to allow all stakeholders in trade to benefit equally. This means that the criteria for developing countries to qualify for SDT will need to be re-evaluated with due consideration given to countries' development needs and their capabilities for global trade. The central and most urgent elements of current WTO reform efforts are undoubtedly those relating to the DSM, with a view to resolving the current impasse in the Appellate Body. Recognizing some flaws in the design of the Appellate Body, several countries have sought to introduce practical improvements. Relevant discussions have not yet produced a consensus on workable solutions that ensure the engagement of all countries.

Stronger multilateral action is also required to achieve the ambitious objectives of the Addis Ababa Action Agenda, which provides a global framework for financing sustainable development. As noted in the most recent *Financing for Sustainable Development Report* (United Nations Inter-agency Task Force on Financing for Development, 2019), progress is needed on several fronts, with particular attention given to creating a new architecture for sovereign debt restructuring, strengthening the global financial safety net, overhauling the international tax system, and addressing increased market concentration. Improved international cooperation will allow systemic issues to be addressed more effectively, with stronger incentives provided for long-term investment to achieve the Sustainable Development Goals.

The problems posed by climate change respect no borders. For each country, delivering a cleaner energy mix amid rising demand for affordable and reliable energy while simultaneously maintaining economic stability will require a carefully balanced strategy. Although there is scope for climate policies at the national and regional levels, the most powerful results can be achieved through close global cooperation. Economic activity will benefit from a strong global commitment to the effective implementation of the Paris Agreement Rulebook. Rules such as those for international carbon markets or for loss and damage funding are key for developed countries and climate-vulnerable coun-

tries alike. It is also crucial that nations individually and collectively review their progress towards achieving climate resilience on a regular basis and upgrade climate action plans as needed, as current temperature scenarios show that the world is far off track in meeting the target specified in the Paris Agreement. The stronger international cooperation becomes, the better the results will be for people, the planet and the global economy.

Chapter II

Macroeconomic prospects and the 2030 Agenda: economics of energy transition

A wide gap remains between today's world and a world in which the energy system underpinning economic activity is compatible with global goals for climate protection, energy access and clean air. The rise in living standards over the past century has relied heavily on the depletion of the world's natural resources and the burning of fossil fuels to power growth. This economic model is clearly no longer viable, as evidenced by the accelerating pace of environmental degradation, rising greenhouse gas (GHG) emissions, and the increasing intensity and frequency of extreme weather events.

Changing the energy mix is the only way to break the link between the economy and GHG emissions

Arresting global warming will require a strong political will and the full strength of all available policy instruments to enhance energy efficiency, develop the required infrastructure and technology, and promote essential behavioural changes. The energy sector accounts for about three quarters of global GHG emissions and will play a crucial role in determining the success of worldwide efforts to rein in climate change. Even with accelerated improvements in efficiency, global demand for energy will continue to rise in the coming decade. Changing the global energy mix to move away from burning fossil fuels is the only way to decisively sever the link between economic activity and GHG emissions. The urgency of this energy transition continues to be underestimated. Many policy instruments still distort incentives towards fossil-fuel industries, encouraging shortsighted decisions that expand investment in carbon-intensive assets. This not only leaves many investors and Governments exposed to sudden losses and macroeconomic instability, but also causes substantial setbacks in efforts to achieve environmental targets.

Policymakers face the challenge of simultaneously meeting energy demand while also achieving environmental goals

The urgent need for a cleaner energy mix must be balanced against the equally urgent need to meet the rising energy demands of a growing population and deliver affordable energy to all. Simultaneously delivering on these objectives at the global level while maintaining economic stability will require a carefully balanced strategy that can best be achieved through close global cooperation. This chapter outlines the case for a rapid energy transition to ease the tension between expanding energy demand and protection of the environment and human health. It then explores some of the socioeconomic implications of the energy transition, which include a number of positive health benefits and opportunities in new sectors but also risks of stranded assets and job losses in fossil-fuel-intensive industries, which will require careful management at both the national and global levels. The final section of the chapter reviews the policy instruments available to accelerate progress and develops a policy road map to facilitate the energy transition process.

The case for a rapid energy transition

Energy gaps, the energy mix and greenhouse gas emissions

Urgent action is needed to reverse the rise of greenhouse gas emissions in order to avoid a climate crisis

Far more rapid progress must be made to reduce the level of GHG emissions associated with economic activity and energy use. Evidence such as historical temperature data indicates a worrying trend. In numerous geographic areas, the hottest years in the past century have occurred over the past decade. At the global level, the past four years have been the hottest in the past 139 years (NOAA, National Centers for Environmental Information, 2019). The world is already 1°C warmer than pre-industrial levels and, as the effects of this change become increasingly felt, a global consensus is emerging around the urgent need to dramatically reduce anthropogenic emissions of CO_2, methane (CH4) and other GHGs. In 2015, 196 countries signed the Paris Agreement and committed to the internationally agreed goal of limiting the global average temperature increase. According to the Intergovernmental Panel on Climate Change (IPCC), there are only 10 years left to make the changes needed if there is to be a reasonable chance of limiting global warming to a maximum of 1.5°C above pre-industrial levels. Beyond this, even half a degree Celsius will substantially increase the risks of drought, floods, extreme heat and poverty for hundreds of millions of people (IPCC, 2018). Many coastal regions and small island developing States (SIDS) are particularly exposed to these changes (see box II.1).

The world is already experiencing weather-related natural catastrophes that are more severe in terms of both magnitude and frequency. This brings home the point that referring to climate change understates the global challenge at hand and fails to convey the urgency of the situation; a more accurate description may be climate crisis or climate catastrophe. United Nations Secretary-General António Guterres stated the following at the closing of the Climate Action Summit on 23 September 2019: "You understand that climate emergency is the fight of our lives, and for our lives".

Global energy demand will continue to rise

At the same time, there is a need to meet the ever-increasing global demand for energy. Based on current announced policies, without more rapid gains in energy efficiency and conservation, global energy demand is projected to grow by about 1 per cent a year until 2040 (IEA, 2019b, Stated Policies Scenario). The bulk of rising energy demand will originate from developing countries owing to stronger economic growth as living standards converge towards those in developed economies, increased access to marketed energy, and rapid population growth and urbanization in some regions. Since 2000, electricity demand in developing economies has nearly tripled as a result of industrialization, middle-class growth and expanded access to electricity. More than half of the projected increase in global energy use is likely to originate from China, India and other Asian countries, driven by strong growth in their energy-intensive industrial sectors.

Progress towards delivering affordable energy to all continues to fall short

According to the Stated Policies Scenario developed by the International Energy Agency (IEA), this projected rise in energy demand would still leave hundreds of millions of people without access to electricity or clean cooking fuels. Access to affordable and reliable energy and clean cooking facilities is indispensable for social and economic welfare and is integral to eradicating poverty, combating inequality and improving health. The impact of energy poverty falls disproportionately on women and is also acutely felt by displaced people and those impacted by disaster. Delivering adequate standards of living across the globe clearly demands far more rapid progress towards the provision of clean, reliable and affordable energy for all. Electricity infrastructure, in particular, has been found to facilitate rising standards of living (Stern, Burke and Bruns, 2019). In 2017, the number of

Box II.1

Climate change challenges for sustainable transport, trade and tourism in small island developing States: the case of Saint Lucia

Caribbean small island developing States (SIDS) are situated in one of the regions most prone to natural disasters, and climate change will exacerbate the already severe hydrometeorological hazards these vulnerable nations face. Risks are amplified by the fact that, due to terrain constraints, the Caribbean countries tend to have high concentrations of population, infrastructure, and economic activity along their coasts—areas that will bear the brunt of climate change effects, particularly those associated with rising sea levels and potential increases in the destructiveness of tropical cyclones and other extreme events (Wong and others, 2014).

Various and interrelated socioeconomic sectors will be increasingly affected. In the Caribbean, as in all island settings, the nexus between transportation, trade and tourism is particularly strong. Coastal international transportation assets (seaports, airports and road networks), which are critical for international connectivity and socioeconomic development, are vulnerable to flooding and other operational disruptions driven by climate change. Even if average global temperatures do not rise beyond 1.5°C above pre-industrial levels, most seaports and some international airports in the Caribbean SIDS could realistically expect to experience severe flooding due to, for example, a 1-in-100-year extreme sea level event in 2050 (Monioudi and others, 2018). Without effective adaptation responses to mitigate impacts of flooding, the associated disruption and losses would likely spill over to other sectors of the economy, in particular the international tourism sector (Asariotis, 2019).

Many Caribbean islands are major international tourism destinations. Tourism accounts for 11-79 per cent of GDP in the Caribbean SIDS (UNECLAC, 2011) and is strongly dependent on the aesthetics and environmental health of the sandy shores (Ghermandi and Nunes, 2013). However, beaches and their backshore infrastructure and assets are heavily exposed to coastal erosion and flooding, presenting substantial risks for the tourism industry and related demand for transportation.

To better understand the severity of the risks of climate change for the economies of the Caribbean, UNCTAD (2017), as part of a larger technical assistance project (https://SIDSport-ClimateAdapt.unctad.org), carried out a study of potential beach erosion in the Caribbean island of Saint Lucia under a wide range of environmental conditions and different climatic scenarios. The results indicate that in response to an extreme sea level event, such as the 1-in-100-year extreme event in 2050, for example, beach erosion could reach up to about 62 metres. A comparison of these projections with the current beach maximum widths in Saint Lucia suggests that, even according to the most conservative projections (see box figure II.1.1.a), about 45 per cent of the 91 recorded beaches would lose at least 50 per cent of their current maximum widths, and 25 per cent would be completely overwhelmed under the 1-in-100-year extreme sea level event in 2050. In terms of backshore asset exposure, at least 16 per cent of those beaches presently fronting infrastructure/assets would be completely eroded during the 1-in-100-year extreme event, suggesting substantial backshore infrastructure and asset damages, even in the case of a total post-storm beach recovery. Under the high-end projections, the situation would be much worse (see box figure II.1.1.b).

Clearly, there is an urgent need for targeted policies that address these projected coastal risks. "Hard" adaptation measures, such as transportation asset elevation and the upgrading of coastal defences (groynes, offshore breakwaters and seawalls/revetments), could be deemed necessary in many cases. However, hard coastal defence schemes might prove ineffective at conserving beaches under increasing mean sea levels (Summers and others, 2018). Given the critical economic importance of beaches in the Caribbean, beach nourishment schemes will likely be required as well, at least for those beaches that are most valuable.

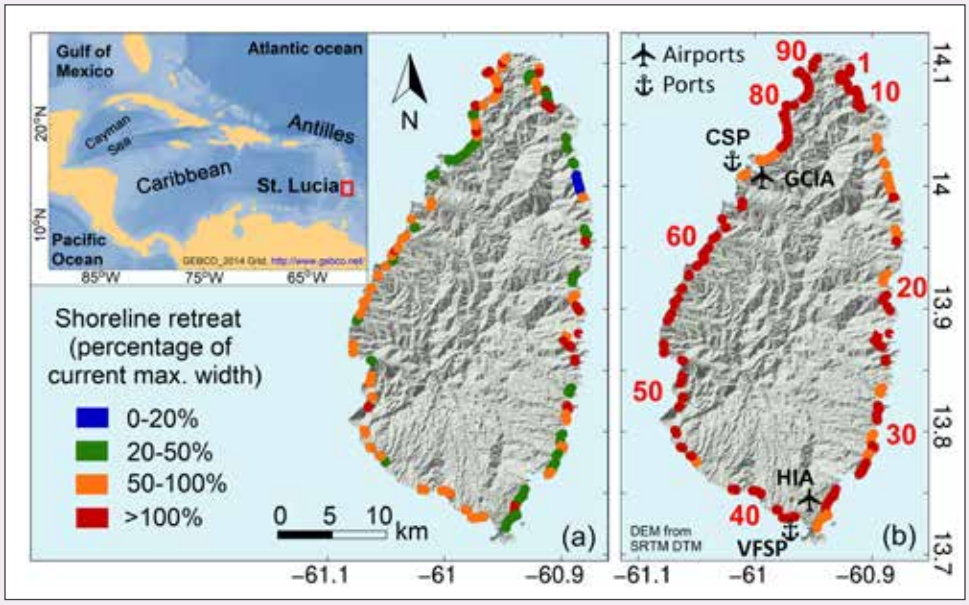
Large quantities of replenishment material would be needed to preserve the current dimensions of the 91 beaches in Saint Lucia. By 2050, mitigation of beach erosion and retreat from the projected mean sea level rise alone would require between 1.06 million and 3.10 million cubic metres of suitable replenishment material that is sufficiently similar in terms of composition and size to the existing (mainly bioclastic) beach sediments. SIDS need to consider the availability and costs of fill, construction and beach replenishment material in their climate change adaptation plans. Marine aggregates constitute

(*continued*)

Box II.1 (*continued*)

Figure II.1.1
Shoreline retreat projections for the beaches of Saint Lucia

Under the 1-in-100-year extreme sea level event in 2050 (RCP4.5 scenario), showing (a) the 10th and (b) the 90th percentiles of range estimates



Source: Based on UNCTAD (2017).

Notes: The maps illustrate the percentages of the current beach maximum widths of the 91 Saint Lucian beaches projected to be eroded under the 10th (a) and the 90th (b) percentiles of range estimates in 2050 under the RCP4.5 scenario. Numbers in (b) show beach ID.

Key: GCIA, George F.L. Charles International Airport; HIA, Hewanorra International Airport; CSP, Port Castries; VFSP, Vieux Fort Seaport.

Authors: Regina Asariotis (UNCTAD/DTL/TLB/Policy and Legislation Section) and Isavela N. Monioudi (University of the Aegean).

the most suitable material for beach replenishment but are often scarce (Peduzzi, 2014); therefore, inventories of such deposits should be established, and their sustainability should be ensured as a matter of priority.

A multifaceted approach will be required to safeguard and strengthen the prospects for sustainable transport, trade, tourism and development in the Caribbean islands under a changing climate.

people without access to electricity fell below 1 billion for the first time. While this represents important progress, trends in energy access are falling well short of targets to provide universal access by 2030 (IEA, 2019b). The global population is projected to rise by about 1 per cent a year until 2030. Roughly half of this increase will occur in sub-Saharan Africa, where nearly 45 per cent of the residents have no access to electricity and 86 per cent are without access to clean fuels and technologies for cooking. Closing electricity access gaps and meeting population pressures alone will require an increase in global electricity consumption of at least 6 per cent by 2030.

The current energy mix takes a heavy toll on human health and the environment

Fossil fuels, when burning, release GHGs that accelerate the pace of global warming, and they also emit a number of air pollutants that are harmful to both the environment and public health. Sulfur dioxide emissions, primarily the result of burning coal, contribute to acid rain and the formation of harmful particulate matter and can exacerbate respiratory ailments. Nitrogen oxide emissions, a by-product of all fossil-fuel combustion, contribute to acid rain and to the formation of smog, which can burn lung tissue and can make people more susceptible to chronic respiratory diseases. Particulate matter emissions produce haze and can lead to chronic bronchitis, aggravated asthma, and an elevated risk of premature

death. Meanwhile, household air pollution from cooking over open fires using solid biomass fuels and kerosene in poorly ventilated spaces causes smoky indoor environments, which in turn lead to millions of premature deaths annually.

Air pollution is the fifth largest threat to human health globally (Health Effects Institute, 2019). The World Health Organization (WHO) estimates that indoor and outdoor air pollution caused an estimated 7 million deaths in 2016 (World Health Organization, 2018). Current policy commitments are insufficient to prevent an increase in premature deaths linked to air pollution.

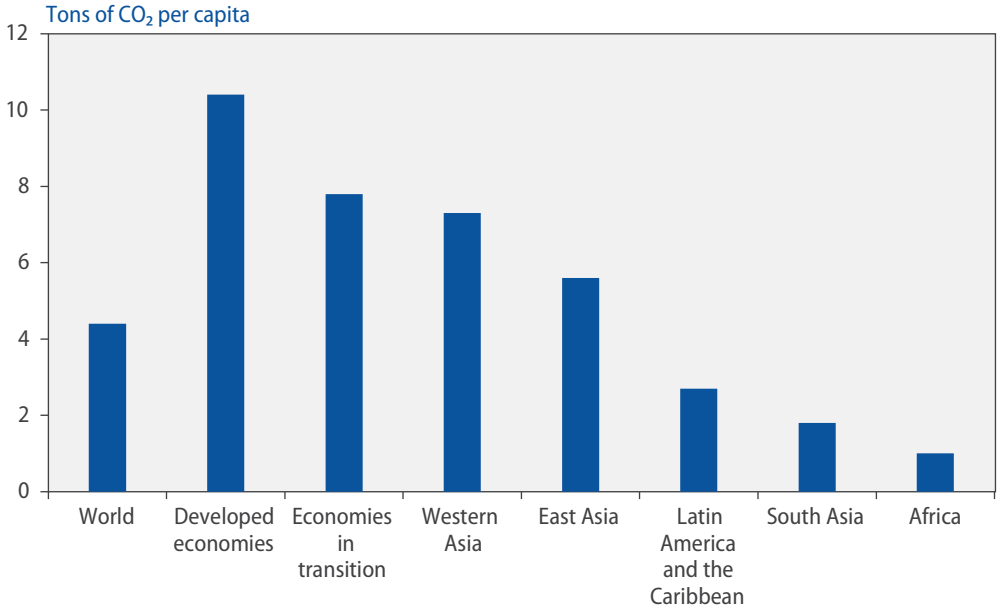
Emission scenarios and the energy mix

Action in the energy sector will make or break chances to meet climate goals

Policymakers face the massive challenges of reducing GHG emissions while simultaneously providing more energy in a reliable and robust manner as living standards rise in developing countries. Action in the energy sector will make or break the world's chances of successfully reining in climate change and protecting human health while meeting the energy needs of a growing population.

CO_2 emissions from the combustion of fossil fuels account for over 65 per cent of global GHG emissions. In per capita terms, production-based CO_2 emissions in developed economies remain vastly higher than those in most developing regions (see figure II.1). Consumption-based emissions in developed economies are even higher, given the high carbon content of imported goods (UNEP, 2019), reflecting an outsourcing of emission-intensive industries to developing countries. While developed countries have historically emitted the largest share of anthropogenic GHGs, since 2007 the share of production-based emissions in developing countries has surpassed that in developed countries. Looking forward, if the energy mix underpinning consumption patterns in developed economies were emulated in developing economies, rising living standards would push global emission levels up substantially.

Figure II.1
Per capita CO_2 emissions from fuel combustion, 2018

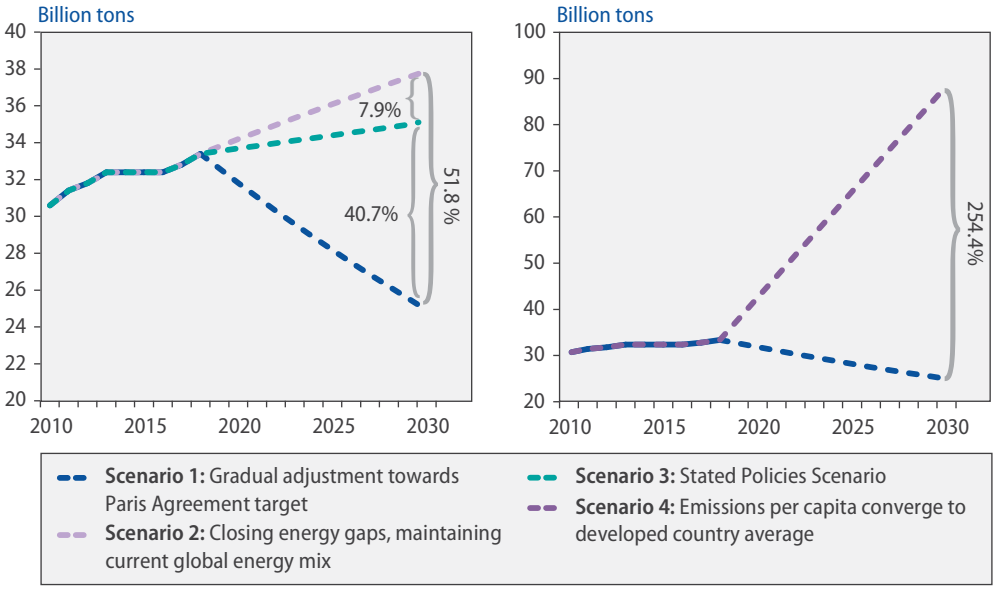


Source: UN DESA, based on data from *BP Statistical Review of World Energy 2019* (https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2019-full-report.pdf).

The current energy mix is incompatible with emission targets, and announced policies remain inadequate

Meeting growing energy demand while reducing GHG emissions can only be accomplished through a dramatic change in the energy mix. Table II.1 shows the composition of global energy demand by fuel type in 2018, indicating that 81 per cent of demand was met by fossil fuels. If advances are to be made towards the targets advised by scientists to achieve the goals of the Paris Agreement, emissions must decline by at least 25 per cent by 2030. Figure II.2 compares the trajectory for carbon emissions that is consistent with the Paris Agreement (scenario 1) with a scenario in which there is no change in the global energy mix or energy efficiency (scenario 2). In scenario 2, global energy demand is assumed to rise in line with population growth, with an additional increase in electricity demand to close existing gaps in electricity access. These two scenarios are also contrasted with the IEA Stated Policies Scenario (IEA, 2019b), which includes all announced policy intentions and targets, including emissions pledges as reflected in nationally determined contributions (scenario 3).

Figure II.2
Global CO_2 emissions from fuel consumption under different scenarios



Sources: UN DESA projections; IEA (2019b) Stated Policies Scenario.

Clearly, the modest shifts in demand and energy mix underpinning the Stated Policies Scenario—with the fossil-fuel share expected to decline to just 77 per cent by 2030—remain far from the trajectory advised by scientists to achieve the goals of the Paris Agreement and tackle climate change. In an extreme hypothetical scenario, where per capita emissions in developing countries rise towards those in developed economies, global carbon emissions would increase by more than 250 per cent (scenario 4), driving home the message that these consumption and energy mix patterns are not compatible with concurrently achieving the goals of universal access and improved standards of living while also meeting emission targets.

Table II.1
Growth of world primary energy demand by fuel

Percentage

	Share of primary demand	Historical growth	Stated Policies Scenario		Sustainable Development Scenario	
	2018	2000–2018	2018–2030	2018–2040	2018–2030	2018–2040
Coal	23	65	1	-1	-36	-62
Oil	37	23	8	9	-11	-32
Gas	21	57	19	36	7	-3
Nuclear	7	5	13	28	26	62
Renewables	7	111	64	125	100	215
Solid biomass[a]	6	-3	-1	-12	-77	-88
Total	**100**	**43**	**14**	**24**	**-4**	**-7**
CO_2 emissions (Gt)[b]		44	5	7	-24	-52
Fossil fuel share (end period)	81	81	77	74	72	58

Source: UN DESA, based on data from IEA (2019b).

a Solid biomass includes its traditional use in three-stone fires and in improved cookstoves.

b Gt = Gigatons.

Moving beyond stated policies

The world risks a great collective failure in mitigating the environmental impacts of energy use

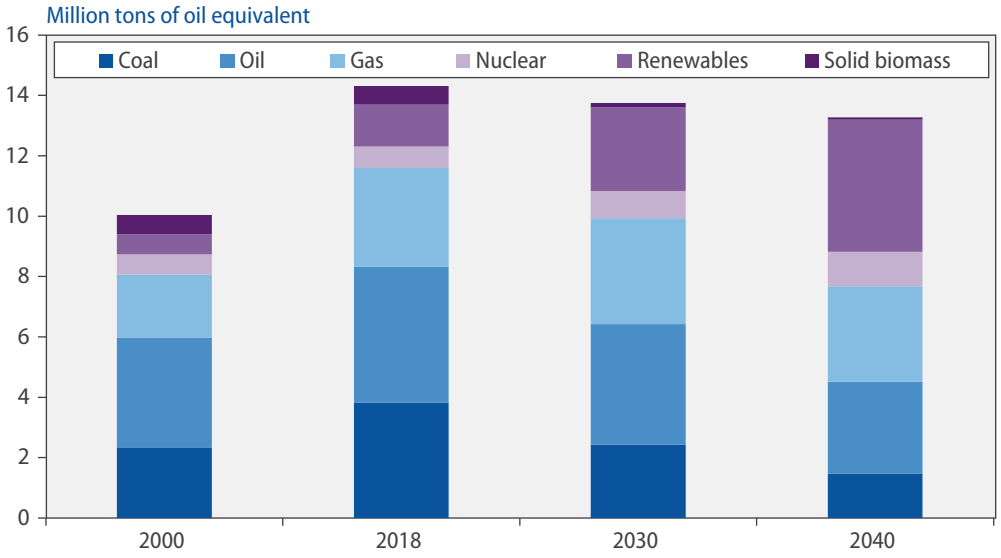
Under the assumptions of the IEA Stated Policies Scenario, demand for fossil fuels will continue to rise over the coming decades (see table II.1). While global coal consumption is expected to level off due to increasingly widespread policy commitments to phase out coal use, oil demand will continue to grow. This reflects higher demand for oil-based fuels for long-distance freight, petrochemicals, and shipping and aviation, which will be partly offset by advances in fuel efficiency and the increased use of electricity to power cars. This minor shift in the energy mix will neither halt the rise in global emissions nor lessen the growing number of premature deaths from air pollution. This would signify a great collective failure to address the environmental implications of energy use.

It is still possible to put the world on track to meet energy-related Sustainable Development Goals

The latest IEA Sustainable Development Scenario describes an alternative path—one that would put energy access, air quality and climate goals on track to be achieved (see table II.1) and would be consistent with the Paris Agreement trajectory shown in figure II.2. In this scenario, world primary energy demand would stabilize by 2025 and gradually decline thereafter (see figure II.3), primarily driven by strong gains in energy efficiency that reduce global energy intensity by more than 3 per cent each year. Adjustment would be effected through steep declines in the higher-emitting fuels, with coal use decreasing at an annual rate of 4.2 per cent. Oil use would peak in the next few years and decline steadily thereafter. Demand for natural gas, which has a lower carbon content than other fossil fuels, would increase over the next decade at an average annual rate of 0.9 per cent. After 2030, accelerated deployment of renewables and energy efficiency measures, together with higher production of biomethane and hydrogen, would lead to declining demand for natural gas.

The share of renewables in the energy mix would grow rapidly, accounting for two thirds of power generation and 37 per cent of final energy consumption by 2040. Renewable energy sources would primarily cover the needed expansion in energy access. Fossil fuels

Figure II.3
World primary energy demand under the Sustainable Development Scenario



Source: UN DESA, based on the IEA (2019b) Sustainable Development Scenario.

would remain dominant despite a significant decline, representing about 58 per cent of the primary energy mix in 2040. Fully transitioning away from the enormous existing stock of fossil-fuel-reliant infrastructure poses a monumental task.

Efficiency gains and behavioural change

Energy efficiency gains can improve energy security, enhance welfare and reduce environmental damage

Changing the energy mix is necessary but will not be sufficient on its own to ensure the realization of all energy-related Sustainable Development Goals. A cleaner energy mix must be accompanied by substantial efficiency gains, the rapid deployment of low-carbon technology, and profound changes in behaviour towards more sustainable consumption.

Raising energy efficiency is one of the most cost-effective methods to improve energy supply security, enhance competitiveness and welfare, and decrease the environmental and health impacts of energy use. However, efficiency gains have slowed markedly since 2015, representing a lost opportunity and a failure of policy to guide the economy away from reliance on fossil fuels and accelerate efficiency investments in key sectors.

Regulation and targeted investment are needed to accelerate efficiency gains

The scope for efficiency gains is evident across most sectors of the economy; for example, buildings could be made more environmentally friendly through the use of thermal insulation and efficient lighting, and the transport sector would benefit from the use of electric vehicles and more efficient internal combustion engines. The implementation of technical and operational measures for ships could increase efficiency and reduce the emissions rate for international shipping by up to 75 per cent; this could be achieved through speed optimization and reduction, fleet adaptation (replacing high-carbon fuels with low-carbon and zero-carbon fuels), improvements in ship design and size, and the optimization of logistics chains (International Maritime Organization, 2009). There are also opportunities to expand the recycling of materials such as steel, aluminium, cement and plastics. Meanwhile, the digitization of the global economy opens up countless opportunities for efficiency gains, enabling greater control and optimization of energy use. Well-designed policy is needed to accelerate progress along all these dimensions (IEA, 2019a).

Socioeconomic implications of the energy transition

Fossil-fuel phase-out, electrification and decentralization

The energy transition will have far-reaching socioeconomic consequences

The economic and social consequences of the global energy transition will be far-reaching. Societal reactions and adjustments to major economic and technological changes of this nature are necessarily complex, as economic, social and cultural factors are inextricably intertwined. As an example, the Industrial Revolution and subsequent economic development changed the way people worked, the way people formed a family unit, the way people were economically productive, and the way people sought cohesion in communities.

The energy transition will push out several socioeconomic status quos while it pulls in new socioeconomic influencing factors. The costs and benefits of these changes will be very unevenly distributed within and between countries. The present section reviews some of the key economic and social developments and outcomes that can be expected as the energy transition gathers momentum, supported by technological advances and policy efforts.

Key elements of the transition are fossil-fuel phase-outs, electrification and decentralization

The cost of electric power generation from renewable energy sources has come down. Moreover, technological breakthroughs in power storage technology, including the development of solid-state batteries, are soon expected to resolve the problem of intermittency in photovoltaic (PV) and wind power generation. Increased battery efficiency will also make electric vehicles more affordable. These recent developments highlight three main elements underpinning the ongoing energy transition: fossil-fuel phase-outs, electrification and decentralization. These three elements are dependent on one another, as it will be the advances in power storage technologies that drive the transition along all three dimensions. The socioeconomic implications of the energy transition can be broadly grouped into impacts relating to locational shifts, occupational shifts, and changes in economic and environmental resilience (see table II.2).

The fossil-fuel phase-out will expose widespread vulnerabilities

The phase-out of fossil-fuel use will expose widespread vulnerabilities among holders of carbon-intensive assets. The impact on the profitability and viability of a number of sectors and technologies will inevitably be significant. This has serious economic and social implications for the many countries and firms that continue to rely on fossil-fuel production, a fossil-fuel-based power supply, and fossil-fuel-intensive industry.

Conventional energy supply chains face losses and stranded assets

As the demand for carbon-laden fuels declines, the regulation of their use tightens, and the costs of associated emissions rise, many existing technologies, infrastructure and resources will become obsolete. This will entail economic losses across the conventional energy supply chains, from exploration to retail supply. Governments that rely on income streams from these activities will face increasing budget constraints and a deterioration in sovereign bond value, while firms will be subject to closure, and associated banks will suffer a deterioration in balance sheets. For the most part, investors and policymakers continue to underestimate the costs and urgency of these coming changes. This is partly the result of distortionary policies, such as fossil-fuel subsidies and investment incentives that support energy-intensive industry. These distortions continue to encourage investment in carbon-intensive assets that will ultimately need to be retired before the end of their technical lifetime. This also has serious environmental implications, locking in energy supply that will not meet the emission targets of the Paris Agreement.

Job losses are likely to fall heavily on upstream sectors

Experience with coal phase-outs shows that job losses related to the shift away from fossil fuels are likely to be felt most acutely in the upstream sectors, as many fossil-fuel-producing countries and regions are not well diversified. As many as 4 million workers have lost their jobs due to coal mine closures over the past half century (World Bank, 2018), and more job losses in this sector are expected as energy transitions progress.

Table II.2
Energy transition: channels of socioeconomic impact

	Locational shifts		Occupational shifts		Changes in resilience	
	Pushed out	Pulled in	Pushed out	Pulled in	Pushed out	Pulled in
Fossil-fuel phase out	Economic decline in fossil-fuel-producing regions Large-scale asset stranding		Job losses in fossil-fuel supply chains Asset stranding in fossil-fuel-intensive industries		Erosion of established energy supply chains Potential price increases for essential goods	Decline in GHG emissions Improved air quality from fewer internal combustion facilities
Electrification		Economic surge in battery-related mineral-producing regions (lithium, cobalt, manganese, nickel, graphite)		Job creation in renewable electricity generation and battery supply chains, including battery recycling	Flexibility in access to different energy sources (electricity, gas, heating oil, gasolines)	Electricity as the main energy source Mining pollution Recycling-related pollution
Decentralization		Provision of wider access to energy as supply goes "wireless"	Erosion of economies of scale of centralized electricity firms	New form of public guarantee to assure energy supply	Erosion of the established energy supply chains	Enhanced energy resilience through individual renewal power generation

Source: UN DESA.

Higher prices for food and heating may disproportionately impact the poor

Policy instruments designed to discourage the use of fossil fuels may also increase the costs of essential goods, at least during a transitional period. For example, food prices may rise as a result of the increased costs of transport, higher costs of operating farming and food-processing equipment, and higher costs for chemical fertilizers. The price of energy for heating and cooking may also increase. Given the central role of fossil fuels in current economic systems and structures, the burdens could fall disproportionately on poorer households, with important ramifications for poverty and hunger. Careful policy design is needed to safeguard the provision of basic necessities and ensure that the most vulnerable are protected.

Many countries stand to gain from the energy transition

The energy transition has the potential to bring not only environmental benefits but also economic and social benefits for many countries. For example, heavy importers of fossil fuels stand to benefit from the development of local renewable energy sources through improvements in energy supply security and external balances (McCollum and others, 2014). Four out of five people live in countries that import fossil fuels, including China and India (World Economic Forum, 2019a). This suggests that, globally, the net impact of the energy transition on employment is likely to be positive (see box II.2).

Meanwhile, some countries may gain from the increased demand for resources used in low-carbon technology, including metals and materials needed for renewable energy systems, energy-efficient buildings and new forms of transportation. Africa, which is especially rich in minerals, "can expect high and rising demand, as the technologies of the low-carbon future are highly materials-intensive" (Addison and Roe, 2018, p. 27). Demand for copper,

Box II.2

The impact of the energy transition on global labour markets

How will the energy transition affect global labour markets?

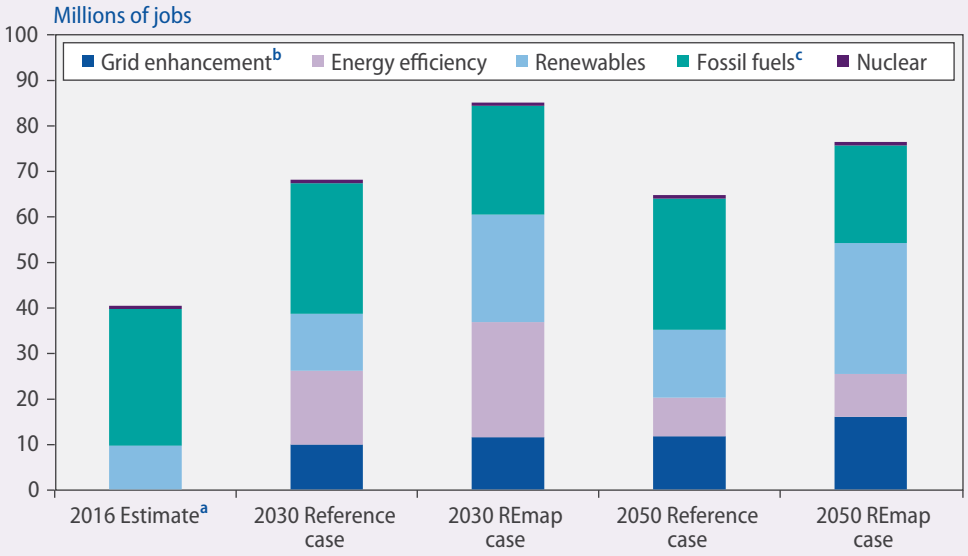
Implications of the energy transition for the world's labour markets are already manifest and will continue to be profound. The transition to a zero-carbon economy will involve job losses in some sectors and job creation or transformation in others.

The Paris Agreement stipulates that adjustment towards a low-carbon economy must "tak[e] into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities". To date, only a few Governments have succeeded in better integrating labour and social policies with climate objectives or have devised strategies to support workers and communities deeply affected by the energy transition (Rosemberg, 2018). The Governments of Germany (Egenter and Wehrmann, 2019), Canada (2018) and Scotland have set positive examples by establishing commissions to think through and manage the implications of the energy transition. The lack of more widespread policy integration and the uncertainty associated with the impacts and timeframe of the transition have resulted in resistance to necessary changes by significant parts of society.

The energy sector, including the power and fuel supply sectors, was responsible for employing almost 41 million people globally in 2016, with 30 million working in fossil-fuel sectors (see box figure II.2.1) (IRENA, 2018).

Figure II.2.1

Employment in the overall energy sector, 2016, 2030 and 2050



Source: UN DESA (2019), based on IRENA jobs database.

a Estimates for jobs in energy efficiency and grid enhancement are not available for 2016.

b Grid enhancement includes jobs in transmission and distribution systems and jobs related to enabling renewable energy to be integrated in the power system.

c Includes all jobs in the fossil-fuel industry, including those relating to extraction, processing and consumption.

Forecasts indicate that employment in fossil-fuel sectors will continue to decline worldwide (see box figure II.2.1). Rising automation in extraction, overcapacity, industry consolidation, regional market shifts, the substitution of coal with natural gas in the power sector, climate policies, and the rise of renewable energy are driving this downward trend (IRENA, 2017a).

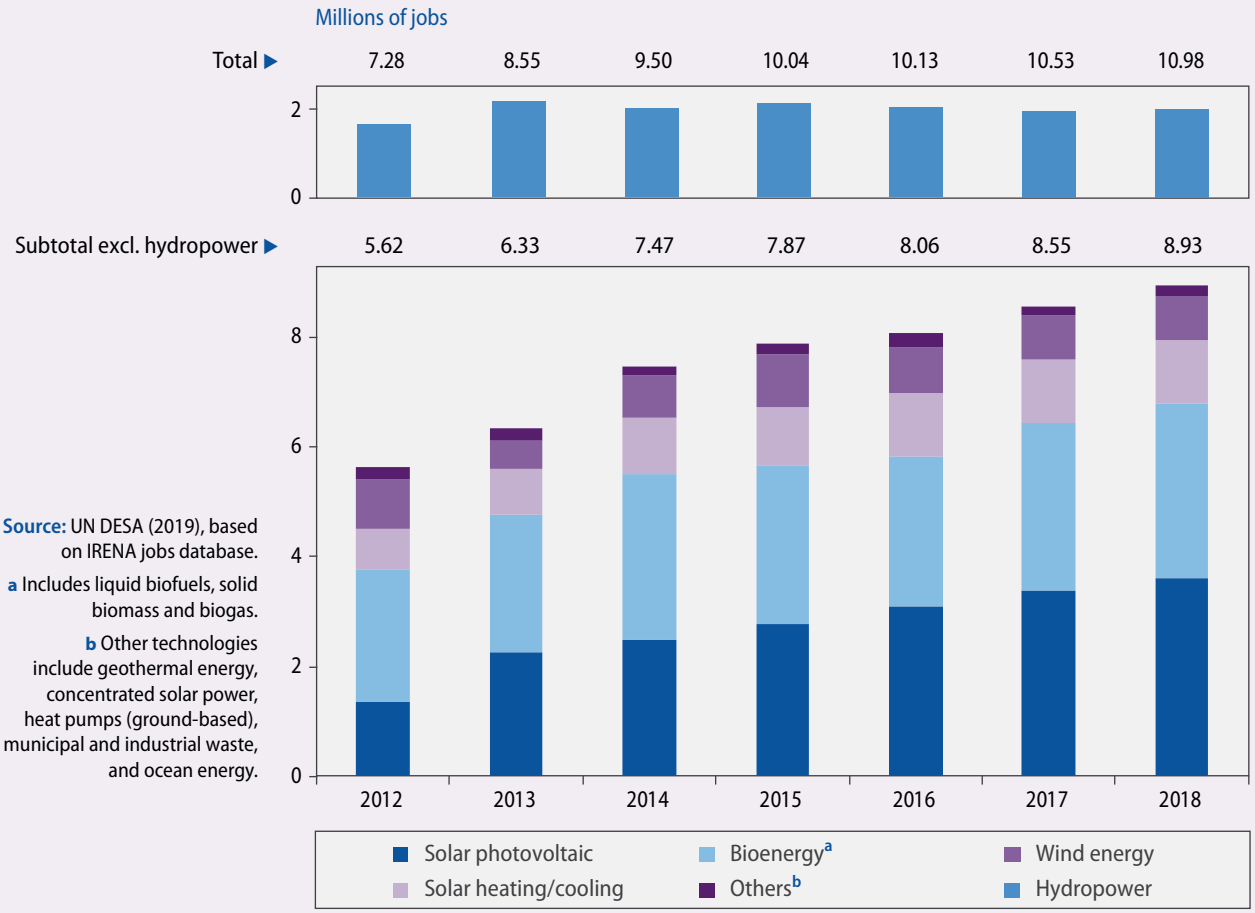
Job losses have become the norm in the global oil and gas industry. Around 440,000 people were laid off in 2015 and 2016 due to low oil prices and oversupply. The United States alone accounted for 40 per cent of job losses, and the United Kingdom and Canada accounted for 28 and 10 per cent, respec-

(*continued*)

Box II.2 (*continued*)

tively. Coal industry jobs are declining even more rapidly due to power plant closures, overcapacity and improved mining technologies. The Government of China plans to close 5,600 mines, which may result in the loss of 1.3 million coal mining jobs (20 per cent of the total workforce in the Chinese coal sector) because of excess supply and a slowing economy. Coal India Limited, the world's largest coal producer, reduced its workforce by 36 per cent over a 13-year period, with the number of employees declining from 511,000 in 2002/03 to 326,000 in 2015/16 (ibid.). Coal production within the European Union has been decreasing for three decades now. The coal mining industry in Germany is down to about 30,000 jobs from 300,000 three decades ago, and in the United States, employment in the coal sector has declined from 174,000 to 55,000 over the same period (ibid.).

Figure II.2.2
Global renewable energy employment, by technology



Source: UN DESA (2019), based on IRENA jobs database.

a Includes liquid biofuels, solid biomass and biogas.

b Other technologies include geothermal energy, concentrated solar power, heat pumps (ground-based), municipal and industrial waste, and ocean energy.

Employment opportunities associated with the energy transition

The global renewable energy sector employed 11 million people in 2018, up from 10.3 million in 2017 (IRENA, 2019b). Renewable energy technologies create more jobs than do fossil-fuel technologies. For instance, in comparison with coal or natural gas, solar PV creates more than twice the number of jobs per unit of electricity generation (IRENA, 2017a). By the end of 2018, solar PV had become the leading job creator within the renewable energy sector, accounting for a third of the total renewable energy

(*continued*)

Box II.2 (*continued*)

workforce globally, or 3.61 million workers (see box figure II.2.2). Rising off-grid solar sales are creating a growing number of jobs while also expanding energy access. Bioenergy is close behind with 3.18 million jobs, while employment in the wind energy sector supports 1.16 million jobs. Onshore wind is still predominant, but the offshore segment is gaining traction, building on the expertise and infrastructure in the offshore oil and gas sector. Hydropower still has the largest installed capacity of all renewables, employing 2.1 million people directly.

Based on the IEA Sustainable Development Scenario, ILO estimates that the energy transition will lead to the net creation of 18 million jobs by 2030, reflecting around 24 million jobs created and 6 million jobs lost globally. There are and will continue to be significant differences across regions, countries and sectors, however. Employment creation is driven by the higher labour intensity of renewable energy production in comparison with the production of electricity from fossil-fuel sources, where losses are greatest. Employment demand will also grow in value chains associated with renewable energy and electric vehicles and in industries involved in the construction of renewable energy and associated infrastructure (ILO, 2018b).

Although renewable energy has an increasingly diverse geographic footprint, renewable energy employment remains largely concentrated in a handful of countries—Brazil, China, India, the United States, and some countries in the European Union. Diverse factors such national deployment and industrial policies, changes in the geographic footprint of supply chains and in trade patterns, and industry consolidation trends will shape how and where renewable jobs are created (IRENA, 2019b).

Conclusions

The transition towards a zero-carbon economy can be expected to lead to a net increase in the global labour force, as job losses in the fossil-fuel sector will be offset by employment gains in the renewable energy sector and associated value chains. However, the impact of the transition will be uneven. In certain parts of the world, such as the Middle East, the impact on the job market will be relatively profound. The energy transition needs to be carefully managed to ensure a just transition for affected workers and communities. Early action is needed to mitigate the costs to communities exposed to wide-scale job losses in the fossil-fuel sector. This would also decrease resistance to the energy transition and climate action as a whole.

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nickel, cobalt, lithium, and several other base metals and materials is expected to rise. Many countries, including Australia, Brazil, Canada, Chile, China, Cuba, Democratic Republic of the Congo, India, Indonesia, Kazakhstan, Mexico, Peru, the Plurinational State of Bolivia, Poland, the Russian Federation, South Africa, Turkey, Ukraine, the United States, Viet Nam and Zimbabwe, are important producers or have important reserves of materials that may see increasing demand.[1]

Battery supply chains offer new opportunities

Electrification will play an important role in delivering a cleaner energy mix—through electrified transport, heating and cooling, and industrial processes, for example—and is expected to create many opportunities. As batteries will be the key component for electrification through renewable sources, the demand for batteries is expected to grow rapidly. Geographical and occupational shifts from fossil-fuel supply chains to battery supply chains can be expected. Upstream, the demand for minerals that are essential for battery production, such as lithium, cobalt, manganese, nickel and graphite, will benefit a relatively narrow group of countries. However, battery recycling technologies offer opportunities to a more diverse group of suppliers. These new supply chains already present significant economic opportunities. Demonstrating an awareness of current trends and the potential

1 For an extended list of mining products used in low-carbon technologies and countries that may benefit from increased demand, see UNCTAD (2019a), table 3.3.

for future growth in this area, the European Battery Alliance has been developing strategies relating to battery supply chains as part of its action plans.[2]

Electrification comes with new environmental concerns

Electrification confers substantial benefits but also introduces new environmental concerns. Coal-fired power plants are responsible for 38 per cent of global electricity generation and remain the single largest source of energy-related GHG emissions. Electrification must develop hand in hand with the ongoing shift towards renewable power generation and the adoption of cleaner technologies for battery production. More aggressive mineral extraction related to battery production and other low-carbon-technology inputs may introduce higher levels of pollution from mineral mines, processing factories and recycling factories. The challenge will be for countries with valuable natural resource wealth to extract the materials needed while limiting the attendant environmental costs so as not to be counterproductive to the aim of expanding the use of "clean" technologies (UNCTAD, 2019a). Realizing the development potential from this mineral wealth will also require effective management and far-sighted policy strategies to avoid the "natural resource curse" that plagues many commodity-dependent developing countries. Key elements of such strategies include strong institutions, a transparent business environment, and targeted investment in the human capital needed to develop industries further up the supply chain.

Decentralization will improve energy access for the poor

The decentralization of the energy supply is expected to take place as the cost of PV electricity generation and power storage comes down to a level competitive for households. More electricity can be supplied off-grid. Affordable autonomous renewable energy solutions improve energy access for the poor. In fact, off-grid renewable energy solutions, including stand-alone solar home systems and mini-grids, have already been deployed in many developing countries; by 2016, more than 133 million people had benefited from such systems (IRENA, 2019a). Recent empirical studies indicate that renewable energy solutions are already sufficiently affordable and financially sustainable in rural communities if they are designed to stimulate income generation (Roche and Blanchard, 2018). Moreover, off-grid solutions will enhance the resilience in electricity supplies where on-grid electricity supplies are unstable. However, they may weaken the natural economies of scale of centralized electricity companies. Conventional centralized power-grid systems will need to be maintained even as off-grid solutions expand, as many autonomous renewable energy solutions are likely to be connected to the grids. The changes will affect the profitability of maintaining these grids, which must be carefully considered in the management of energy transitions.

Cleaner energy systems bring enormous environmental and social co-benefits

The environmental and social returns from a cleaner energy mix and cleaner household energy are manifold, ranging from reductions in air pollution to improvements in human health and gender equality and the mitigation of biodiversity loss. Universal access to clean cooking solutions would help prevent millions of premature deaths each year, primarily among women and children. It would also yield economic returns by reducing the time spent collecting wood or other biomass fuel and creating space for education and paid work. Ultimately, the transition will lead to greater value being placed on natural resources such as the sun, wind and waterways, and to increased support for the protection and expansion of forests as carbon sinks.

2 See European Battery Alliance (https://ec.europa.eu/growth/industry/policy/european-battery-alliance_en).

Coping with stranded fossil-fuel assets

The scale and distribution of assets and resources exposed to stranding

As demand for carbon-laden fuels declines, many countries may be left with stranded assets

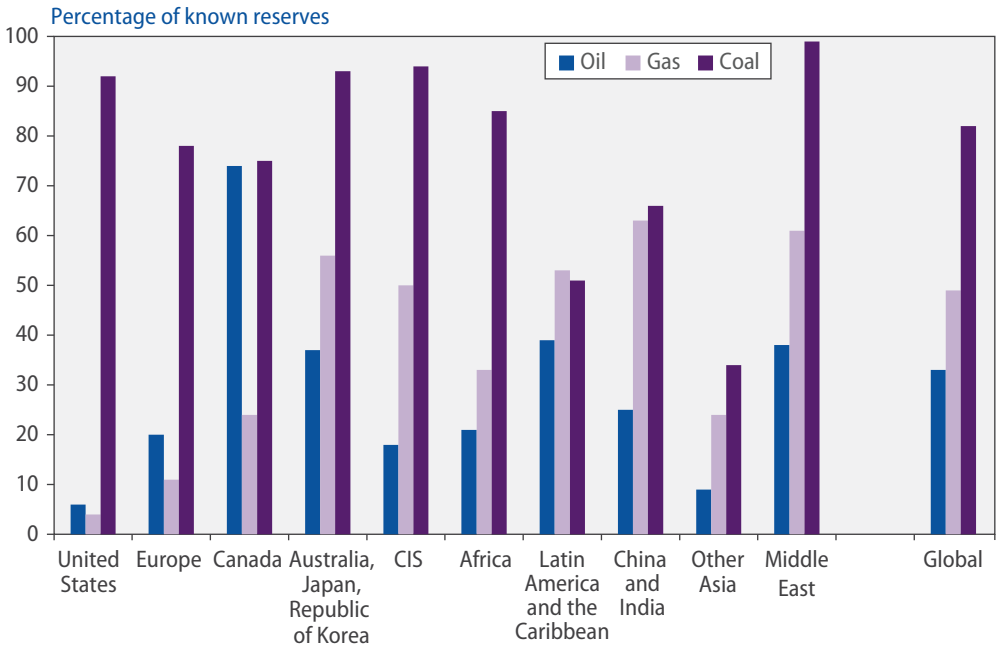
As the energy transition progresses and the use of renewable energy, energy-saving technology and electrification expands, many countries and firms will see a portion of their natural resources lose their economic value and will experience a stranding of assets related to fossil-fuel-intensive activities. Stranded assets can be defined as asset holdings that prematurely lose their value or usefulness and must be written off well before the end of their technical lifetime (Bos and Gupta, 2019).

It is estimated that burning the remaining known recoverable reserves of oil, gas and coal would release at least 11,000 Gigatons (Gt) of CO_2 (McGlade and Ekins, 2015). In order for the world to have at least a 50 per cent chance of limiting global warming to 2°C above pre-industrial levels at the end of this century, cumulative emissions of CO_2 between 2011 and 2050 should remain below 1,240 Gt—meaning that the vast majority of remaining resources should already be considered stranded. Figure II.4 provides an estimate of the shares of fossil fuels across regions that must remain unused in order to ensure that cumulative emissions stay below 1,240 Gt through 2050.

Globally, the vast majority of coal reserves, half of the gas reserves and a third of the oil reserves must remain untapped

If there is to be a reasonable chance of meeting long-term climate stabilization targets—including maximum temperatures averaging no higher than 2°C above pre-industrial levels—over 80 per cent of global coal reserves, 50 per cent of gas reserves, and 33 per cent of oil reserves must remain underground. This includes a particularly high share of oil reserves in Canada and the majority of coal reserves in most regions. Obviously, to limit global warming to 1.5°C above pre-industrial levels, an even greater share of recoverable resources must remain untapped. Estimates suggest that in order for there to be a 50 per cent chance of limiting global warming to 1.5°C, cumulative emissions of CO_2 between

Figure II.4
Regional distribution of reserves unburnable under the 2°C scenario



Source: UN DESA, based on McGlade and Ekins (2015), table 1.

Notes: Regional groupings are not strictly aligned with those used throughout the present publication. The scenario assumes widespread use of carbon capture and storage from 2025. Regional shares are determined based on an optimization of emission and extraction costs for different kinds of reserves. Other regional distributions are possible but would produce a higher global cost.

2017 and 2050 should not exceed 580-770 Gt (IPCC, 2018)—roughly half the level in the 2°C scenario.

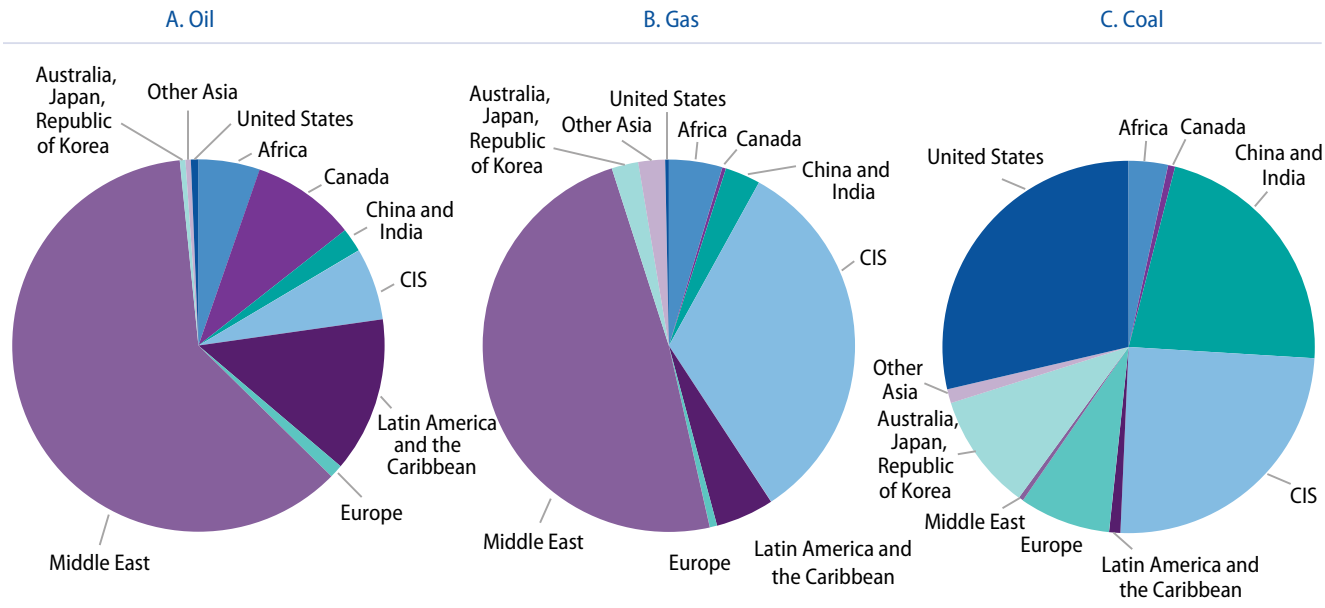
Figure II.4 illustrates the shares of regional reserves that would be stranded in the 2°C scenario. To gauge the magnitude and distribution of these unusable resources, it is also informative to consider the global shares of stranded assets by fuel type in each region (see figure II.5).

Roughly 60 per cent of the global oil reserves and 50 per cent of the global gas reserves that are likely to be unburnable are in the Middle East. Canada, the Bolivarian Republic of Venezuela, Ecuador, and countries in Africa and the CIS also face substantial losses from unusable oil reserves. The CIS is home to about one third of the gas reserves and one fourth of the coal reserves that are expected to remain unburnable. Australia, China, India, the United States, and European countries also have significant quantities of unusable coal. International oil companies hold, on average, around 13 years of reserves at current rates of production in assets, whereas Government bonds in up to 25 countries are backed by an expectation of 25, 50, or in some cases more than 100 years' worth of extractable reserves (World Economic Forum, 2019b).

Over $10 trillion in fossil-fuel-reliant assets are subject to stranding

On top of unusable natural resources, countries across the globe may be left with stranded capital assets in the form of buildings that fail to meet efficiency standards; extraction and power-generation infrastructure designed to burn fossil fuel; fossil-fuel storage, transport and delivery systems; and other fixed capital assets of industries engaged in carbon-intensive activities. According to estimates from the International Renewable Energy Agency (IRENA), global assets likely to be stranded over the period 2015-2050 as a result of the energy transition will cumulatively amount to several trillion dollars, including a minimum of approximately $5 trillion in inefficient buildings and equipment, $4 trillion in the upstream energy sector (equivalent to 45-85 per cent of the valuation of today's upstream oil producers), $900 billion in power generation assets, and $240 billion in industrial assets

Figure II.5
Estimated regional shares of reserves unburnable under the 2°C scenario, by fuel type



Source: UN DESA, based on McGlade and Ekins (2015), table 1.

(IRENA, 2017b). In some cases, current infrastructure can be retrofitted to adapt to a clean energy system, but without policy efforts to support such endeavours and exploit economies of scale, the investment costs may prove prohibitively high.

Resource implications of stranded assets

At some point, fossil-fuel extraction will cease to be economically viable

As the energy transition progresses, countries that rely on revenue streams from the extraction of fossil fuels to finance their fiscal or external spending will come under increasing pressure (see box II.3). The largest publicly traded oil companies hold only 3 per cent of total proven world oil reserves. Therefore, the burden of stranded reserves will fall heavily on national oil companies and national Governments (Jaffe, 2020).

Box II.3

Commodity dependence and climate change[a]

Commodity-dependent developing countries (CDDCs)—those deriving more than 60 per cent of their merchandise export revenue from primary commodities—are affected both by the direct impact of climate change and by the effects of the global shift towards low-carbon economies that is required to limit global warming. It is essential that CDDCs and their development partners account for these additional sources of risk in strategies to achieve the Sustainable Development Goals.

There is a two-way relationship between commodities and climate change. On the one hand, commodity production, processing, transportation and consumption generate GHG emissions. On the other hand, climate change has important consequences for commodity value chains. For example, the burning of fossil fuels is the leading source of anthropogenic GHG emissions, while oil, gas and coal supply chains are vulnerable to various manifestations of climate change, including storms, floods and rises in sea levels. Agriculture accounts for 10-12 per cent of global GHG emissions (IPCC, 2014) but is also a major receiver of the negative effects of climate-related phenomena such as natural disasters, which caused an estimated $96 billion worth of crop and livestock loss between 2005 and 2015 (FAO, 2018). GHG emissions from mining are rising due to growing output and declining ore grades, which lead to higher-energy-intensity metal production. In Australia, for instance, GHG emissions from non-energy mining and quarrying increased at a compound annual rate of 4.5 per cent between 1990 and 2017 (Australia, Department of the Environment and Energy, 2019). At the same time, the increasing frequency and severity of extreme weather events poses threats to mining infrastructure, operations and transportation routes.

Average GHG emissions per capita in CDDCs declined from 1990 to 2014 and are significantly lower than those of the main emitters (see box figure II.3.1). However, CDDCs are among the countries most vulnerable to the impacts of climate change (see box figure II.3.2). According to the Notre Dame Global Adaptation Initiative (ND-GAIN) Country Index, the 26 most vulnerable countries in 2017 were all CDDCs, and among the 40 most vulnerable countries there were only three non-CDDCs.[b]

The Paris Agreement affirms the commitment of developed and developing countries to limit the rise in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels by 2100. The Agreement also includes provisions for strengthening climate resilience and low-carbon development. In this context, CDDCs need to find ways to align adaptation and mitigation policies and programmes with broader development strategies to achieve the Sustainable Development Goals as well as account for the effects of third countries' climate policies. For instance, since a 2°C scenario is not consistent with burning all known reserves of oil, gas and coal, there is a clear risk that CDDCs that depend on exports of fossil fuels will see the markets for their products shrink and leave part of their resources stranded.

The costs of adapting to climate change, which are estimated at between $140 billion and $300 billion per year for developing countries until 2030 (UNEP, 2016), constitute a heavy burden, particularly for low-income CDDCs. However, climate finance provided by developed countries to developing countries has mainly been directed towards mitigation (see box figure II.3.3).

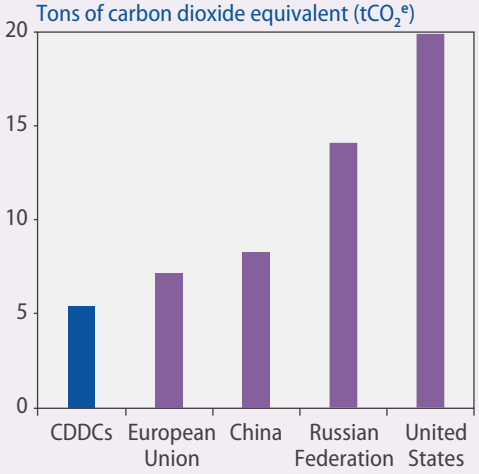
(*continued*)

a This box draws from UNCTAD (2019a).

b See https://gain.nd.edu/our-work/country-index/.

Box II.3 (*continued*)

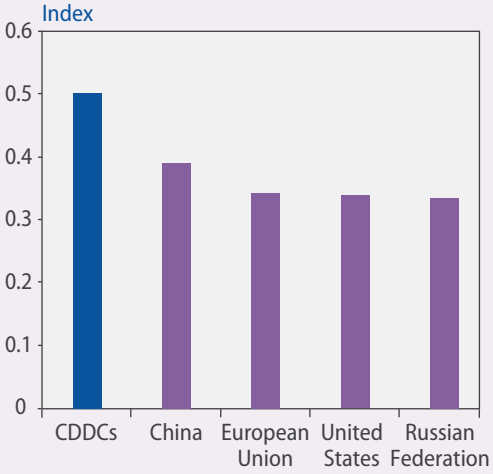
Figure II.3.1
Anthropogenic GHG emissions per capita including land use, land-use change and forestry, 2014



Source: Based on Climate Analysis Indicators Tool (CAIT) Historical Emissions data, available from Climate Watch Data Explorer https://www.climatewatchdata.org.

Note: Data were not available for the following CDDC: Timor-Leste.

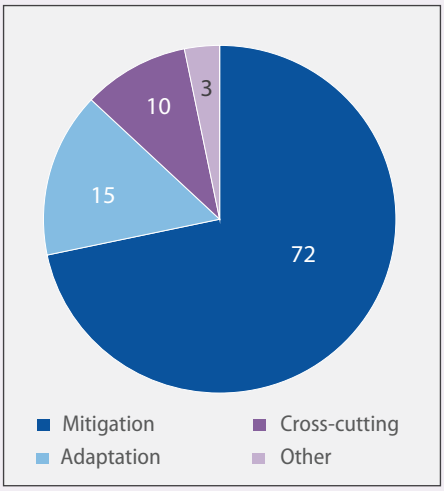
Figure II.3.2
Climate change vulnerability score (ND-GAIN Country Index), 2017



Source: Based on the vulnerability scores reflected in the ND-GAIN Country Index (2017).

Notes: Simple average for country groups. Data were not available for the following CDDCs: Kiribati, Nauru and Palau.

Figure II.3.3
Focus areas of climate finance provided to developing countries through bilateral, regional and other channels, 2016



Source: Based on data from UNFCCC (2018).

There are a number of steps CDDCs can take to successfully address the challenges posed by climate change. First, climate finance flows need to be scaled up and calibrated to reflect the adaptation priorities of the most vulnerable countries, including many commodity-dependent LDCs and SIDS. Second, fiscal policies need to be aligned with Governments' main policy objectives to ensure that taxes, subsidies and similar policy instruments support the implementation of the Paris Agreement as well as the achievement of the Sustainable Development Goals; an example would be reducing or eliminating harmful fossil-fuel subsidies. Third, CDDCs need to work together with development partners to secure access to relevant technologies and to build the technical, regulatory and institutional capacity required for effective climate change adaptation and mitigation. Finally, the diversification of production and exports is essential to mitigate the risks associated with commodity dependence in a changing world. In this context, it is important that the diversification process is inclusive, contributes to job creation, and supports CDDC mitigation and adaptation targets.

Authors: Stefan Csordas and Janvier D. Nkurunziza (UNCTAD/DITC/Commodities Branch).

Fossil-fuel producers will face a combination of weaker demand for their products and lower global prices for fossil fuels. They may also face higher extraction costs if subsidies are withdrawn or if policies are put in place that require polluters to shoulder a greater share of the environmental costs associated with their activities (through a carbon tax, for example). This will necessarily reduce the value of existing assets and may impact access to finance. At some point, these fossil-fuel resources will become too costly to extract and will be left fully stranded.

Fossil-fuel-exporting countries will suffer losses via unfavourable terms of trade, reduced external demand and accelerated capital depreciation

The developments described above can be expected to affect fossil-fuel-exporting economies in a number of ways; typically, they will experience a terms-of-trade shock as fossil-fuel prices drop, an external-demand shock as the demand for fossil fuels declines, and an increase in the rate at which carbon-related capital depreciates as assets associated with the extraction and use of fossil fuels lose value. Figure II.6 identifies a set of countries that are likely to be particularly exposed to terms-of-trade and external-demand shocks, as more than one third of their external revenue comes from the export of fossil fuels. Of course, different fossil fuels have different carbon contents, and economies that rely more heavily on natural gas exports may benefit from higher returns in the near term.

A delay in decisive action on the energy transition could double the eventual costs

Losses associated with stranded assets may accumulate gradually if firms and policymakers begin making adjustments now to move towards the Sustainable Development Scenario described above. Because the gravity of climate change has not yet been fully acknowledged, however, firms and policymakers continue to underestimate the magnitude, impact and urgency of the energy transition. If decisive action is delayed until 2030, cumulative losses could be at least twice as high once they are eventually absorbed (IRENA, 2017b); this assessment reflects a decade of investment in assets with a lifetime often exceeding 35 years that will become stranded, as well as the sharper and more abrupt adjustment in carbon-intensive activities that will be needed to meet the Paris Agreement targets if emissions are allowed to continue rising until 2030.

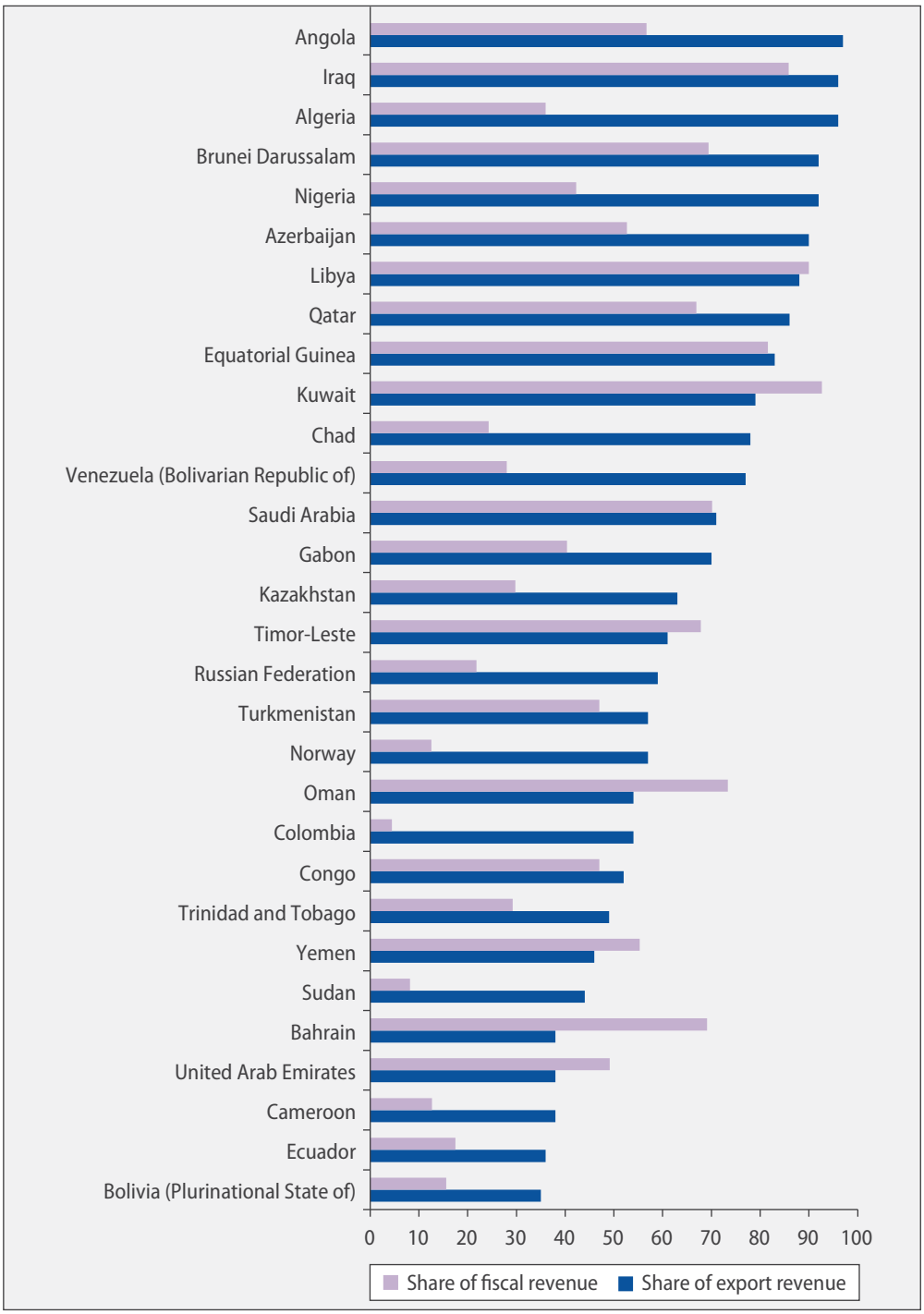
Figure II.7 exemplifies GDP prospects for a fossil-fuel producer under three scenarios. The first scenario is a hypothetical case in which no asset stranding occurs. The second scenario is analogous to what would be expected under a gradual adjustment to asset stranding consistent with the Sustainable Development Scenario described above. The third scenario illustrates a delayed adjustment to asset stranding, which requires a much more abrupt correction. The scenarios are modelled for a country that has roughly 50 per cent of its assets and external revenue invested in fossil-fuel exporting. The illustrative example assumes a 50 per cent decline in the producer price of fossil fuels, a 50 per cent decline in global demand for fossil fuels, and a write-off of 50 per cent of fossil-fuel-related capital for the country. In the "gradual adjustment" scenario, the adjustment to asset stranding takes place over a period of 15 years, whereas in the "abrupt adjustment" scenario the adjustment comes as a sudden shock in one year. These simple illustrative scenarios make no allowances for economic diversification or alternative revenue sources, such as drawing down funds from sovereign wealth funds, which could soften the adjustment process.

Unsurprisingly, the losses under both adjustment scenarios are substantial relative to the scenario with no asset stranding. The loss of export revenue affects investment, government spending, jobs, income and consumption. The gradual adjustment scenario leaves greater scope for policy action and economic adjustment to replace the losses suffered by the fossil-fuel industry, and this has the potential to offset much of the shock illustrated in figure II.7. The abrupt adjustment scenario would necessarily deliver a dramatic and prolonged recession. This drives home the message that the failure to act now will ultimately lead to significantly higher costs.

Figure II.6

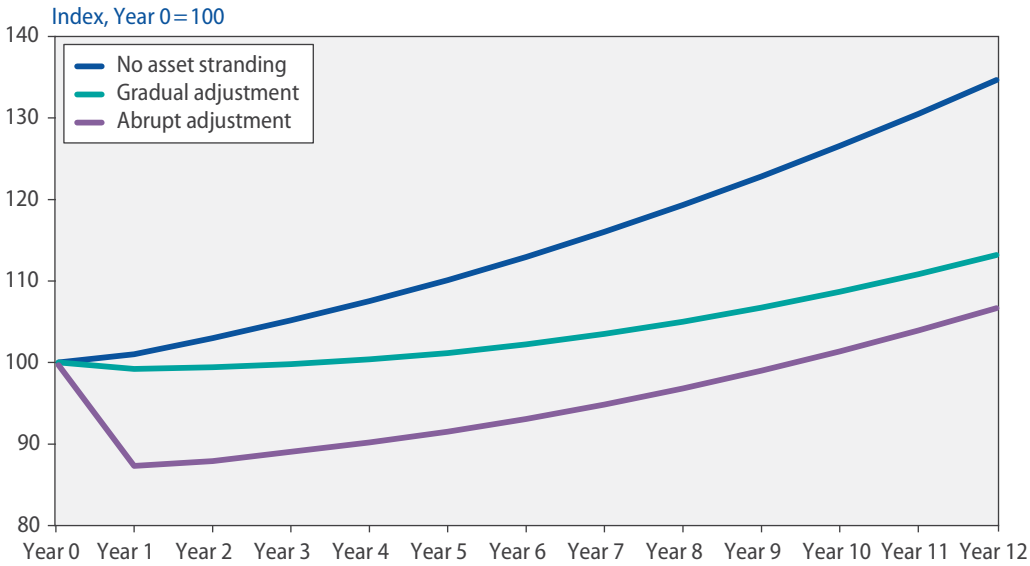
Share of fuels in merchandise exports and commodity-sourced share of fiscal revenue, 2017

Percentage



Sources: UNCTAD (2019a); IMF, World Economic Outlook database, October 2019; Natural Resource Governance Institute.

Figure II.7
GDP adjustment paths in the face of stranded assets



Source: UN DESA, based on scenarios produced with the WEFM.

A policy road map for a smooth energy transition

Making use of all available policy instruments

Strategies for the energy transition require political prioritization and public support

There is a narrowing window of opportunity to put the world on track to deliver an energy system that is compatible with global goals for climate stabilization, energy access and clean air. Strategies for supporting the transition to clean energy and ensuring the accessibility and reliability of renewable energy sources and systems are available but require political prioritization and public support. Reducing emissions to targeted levels will require technology change to enhance energy efficiency, behavioural change to promote energy conservation (including the preservation and expansion of carbon sinks), investment in the infrastructure and technology required to change the composition of the energy mix, and the development and deployment of carbon-capture and sequestration technologies.

A successful transition will require the full deployment of all policy instruments

Delivering a rapid and just energy transition will require a comprehensive approach that maximizes the effectiveness of all available policy instruments. Fiscal, regulatory and financial instruments must be well coordinated with social policies for a broad policy framework that will support technological development, guide urban design, facilitate acquisition of the necessary skills, and support industries that produce and use clean energy while winding down carbon-intensive activities.

Policy measures to accelerate the shift away from burning fossil fuels include regulating or taxing GHG emissions, removing subsidies that support fossil-fuel use, phasing out coal-fired power plants, providing financial support for clean energy use, and making greater use of regulatory instruments such as efficiency standards (especially in buildings and transport). Industrial and sectoral policies can focus on supporting innovation in key industries, upgrading infrastructure, investing in training to make use of new technologies, and promoting the rapid deployment of best-practice technology.

Lending policies can play a role in the energy transitions

Many countries are making greater use of financial instruments to support the shift to clean energy. For example, the European Investment Bank (EIB) intends to become the world's first "climate bank", phasing out its multibillion-euro financing for fossil fuels by ending its funding for oil, gas and coal projects after 2021 and allocating €1 trillion for funding the transition to cleaner energy. Meanwhile, in Lebanon, the level of reserves a private bank is required to keep at the central bank depends on how much it lends to renewable energy ventures; in Brazil, policymakers require lenders to disclose how they factor environmental risks into calculating capital needs; and in Bangladesh, banks are offered preferential borrowing terms from the central bank if they pass the money on as green loans (Independent Group of Scientists appointed by the Secretary-General, 2019).

In addition to guiding the move away from fossil-fuel use, policymakers must develop action plans to close the current electricity access gaps, with particular attention given to increased investment in both on- and off-grid solutions, the establishment of integrated cross-border grid connections where appropriate, and the development of decentralized renewable energy solutions. Clean-cooking solutions must also become a priority so that substantial numbers of households can move away from traditional biomass usage.

Building public support for policy implementation

The successful implementation of any of the measures described above will require not only political prioritization but also wide-ranging public support. Careful coordination with measures to alleviate the burden on those who will face disproportionate losses is essential—both to protect the vulnerable and to safeguard the political viability of difficult but urgently needed policy actions.

Policies to promote cleaner energy must be coordinated with social measures to protect the vulnerable and support job transitions

As noted earlier, environmental taxes and regulations designed to discourage the use of fossil fuels may translate into higher costs for essential goods such as food and heating, at least during a transition period. Because these essential goods represent a high proportion of a poor household's income, the energy shift has important implications for poverty and inequality. Recent mass protests related to the social repercussions of fuel taxes and fossil-fuel subsidy withdrawal in Ecuador, France, the Islamic Republic of Iran and Sudan illustrate the highly sensitive political-economy aspects of such actions. There are also numerous examples of successful reform measures, many of them within this same set of countries. For example, in 2010, the Islamic Republic of Iran became the first major oil-exporting country to substantially reduce energy subsidies, leading to energy prices that were up to twenty times higher than subsidized prices. Successful experiences demonstrate that policy must be designed so that it is acceptable to affected industries and citizens, with careful consideration given to its distributional consequences and impact on inequality. Establishing a clear communication strategy from the outset is crucial to gaining public support. Country experiences show that the likelihood of success in subsidy reform almost triples with strong political support and proactive public communication (United Nations Inter-agency Task Force on Financing for Development, 2019).

The public must be not only informed of but also fully prepared for the energy transition. In response to this need, several Governments have started introducing special programmes to develop the necessary skills and support labour market transitions to green jobs. For example, New Zealand has established the Just Transitions Unit within the Ministry of Business, Innovation and Employment. Germany has formed the Commission on Growth, Structural Change and Employment and has set out measures to alleviate hardships affecting impacted workers and communities as part of its coal phase-out strategy (Agora Energiewende und Aurora Energy Research, 2019). Canada has set up the Task

Force on Just Transition for Canadian Coal Power Workers and Communities, which has prepared a set of recommendations to ensure that the costs of phasing out coal-fired electricity are not borne exclusively by impacted communities and workers (Canada, 2018). Several other countries, including Costa Rica, South Africa and Spain, have introduced similar initiatives to protect workers that may be left behind by the energy transition.

Public support may also rely on how any revenue gained from fiscal instruments such as carbon taxes or subsidy withdrawals is spent. Using the funds to address issues of high public concern such as air pollution may help to garner support. Direct tax credits or outright payments to consumers may increase public awareness of offsetting compensation linked to the withdrawal of subsidies and help build public support and buy-in. Country preferences vary, with India and Indonesia using budget savings from phasing out fossil-fuel subsidies to expand social protection and infrastructure development, whereas in Japan, the new carbon tax explicitly funds renewable energy and energy efficiency programmes.

Policymaking under conditions of uncertainty

Looming large over the policy task of reining in climate change is enormous uncertainty. Globally agreed targets focus on limiting the rise in the global temperature to no more than 1.5°C or 2°C. In practical terms, this tends to create the impression that policymakers are in a position to determine a specific quantity of CO_2 emissions that would ensure global temperatures do not exceed targeted levels. However, given the complexity and time lags involved in the link between CO_2 emissions and the effects on global temperatures, policymakers face huge uncertainties and cannot target precise policy outcomes with any reasonable degree of accuracy.

Wide uncertainties regarding climate change demand that policymakers err on the side of caution

Given the issues at stake, the lack of precise control over the policy outcome does not negate the need for policy action. On the contrary, it illustrates the urgent need for policy action, and precisely because of the uncertainty involved, these policy actions need to be decisive and meaningful. In other words, the uncontrollability of the precise policy outcome, coupled with the catastrophic dimension in the case of policy failure, makes it imperative for policymakers to err on the side of caution.

Uncertainties in the efficacy and wider impact of available policy instruments also create the need for careful and transparent monitoring mechanisms so that the policy mix can be fine-tuned on a continuing basis to ensure that it is well targeted and effective. The available time frame is short, and the ultimate aims must be clear, credible and achievable.

Pricing carbon: recalibrating relative prices for energy

Amid an unfolding climate crisis, recalibrating the costs of carbon-heavy energy use will help drive behavioural change

Putting a price on carbon and other GHGs can help elicit the necessary changes in behavior while fixing a fundamental flaw in the economic system. Economic decisions that result in the emission of CO_2 and other GHGs create negative effects on the environment and human health. However, with no monetary cost incurred by the polluters, decisions on the production and consumption of goods and services are based on an artificially low cost of using fossil fuels and not on a full-cost assessment that includes these environmental and health externalities. This means that environmental and health damage is borne by society at large but does not feature in the private decision-making of producers and consumers. This understatement of costs has dramatic consequences: certain goods and services are produced and consumed in quantities exceeding environmentally sustainable levels. In other words, individual decisions made on the basis of incomplete sets of price and cost signals impose high environmental costs on society. New statistical frameworks allow an improved understanding of these economic and environmental trade-offs (see box II.4).

Box II.4

Natural capital accounting

Healthy ecosystems provide fuel for energy, clean water and productive soil—all essential for daily living and sustaining human life. However, in conventional national accounting, the environmental dimension is largely ignored; the contributions of natural capital to the economy are overlooked, as are the environmental costs of production and consumption decisions.

Natural capital accounting (NCA)[a] provides a means to ensure that the contributions of nature and the detrimental environmental effects of economic activity appear on the ledger. Through the integration of environmental and economic information using a consistent accounting framework, NCA provides essential information for policymakers. It also supports key global policy frameworks, including the 2030 Agenda and the Paris Agreement.

The System of Environmental-Economic Accounting (SEEA) is the international statistical standard for NCA and provides a framework for organizing and presenting statistics on the environment and its relationship with the economy. It uses an internationally agreed set of concepts, definitions, classifications, accounting rules and tables to produce internationally comparable statistics.

There are two main parts to the SEEA—the SEEA Central Framework (SEEA CF) and the SEEA Experimental Ecosystem Accounting (SEEA EEA). The SEEA CF focuses on individual environmental assets such as energy and water resources to account for how these assets are extracted from the environment, used within the economy, and returned to the environment (as waste or emissions, for example). The SEEA CF comprises several subsystems, including energy, air emissions, environmental protection expenditures and environmental tax accounts, allowing users to understand the economic trade-offs and synergies involved in the use of natural resources and to assess the effectiveness of economic instruments.

A key feature of the SEEA is that it uses the same definitions, concepts, classifications and overall accounting structure as the System of National Accounts (SNA). This allows the calculation of depletion-adjusted aggregates such as "green GDP". For example, the National Institute of Statistics and Geography in Mexico uses SEEA accounts to adjust GDP for the economic cost of environmental depletion and degradation. The link between the SEEA and SNA also provides a crucial tool for countries to understand the economic pathways to carbon neutrality, as shown in the examples below.

Example 1: carbon footprints in the European Union

Footprints (for example, carbon footprints and water footprints) are one of several analytical applications of the SEEA. A carbon footprint represents the amount of CO_2 emitted to produce a final product, including emissions from intermediate inputs and emissions embedded in imported intermediate and final products. This important analytical tool can be used to understand which product- and consumption-related policies can help limit CO_2 emissions. Box figure II.4.1 is derived from Eurostat SEEA air emission accounts and illustrates the respective contributions of broad product groups to the European Union carbon footprint in 2017. While most services (with the exception of transport) generally emit relatively little CO_2 directly, the CO_2 footprint of the "other services" product group represents 23 per cent of the total carbon footprint of the European Union, which is almost on par with the carbon footprint from "materials and manufactured products" (24 per cent). This clearly shows that the demand for services is a significant driver of CO_2 emissions in the European Union, with important implications for policy design.

Example 2: shifting towards low-carbon growth in Indonesia

The Ministry of National Development Planning in Indonesia, in collaboration with the World Bank and other development partners, recently introduced the Low Carbon Development Initiative into the country's National Medium-Term Development Plan 2020-2025.[b] To facilitate a better understanding of the feasibility of low-carbon growth, scenario modelling was conducted using environmental accounting approaches based on the SEEA. This included the use of land cover accounts, land extent accounts and peat accounts developed at the national and provincial levels. These accounts, coupled with the incorporation of an energy and water balance in the model, allowed for the estimation of the impact of natural resource availability and ecosystem service provisioning on economic productivity—and hence on forecasts for GDP growth and other macroeconomic performance indicators. Box figure II.4.2 projec-

(*continued*)

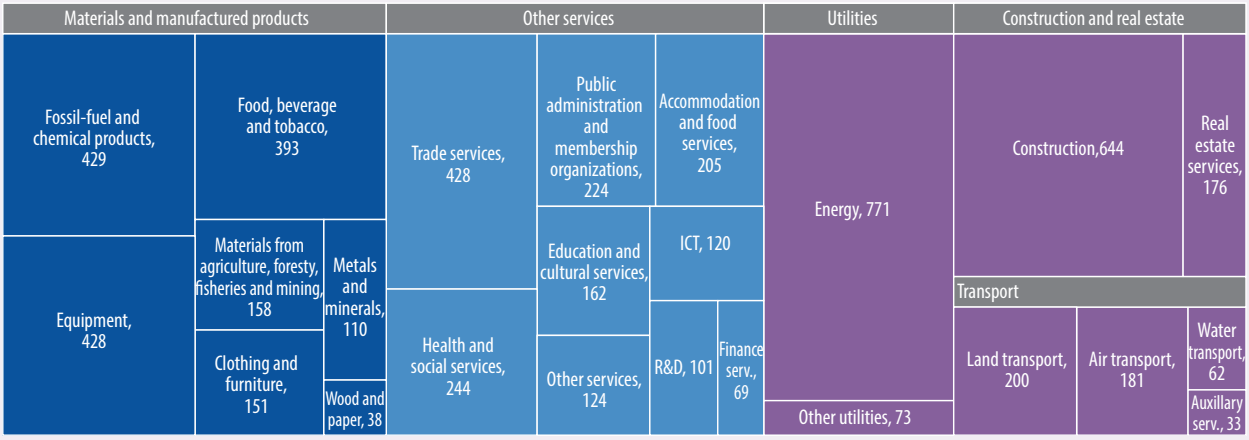
a NCA is used both for the system of natural capital accounting and for natural capital accounts data; in the present context, NCA refers to the former.

b See https://www.bappenas.go.id/id/berita-dan-siaran-pers/pembangunan-rendah-karbon-pergeseranparadigma-menuju-ekonomi-hijau-di-indonesia/.

Box II.4 (*continued*)

Figure II.4.1

Carbon footprints in the European Union, by product group, 2017

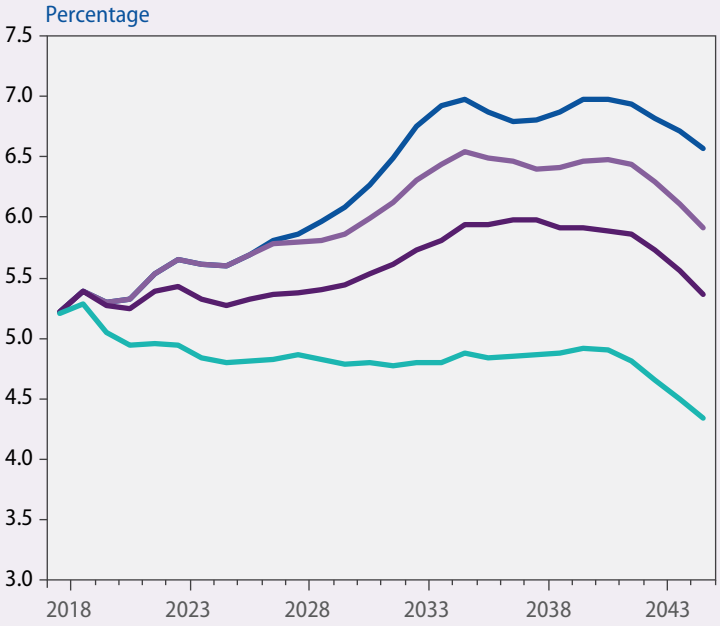


Source: Eurostat (online data code: env_ac_io10).

Note: Estimates.

Figure II.4.2

Indonesian GDP growth trajectories for various scenarios



LCDI Plus
Reflects LCDI High for 2020–2024 and additional, more amibitious policy measures thereafter

LCDI High
Includes more ambitious policy measures than LCDI Moderate for 2020–2045, achieves the conditional NDC target

LCDI Moderate
Includes new low carbon policy measures for 2020–2045, achieves the unconditional NDC target

Base Case
No new policies but reflects environmental degradation

Source: Indonesia, Bappenas (2019).

tions illustrate that labour productivity and GDP growth increase with the extent of ambition of policy measures introduced in support of low-carbon development.

Example 3: energy intensity of the Costa Rican economy

The energy intensity of economic activities can be estimated by calculating the ratio between final energy use and value added. This indicates how many units of energy (joules) are required to generate a million units of output (in Costa Rican colones) and is therefore a measure of the energy efficiency of economic activities. As box figure II.4.3 shows, the energy intensity of the Costa Rican economy has

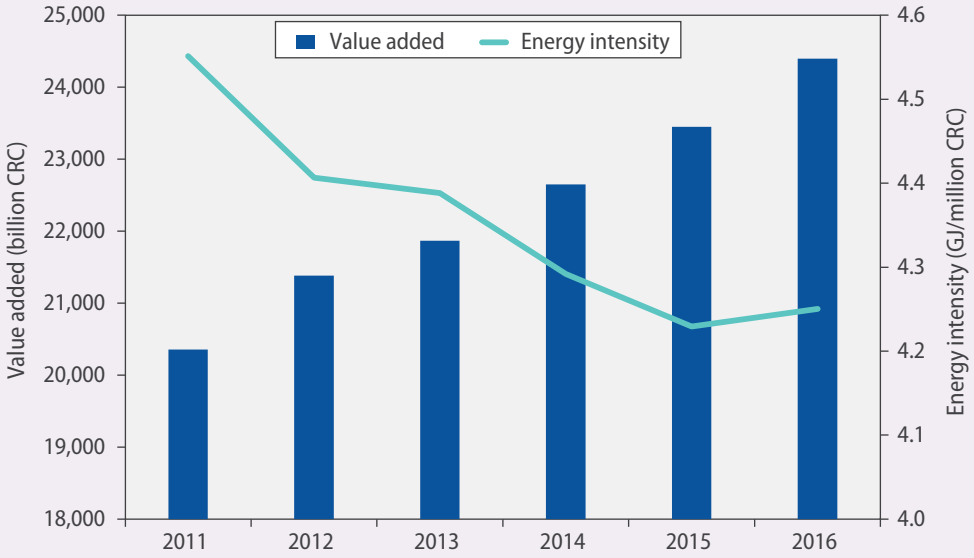
(*continued*)

Box II.4 (*continued*)

decreased since 2011, though 2016 saw a slight increase of 0.5 per cent over the previous year. Since 2013, the electricity and water supply sectors have become more efficient in their energy use, but agriculture has trended in the opposite direction. Because of the consistency between the environmental accounts and the national accounts, such trends can be further analysed by, for instance, undertaking a structural decomposition analysis to assess the drivers of change.

There is increasing interest from a wide range of stakeholders in the use of NCA for the mainstreaming of ecosystems and biodiversity in policy. There are currently around 90 countries using the SEEA CF, and about 40 countries are piloting the SEEA EEA. A revision process is under way to develop an agreed statistical framework for ecosystem accounting by early 2021.

Figure II.4.3
Energy intensity of value added in Costa Rica



Source: Banco Central de Costa Rica, energy accounts (2011–2016) and National Accounts.

Note: The value added series used corresponds to the chained volume at prices of the previous year, year of reference 2012.

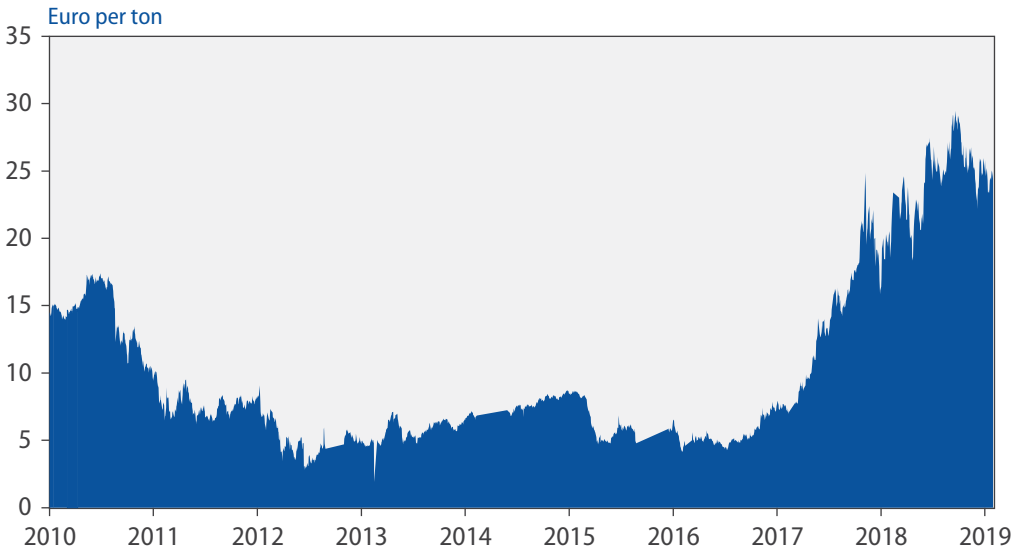
Authors: Alessandra Alfieri, Jessica Ying Chan and Bram Edens (UN DESA/Statistics Division).

Carbon pricing obliges producers and consumers to integrate into their economic decisions the environmental damage and other costs that have hitherto been offloaded onto society as a negative externality. Establishing a price for emitting CO_2 would shift economic incentives and require the calculation of new, adjusted costs along the extraction and consumption chain for fossil-fuel-based products. To be effective, the price on CO_2 must be sufficiently high and cover all relevant parts of the economy.

Forms of carbon pricing: emission trading systems and carbon taxes

Carbon pricing can take different forms but generally falls into one of two categories or reflects a hybrid of these schemes. The first of these is an emissions trading system (ETS), in which emission quotas are allocated through auction or direct apportionment by the Government, with a ceiling imposed on individual and aggregate CO_2 emissions. The advantage of this approach from the perspective of policymakers is that the total quantity of allowances, and hence the total emission level, is fixed. This can also be a major challenge, however, as getting the total emission quantity right may require repeated policy adjustments. In the European Union ETS, for example, an oversupply of initial allowances depressed the CO_2 price so much that the trading system became largely ineffective. Policymakers subsequently stepped in and made changes to the system, contributing to a meaningful adjustment in the CO_2 price (see figure II.8).

Figure II.8
Implicit CO_2 price in Europe



Source: Markets Insider (https://markets.businessinsider.com/commodities/historical-prices/co2-european-emission-allowances/eur, accessed on 4 December 2019).

Note: Price of European emission allowances. One allowance gives the holder the right to emit one ton of CO_2 or the equivalent amount of nitrous oxide or perfluorocarbons.

The other major form of carbon pricing is a tax or fee on CO_2 emissions. This can take different modalities, depending on whether the price is paid at the source by the producer, on final consumption, or incrementally along the value chain, for example.

There are currently 29 explicit carbon tax regimes and 28 emissions trading systems around the world that have been implemented at the subnational, national or regional level and together cover about 11 Gt of CO_2 equivalent, or about one fifth of global emissions. The effective price of CO_2 ranges from less than $1 to $127 per ton, with about half of these covered emissions priced at less than $10 (World Bank, 2019b).

Current carbon pricing initiatives are well below the levels needed to drive behavioural change

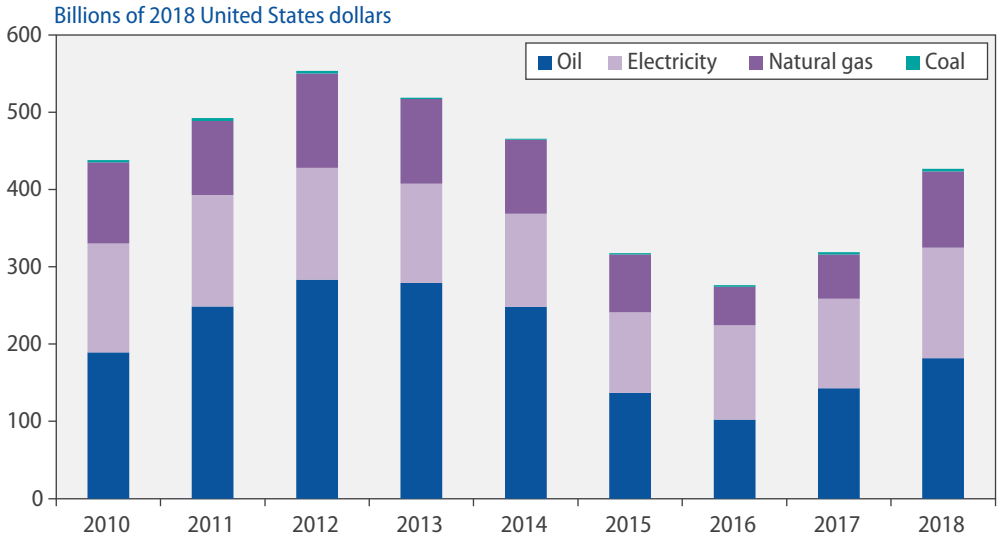
The appropriate price for CO_2 will depend on the broader policy mix, making it difficult and inefficacious to simply compare prices across countries. Nonetheless, it is clear that the price required to curb emissions is much higher than most of the prices currently in place. A number of studies identify a range of $150 to $300 per ton to achieve a sufficiently large reduction in emissions (Independent Group of Scientists appointed by the Secretary-General, 2019). According to the OECD (2018b), the present carbon rates are particularly far off target in the industry sector and the residential and commercial sector. In both sectors, more than 80 per cent of all emissions in 2018 were subject to an effective carbon tax rate of less than €5 per ton.

In most of the countries that have adopted carbon pricing, very generous exemptions are typically offered to affected industries. While this compensates firms for associated losses, it is far less effective at delivering behavioural change. Governments may instead consider approaches such as output-based rebates or negotiated performance agreements in order to align industrial incentives with the shift towards low-carbon alternatives.

The need for policy coherence: carbon pricing must be accompanied by phasing out fossil-fuel subsidies

Fossil-fuel subsidies continue to play an important role in many countries (see figure II.9). Direct support for fossil-fuel consumption amounted to more than $400 billion globally in 2018 (IEA, 2019b). However, this nominal value excludes the various implicit costs deriving from fossil-fuel use, including environmental damage and health-care costs. Taking into account these externalities, the total cost of fuel subsidies is closer to $5.2 trillion—equivalent to 6 per cent of world gross product (Coady and others, 2019). This

Figure II.9
Global subsidies for fossil-fuel consumption



Source: UN DESA, based on data from the IEA fossil fuel subsidies database.

stands in contrast to the global estimate of $150 billion to $200 billion for renewable power generation subsidies (Independent Group of Scientists appointed by the Secretary-General, 2019). In many countries, fossil-fuel subsidies are about 10 times greater than total government environmental expenditures, which typically cover waste management, wastewater management, pollution abatement, biodiversity and landscape protection, and environmental research and development (R&D) (IMF, 2019b).

Fossil-fuel subsidies are diametrically opposed to the purpose of carbon pricing, as they reduce the price of fossil fuels relative to the price of renewable energy sources. The failure of Governments worldwide to implement sufficiently high carbon tax rates and eliminate fossil-fuel subsidies can be attributed mainly to political economy constraints. In many cases, fossil-fuel subsidies alleviate the lack of access to affordable energy for the poor. Removing these subsidies without putting an affordable clean energy source in place would create tension between the targets of reducing CO_2 emissions and providing universal access to affordable energy. The sequencing and speed of the transition to cleaner energy sources must be carefully managed to ensure that the most vulnerable are protected. Fiscal space created by the phasing out of fossil-fuel subsidies and the introduction of carbon pricing can be redirected towards alternative technologies such as solar electricity, battery storage and micro-grid management in order to ensure affordable energy access, especially for the poor. These fiscal support measures should be applied to households and affected industries as directly as possible—for example, in the form of grants, price discounts, tax credits or direct installation assistance. This would increase awareness of the offsetting compensation linked to the withdrawal of subsidies and help build public support for the energy transition.

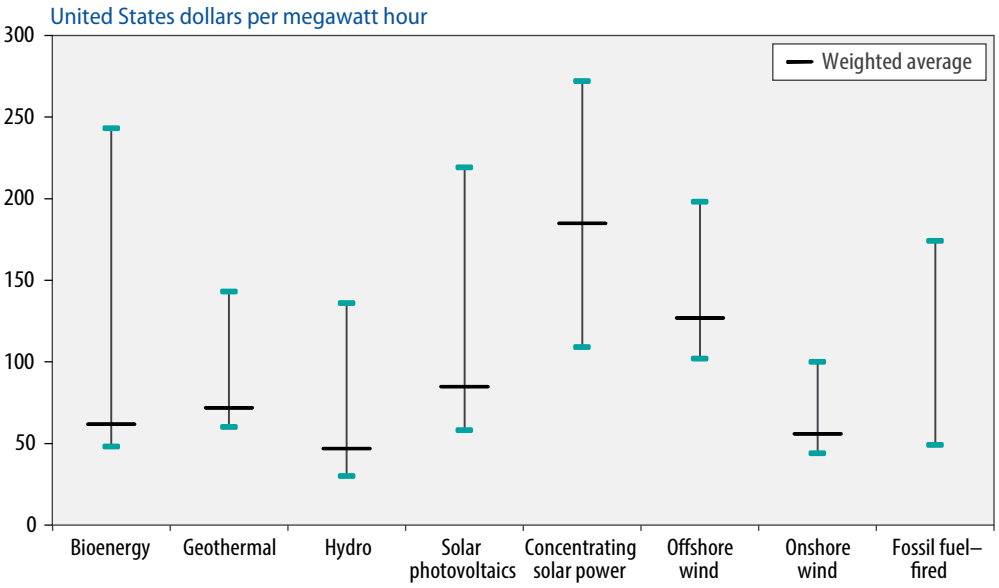
Expanding investment in clean energy innovation will spur the deployment of renewables

Even with the current fossil-fuel subsidies and largely ineffectual carbon pricing, competitive pressures driven by shifts in the cost of using fossil-fuel-based energy relative to the cost of using renewable energy have already elicited and will continue to elicit changes in behaviour. Carbon taxes and subsidy removal are not the only instruments available to effect these relative price changes. Energy efficiency requirements in building codes or

ceilings on the average fuel consumption of vehicular fleets are very effective means of delivering behavioural change. Feed-in tariffs paid to renewable energy producers for supplying energy to the electricity grid have helped expand investments in renewables. Policy measures can also be put in place to encourage R&D and innovation in renewable energy technology.

Investment in R&D is driving technological change that is helping to reduce costs for wind and solar energy. This, in turn, is boosting global renewable energy capacity and progress towards a cleaner energy mix. The levelized cost of power generation for solar PV without tracking systems has declined by 83 per cent since 2009 and the cost of onshore wind energy is down 49 per cent, driven by R&D focused on solar and wind technologies, the standardization of such technologies, and economies of scale in manufacturing. This means that two thirds of the world population is now living in countries where either solar or wind is the cheapest choice for electricity generation in terms of all-in costs (Bloomberg New Energy Finance, 2019). This cost decline has increased the competitiveness of these technologies as viable alternatives to fossil fuels (see figure II.10), supporting a rise in the share of renewables in global electricity production from 20 to 26 per cent since 2010. Solar and wind power have also gained in competitiveness relative to other low-carbon energy sources, such as hydropower and nuclear power.

Figure II.10
Global electricity costs in 2018



Source: UN DESA, based on data from IRENA (2019c).

Note: Upper and lower boundaries represent the 5th and 95th percentiles of global cost ranges.

Looking ahead, electric batteries can be expected to follow a similar downward price path and become more efficient to produce through standardization and economies of scale. Electric vehicles have already made great strides, and some of the largest global car producers have announced what essentially amounts to the electrification of their entire range of product platforms. Other car manufacturers are exploring possibilities for using clean energy options such as fuel cells and hydrogen-based propulsion technologies (Phillips, 2019).

Pricing mechanisms must work hand in hand with regulation, education and technology to deliver a rapid energy transition

Encouraging behavioural adjustments through relative price changes is at best a blunt instrument—one that is necessary but by no means sufficient to deliver the rapid change in the energy mix that is required. Consumer and producer behaviour can also be guided by raising environmental awareness, providing access to more energy-efficient options, and implementing regulatory changes that work hand in hand with ongoing changes in relative prices. There is an important role for active fiscal policy in supporting R&D and also in directing investment towards infrastructure development to facilitate network and scale effects, the lack of which can block otherwise viable technologies.

Carbon pricing instruments will create additional fiscal space

Revenue from pricing mechanisms such as taxes on carbon emissions can expand fiscal space, generating valuable resources that can be used to meet development priorities. Governments may choose to channel a portion of this revenue back into society to offset the costs of the energy transition borne by poorer households, for example. Early implementation of such mitigation measures, before new taxes are fully phased in, can demonstrate the political commitment to using revenue to reduce inequality and strengthen public support (United Nations Inter-agency Task Force on Financing for Development, 2019). The additional fiscal space can also be used for other development priorities, including expanding investment in renewable energy and innovation. Given the already strained fiscal positions in many countries and the vast financing needs associated with meeting the Sustainable Development Goals and implementing environment-friendly reforms, creating this additional fiscal space is particularly important. Ensuring universal access to energy would require investment of about $55 billion annually between 2018 and 2030—mainly focused on securing access to electricity (IEA, 2019b).

A policy framework for winding down carbon-intensive activities

Winding down fossil-fuel-related activities will bring wide-ranging challenges

The capacity for many fossil-fuel-rich economies to adapt to a future of declining demand for carbon-intensive products is severely limited by their reliance on related revenue that is needed to finance fiscal spending and essential imports. Many countries also lack the technology and skills needed to develop a more diversified production base and are restricted by a rigid institutional framework. In the short term, a policy decision to reduce or eliminate the extraction of fossil fuels could translate into job losses, reduced tax revenues, and the imposition of costs on firms, power suppliers and homeowners that would need to modify or replace existing infrastructure. There would also be a risk of disruption to the essential energy supply, with related health and safety risks and disruptions in production.

Geopolitical concerns and financial stability risks loom large, as "the loss of revenue from the energy sector could be destabilizing internally, regionally and even internationally" (UNCTAD, 2019a, p. 19). This could also trigger a "price war" scenario, with fossil-fuel producers offering increasingly lower prices in order to maintain a share of global energy supply, testing the resolve of the international community to move away from fossil fuels (Van de Graaf and Verbruggen, 2015).

As pressures mount from a combination of declining demand and more stringent environmental regulation across the world, the exploitation of fossil-fuel resources will become increasingly less profitable, eventually resulting in the closure of mines and extraction facilities. This is already evident in the case of the coal industry, as the operating cost of existing coal-fired power plants is now above the cost of new solar PV and onshore wind in many countries (IRENA, 2019c). This is encouraging a more rapid transition away from coal (see box II.5).

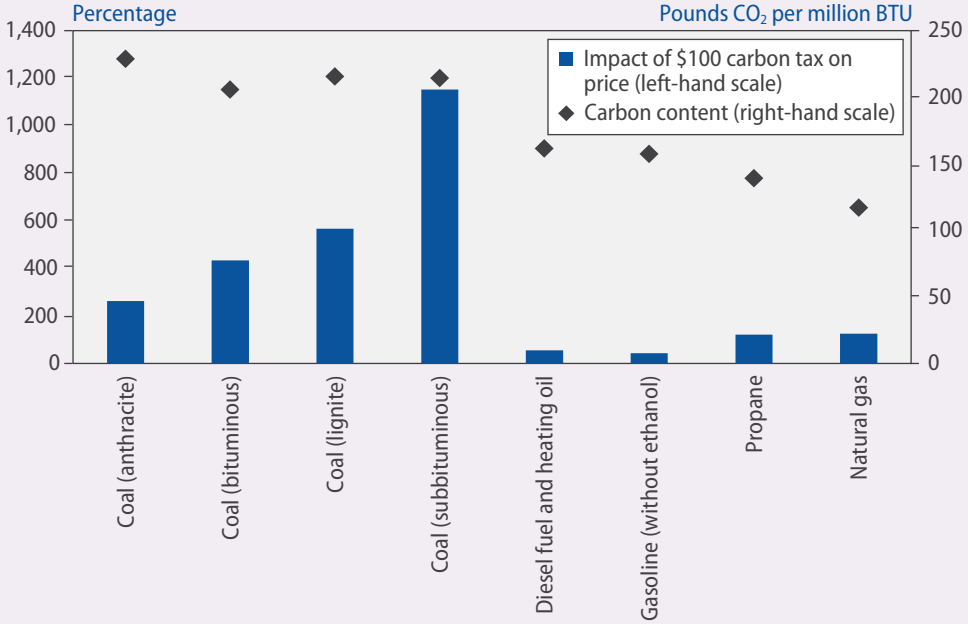
Box II.5

Carbon pricing and the global coal market

Resources may become stranded as a result of changes to regulations, pricing or behavioural norms that create a situation in which there is no longer a market for the resource or the resource is no longer economically viable to extract. For example, widespread use of carbon pricing will raise the cost of using fossil fuels and alter the relative price of different energy sources. This will encourage a shift in the composition of the energy mix and patterns of demand. Box figure II.5.1 shows an example of how the introduction of a $100 carbon tax would impact the price of various fuels; the impact would depend on both the level of carbon emissions associated with burning the fuel and the pre-tax price of that fuel. Pre-tax prices differ significantly across countries, but for the most part a carbon price can be expected to raise the price of coal significantly relative to other fuels, encouraging the transition away from coal.

Figure II.5.1

Carbon content of various fuels and impact of $100 carbon tax on price in the United States



Source: UN DESA, based on data from Hafstead and Picciano (2017) and United States Energy Information Administration (https://www.eia.gov/tools/faqs/faq.php?id=73&t=11).

Coal is the most carbon-intensive fuel and is also responsible for much of the global deterioration in air quality, especially in the big cities of China and India. The need to transition away from coal and towards alternative energy sources has been recognized for decades. The members of the Powering Past Coal Alliance, which include 32 national Governments, 25 subnational Governments and 34 businesses and organizations, have pledged to stop constructing new coal-fired power plants by 2020 and to accelerate the transition towards clean energy with the aim of phasing out coal altogether.

Coal remains the world's largest source of power, and coal-fired power capacity continues to rise

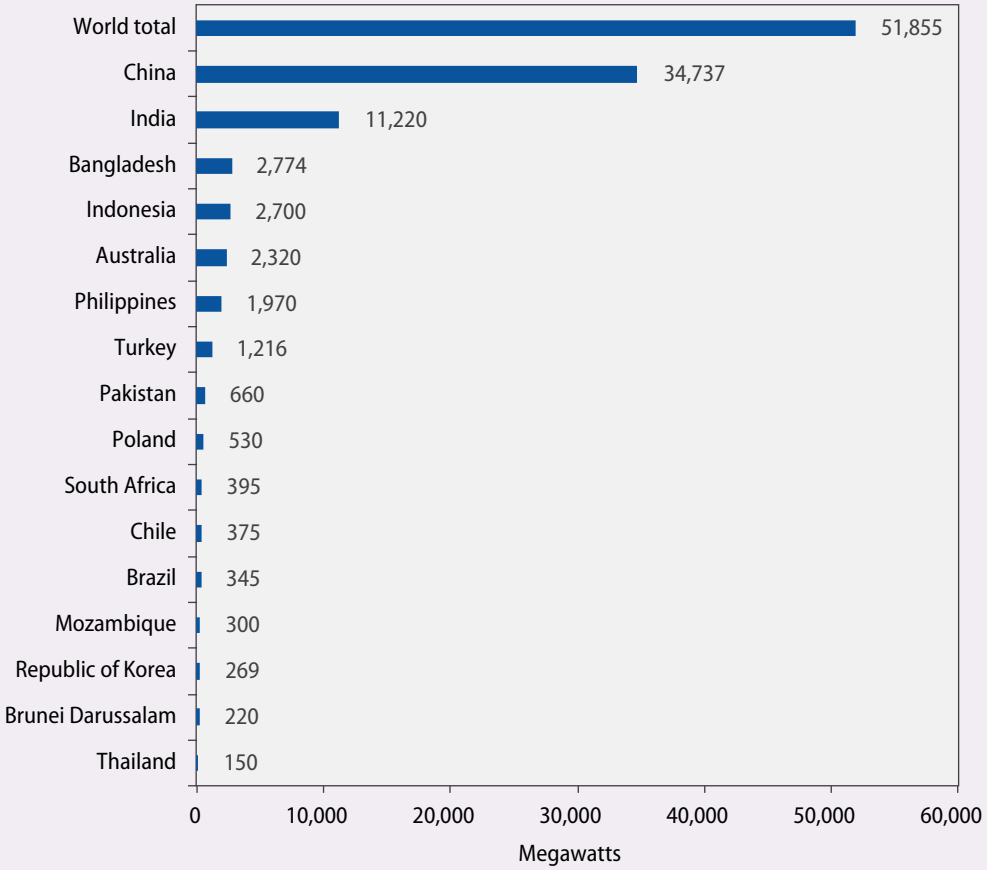
Such plans notwithstanding, coal remains the world's largest source of power, accounting for 38 per cent of the global electricity supply in 2018. Global coal-fired capacity has nearly doubled since 2000, despite an acceleration in the pace of decommissioning and the cancellation of 1,034 planned or announced projects since 2015. Several countries are still involved in the construction of new coal-fired power plants

(*continued*)

Box II.5 (*continued*)

(see box figure II.5.2), which have a life expectancy of up to 75 years (Rode, Fischbeck and Páez, 2017). This demonstrates a persistent lack of recognition of the urgency of transitioning towards clean energy, encouraging financial investment in plants that are likely to become stranded long before the end of their technical life.

Figure II.5.2
Proposed and new coal plants in 2019



Source: Global Energy Monitor, Global Coal Plant Tracker, July 2019.

Note: Sum of newly proposed, started construction, resumed construction and newly operating, less retired. Changes from end–2018 to July 2019.

Coal power generation is declining in much of Europe and North America. Belgium, France, Slovakia, Sweden and the United Kingdom all expect to eliminate coal-fired power in the next few years. Meanwhile, Germany continues to rely on coal-fired plants for 40 per cent of its power and Czechia for roughly half of the national power supply, while in Poland 80 per cent of power is generated by coal-fired plants.

Asia accounts for three quarters of global coal consumption and faces a particularly high risk of stranded assets and asset losses. Of the anticipated cumulative lifetime emissions of electricity generators under construction or planned in early 2017, coal plants in Asia accounted for nearly 60 per cent (Pfeiffer and others, 2018). China has made important strides in reducing the share of coal in the energy mix while also encouraging existing coal-fired power plants to install low-carbon technologies. Nonetheless, to meet the country's rapidly rising electricity demands, coal-fired power supply increased by 4 per cent in 2018. At the same time, China has invested more than $50 billion in coal energy abroad

(*continued*)

Box II.5 (*continued*)

(towards an estimated 70 coal-fired power plants) in connection with the Belt and Road Initiative and China-Pakistan Economic Corridor programme (Gallagher, 2018).

India has also made efforts to reduce the share of coal in electricity production, with the rise in solar and wind capacity outpacing that of coal capacity in recent years. Nonetheless, India is the world's second-largest consumer of coal, and the sector remains highly subsidized. Coal accounts for 57 per cent of total energy consumption and 74 per cent of electricity production. Coal-fired power capacity continued to expand in 2018, albeit at significantly reduced rates relative to previous years.

Most African countries draw only a small share of electricity from coal, but many are considering new coal-fired power plants

Most countries in Africa currently draw only a small share of electricity from coal; the exceptions are South Africa, which generates 93 per cent of its electricity from coal, and parts of North Africa. However, Governments across the continent are considering new coal-fired power plants to meet the urgent need for an expanded power supply. In more than 30 African countries, less than half of the households have access to electricity (Blimpo and Cosgrove-Davies, 2019), most countries lack grid capacity, and power outages are frequent. Meeting these needs is urgent, but utilizing scarce resources to invest in technology that will ultimately have to be retired before the end of its technical life would be a costly endeavour, both financially and environmentally.

Authors: Dawn Holland and Carlotta Lambrecht (UN DESA/EAPD).

Many developing countries have recently discovered new fossil-fuel resources

Investment in oil and gas exploration continues to expand, rebounding from the drop that coincided with the decline in oil prices during the period 2014-2016. Several countries, including Côte D'Ivoire, Ghana, Guyana, Kenya, Mozambique, Senegal, the United Republic of Tanzania and Uganda, have recently discovered new fossil-fuel resources and are seeking to exploit their revenue potential. Without a realistic assessment of the prospects for future demand, there is a risk of short-sighted policy decisions that lock in stranded assets and losses. At the same time, there is massive potential for the expansion of renewable energy. Africa has the richest solar resources in the world but is home to less than 1 per cent of globally installed solar PV. In many countries, solar PV would provide the cheapest source of electricity.

The policy framework for winding down fossil-fuel activities should develop along five fronts

Creating an appropriate policy framework to facilitate the economic transition away from carbon-intensive activities is crucial. The framework—which must consider the overall costs of adjustment as well as the effects on government revenue, employment and the financial sector—should be developed along the following five fronts:

- For fossil-fuel producers, **revenues from current fossil-fuel sales must be carefully managed** to provide a buffer against potential losses, to ensure that funds are available to support the adaptation and transition process, and to invest in a diverse portfolio of long-term assets. The majority of long-term oil and gas producers, including Algeria, Angola, Azerbaijan, Bahrain, Brunei Darussalam, Colombia, Gabon, the Islamic Republic of Iran, Kazakhstan, Kuwait, Libya, Nigeria, Oman, Qatar, the Russian Federation, Saudi Arabia, Timor-Leste, Trinidad and Tobago, the United Arab Emirates, and the Bolivarian Republic of Venezuela, have already established sovereign wealth funds that may help to ease the transition. A total of 78 commodity-based sovereign wealth funds existed in March 2018 with over $7.4 trillion (9 per cent of world gross product) in assets (World Economic Forum, 2019b). However, many newcomers to fossil-fuel production lack these essential resources, and the size of the funds is sometimes limited.
- **The dependence of public finances on fossil-fuel-related revenue must be reduced** by expanding and diversifying the tax base. At least 14 fossil-fuel exporters around

the world continue to rely on fossil-fuel sales to fund more than half of their fiscal spending (see figure II.6). Unless major diversification efforts are undertaken, there is a risk of a dramatic shortfall in public services as this revenue source dwindles.

- **Economic diversification—especially into industries that produce and use clean energy—should be encouraged** through targeted investments in technology, infrastructure, training and skill development. This will help ease the burden on external balances as commodity-related revenues decline, create new employment opportunities, and promote a smooth transition to a cleaner energy mix. Private-sector engagement may be supported through the establishment of a transparent business environment backed by sound institutions.
- **Risk-sharing agreements with existing and potential private-sector investors in carbon-intensive activities must be transparent and balanced**. Developing natural resource industries requires significant investment in both human and physical capital. This presents an important challenge for many developing countries, which often rely on foreign investors and companies to undertake costly exploration activities and establish the foundations of such industries. As the longevity of such investments becomes increasingly uncertain, countries that are considering further investment in fossil-fuel industries must ensure that these risks are clearly addressed in contractual agreements and shared transparently with private-sector partners.
- Where decisions on fossil-fuel production are in the hands of the private sector, **credible and predictable policy is needed to guide behaviour**. Effective use should be made of all available policy instruments, including emission standards, carbon pricing, restrictions on extraction activities, and support for cleaner energy sources. The policy framework must be carefully coordinated with social programmes to support job transitions and alleviate hardship for vulnerable populations.

Coordinating global carbon policy

Cooperative solutions at the global level are needed to adjust for the uneven distribution of energy transition costs and benefits

To date, policy measures put in place to accelerate the energy transition fall well short of what is needed. Fossil-fuel subsidies remain prevalent, outstripping subsidies for renewable power generation. Coal is still the world's largest source of power, and coal-fired power capacity continues to rise. Carbon pricing tools have been introduced on a very limited and fragmented basis and generally at levels too low to drive behavioural change. As progress accelerates along these fronts, the costs and benefits of the energy transition will be very unevenly distributed within and among countries, and this imbalance must be recognized and addressed through cooperative agreements in order to ensure a fair transition. Measures to alleviate the burden on those facing disproportionate losses are essential.

The energy transition calls for new national and global social contracts

Some segments of society will be particularly vulnerable to the social impacts of the energy transition. With socioeconomic upheaval on the horizon, Governments must take steps to craft new social contracts at the national and global levels to ensure that the transition is just. For many countries, the impact of the energy transition will have a strong regional dimension, with losses concentrated in particular locations; in such cases, particular attention should be given to regional policies. To ensure a just transition for all social groups, well-coordinated policy interventions are essential. Policy dialogues with stakeholders, including those who face economic losses from the energy transition, are also crucial. The Paris Agreement highlights the importance of public participation and comprehensive social protection in its preamble, and the Climate Action Summit of 2019

affirmed that the social dimension of climate change was a priority, stressing the importance of including in national commitments a just transition for people whose jobs and livelihoods are impacted.

Carbon leakage and emission front-loading highlight the need for a multilateral approach

As the reality of asset stranding takes shape, there is a risk that some economies may accelerate the extraction of their fossil-fuel resources while global demand remains firm in an effort to avoid losses in the future. This "Green Paradox" would encourage a short-term glut in fossil fuels, put downward pressure on fossil-fuel prices, delay the transition to cleaner energy sources, and ultimately require a more abrupt adjustment to realign supply with diminishing demand. This piecemeal approach to global carbon policy brings the risk of carbon leakage, whereby carbon-intensive industries are relocated to jurisdictions with more lax regulation, potentially even increasing global emission levels. The heavy carbon content of imports in developed economies suggests that there is some precedent for this behaviour. Consequently, there is an urgent need for coordinated multilateral action on carbon policy. Unified principles and standards would also facilitate the alignment of measures such as carbon pricing with other major policy areas, such as trade and international finance. Absent a global solution, accelerating the development and implementation of regional and subregional carbon policy mechanisms would be a second-best alternative, given the urgency of the challenge at hand.

The transition to a low-carbon global economy will require the rapid diffusion of technology

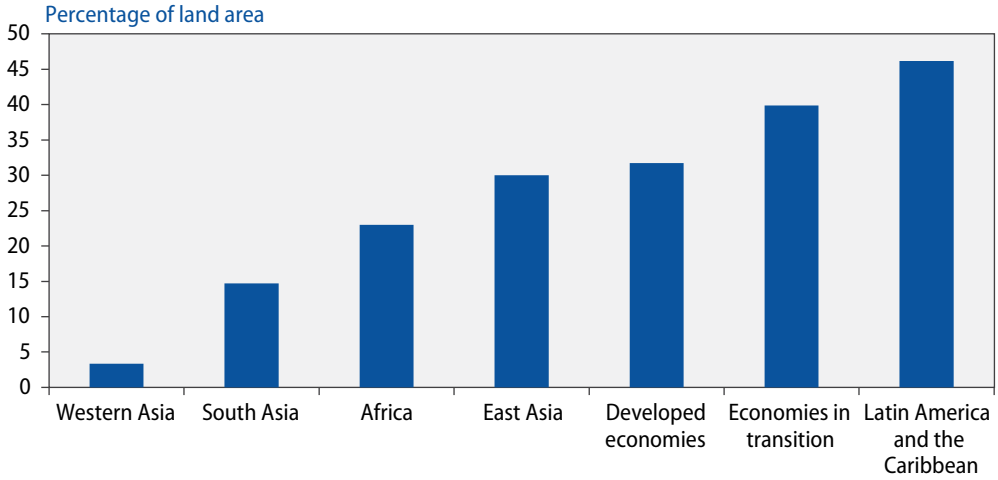
Global efforts must also prioritize the rapid diffusion of essential technologies, including those that allow energy efficiency gains, provide widespread access to clean energy, and support carbon capture and sequestration (to reduce CO_2 emissions from existing coal- and gas-fired power plants and industrial processes). Technologies put in place today have long-term financial and environmental implications. Leapfrogging towards low- and no-carbon technologies can preclude the creation of new stranded assets, which could lock in a carbon-intensive path for decades. In many cases the transition will necessitate the phasing in of energy technologies that, in the absence of a carbon price, are not among the most affordable options available at that point. Thus, climate finance will likely need to be significantly increased to support the transition in many developing countries, especially the LDCs (see box II.6). Large-scale financial and technology transfers from developed economies will be crucial.

Global carbon pricing would redefine the notion of economic liabilities and wealth

Putting a global price on net carbon emissions would underpin a far-reaching redefinition of what constitutes economic liabilities and wealth. At the national level, carbon-intensive activities would be subject to financial liabilities, incentivizing the avoidance of environmental pollution and the development of clean-energy solutions. At the global level, countries that continue to emit carbon would make financial transfers to countries that are net absorbers of carbon. This would create an entirely new economic paradigm, with the preservation and expansion of forests increasingly valued as a global asset. Countries in Latin America and the Caribbean have the potential for particularly high returns from such an initiative (see figure II.11).

The global transition to a low-carbon economy will encompass monumental changes in consumption choices, technology, industrial structure and policy design. The climate imperative is clear, and the window of opportunity for decisive policy action is narrowing. Any delay will significantly increase the ultimate costs. The transition to a cleaner energy mix has the potential to deliver environmental and health benefits worldwide and to provide economic opportunities for many countries. However, the economic and social consequences will be unevenly distributed. Successful execution of the global energy transition will require a clearly communicated and well-coordinated strategy, with close cooperation within and between countries.

Figure II.11
Forest cover by region



Source: UN DESA, based on data from World Bank, World Development Indicators database.

Box II.6
Falling behind? Recent trends in climate change finance for least developed countries

The least developed countries (LDCs) have been recognized as a group that is especially vulnerable to the negative impacts of climate change. The intrinsic vulnerability of ecosystems and human systems is a risk factor for a wide range of countries, but the LDCs have the added burden of low gross national income per capita, which constrains their ability to respond and build resilience. Therefore, the need to provide financial assistance, technology transfer and capacity-building to help the LDCs address climate change has been reflected in international agreements on climate change, disaster risk reduction and sustainable development.[a]

Sources of climate change finance for LDCs for adaptation and mitigation can be divided into private and public flows from developed countries to LDCs, from developing countries to LDCs (South-South cooperation), and from domestic sources. Public climate change finance flows to LDCs come from bilateral, multilateral and other sources.

Accurate and comprehensive data on climate change finance flows for LDCs are available only for public sources of finance from official multilateral channels. While 64 per cent of global climate change finance is estimated to have come from private sources in 2016, in LDCs private sources of climate change finance are likely to be much smaller, given the low volumes of FDI flowing to this group (UNFCCC, 2018). The data on private sources of climate change finance for LDCs are too incomplete to produce reliable numerical estimates.

The Global Environment Facility (GEF) oversees the GEF Trust Fund, as well as two climate change funds—the Special Climate Change Fund (SCCF) and the Least Developed Countries Fund (LDCF)—established under the United Nations Framework Convention on Climate Change. Based on calculations from the GEF Secretariat's project database, $781 million had been made available from the GEF Trust Fund up to November 2019 for national projects on climate change in LDCs. In addition, the GEF Trust Fund has financed regional and global projects on climate change that are benefiting both developing countries and LDCs. If the estimated contribution to LDCs from regional and global climate change projects is included, LDCs have received at least $1.74 billion, equivalent to approximately 12.2 per cent of total climate change funding from the GEF Trust Fund. The resources have primarily been used for mitigation, with a substantial share directed towards energy generation, distribution and efficiency. However,

(*continued*)

a See, for example, article 4.8 and 4.9 of the United Nations Framework Convention on Climate Change, articles 4.6, 9.4, 9.9, 11.1 and 13.3 of the Paris Agreement, the Sendai Framework, the 2030 Agenda for Sustainable Development, and the Addis Ababa Action Agenda.

Box II.6 (*continued*)

the need for investment in adaptation is far more urgent, given that a single climate-related disaster can erase years of development gains, while the share of global greenhouse gas emissions attributable to LDCs is relatively small.

From the time the SCCF was established in 2001 to the end of March 2019, cumulative pledges to the Fund amounted to $354 million; of this amount, $352 million was used for 78 projects (most of them under the SCCF Adaptation Programme), with $240 million going to LDCs.

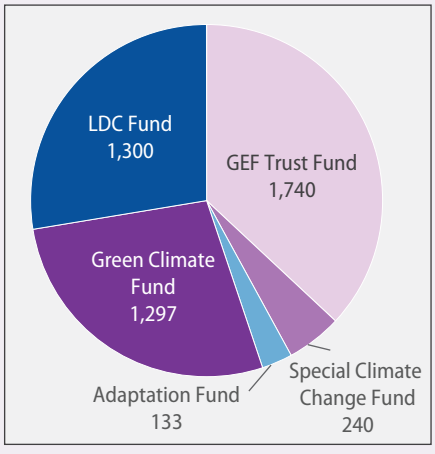
The LDCF supports a work programme that provides LDCs with assistance in the preparation and implementation of national adaptation programmes of action (NAPAs), which are country-driven strategies that identify the most immediate needs for climate change adaptation. The LDCF focuses on reducing the vulnerability of key sectors identified through the NAPA process, financing on-the-ground adaptation activities that provide concrete results in support of vulnerable communities. Between the time the LDCF was established in 2001 and the end of March 2019, 50 current and graduated LDCs accessed a total of $1.3 billion for 271 projects. The demand for LDCF resources continues to exceed the funds available for new approvals.

The Adaptation Fund was established under the Kyoto Protocol in 2001 and launched in 2007. It is administered by its own Adaptation Fund Board. The Adaptation Fund is financed through voluntary pledges as well as through a levy of 2 per cent raised from the sale of certified emission reductions under the clean development mechanism. The Fund reports that by June 2019 it had approved 23 projects for LDCs worth a total of $171 million, as well as readiness grants for 13 LDCs worth $635,000. Most funding has been allocated to adaptation projects relating to food security and rural development.

Formally established in 2010, the Green Climate Fund (GCF)—like the GEF—serves the Paris Agreement. The GCF aims to mobilize climate change finance to support scaled-up mitigation and adaptation action in developing countries. It seeks to achieve a balance between mitigation and adaptation investments over time and to ensure that at least 50 per cent of adaptation funding goes to the most vulnerable countries, including LDCs, SIDS and African States. From 2010 to September 2019, the GCF received pledges amounting to $10.3 billion, making it the largest dedicated climate fund. For the period 2015-2019, $5.6 billion in new allocations was approved, the bulk of it for project funding. Data from the GCF website indicate that by September 2019, total funding for LDCs had reached $1.4 billion (or 25 per cent of the GCF global portfolio). As at December 2019, $9.78 billion had been pledged for the first replenishment for the period 2020–2023.

Figure II.6.1
Multilateral climate change funding for LDCs, cumulative amounts since 1991

Millions of United States dollars



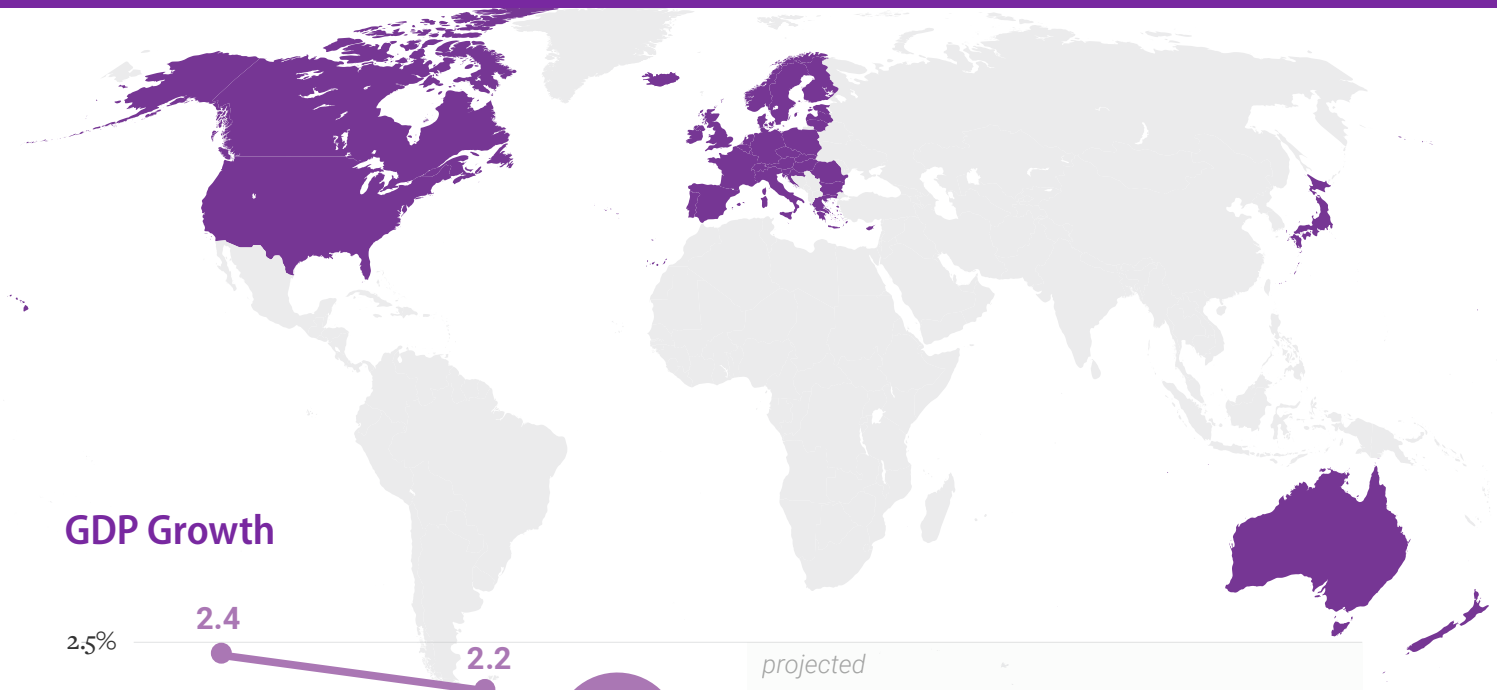
The amounts referred to above are far short of estimated requirements. According to one study, more than $5 billion per year is needed just to fund the NAPAs for the LDCs (Uprety, 2015). The total amount of climate change finance needed to fund both mitigation and adaptation measures post-2020 in the LDCs has been estimated at $93 billion per year, based on the intended nationally determined contributions (INDCs) submitted by 44 LDCs in the lead-up to the 2015 United Nations Climate Change Conference (COP 21) (International Institute for Environment and Development, 2015; UN-OHRLLS, 2018).

Some progress has been made in the replenishment of the GCF, but both traditional and non-traditional donors will need to contribute ambitiously. While the Climate Action Summit convened by the Secretary-General of the United Nations in September 2019 provided important political momentum, the international community will face major challenges in providing the resources required by LDCs to meet one of the gravest of threats to their sustainable development.

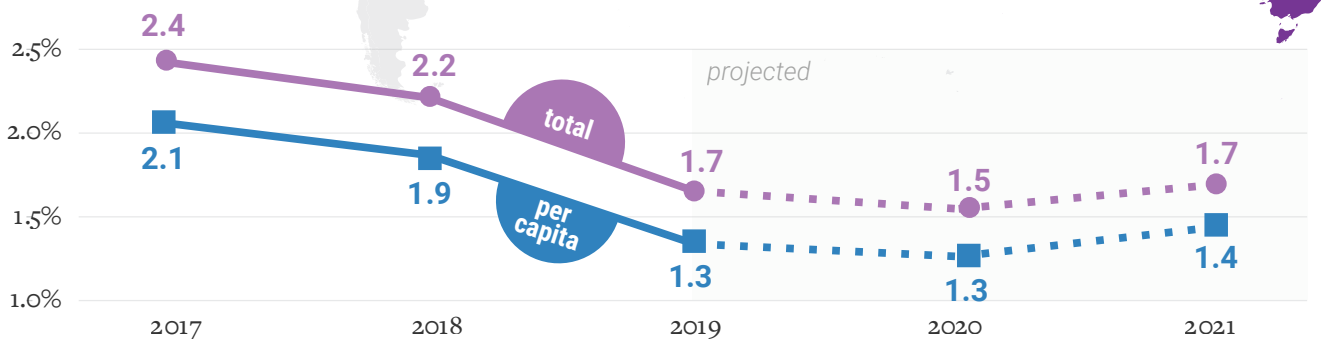
Sources: Adaptation Fund (2019a; 2019b); GEF Secretariat (2019); Global Environment Facility (2019); Green Climate Fund (2019a; 2019b; 2019c; 2019d).

Authors: Aniket Ghai and Lysiane Lefebvre (UN-OHRLLS).

Developed economies

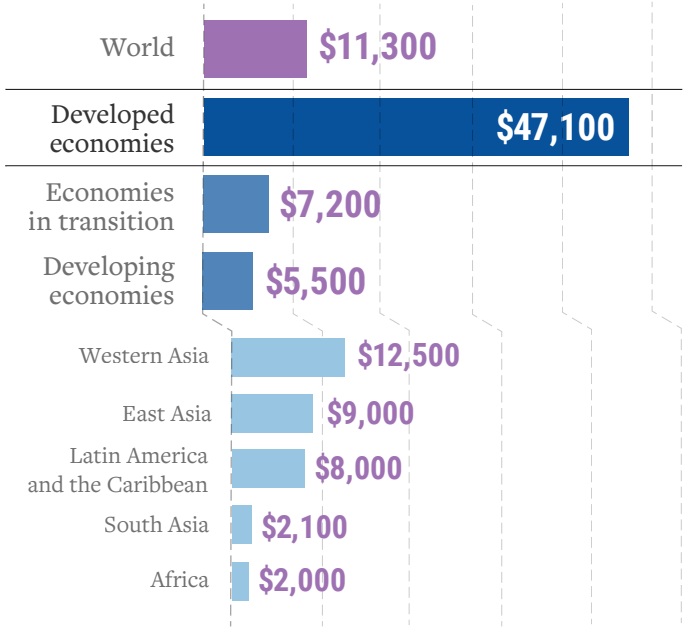


GDP Growth



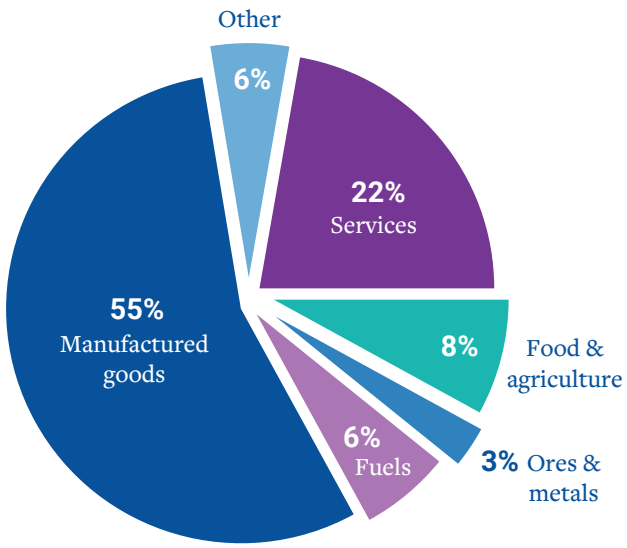
GDP per capita

2019



Export Structure

2018



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

The map represents countries and/or territories or parts thereof for which data is available and/or analysed in *World Economic Situation and Prospects 2020*. The shaded areas therefore do not necessarily overlap entirely with the delimitation of their frontiers or boundaries.

Chapter III

Regional developments and outlook

Developed economies

- Headwinds from global trade tensions are affecting investment in Europe and North America.
- Capacity constraints and labour market shortages are evident in many developed economies, including Canada, Germany, Japan and the United States.
- Deteriorating economic prospects have prompted monetary easing in Australia, Europe, New Zealand and the United States.

United States: trade tensions take an increasing toll on investment

Policy uncertainty will continue to weigh on economic activity

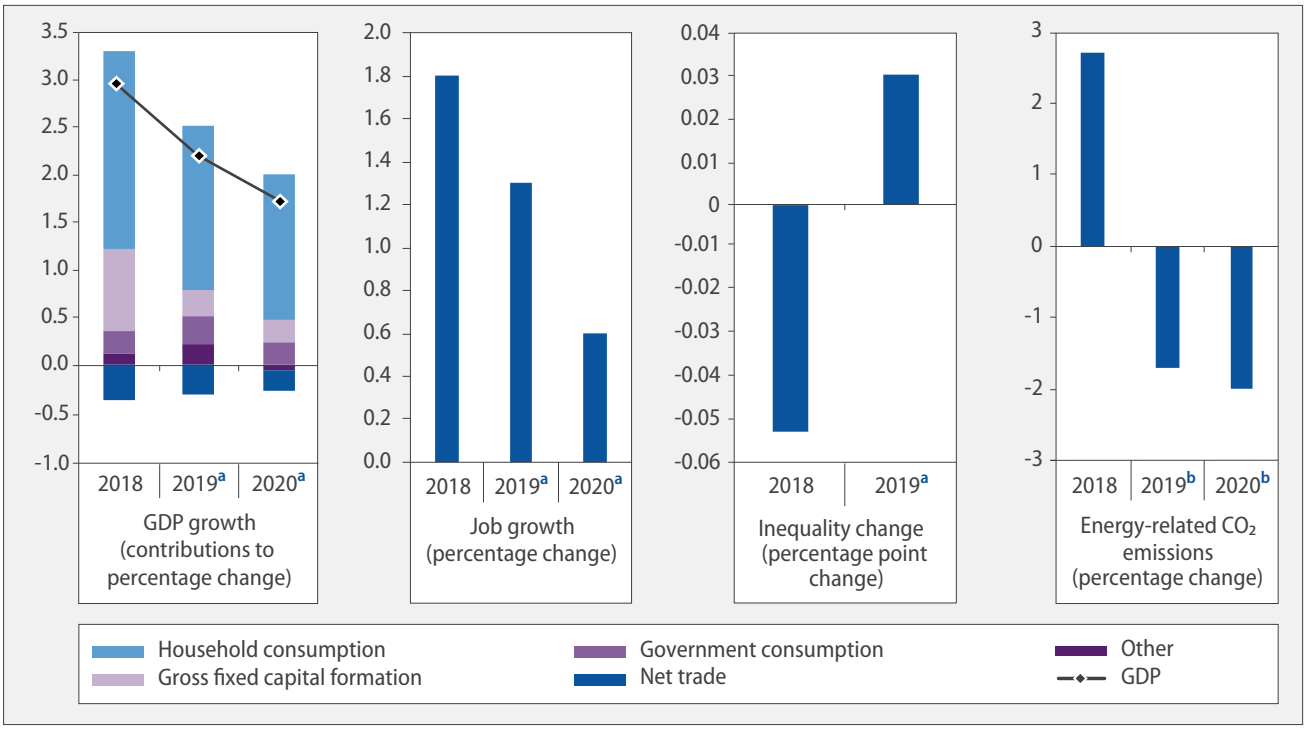
Economic activity in the United States has decelerated, largely reflecting the toll on investment of prolonged trade policy uncertainty and the impact of tariffs on specific sectors. At the same time, the effects of fiscal stimulus measures introduced in 2018 are fading; a lower global oil price has discouraged investment in the fossil fuel industry; and residential investment remains weak, partly reflecting labour shortages in the construction sector. Muted inflationary pressures and the deepening of trade disputes over the course of 2019 prompted a reversal in the monetary policy stance of the United States Federal Reserve. The target range for the federal funds rate was reduced by a cumulative 75 basis points in the second half of the year, while the Federal Reserve balance sheet was also allowed to rise; between September and November 2019, the central bank's balance sheet increased by over 7 per cent, reversing declines in the first eight months of the year. GDP growth is estimated to have moderated to 2.2 per cent in 2019, and a further slowdown towards 1.7 per cent is forecast for 2020. Even as trade tensions ease along some fronts, the potential for setbacks are high, and firms and households are expected to remain cautious.

Trade between the United States and China has plummeted by over 13 per cent

As trade tensions between the United States and its major trading partners continued to intensify, export volumes contracted by an estimated 1.2 per cent in 2019, while in value terms trade between the United States and China plummeted by over 13 per cent in the first nine months of 2019 in comparison with the same period a year earlier. Although China and the United States have reached agreements in some areas, a comprehensive agreement will require progress on many fronts, addressing issues that have yet to be tackled in depth, and there is a risk that trade tensions may re-escalate going forward. Tensions with trading partners in the European Union are also elevated in connection with issues surrounding agricultural access, tariffs imposed in response to the Airbus subsidy ruling, and repeated threats to impose tariffs on automobiles imported from the European Union.

Business confidence has been on a steady downward trend since the escalation of trade disputes in August 2018. Manufacturing production fell by 2.5 per cent in the first nine months of 2019, with a particularly sharp decline in the production of motor vehicles. While China has suspended the additional tariffs imposed on automobiles made in the

Figure III.1
Key indicators for the United States



Sources: UN DESA, United States Bureau of Labor Statistics, and United States Energy Information Administration.
Notes: Inequality is measured as the ratio of usual weekly earnings of the highest 10 per cent of earners to the lowest 10 per cent of earners.
a UN DESA estimates and forecasts.
b Estimates and forecasts from United States Energy Information Administration (2019).

United States, the industry is heavily impacted by tariffs imposed on imports of car parts into the United States from China, as well as by steel tariffs that raise input costs across the industry. One of the stated aims of recent trade measures is to increase investment in the domestic car industry, but to date production figures show little evidence of this boost. Recent negotiations also focus on increasing exports of agricultural goods from the United States to China. According to the United States Department of Agriculture, the soybean sector, in particular, has suffered from tariff hikes, with an estimated 60 per cent decline in exports to China between 2017 and 2019. However, removing these tariffs and resuming the purchase of agricultural products will not be sufficient to regain lost exports, as demand for soybeans in China has also fallen off steeply as a result of the outbreak of African swine fever and its impact on demand for animal feed.

While tariffs have increased selected prices in the United States, inflation has drifted below the Federal Reserve target of 2 per cent since late 2018 despite some upward pressure on wages from the extremely low unemployment rate. Subdued inflation is largely a reflection of movements in the oil price. Headline inflation is more sensitive to oil price dynamics in the United States than in most other developed economies, partly as a result of lower levels of taxation on gasoline and other carbon-intensive inputs and consumables.

The consumer price inflation rate (excluding energy) has remained steady at 1.6–2.2 per cent for several years, inching up to 2.3 per cent in the second half of 2019.

Inflation and investment in the United States are sensitive to oil price movements

Investment in the United States is also increasingly sensitive to the oil price, reflecting the short-term nature of investment activity in the shale industry, which now accounts for over 60 per cent of United States oil and gas production. In 2018, the oil price rose by 30 per cent, which was associated with a 24 per cent rise in investment in mining exploration, shafts and wells. In the first three quarters of 2019, the oil price was 10 per cent lower than a year earlier, and investment in mining exploration, shafts and wells declined by 5 per cent. This shift alone accounted for roughly 30 per cent of the slowdown in non-residential private investment growth in 2019.

The important role of the fossil fuel sector in the economy acts as an obstacle to more rapid progress towards environmental goals. While the majority of states have passed legislation requiring greater use of renewable energy by electric power plants, progress towards a cleaner energy mix is lagging behind most of Europe, and there has been a steady unwinding of environmental regulation over the last few years.[1] Nonetheless, total energy-related carbon emissions are estimated to have declined by 1.7 per cent in 2019, offsetting much of the rise seen in 2018 (see figure III.1). The improvement largely reflects a 5 per cent decline in summer cooling degree days, which were exceptionally high in 2018 (United States Energy Information Administration, 2019).

The number of households living in deep poverty has risen…

Despite the recent deceleration in growth, labour markets appear relatively strong, with the unemployment rate at its lowest level since 1969 and the ratio of workers to the total population of prime-age adults (aged 25 to 54) at its pre-recession high of 80.3 per cent. Poverty levels in the United States are closely correlated with job creation, and the steep decline in unemployment since 2010 has pulled a significant number of people out of poverty. However, sufficient social protection is failing to reach those at the very bottom of the income distribution, for whom the standard of living has deteriorated further over the past decade. The number of households living on less than $15,000 a year has increased by more than 1 million since 2007.

… and inequality continues to increase

Job quality is also uneven, and inequality remains a significant obstacle to a higher sense of well-being in the United States. After-tax income inequality in the United States is the highest among the developed economies and has continued to rise steadily since the mid-1970s. Following modest improvement in 2018, inequality—as measured by the ratio of usual weekly earnings of the highest 10 per cent of earners to the lowest 10 per cent of earners—increased in 2019 (see figure III.1). Inequalities in health and access to quality health care are also stark, with significant disparities according to race, ethnicity and educational background. The share of the population with no form of health insurance began to rise again in 2018 following several years of improvement, suggesting that health inequalities may widen further.

As the stimulus from the 2017 Tax Cuts and Jobs Act dissipates and consumer confidence is increasingly affected by economic uncertainty, household consumption growth is expected to slow. Government spending will also remain moderate. Higher discretionary funding limits for 2020 and 2021 that were established in the Bipartisan Budget Act of 2019 offer some scope for higher spending, including on defence and disaster preparedness and relief, which acts as a small upside risk to current short-term forecasts.

1 See, for example, Climate Deregulation Tracker, Sabin Center for Climate Change Law, Columbia Law School, Columbia University Earth Institute (https://climate.law.columbia.edu/climate-deregulation-tracker).

Canada: fossil-fuel subsidies undermine carbon pricing efforts

Global trade uncertainty has driven a sharp contraction in business investment

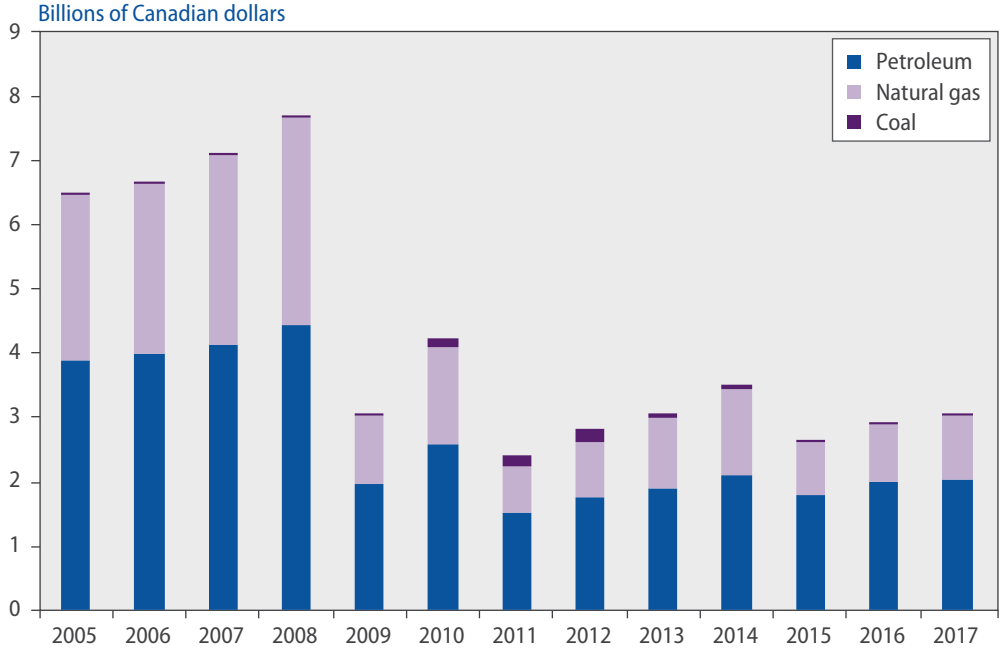
GDP growth in Canada slowed to an estimated 1.5 per cent in 2019 as global trade uncertainty and weak demand from the United States, the country's most important export market, delivered a sharp contraction in business investment. In an environment of heightened risk and uncertainty, GDP growth is forecast to remain below potential at 1.5 per cent in 2020.

The successful renegotiation of the United States-Mexico-Canada Agreement (USMCA) eases some downside risks for the Canadian economy. However, until the agreement is ratified by all parties, a resurgence of global trade tensions will remain a critical concern. Inflation in Canada remains close to the central bank target of 2 per cent; as a result, the Bank of Canada did not follow the global trend of greater monetary accommodation in 2019. The Bank's Governing Council remains open to interest rate cuts in 2020 if economic conditions deteriorate further and will carefully monitor developments in the exchange rate and labour markets. While the unemployment rate is near an historical low, with many companies reporting a shortage of skilled workers, persistent economic weakness in energy-producing regions has contributed to extended layoffs.

Fossil-fuel subsidies are at odds with the national carbon tax

Canada has set ambitious targets to meet emission commitments under the Paris Agreement. In 2019, the federal Government established a national carbon tax[2] as part of the Pan-Canadian Framework on Clean Growth and Climate Change. While this marks a decisive step, the federal Government and individual provinces continue to provide various types of subsidies to the fossil-fuel industry, which remains an important sector of the Canadian economy (see figure III.2). These subsidies, which include tax breaks, reduced

Figure III.2
Total support for fossil fuels in Canada by fuel type



Source: OECD Inventory of Support Measures for Fossil Fuels.

2 Provinces that did not introduce their own carbon pricing plan by 2019 received a federally mandated carbon tax.

royalty rates, and R&D support programmes, conflict with the incentives and targets of the carbon tax. Removing this double standard would accelerate progress towards the country's 2030 Agenda targets.

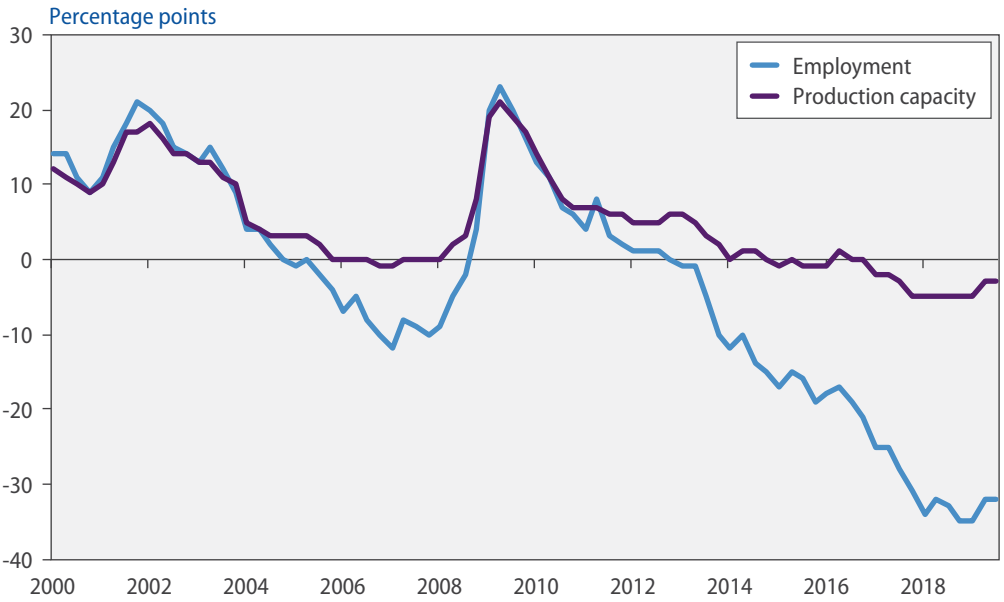
Japan: resilient investment sustains growth against weakening consumption and exports

In Japan, real GDP growth is estimated at 0.7 per cent for 2019 and is forecast to remain below 1 per cent in 2020 for the third year in a row. The country's weak economic performance reflects weak external demand; domestic demand has remained more resilient. Slowing demand from China, in particular, has impacted exports of the automobile and electronics sectors. Although corporate profits are in decline as a result of sluggish export earnings, capital investments remain firm, particularly in software, information technology and R&D. Private consumption has been constrained by declining real wages and a hike in the consumption tax rate in October 2019. A modest acceleration in GDP growth to 1.3 per cent is expected for 2021 as the impact of the consumption tax rise dissipates and real wages stabilize. However, the slowing growth of other East Asian economies, especially China, will continue to act as a drag on the Japanese economy.

Labour shortages reported by firms

The decline in average real wages in 2019 occurred despite a further tightening in the labour market. In August, the unemployment rate fell to 2.2 per cent for the first time in 27 years, and the quarterly Tankan survey revealed continuing labour shortages (see figure III.3); however, this has yet to put significant upward pressure on wages. Weak inflationary pressures overall partly reflect spare capacity in the business sector. The Tankan survey indicates that the utilization of capital equipment of business enterprises is well below capacity limits. Consumer price inflation declined to 0.7 per cent in 2019, and a similar rate is forecast for 2020; while a modest rise to 1.3 per cent is projected for 2021, the goal of meeting the Bank of Japan's inflation target of 2 per cent soon is becoming increasingly elusive.

Figure III.3
Diffusion indices on employment and production capacity in Japan



Source: Bank of Japan, Tankan survey.

Note: Figures are for all enterprises. Negative values indicate a shortage of labour or production capacity in the majority of businesses. Diffusion indices measure the difference between the share of enterprises identifying "excessive" employment or capacity minus the share reporting "insufficient" employment or capacity.

Monetary policy focuses on yield curve control

The Bank of Japan continues to maintain a set of unconventional monetary easing measures known as Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control (YCC). The rate of asset expansion under QQE has decelerated from an average of 17 per cent in 2017 to just 3 per cent year-on-year in September 2019. The year-on-year growth rate of the broad money stock (M2) decelerated from the 2017 average of 4 per cent to 2.4 per cent in September 2019. The focus of monetary policy has now shifted to the YCC component, as the Bank of Japan is actively involved in controlling the yield curve of Japanese Government Bonds (JGBs). YCC is aimed at maintaining the short-term interest rate at -0.1 per cent, the yield on 10-year JGBs at zero per cent, and long-term interest rates at a positive value.

Substantial appreciation of the yen remains the principal downside risk

As the interest rate differentials with other major currencies are narrowing, the Japanese yen is projected to appreciate. An abrupt and rapid appreciation of the yen remains the main downside risk for the Japanese economy. The deflationary effects of a stronger currency would erode fragile business confidence and deter the investment that is currently sustaining domestic demand.

The fiscal stance has tightened, as the Government is committed to lowering its debt dependency. Structural reforms have focused fiscal expenditures on areas such as the expansion of social protection systems. The expansion of childcare services is a priority, as the lack of such services deters a significant number of (mainly female) single parents from pursuing decent employment opportunities.

Australia and New Zealand: expansionary policies underpin economic growth

Mineral and fuel sectors lead export growth in Australia

The Government of Australia has shifted to a more expansionary fiscal stance, thanks to an improved fiscal position; coupled with a more expansionary monetary stance, this is offsetting weaknesses elsewhere in the economy. Real GDP growth is estimated to have dropped to 1.8 per cent in 2019 from 2.7 per cent the previous year, but the Australian economy is projected to grow by 2.1 per cent in 2020 and 2.2 per cent in 2021. Private consumption and residential investments are constrained by the weakness in residential property prices, which have been declining in Sydney and Melbourne, and have yet to show signs of recovery. Wage growth also remains sluggish, in part reflecting an increase in labour force participation, which has expanded the pool of jobseekers. With weak wage growth and subdued private sector demand, consumer price inflation dropped to 1.6 per cent in 2019. Export performance has been mixed. A surge in the price of iron ore in the first half of 2019 supported export revenue from the mineral and fuel sectors, but wheat exports have declined as a result of severe drought in eastern Australia. Weaker demand from China is expected to weigh on the economy in the near term.

Business sentiment appears pessimistic in New Zealand, but export growth remains resilient

In New Zealand, real GDP growth is estimated at 2.6 per cent for 2019 and projected to be 2.9 per cent in 2020 and 2.8 per cent in 2021. The mild acceleration into 2020 reflects a policy-led expansion in domestic demand. As in Australia, developments in the real estate sector continue to subdue private sector spending. Business sentiment has turned increasingly pessimistic. While export growth has thus far remained resilient, there are growing concerns regarding demand from East Asia, the country's major export destination. Consumer price inflation remains low, estimated at 1.4 per cent in 2019, allowing space for monetary easing. A series of policy interest rate cuts in 2019 is expected to give some relief to the real estate sector and boost business confidence. Moreover, the fiscal

stance is expected to be mildly expansionary since a more flexible debt target was adopted in the 2019 budget.

Europe: external conditions, policy uncertainty and structural changes take a toll on growth

The European Union is expected to see only limited growth of 1.6 per cent in 2020 and 1.7 per cent in 2021. Against the backdrop of heightened global trade tensions, exporters face numerous challenges, including tariffs, weaker or delayed demand, and having to make corporate decisions under greater policy uncertainty. In addition, structural challenges and changes in significant sectors such as the car industry put long-established business models in doubt and create the need for companies and policymakers to develop new economic paradigms. As these factors will suppress the contribution of exports to economic performance, domestic demand will remain the mainstay of growth. Lower unemployment, solid wage gains and additional monetary stimulus on top of the already supportive monetary stance will underpin solid household consumption. The very accommodative monetary policy stance will continue to drive investment in domestically oriented sectors such as residential construction, creating positive knock-on effects for many small and medium-sized companies.

Trade tensions and Brexit constitute significant downside risks

The outlook for Europe remains subject to numerous risks and challenges that could lead to a significant slowdown in growth. First, an escalation of trade tensions could have a considerable impact on European exporters, affecting not only direct exports but also exports from foreign production sites—including, for example, various models produced by European car manufacturers in the United States for export to China.

Second, some aspects of the exit of the United Kingdom from the European Union remain unresolved. While the baseline forecast assumes that an orderly withdrawal of the United Kingdom from the European Union will be concluded during the transition period, a disorderly exit would open the field to a host of negative consequences across the real economy and financial markets. With the modalities of the exit unclear and limited information regarding the nature and structure of the legal and economic relations of the United Kingdom with the European Union and the rest of the world after the exit, corporate investment decisions have already become subject to tremendous political uncertainty.

A third risk stems from monetary policy. After a brief period of starting to move away from a very accommodative policy stance, the ECB has again reversed course by providing even more stimulus, driven by persistently low inflation and global economic challenges. This will increase the potential for a run-up in asset prices, with associated risks to financial stability. It also leaves little scope for additional monetary easing in the event of an economic crisis.

Germany has experienced a structural disruption to its car industry

In many cases, it is difficult to distinguish between cyclical developments in regional growth performance and more fundamental issues such as structural disruptions in certain economic sectors as a result of policy or technological change. Germany, the largest economy in the region, is a case in point. After solid growth momentum in 2017, the economy slowed significantly in the second half of 2018 and in 2019, in tandem with rising global trade tensions and significant headwinds for the important automotive sector. The car industry struggled to adjust to stricter emissions tests and had to deal with the fallout from the diesel emissions scandal. Combined with an increasing policy focus on climate change and air quality, both at the national level and in numerous German cities where legal battles

emerged over outright bans on certain types of cars, this pressured car manufacturers to fundamentally question their business models. As a result, the automotive sector has seen a drastic reorientation, culminating in major long-term investment programmes to create mainly electric-based product portfolios and a redefinition of corporate missions. A number of car manufacturers now emphasize their role as mobility companies encompassing areas such as autonomous driving technologies and the operation of car-sharing platforms.

The external headwinds and structural change stand in contrast to strong domestic fundamentals. Private consumption in Germany will remain buoyant because of low unemployment, rising wages and low interest rates. The same applies to investment. While some companies have become more cautious regarding investment related to external demand, this will be more than offset by investment needs to address capacity constraints, skill shortages and technological change. In the baseline forecast, which assumes no further escalation in trade tensions and an orderly exit of the United Kingdom from the European Union, Germany will see higher but still only moderate growth of 1.3 and 1.4 per cent in 2020 and 2021, respectively.

Negative fundamentals inhibit growth in Italy

France experienced a dip in growth in 2019 due to the more negative external environment, but private consumption and investment will underpin a projected expansion of 1.5 per cent in 2020 and 1.6 per cent in 2021. High capacity-utilization rates and recent reforms that impact the business environment, including changes to the tax code, will spur investment. Italy, by contrast, faces a more challenging outlook. Growth remained barely positive in 2019, as the more negative external conditions were compounded by domestic political and policy uncertainties. As the impact of some of these uncertainties eases, the economy will track the uptick in growth in the other large economies in the region, with a projected expansion of 0.6 per cent in 2020 and 0.7 per cent in 2021. However, negative fundamentals such as high sovereign debt, a complex regulatory system and a weak banking sector will continue to inhibit economic activity.

Uncertainties surrounding Brexit dampen business activity in the United Kingdom

In the United Kingdom, the intended exit from the European Union and the absence of relevant procedural specifics and details have created a political situation that leaves economic decisions by firms subject to the highest degree of uncertainty; businesses in the United Kingdom essentially do not know what market they will be operating within in a few weeks or months. The lower value of the pound sterling is reflecting this uncertainty, and while this provides some support for exporters, import prices have increased. Even more problematic is the looming disruption to supply chains. Membership in the European Union allows the free passage of production inputs and half-finished products across borders, in many cases numerous times before becoming a finished product. The mere possibility of a disorderly exit from the European Union is making this notion of market integration obsolete, forcing companies to reconsider their investment plans. Based on the assumption of an orderly exit from the European Union, the economy of the United Kingdom is projected to expand by 1.2 per cent in 2020 and 1.8 per cent in 2021, with significant downside risks in the case of a disorderly exit.

Rapid growth in EU-11 countries supports convergence in income levels within the European Union

EU-11 countries[3] are expected to register GDP growth rates well above the European Union average for the period 2019–2021, which will facilitate their gradual convergence towards the more advanced economies of the European Union. Several countries are expected to achieve growth rates exceeding 4 per cent in 2019 (in Hungary, growth may approach 5 per cent); unemployment rates in the EU-11 have dropped to record lows and real wages have soared, stimulating private consumption. Many projects funded under

3 Defined here as countries that have joined the European Union since 2004, with the exceptions of Cyprus and Malta: Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

the 2014–2020 European Union budget cycle are still in progress and should further support economic expansion over the forecast horizon. However, the external environment is becoming challenging; structural challenges in the automotive industry will weigh on production and exports, and financing from the 2021–2027 Multiannual Financial Framework of the European Union is expected to contract.

Monetary policy has reversed course towards renewed stimulus

Monetary policy in the euro area has undergone a sharp reversal. Before the spike in international trade tensions and signs of a global growth slowdown, the ECB had signaled that is was beginning to move away from its historically loose policy stance; this included halting asset purchases, which had become a core element of the adopted non-standard policy measures. With decelerating growth rates and inflation remaining below its target of just under 2 per cent, the ECB decided in September of 2019 to reverse course again by providing further monetary stimulus in addition to an already very accommodative policy stance. The announced measures included reducing the deposit rate for banks from -0.4 to -0.5 per cent while maintaining the main refinancing rate at zero per cent and the marginal lending facility rate at 0.25 per cent; the restart of net purchases under the asset purchase programme at a monthly pace of 20 billion euros; and the forward guidance that interest rates will remain at their present or lower levels until inflation has moved closer to the policy target, dropping the previous reference to the first half of 2020.

ECB asset purchases face a number of potential pitfalls

While the adjusted ECB policy stance offers short-term support to offset some global and internal policy uncertainties, it also poses some risks and potential policy challenges. The ECB has increased its demand for sovereign and corporate bonds. This compounds a problem that has increasingly cropped up in the course of this strategy: the ECB has set limits on the share of individual bond issues it will purchase, and under these guidelines it may eventually run out of bonds to buy. Having the ECB as a major buyer in the market also means that the added demand is driving bond prices up further, with the intended effect (from the EBC perspective) of reducing yields. This has already suppressed yields in bond markets (see figure III.4), to the point that at times all debt issued by Germany

Figure III.4
Yield on euro area 10-year government bonds

Source: European Central Bank.

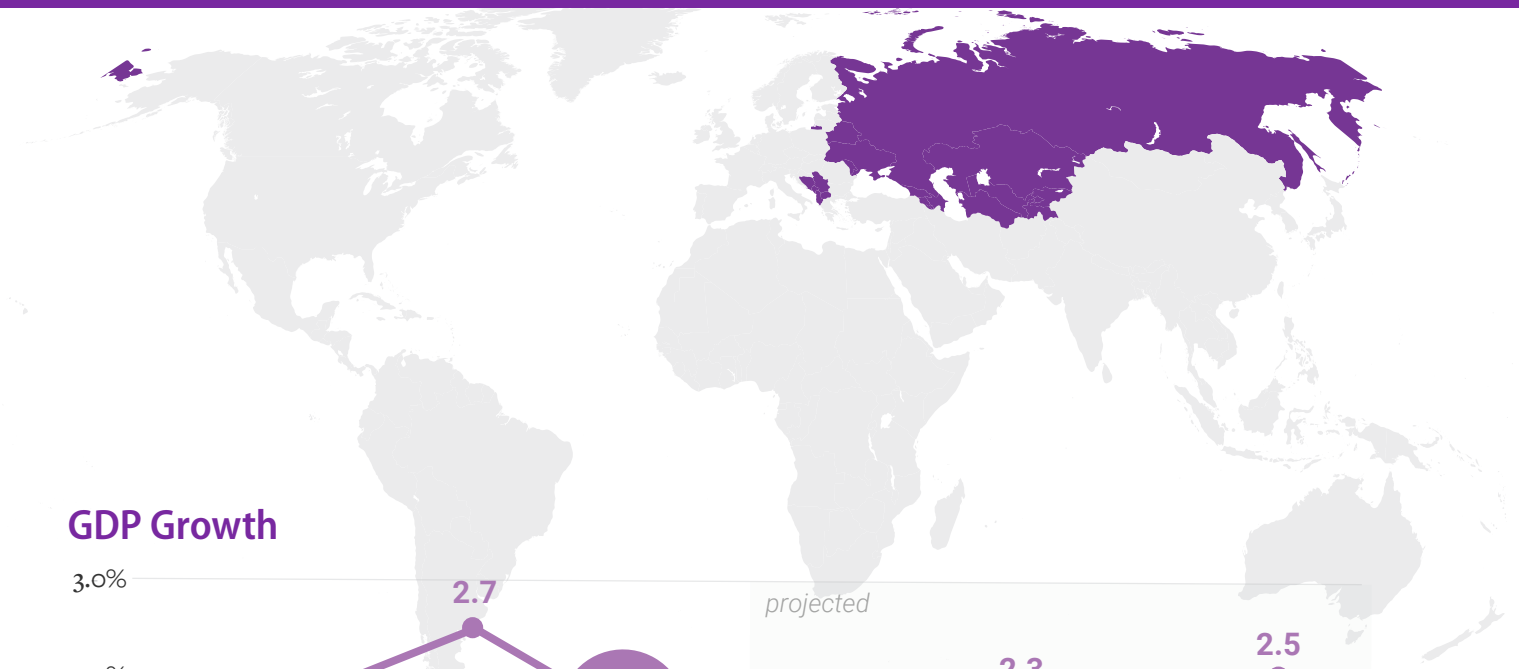
Note: Figure is based on daily data on AAA-rated euro area central government bonds.

has traded with negative yields across all maturities, making investors search for yield elsewhere. The consequences of this include the run-up in stock market prices, the boom in real estate markets, and stronger demand in riskier parts of international debt markets. This brings with it the risk of a sudden bursting of a bubble of artificially inflated asset prices. Critics of quantitative easing have also raised legal concerns that this policy constitutes a form of financing fiscal budgets, reducing incentives for fiscal efficiency, as the central bank stands as the sovereign bond buyer of last resort. The monetary policy stance also raises questions of how to deal with the next crisis. If a pronounced economic crisis were to materialize, with sharp declines in growth and employment, the scope for effective further monetary easing would be increasingly constrained.

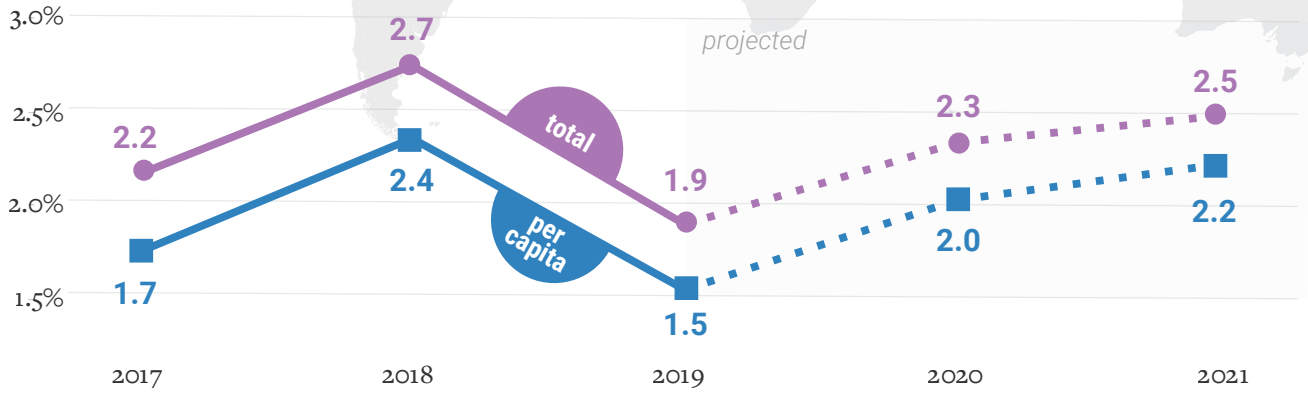
Low or negative interest rates offer opportunities for targeted public investment increases in some countries

High levels of public debt relative to GDP continue to constrain the fiscal position in many countries in Europe, including Belgium, Greece and Italy. However, zero or negative borrowing costs in countries such as Germany offer scope to increase investment in areas such as digital infrastructure, public transportation and large-scale renewable energy technologies, boosting long-term productivity and promoting green-growth initiatives while also allowing a relatively prudent fiscal stance to be maintained. Stronger fiscal support in countries that retain some fiscal space would ease the pressure for further monetary easing and alleviate associated risks.

Economies in transition

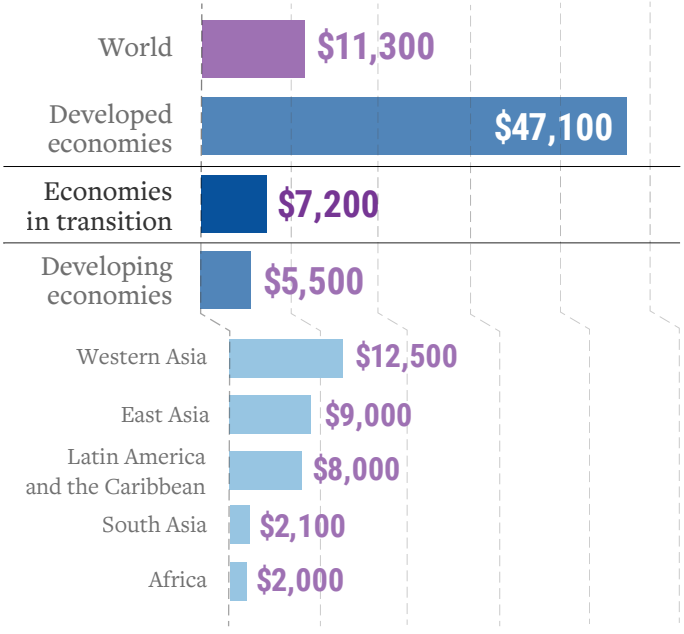


GDP Growth



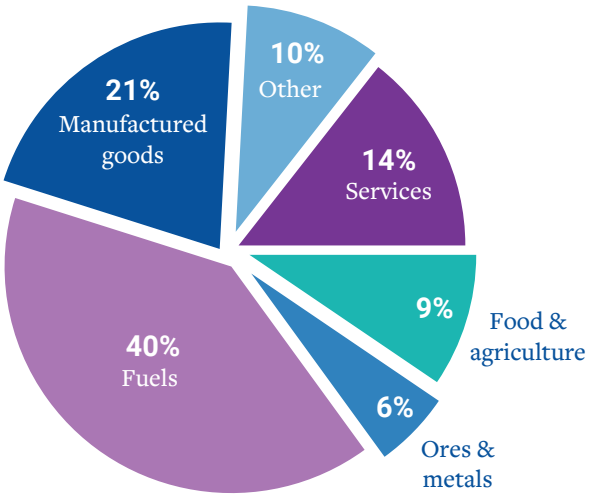
GDP per capita

2019



Export Structure

2018



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
The map represents countries and/or territories or parts thereof for which data is available and/or analysed in *World Economic Situation and Prospects 2020*. The shaded areas therefore do not necessarily overlap entirely with the delimitation of their frontiers or boundaries.

Economies in transition

- Aggregate GDP growth in the CIS and Georgia is expected to accelerate in 2020 and 2021.
- The region remains predominantly commodity-dependent and faces the potential for stranded assets down the road.
- In the near term, risks are on the downside.

The Commonwealth of Independent States and Georgia: policy easing in the Russian Federation will support stronger growth

The pace of economic expansion slowed in the Commonwealth of Independent States (CIS) and Georgia in 2019, driven by the marked deceleration in the Russian Federation and the downswing in the terms of trade. Aggregate GDP growth for the region declined to 1.8 per cent in 2019 but is expected to increase modestly to 2.3 per cent in 2020 and 2.4 per cent in 2021.

Growth in the Russian Federation slowed in 2019…

The economy of the Russian Federation is estimated to have expanded by just 1.1 per cent in 2019. The moderation of economic growth was partly the result of base effects (one-off factors related to energy infrastructure investment bolstered growth in 2018) but also reflected persistently weak consumer demand, partly driven by the VAT rate increase in January 2019. Growth in oil output was curtailed by the production caps agreed with OPEC. Investment growth, boosted by infrastructure spending in the second half of the year, registered a slowdown for 2019 as a whole, and export-oriented sectors outperformed those targeting the domestic market. Among other energy exporters, oilfield repairs dampened oil output in Kazakhstan, but strong domestic demand with rapid growth in construction and services supported estimated GDP growth of 4 per cent, while in Azerbaijan economic activity accelerated thanks to the operationalization of the Southern Gas Corridor and increased natural gas production. In Turkmenistan, the resumption of gas exports to the Russian Federation in April 2019 has improved growth prospects.

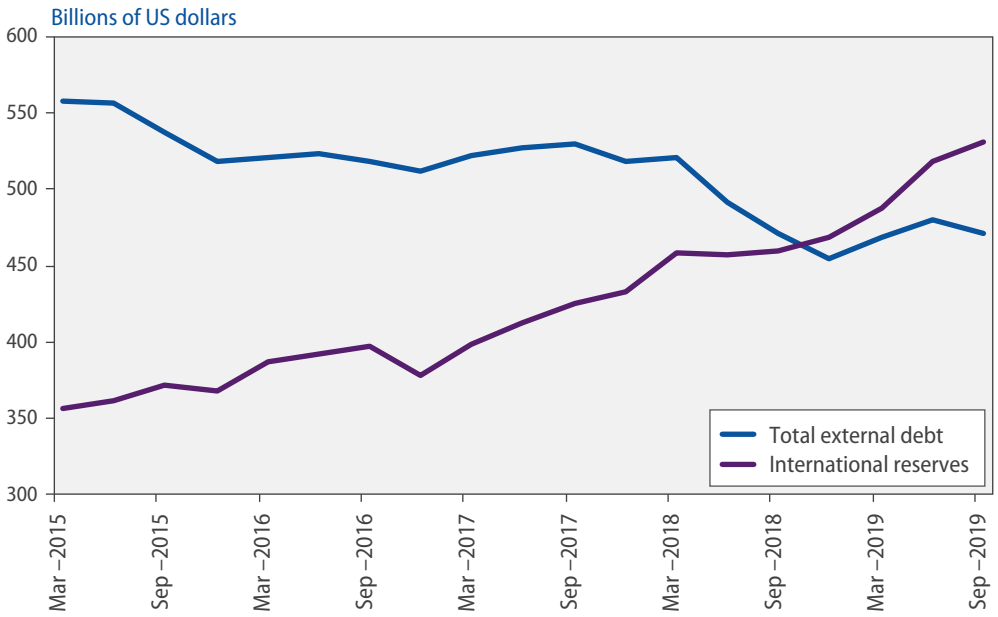
Most of the energy-importing CIS countries have enjoyed relatively solid growth. In Ukraine, household consumption was the main driver of growth in 2019, thanks to strengthening consumer confidence and growing real disposable incomes; a strong harvest also contributed to the growth momentum. In Uzbekistan, strong industrial activity, particularly in the construction sector, drove the acceleration of economic growth towards 6 per cent. By contrast, Belarus recorded lacklustre economic performance, with decelerating domestic demand accompanied by a deterioration in the external environment and the suspension of oil flows via the major Druzhba oil pipeline due to contamination; for the year as a whole, GDP growth is estimated at close to 1 per cent. Among the smaller CIS economies, strong domestic demand boosted the services and construction sectors in Armenia, accelerating growth to over 6 per cent, and in Kyrgyzstan, the strengthening of growth to nearly 6 per cent was driven by a jump in gold production.

…but increased fiscal spending will support growth in 2020—despite adverse external conditions

In spite of the growing challenges characterizing the external environment—including weak energy prices and the further tightening of economic sanctions against the Russian Federation—aggregate growth in the CIS region is expected to accelerate modestly during the period 2020–2021, supported by increased fiscal spending in the Russian Federation in line with the implementation of national development projects and the impact of

monetary easing. In 2019, new sanctions imposed by the United States against the Russian Federation targeted sovereign debt for the first time; however, their scope in this regard remains rather limited. Despite the internal pressures created by the sanctions environment, the improved policy mix of inflation targeting, exchange rate flexibility and the fiscal rule has mitigated the country's vulnerability to oil price fluctuations. Both the current account and the fiscal balance are in surplus, and international reserves exceed total external debt (see figure III.5), as the central bank has continued to buy large quantities of gold and foreign exchange.

Figure III.5
Total external debt and international reserves of the Russian Federation



Source: Central Bank of the Russian Federation.

In Ukraine, despite concluding a new gas transit deal with the Russian Federation that guarantees minimum annual transit volumes for five years, actual gas transit revenue may be volatile. A decline in revenue from transit fees associated with gas flows would negatively affect the balance of payments. The economic outlook in Ukraine is marred by outward labour migration and worker shortages. For Belarus, the near-term outlook depends on whether agreement can be reached on compensatory measures relating to the Russian tax manoeuvre, which replaces oil export duties with a mineral extraction tax. Oil exports from the Russian Federation to Belarus have hitherto been exempted from export duties, and Belarus has also benefited from a lower price for Russian oil in comparison with other importers. Strong growth (above the CIS average) is expected to continue in most countries in Central Asia; the implementation of the Belt and Road Initiative (BRI) should further support the development of energy and transport infrastructure in the region. In some cases, however, the funding of BRI projects is leading to rising debt burdens. Several CIS economies may face financial turbulences as debt repayments become due; in particular, Ukraine has large debt servicing costs over the period 2019–2021 and is expecting further funding from the International Monetary Fund (IMF). To reduce external vulnerability,

countries are seeking to develop local debt markets; in Ukraine, however, the share of government bonds held by foreigners jumped in 2019.

Inflation dynamics support monetary policy easing

After an initial spike in early 2019 due to the VAT increase, inflation in the Russian Federation followed a declining path, returning to the 4 per cent target of the central bank—largely as a result of sluggish consumer demand, which compelled retailers to absorb price increases. In Ukraine, foreign inflows caused exchange rate appreciation, contributing to disinflation despite rapid growth in real wages and retail sales; however, inflation remains at around 8 per cent. Some other CIS members also recorded high inflation; in Turkmenistan, abolishing the free provision of electricity, gas and other items contributed to price increases, and in Uzbekistan, inflation remained in the double digits because of exchange rate weakness and price liberalization.

Amid falling inflation and low domestic and external demand, the Central Bank of the Russian Federation started cutting interest rates in early 2019. There is still scope for future loosening, given relatively high real rates and the inflation outlook, though fiscal spending plans may constrain further easing. In any case, lower interest rates are unlikely to play a significant role in spurring investment, which has remained weak despite steadily increasing corporate profitability, with many companies hoarding significant cash volumes. The main obstacle to investment is not limited access to finance but rather a lack of business confidence. The National Bank of Ukraine also embarked on monetary easing, even though inflation exceeded its target range. Monetary policy was loosened in Armenia, Azerbaijan, Belarus, Kyrgyzstan and Republic of Moldova as well. In Georgia and Kazakhstan, however, building inflationary pressures led to a tighter monetary stance in the second half of the year. The rapid expansion of consumer lending, especially among the most vulnerable borrowers with higher payment-to-income ratios, has raised concerns among monetary authorities; in Georgia and the Russian Federation, this has prompted a tightening of prudential regulations to constrain the expansion of unsecured household credit.

Labour market situations in the region are diverse

Unemployment in the Russian Federation hit new lows in 2019, reflecting declines in both the labour force and the number of people in employment; however, informal unemployment remains significant. In Kazakhstan, the slight decline in unemployment has been accompanied by growing employment, and in Uzbekistan, economic expansion has been accompanied by moderate employment growth within the context of a rapidly increasing labour force. In Ukraine and some countries in Central Asia and the Caucasus, outward labour migration provides an alternative to the difficult conditions of local labour markets—which are often compounded by a significant gender gap in labour force participation that limits the potential labour supply.

Hydrocarbon exporters are ready to loosen fiscal strings…

In the Russian Federation, the fiscal rule adopted earlier to reduce budgetary dependence on hydrocarbon revenues was temporarily relaxed to accommodate increased spending under the national projects programme. However, the fiscal stance in 2019 was broadly neutral; while the fiscal surplus declined as a result of lower oil prices, the surplus still exceeds 2 per cent of GDP. The consolidation of public finances, which significantly reduced federal spending as a share of GDP between 2016 and 2018, is now completed, and the 2020 budget envisages an expansionary shift in fiscal policy, with a particular focus on social spending. Assets in the National Welfare Fund of the Russian Federation are close to exceeding the 7 per cent of GDP threshold, above which the surplus can be spent; this will increase spending capacity by around 1.5 per cent of GDP in 2020, allowing for a countercyclical fiscal expansion. Other energy exporters have been increasing spending as well. In Kazakhstan, the 2019 budget was revised to raise spending on a range of socially oriented initiatives, including wage increases for lower-paid employees and debt relief

for low-income borrowers. Azerbaijan boosted its fiscal position by increasing gas exports, resulting in a higher fiscal surplus; a fiscal rule was introduced in 2019 that will support better management of public finances.

…. while fiscal consolidation continues in most energy-importing countries

Fiscal consolidation continues in Ukraine under the IMF programme, with a further decline in the public debt-to-GDP ratio expected. Armenia is also engaged in ongoing fiscal consolidation efforts in order to meet debt reduction targets. The Russian tax manoeuvre will be implemented gradually over the period 2019–2024, and unless compensation is arranged, Belarus will suffer fiscal losses because of reduced profit margins from refined oil exports, reduced budget transfers obtained from export duties, and lower taxes on oil products.

Risks are largely on the downside

Economic prospects in the region are subject to a number of potential risks. A global slowdown would weaken oil and other commodity prices, affecting remittances to smaller countries, while banking sector vulnerabilities would be exposed by a deterioration in economic conditions. A further intensification of geopolitical tensions would dampen investment and reduce financing options. Meanwhile, the rise of public debt and contingent liabilities in some smaller CIS countries poses risks for exchange rates. Although significant progress has been made in economic diversification, the share of hydrocarbons in the region's exports remains high, with a potential risk of stranded assets over the longer term (see chapter II). All CIS countries face challenges associated with the transition to "green" energy (see box III.1).

South-Eastern Europe: economic growth moderates but remains healthy

Policy-driven income gains should sustain steady growth in Serbia

The pace of economic expansion decelerated in the largest countries in South-Eastern Europe in early 2019, partly due to base effects (a number of one-off factors, including a peak in power generation in Albania and a good harvest in Serbia, contributed to strong performance in 2018). Weak demand from the main trading partners in the European Union also had a dampening influence. Domestic demand is gaining importance in the region; however, internal political uncertainties in Bosnia and Herzegovina curtailed economic activity and access to external financing. In North Macedonia, output accelerated thanks to capital expenditure postponed from 2018. By contrast, Montenegro witnessed a sharp slowdown in investment, and the expected completion of major infrastructure projects may dampen investment further in 2020. Looking forward, in Serbia, employment gains and rises in pensions, public sector salaries and the minimum wage, along with increased government spending, should support growth at between 3 and 4 per cent over the forecast horizon. Similar growth rates are projected elsewhere in the region. Aggregate GDP in South-Eastern Europe is expected to grow by 3.4 per cent in 2020 and 2021.

Inflationary pressures are contained, while labour markets remain a key weakness

Inflationary pressures within the region remain well contained. In Albania, currency appreciation has kept inflation below the lower end of the official target. In Montenegro, the fading of the impact of indirect tax increases in 2018 prompted disinflation. In Serbia, after an uptick early in 2019, inflation has moderated and remains well within the target range. With low inflation, monetary policies have remained accommodative; the National Bank of Serbia reduced its policy rate to a record low of 2.25 per cent in 2019. The region's labour market situation remains difficult, despite the tangible progress achieved in recent years. Relatively high levels of unemployment, especially in Bosnia and Herzegovina, coexist with large gender gaps and a shortage of skilled labour. The informal share of the economy remains large, undermining the ability of Governments to raise fiscal revenues.

Box III.1

Potential benefits of the energy transition in the Commonwealth of Independent States and Georgia

A global energy transition seeking to reduce greenhouse gas emissions and the environmental impact of economic activity is shifting energy demand patterns and influencing technological change. Such a transformation is bound to raise challenges for fossil fuel exporters in the CIS. However, the transition will also bring opportunities to advance sustainable development through improved energy efficiency and the use of cleaner fuels.

Fossil fuels play an outsize role, with significant welfare costs

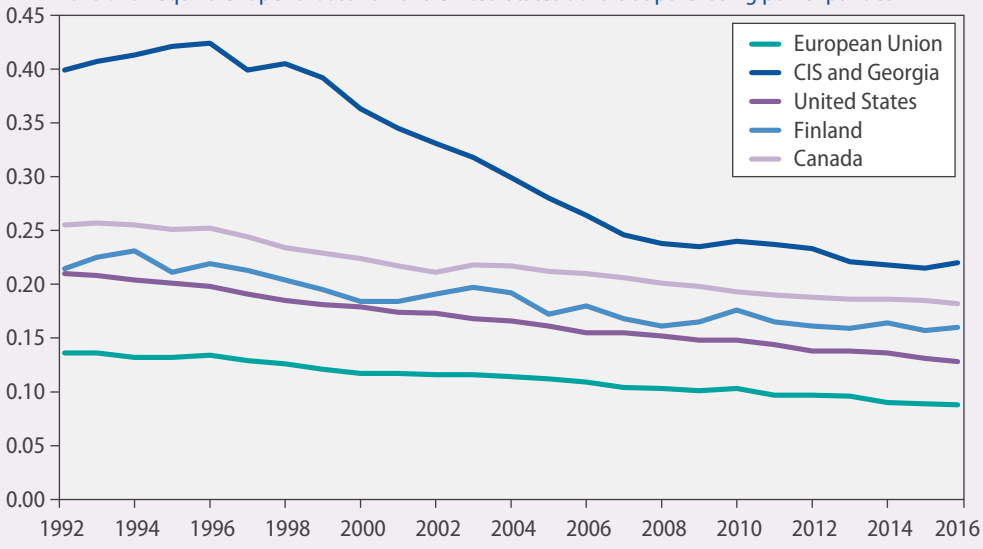
High levels of energy consumption per unit of GDP are characteristic of both energy-exporting and energy-importing countries in the region (see box figure III.1.1). At the outset of the transition, high consumption rates were a reflection of weak incentives for energy saving, given the pricing and availability of energy resources and the structure of the economy. Energy efficiency improved dramatically as relative prices were adjusted towards global market levels. Higher capacity-utilization rates and the shift towards less-energy-intensive sectors drove the rapid decline in energy consumption per unit of GDP observed in the decade prior to the global financial crisis. However, energy intensity remains comparatively high, even when taking into account the cold climate and the length of transport infrastructure as a result of low population density.

Almost 90 per cent of primary energy consumption in the CIS and Georgia comes from fossil fuels, which emit a number of air pollutants when burning that are harmful to public health. Coal, which is particularly polluting, accounts for close to 15 per cent of the total. With this energy mix, poor energy efficiency has negative implications for air quality and health. The welfare cost of premature deaths due to ambient particulate matter is rather high in the region (see box figure III.1.2). In addition to contributing to climate change mitigation, reducing the use of fossil fuels through increased efficiency or shifts towards cleaner fuels brings additional benefits that can be locally captured. These include not only improved health outcomes but also increased competitiveness and export capacity.

Figure III.1.1

Total primary energy supply to GDP ratio

Tons of oil equivalent per thousand 2010 United States dollars at purchasing power parities

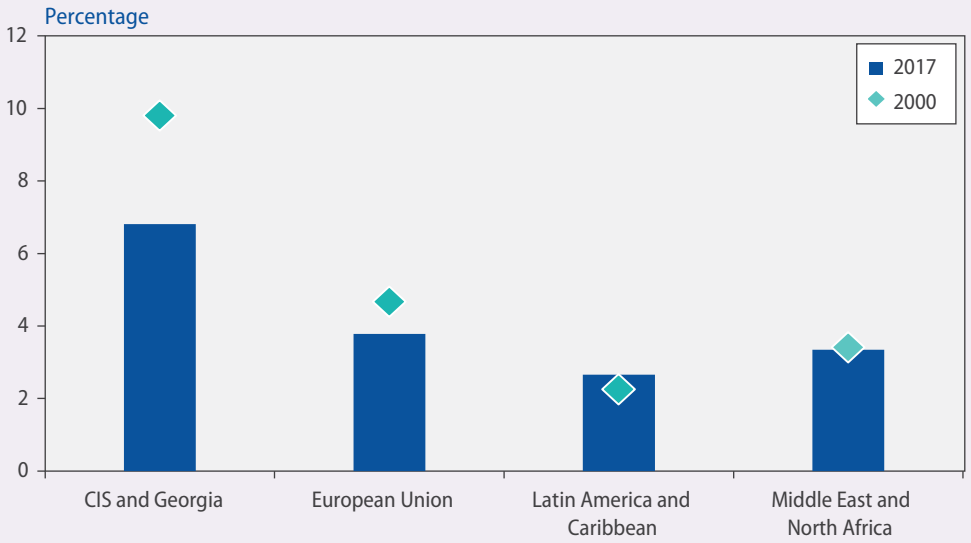


Source: International Energy Agency (IEA), World Energy Balances and Statistics database.

(*continued*)

Box III.1 (*continued*)

Figure III.1.2
Welfare cost of premature deaths due to ambient particulate matter as a percentage of GDP



Source: OECD.Stat database.

Bringing about change: adjusting price signals to increase energy efficiency and shift the energy mix

Given the departing situation, the scope for improving energy efficiency and shifting towards cleaner fuels appears substantial. Recent policy efforts have focused on increasing energy efficiency in residential buildings, which account for more than one quarter of final energy consumption. However, price signals have so far not been sufficiently strong to encourage energy efficiency investments, and access to financing for retrofitting remains a constraint in many countries.

Fossil-fuel consumption subsidies, including those related to electricity generation, remain high in the CIS region (see box figure III.1.3), disincentivizing rapid improvements in energy efficiency. Subsidies are present in Ukraine, an energy importer, though significant price adjustments have taken place in recent years. In the Russian Federation, subsidies as a percentage of GDP are low relative to those in other CIS countries and other energy-exporting countries outside the region. In Turkmenistan, the provision of free natural gas, electricity and water to the population was gradually reduced and finally discontinued as of 2019. Overall, policy changes in the region support subsidy reduction. Lowering fossil-fuel energy subsidies encourages efficiency and shifts towards cleaner fuels—though complementary targeted measures to protect the most vulnerable are also required.

The ongoing reform of oil sector taxation in the Russian Federation—the so-called tax manoeuvre—seeks to eliminate export duties by 2024 and replace them with mineral extraction taxes. Export duties allow domestic prices to remain below global prices, and the tax changes were intended to reduce implicit subsidies in domestic consumption. However, the original aim has been partly undermined by a complex system of subsidies to support domestic refining and dampen the growth of domestic fuel prices. In the absence of compensatory measures, the projected changes in energy taxation in the Russian Federation have negative implications for Belarus in particular; as a member of the Eurasian Economic Union (EAEU), Belarus has benefited from imports of crude oil free of export duty, most of which is refined and re-exported. The formation of the future EAEU common energy market will be an important force shaping energy exchanges and incentives for a greener economy in the region.

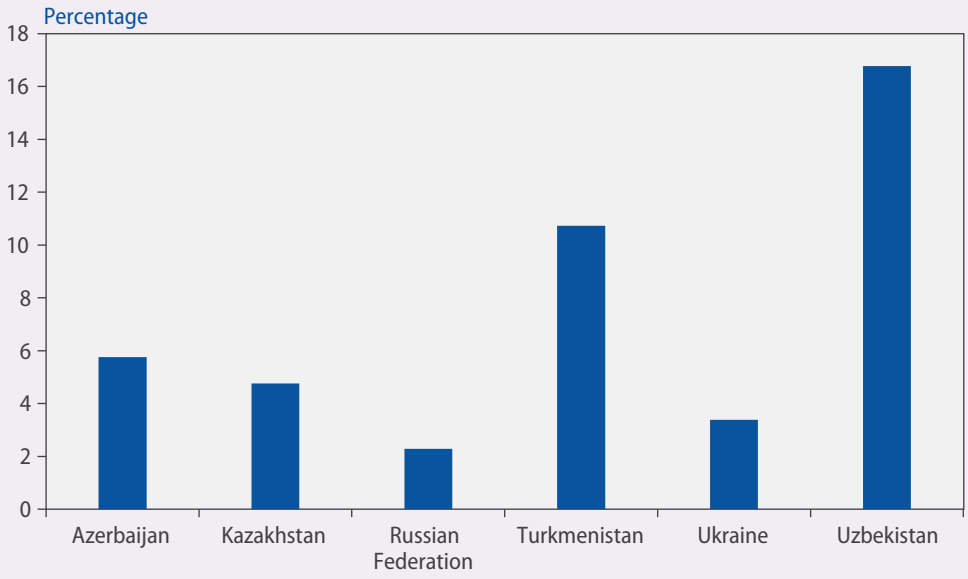
Renewable energy: harnessing significant growth potential

Alongside energy efficiency gains, changes in the energy mix offer new development opportunities. Renewable sources presently account for a small share of the energy supply and are largely limited to hydro

(*continued*)

Box III.1 (*continued*)

Figure III.1.3
Fossil-fuel consumption subsidies as a percentage of GDP, 2018



Source: IEA (2019a).

energy. Large reserves of fossils fuels, relatively low domestic prices and, until recently, weak policy support have provided little incentive to transform the region's energy industry and infrastructure. However, interest in developing the unrealized potential of renewable energy sources is growing, and new policy frameworks have emerged in some countries. Such development can increase export capacity, contribute to technological advancement, and offer new drivers for regional development, including in remote locations with costly grid connections. In energy-importing countries in Central Asia, the potential for hydropower development is significant. Policies to support this transformation should incorporate suitable incentives through appropriate pricing, address financing constraints, and activate the strategic role of public investments to facilitate the development of renewable energy.

Overall, while the speed of the energy transition remains uncertain, the global decarbonization trend points towards a growing urgency to foster economic diversification and move away from excessive hydrocarbon dependence.

Author: José Palacín (UNECE).

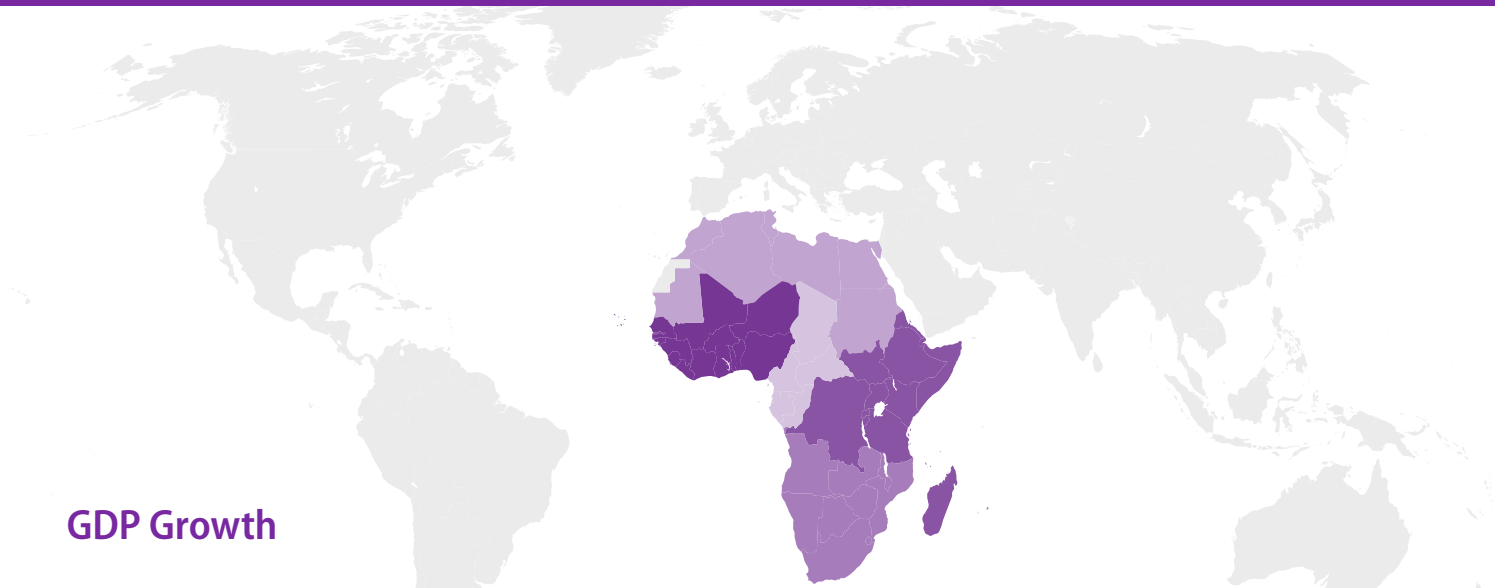
Fiscal consolidation remains a challenge in the presence of high debt levels

Public debt remains elevated in most countries in the region, though it has continued to decline as a result of fiscal consolidation efforts, robust growth and improved financing conditions. State-owned enterprises are a source of fiscal risk. In addition, persistent current account deficits remain a structural problem for some countries—most notably Montenegro, in spite of its increased export capacity and growing tourism sector. Overall, the region remains dependent on foreign financing.

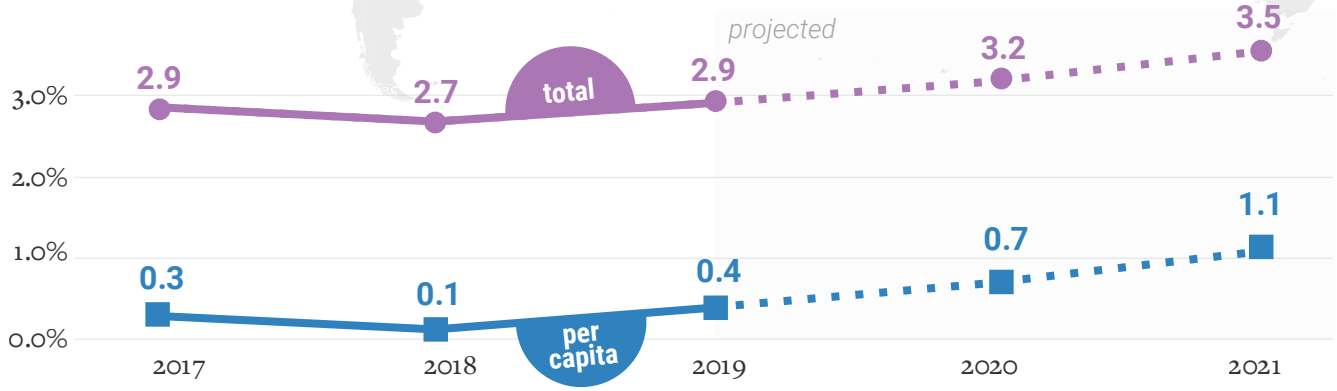
A downturn in the European Union represents a major source of risk

Because economic prospects in the region are closely tied to developments in the European Union, its main trading and investment partner, faltering economic performance in the latter remains a major source of risk. Depopulation in the region—especially outflows of youth and skilled workers—is impeding the shift towards higher-skilled industries. Increasing dependency ratios pose serious challenges to growth prospects and the ability to cover future pension needs. Disappointing progress in the process of accession to the European Union may undermine fragile political stability and weaken economic prospects.

Africa

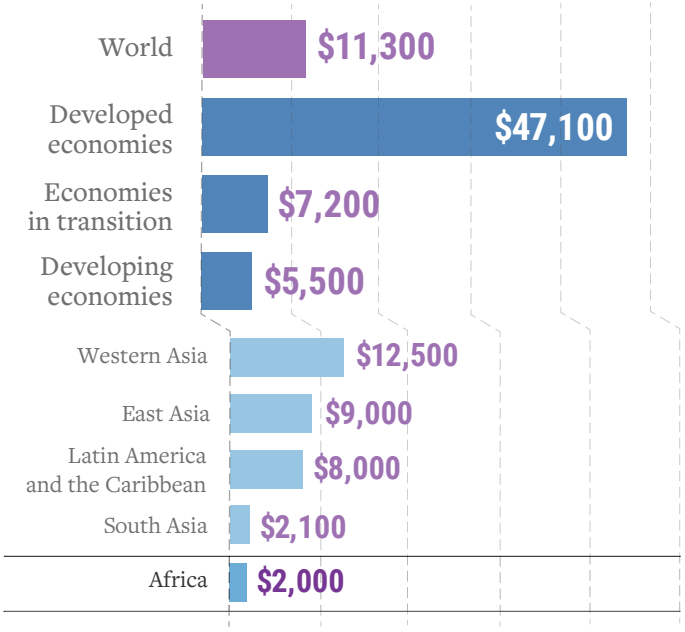


GDP Growth



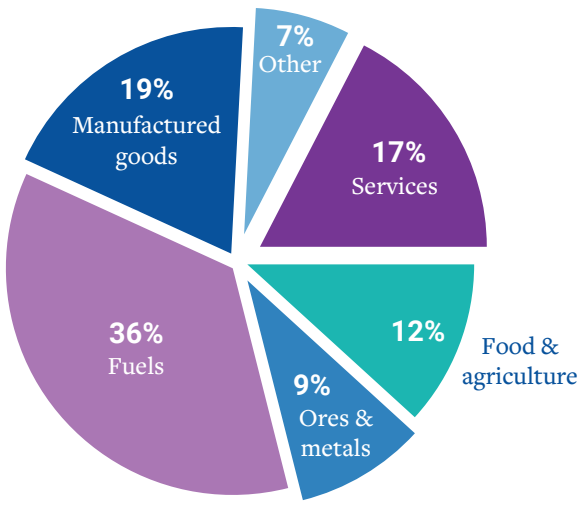
GDP per capita

2019



Export Structure

2018



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.

The map represents countries and/or territories or parts thereof for which data is available and/or analysed in *World Economic Situation and Prospects 2020*. The shaded areas therefore do not necessarily overlap entirely with the delimitation of their frontiers or boundaries.

Developing economies

Africa: growth rates are insufficient for meaningful development progress

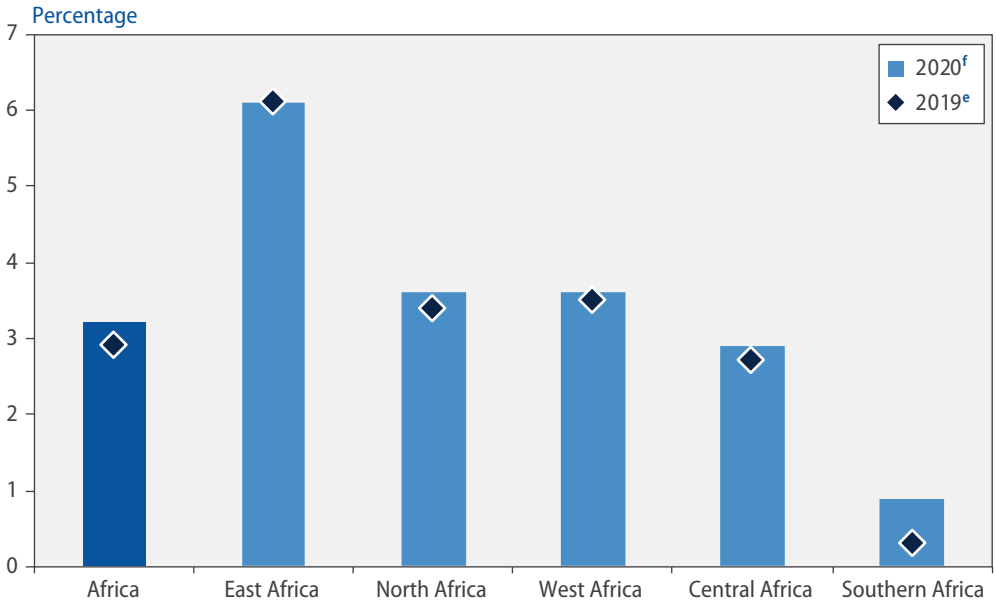
- GDP growth is inching up in Africa but is inadequate to meet development needs in most subregions.
- In GDP per capita terms, the continent has experienced a decade of near stagnation.
- Rising numbers of people in extreme poverty, elevated public debt and the lack of export diversification are key medium-term challenges.

Growth remains subdued amid persistent fragilities in many commodity-exporting countries

The economic situation in Africa remains challenging amid the slowdown in the global economy, lingering effects from the collapse in commodity prices (see figure I.5), and protracted fragilities in some large countries. Situations are widely divergent across subregions, however. While economic conditions remain robust in East Africa and are improving in North Africa, growth in West, Central and Southern Africa remains inadequate to meet mounting development challenges. GDP growth for the region as a whole is projected to increase moderately from 2.9 per cent in 2019 to 3.2 per cent in 2020 (see figure III.6) and is set to accelerate to 3.5 per cent in 2021, contingent on the implementation of effective reforms and subject to large downside risks.

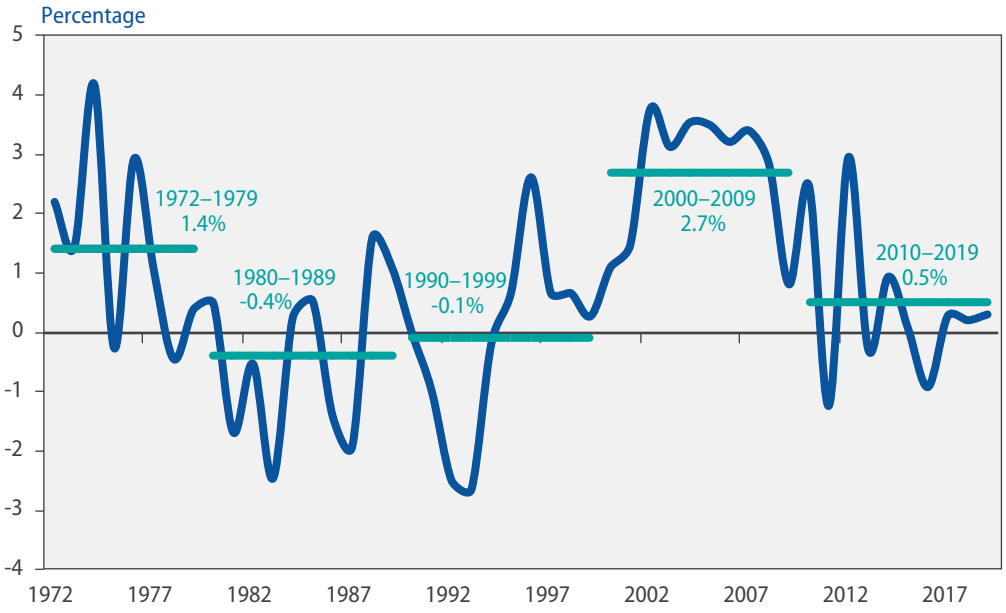
Africa continues to face difficulties in achieving the more robust and sustained growth path that is needed to enhance living standards across the continent. GDP per capita growth is unlikely to reach much above 1 per cent in the near term. More broadly, this decade is ending with average GDP per capita growth of only 0.5 per cent—well below the average growth of the previous decade and only marginally higher than average per capita growth in the 1980s and 1990s (see figure III.7). A step change in the rate of economic growth is needed if the region hopes to make meaningful progress towards achieving the Sustainable Development Goals.

Figure III.6
Real GDP growth in Africa, by subregion, 2019 and 2020



Source: UN DESA.
Note: e=estimates; f=forecast

Figure III.7
Real GDP per capita growth in Africa



Source: UN DESA.

Growth in North Africa is expected be driven by domestic demand in 2020

The economic situation in North Africa is improving slightly. GDP growth is underpinned by resilient domestic demand, which is counteracting the impact of weak commodity prices and feeble external conditions, including stagnating demand from Europe, the region's largest export destination. After an estimated expansion of 3.4 per cent in 2019, GDP growth in North Africa is projected at 3.6 per cent in 2020 and 3.7 per cent in 2021. Egypt is enjoying relatively strong growth, estimated at 5.5 per cent for 2019 and projected at 5.8 per cent in 2020, owing to a robust recovery of domestic demand and easing balance-of-payments constraints. By contrast, GDP growth in Algeria is projected to be only 2.0 per cent in 2019 and 2.3 per cent in 2020 amid subdued private consumption and investment demand. The recovery in oil and gas production has helped to stabilize growth in Libya, and in Mauritania the economy is projected to grow by 4.2 per cent in 2019 and 4.6 per cent in 2020 due to a consistent expansion in investment, though growth is falling short of what is needed to alleviate poverty, which is exacerbated by progressive desertification. In Tunisia, tightening macroeconomic policies restrained growth in 2019, but a modest improvement in the balance-of-payments constraints is expected to support a recovery in GDP growth to 2.0 per cent in 2020. The economy of Morocco is projected to grow by 2.8 per cent in 2019 and 3.0 per cent in 2020, supported by stable domestic demand.

The economic outlook in East Africa is largely favourable

East Africa remains the fastest-growing subregion, and the economic outlook remains favourable, underpinned by vigorous domestic demand and public investments in infrastructure. In addition, the recent peace agreement signed by Djibouti, Eritrea, Ethiopia and Somalia after decades of hostilities is expected to unlock new investment, trade and business opportunities in the Horn of Africa. Growth is projected to remain stable at 6.0 per cent in 2020. In Ethiopia, economic growth is forecast to exceed 7.0 per cent in 2020 and 2021, driven by rising private investment, robust public investment and growing business confidence as a result of economic reforms; nevertheless, it is essential that Ethiopia address macroeconomic fragilities, including low levels of foreign reserves and currency shortages, high levels of debt, and an elevated current account deficit. The economic outlook in Kenya

is moderately positive. GDP growth is projected at 5.5 per cent in 2020 amid robust private consumption, higher credit growth, and rising public and private investment; in addition, rapid urbanization and further regional integration will likely continue to open up investment opportunities. Nonetheless, Kenya needs to address structural obstacles, including infrastructure gaps, skill shortages and low export diversification. In the United Republic of Tanzania, growth is projected to decelerate slightly from 5.8 per cent in 2019 but to remain relatively high at 5.5 per cent in 2020. Economic activity is expected to be underpinned by robust domestic demand and investments in infrastructure, supported by foreign investments and an expansionary fiscal stance.

Growth in West Africa is expected to remain stable but below potential in 2020

Domestic demand is also underpinning GDP growth in West Africa, where the rate of economic expansion is expected to remain steady at 3.5 per cent in 2019 and 3.6 per cent in 2020. Robust growth in the member countries of the West African Economic and Monetary Union (WAEMU)[4] is offset by sluggish economic activity in Nigeria. Growth in Nigeria is estimated to have picked up to 2.1 per cent in 2019 as oil production trended upwards and private sector sentiment improved. In 2020, growth is projected to rise slightly to 2.3 per cent, but in per capita terms the economy will continue to contract in the absence of major structural reforms. Furthermore, the medium-term outlook is limited by severe infrastructure deficiencies and a weak macroeconomic policy environment, including multiple exchange rates, high inflation and low non-oil revenues. The outlook in Ghana remains positive amid vigorous private consumption and buoyant government expenditure. GDP growth is projected to slow in 2020 but to proceed at a healthy pace of 6.0 per cent. In Côte D'Ivoire, GDP growth is decelerating slightly after the expansion of 7.4 per cent in 2019 owing to lower external demand and the negative impact of volatile commodity prices on industrial production, but growth is expected to remain robust at 7.1 per cent in 2020. Growth is also projected at about 6 per cent or more in Benin, Burkina Faso, Niger and Senegal.

Mild economic expansion will likely occur in Central Africa as oil production rises

The economic situation in Central Africa is challenging, as recovery from the collapse of oil prices in 2014/15 remains fragile amid security instability in some countries. GDP growth stood at 1.6 per cent in 2018 and is projected at 2.7 per cent for 2019 and 2.9 per cent in 2020, supported by rising oil production in several economies. In terms of per capita growth, however, the subregion remains largely stagnant. The economy of Cameroon expanded at a solid pace of 4.0 per cent in 2019, driven by higher gas production and continued growth in construction and services. Growth is projected to pick up to 4.2 per cent in 2020 due to rising exports as new projects in the gas sector progress. Solid growth of about 4.6 per cent in 2019 and 4.8 per cent in 2020 is expected for the Central African Republic, reflecting improving security conditions, rising investment in infrastructure and better standards of policy management. The pace of growth in Chad is projected to accelerate from 3.8 per cent in 2019 to 5.5 per cent in 2020, underpinned by rising oil production due to new oilfields coming on stream and more efficient extraction policies. Meanwhile, the economy of Gabon is projected to expand by 2.5 per cent in 2019 and 2.8 per cent in 2020, reflecting rising oil production and emerging green shoots of non-oil growth.

Many countries in Southern Africa are experiencing subdued growth

The economic situation in Southern Africa deteriorated in 2019, with several economies stagnant or in recession amid weak investment, energy shortages, high unemployment and catastrophic weather. After an estimated expansion of only 0.3 per cent in 2019, GDP growth is projected at 0.9 per cent in 2020 before gradually recovering to 1.9 per cent in 2021. In per capita terms, economic activity in the subregion will continue to contract until

4 The eight WAEMU members include Benin, Burkina Faso, Côte D'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo.

at least 2021. In South Africa, growth is estimated at 0.5 per cent for 2019, remaining well below potential amid weak investment, energy shortages and high unemployment. Prospects for a vigorous recovery are feeble, as the economy will likely continue to be negatively affected by policy uncertainties, weak business sentiment and limited fiscal policy space. Consequently, GDP per capita growth is projected to remain in negative territory in 2020. Meanwhile, the economic recession in Angola is expected to continue amid declining oil output and difficulties in attracting foreign investments. GDP growth is projected to enter positive territory only in 2021, though in per capita terms it will continue to contract for the seventh consecutive year. The economy of Zimbabwe is experiencing a severe crisis amid foreign currency shortages, elevated public debt and uncontrolled inflation. One exception in the subregion is Malawi, which is projected to expand by more than 4 per cent in 2020 and 2021. Economic activity will be underpinned by an improving business climate, better access to credit, and the rebuilding of infrastructure destroyed by Cyclone Idai.

Africa faces downside risks on both domestic and external fronts

The short-term risks across African subregions are tilted to the downside. On the domestic front, agricultural output is highly exposed to weather-related shocks, with potential for dire economic and social consequences. In addition, political conflicts, social instability and security concerns are major downside risks across the continent and can affect the short-term outlook in many countries in the region. There is also an elevated risk that difficult economic conditions in some countries in Southern Africa could become more entrenched, leading to more prolonged recessions in Angola, Namibia and Zimbabwe. The upsurge in external sovereign bond issuances has also raised debt sustainability concerns in some countries, which could be exacerbated by external or domestic shocks, including slippages in fiscal management.

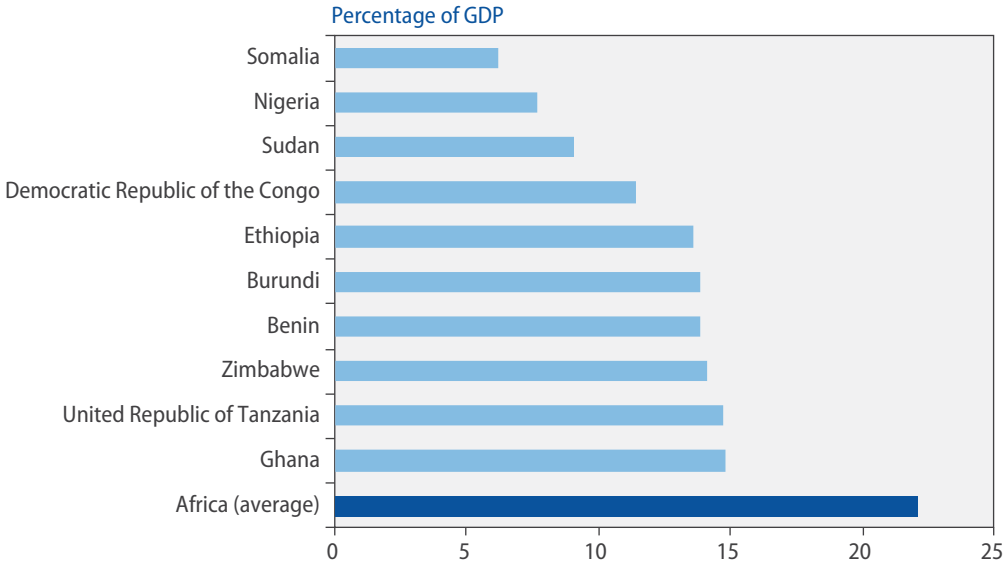
On the external front, a further deterioration in global growth (driven by China or the European Union, for example) could significantly affect the outlook in Africa through several channels, including reduced demand and commodity prices, lower capital inflows and FDI, and lower income from remittances and tourism. In North Africa, a substantial slowdown in capital inflows may tighten balance-of-payments constraints in those countries with chronic current account deficits. Similarly, some Central and West African economies are particularly vulnerable to oil price volatility, and lower oil prices could significantly worsen their fiscal positions (see figure II.6).

Fiscal consolidation is ongoing across much of the African continent

Fiscal consolidation continues in most parts of Africa. In 2019, the aggregate fiscal deficit is estimated to have declined moderately due to expenditure cuts, especially in oil-importing countries. However, fiscal deficits among oil exporters widened as a result of the slower-than-expected increase in oil prices. In North Africa, Egypt, Morocco and Tunisia have seen a modest improvement in fiscal positions. In East Africa, fiscal deficits are elevated in many countries, as government spending is a key driver of economic growth. However, there is significant heterogeneity among countries; Ethiopia shows a relatively contained fiscal deficit, though debt levels are relatively high, while Burundi, Djibouti and Eritrea have elevated deficits. Fiscal consolidation is moving forward in Central Africa through deliberate reforms such as measures to increase non-oil tax revenues, expenditure prioritization, and significant reductions in expenditures, including public investment. WAEMU members are striving to adhere to the regional fiscal deficit convergence criterion of 3.0 per cent of GDP, with efforts including curbing tax exemptions and enforcing regional tax policy directives. Given rising expenditures, the fiscal deficit is expected to widen in some countries, including Ghana. Meanwhile, in Southern Africa fiscal deficits are deteriorating as a result of difficult economic conditions in Angola, South Africa and Zimbabwe and lower-than-expected oil prices in Angola.

With average general government revenues at only 22 per cent of GDP (see figure III.8), increasing domestic revenue mobilization constitutes a major challenge across Africa (see box III.2). In many countries, fiscal accounts are weak and volatile and are subject to fluctuations in commodity prices, especially oil. It is imperative for hydrocarbon exporters such as Algeria, Angola, Chad, Equatorial Guinea, Gabon, Nigeria and Sudan to diversify fiscal revenues. Recent reforms such as those in Nigeria have so far fallen short of significantly increasing non-oil revenues. Notably, tax revenues in Africa remain low (under 15 per cent of GDP in several countries) relative to the continent's potential and to what is required for implementing countercyclical, redistributive and inclusive fiscal policies aligned with the 2030 Agenda.

Figure III.8
General government revenues in selected countries in Africa



Source: UN DESA, based on data from IMF, World Economic Outlook database, October 2019.

Note: Data refer to the average of 2017–2019.

With some heterogeneity, monetary policy stances eased in many countries in 2019…

Monetary policy stances eased in many African countries throughout 2019 amid lower inflationary pressures, greater exchange rate stability and higher levels of reserves. Interest rates were cut in about a dozen economies, including Angola, Botswana, Egypt, the Gambia, Ghana, Malawi, Mauritius, Mozambique, Nigeria, South Africa and Uganda.

There are some exceptions across the region, however. The central banks of Tunisia and Zambia tightened their monetary policy stances due to high inflationary pressures and the depreciation of domestic currencies. Some countries in West Africa, such as Sierra Leone, might also find more limited monetary space in the near term owing to currency pressures, food price shocks and higher international commodity prices. The regional central bank of the Central African Economic and Monetary Community (CEMAC), the Bank of Central African States, maintains a relatively tight monetary stance, which is helping to improve the external position in CEMAC countries and has supported a moderate increase in regional reserves. Against the background of elevated debt and subdued growth in many countries, monetary policies in Africa need to strike a delicate balance between promoting growth, limiting the depreciation of domestic currencies, and maintaining a manageable level of debt-servicing costs.

Box III.2

Financing sustainable development in Africa: domestic revenue mobilization

In 2015, African countries committed to two important development agendas. The Sustainable Development Goals, which constitute the core of the 2030 Agenda for Sustainable Development, aim to leave no one behind, and the African Union Agenda 2063 establishes a blueprint for the "Africa we want". With only a decade remaining to realize the Sustainable Development Goals, the region's countries continue to search for policy approaches to facilitate and accelerate the achievement of key targets and create prosperity for all.

For many countries, financing remains the single greatest challenge. According to UNECA estimates, Africa will need to raise an additional 11 per cent of GDP per year for the next 10 years to close the financing gap and achieve the Goals.[a] Tax revenue in Africa, at 15.2 per cent of GDP in 2018, remains low relative to the continent's potential and in comparison with what is collected in other regions, where the corresponding proportions for 2018 were 18 per cent in Oceania, 16.5 per cent in Latin America, and 25 per cent in Europe.

The UNECA *Economic Report on Africa 2019* identifies some policy reforms through which African countries can maximize domestic revenue mobilization. The *Report* highlights the following six key findings on fiscal policy in Africa (UNECA, 2019, pp. xvii-xix):

- Fiscal policy can be an anchor for macroeconomic stability and a key tool for achieving the Sustainable Development Goals;
- Corporate tax reductions offer little incentive for investments;
- Indirect taxes have been the main source of tax revenue;
- Improving the efficiency of revenue collection could greatly increase non-tax revenue;
- Leveraging the use of information technology could tighten compliance and lower administrative costs;
- Base erosion and profit shifting are major sources of revenue leaks.

African countries have the potential to increase government revenues by as much as 12–20 per cent of GDP through the adoption of policies to strengthen revenue mobilization in six key areas:

- **Countercyclical fiscal policy**. Countries can preserve macroeconomic stability by aligning fiscal policy with the business cycle, raising taxes and reducing spending during economic booms while lowering taxes and increasing spending when economic activity slows. Countries that have implemented countercyclical fiscal policies, such as Morocco, have enjoyed higher revenue on average (19.6 per cent of GDP between 2010 and 2015, in comparison with an average of 15.1 per cent for Africa as a whole during the same period).
- **Tax policy**. Broadening the tax base can be achieved by bringing hard-to-tax sectors such as agriculture, the informal economy, the digital economy and the natural resources sector into the tax net. In particular, "limiting the use of tax incentives in agriculture and natural resources sectors could stem tax leakages and enhance revenue collection" (UNECA, 2019, p. xix). A number of African countries have adjusted tax rates to encourage investment. In Lesotho, for example, the standard corporate income tax rate was lowered from 35 to 25 per cent and the tax rate for manufacturers from 15 to 10 per cent in 2006; as a consequence, "revenue from corporate income taxes rose from 1.7 per cent of GDP in 2006 to 2.1 per cent of GDP in 2007 and to 4 per cent of GDP in 2009" (ibid., p. 57).
- **Non-tax revenue**. "Investing in better data collection methods and implementation could strengthen monitoring of non-tax revenue collection and non-reporting" (ibid., p. xix). Non-tax revenue contributes significantly to government revenue in Africa, averaging 4.5 per cent of GDP for the region as a whole. However, the majority of countries collect below their potential; the average non-tax-revenue effort index for low-collecting countries is 0.64.[b] Improving collection efficiency in these countries could boost average non-tax revenue from the current 2.6 per cent of GDP to 4.5 per cent of GDP—which would also have a significant impact on the regional average.

(*continued*)

a A survey carried out on required financing for the Sustainable Development Goals in Africa indicates that incremental financing needs amount to approximately 11 per cent of GDP (UNECA, 2019, table 2.1, p. 29).

b Non-tax revenues "include royalties, fees for mining rights, dividends on government investments in State-owned enterprises and in stock portfolios, sovereign wealth funds and government shares in joint ventures with private operators" (ibid., p. 78).

Box III.2 (*continued*)

- **Tax administration**. "Reforming tax administration systems through digitization and other information technologies could increase revenue mobilization" (ibid., pp. xix-xx). "South Africa introduced e-filing in 2003 for the VAT and pay-as-you-earn taxes, expanding it in 2006 to cover corporate and personal income taxes. Tax compliance costs dropped 22.4 per cent and time to comply for the VAT dropped 21.8 per cent" (ibid., p. 113).
- **Natural resource sector policy options**. Strengthening "oversight of the natural resources sector" and closing loopholes to "thwart base erosion and profit shifting" could increase tax revenues for African countries. Countries could "consider a more equitable and less administratively challenging approach to assessing what share of multinational corporations' profits to tax, … or they could base taxes on variables that are harder to manipulate than corporate income" (ibid., p. xx).
- **Debt policy**. "The new dynamics of public debt in Africa call for adapting debt sustainability strategies and frameworks to current debt portfolios. That includes improving revenue mobilization to enhance debt servicing and reduce long-term borrowing. … [B]etter debt management strategies underpinned by increased deepening of domestic capital markets and reliance on local currency-denominated debt instruments" will be imperative [ibid., p. xx].

Finally, stable FDI and limited international aid budgets "mean that African countries need to look inward for financing, particularly through prudent fiscal policy. Coordinating fiscal and monetary policy is vital, since both tools must work together as stabilizers if they are to be effective in achieving the triple goals of growth, employment and stability. Taxation and spending must take the business cycle into account. It is imperative to understand the sources of government revenue and how countries can ramp up their revenue collection to support development" (ibid., p. 163).

Source: This box draws from UNECA (2019).

…as inflation figures remain relatively stable in most economies

Inflation is projected to remain relatively stable, declining slightly from 9.1 per cent in 2019 to about 8.2 per cent in 2020 and 7.3 per cent in 2021. In North Africa, average inflation is expected to remain below 10 per cent. In Egypt and Tunisia, inflation declined recently amid improving balance-of-payments conditions. Most of the economies in other parts of Africa also exhibit comparatively stable inflation rates.

In a number of countries, however—particularly those with severe macroeconomic imbalances—inflation is elevated. In Zimbabwe, economic and financial conditions have deteriorated substantially, prompting the return of hyperinflation. In South Sudan and Sudan, inflation remained above 50 per cent in 2019 amid the monetization of fiscal deficits and elevated balance-of-payments constraints. Inflation is also in the double digits in West African countries such as Liberia and Sierra Leone, which have suffered sharp depreciations or have larger fiscal deficits.

Such cases notwithstanding, inflation has visibly receded across the continent in recent decades, and elevated inflation is increasingly the exception. For instance, the economic and monetary unions of West and Central Africa have their currencies pegged to the euro, which gives them higher credibility frameworks. In some other countries, reformed monetary frameworks have given more independence to central banks, while inflation-targeting regimes have been introduced in Ghana and Uganda.

In Africa, the goal of eliminating extreme poverty by 2030 is moving further out of reach

Africa faces major challenges in the medium term. Poverty levels remain high, making it increasingly unlikely that the region's Governments will achieve Sustainable Development Goal 1—or any related Goals or associated targets—within the next decade. Although the poverty headcount ratio declined from above 55 per cent in 2002 to about 36 per cent in 2019, the pace of reduction has stagnated in recent years, and the poverty gap—defined as the mean income of the poor relative to the poverty line—remains very high. The numbers of people living in extreme poverty (those subsisting on less than $1.90

per day) continue to rise in sub-Saharan Africa and currently account for more than half of the extreme poor globally. The Democratic Republic of the Congo, Ethiopia and Nigeria are among the five countries with the largest populations living in extreme poverty and are home to about 23 per cent of the world's poor. The poverty situation has been exacerbated by the growth slowdown since the collapse in commodity prices in 2014/15. Worryingly, recent UN DESA estimates indicate that extreme poverty levels may continue to rise over the next decade, even in some of the fastest-growing economies of East and West Africa, amid rapid population growth (United Nations, 2019b).

A much stronger link between economic growth and job creation is needed to reduce poverty

Reducing extreme poverty requires a substantial acceleration in economic growth and a much stronger connection between such growth and job creation, together with reductions in high levels of inequality and the effective implementation of social protection systems. Job creation is a major concern, particularly given the significant youth bulge across the continent. It is estimated that 10 million to 12 million individuals join the labour force each year, and the numbers are expected to rise over the next decade. While this can potentially yield enormous benefits, translating the youth bulge into a demographic dividend will depend on the capacity of countries to create a sufficient number of productive jobs.

Youth unemployment and underemployment rates remain high in Africa, and many young people end up in vulnerable occupations, self-employed or in the informal sector. Large numbers of university graduates struggle to find jobs because of a lack of employable skills or skill mismatches with market requirements. In North Africa, youth unemployment rates exceed 25 per cent in Algeria, Egypt and Tunisia. The highest youth working poverty rates—averaging around 70 per cent—are found in sub-Saharan Africa. Youth unemployment has also risen in some large economies recently. In Nigeria, youth unemployment surged from less than 15 per cent in 2015 to above 35 per cent in 2018, with more than half of the country's young people unemployed or underemployed.

Public debt remains elevated in a number of African countries

Elevated public debt is a challenge in several African countries, limiting the capacity to implement countercyclical and socially inclusive policies. Public debt levels exceed 100 per cent of GDP in countries such as Cabo Verde, the Congo, Djibouti, Eritrea, Mozambique and Sudan. Some economies with lower debt ratios, including Zimbabwe, face increasing repayment burdens. Over the past decade, the rise in public debt has been driven by expansionary fiscal policies and knock-on effects from the commodity price shock of 2014/15, while search-for-yield behaviour among investors has encouraged external borrowing. The expansion of debt is gradually moderating as a result of fiscal consolidation efforts; however, there are large variations among countries. In 2019, several countries continued to issue Eurobonds. South Africa raised $5 billion in its largest bond issuance to date, while Benin, Egypt and Ghana collectively raised more than $7.6 billion. The recent upsurge in the issuance of foreign currency-denominated bonds has raised concerns regarding debt sustainability, as the growth outlook remains fragile. In addition, servicing debt can become problematic for countries with high currency and maturity mismatches (for example, where bonds with short-term maturities are used to finance long-term infrastructure projects).

Africa needs to balance financing an ambitious development agenda with sustainable debt levels

Caveats notwithstanding, generating resources through external borrowing and domestic revenue mobilization is essential for financing productivity-enhancing investments. As recent external bond issuances tend to come with longer maturities, financing costs can stay relatively low. The challenge in Africa—taking into account low tax revenues, limited foreign equity investments and stable aid budgets—is to balance the urgent need to finance an ambitious development agenda with sustainable levels of debt that do not constrain macroeconomic policymaking. First, however, there is a need to improve

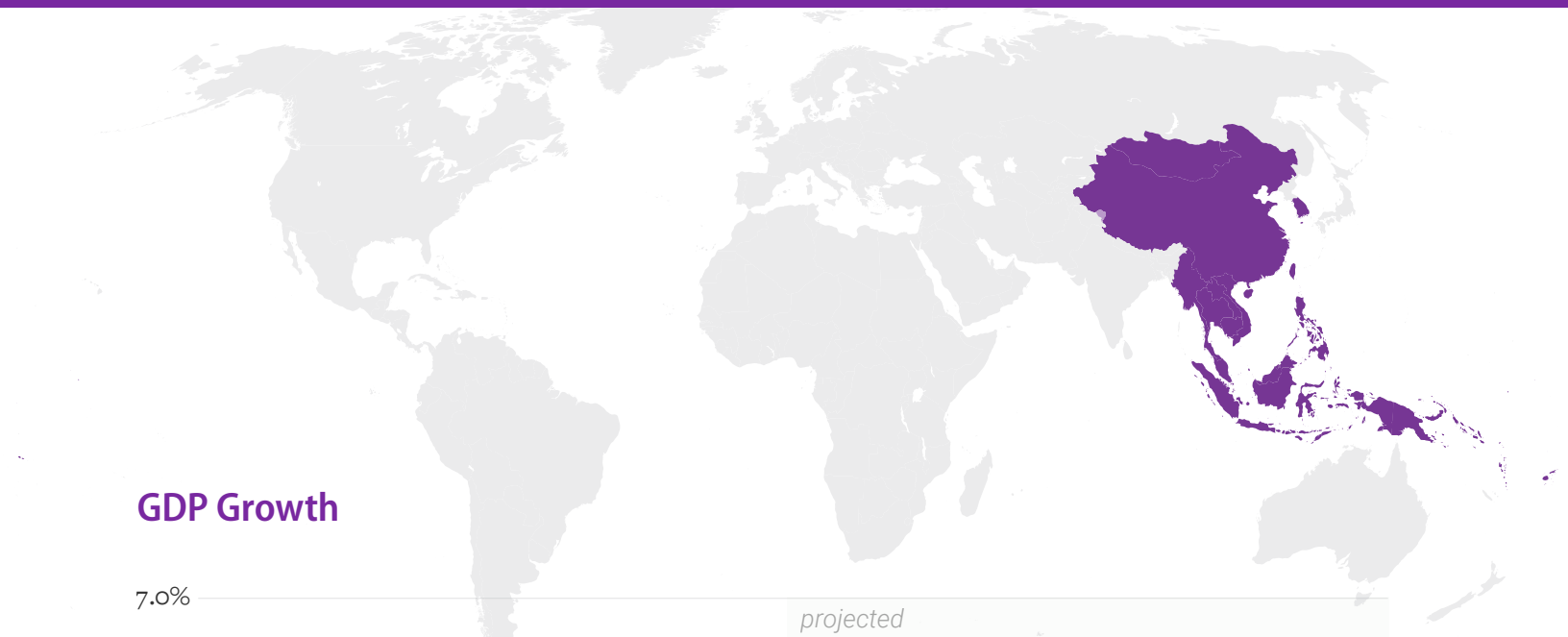
debt management, which requires transparency and information-sharing among borrowers and lenders. This is becoming increasingly difficult with the expansion of non-traditional private lenders and more complex types of debt financing; it is essential that steps be taken to enforce responsible lending in such contexts, as the codes of conduct from the Group of 20 (G20) and OECD are binding only for traditional lenders.

Diversification requires proactive industrial policies in Africa

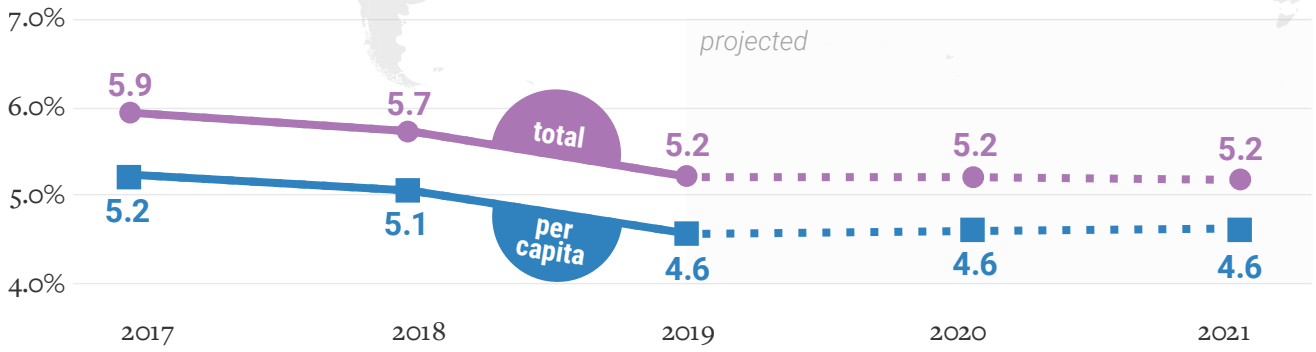
Economic diversification is a top priority but has yet to gain much traction in Africa. As growth continues trending with commodity price cycles, the need for a systematic diversification of the productive structure is clear. Industrialization lies at the heart of this transformation. However, other than in Egypt and South Africa, economic diversification across the continent remains low, though recent improvements are evident in a few countries, including Ethiopia, Morocco and Rwanda, as a result of proactive industrial policies. Also, global value chains tend to bypass the continent, as most African countries still export mostly raw or minimally processed goods.

There is some cause for optimism, however, as last year witnessed one of the most relevant policy developments in recent years. The Agreement Establishing the African Continental Free Trade Area (AfCFTA) was adopted in 2018 and entered into force in 2019. The AfCFTA—on track to launch in mid-2020—will create a single market for goods and services covering 1.2 billion consumers with aggregate income of close to $2.5 trillion. The Free Trade Area is expected to promote regional trade and investment integration, which has so far remained disappointing. This will likely encourage the diversification of export markets, as trade costs have been shown to be a decisive factor in firms' decisions (see box I.1). Since a significant portion of intra-African trade occurs in manufacturing, there are also expectations that the AfCFTA can promote industrialization and the creation of higher-paying productive jobs. However, these benefits are contingent on the strengthening of productive capacities. For this, a much broader and more strategic set of policies is needed for the development and support of key areas such as infant industries, FDI, innovation, science and technology, and labour markets.

East Asia

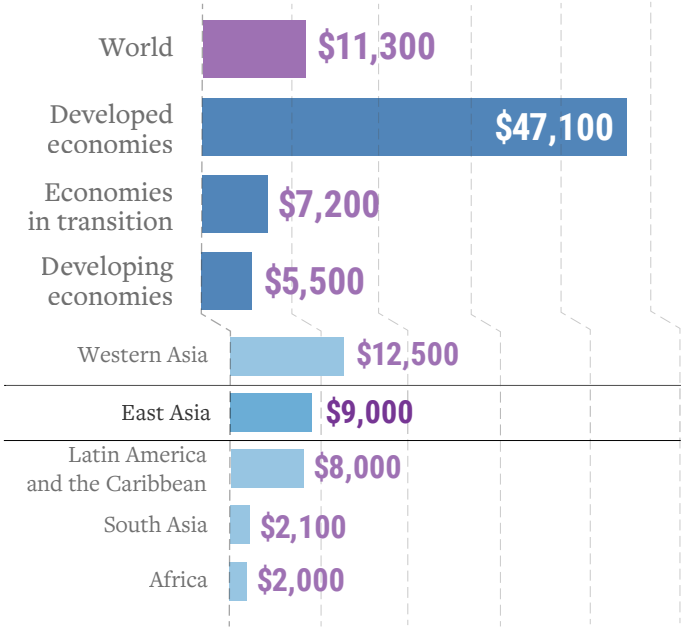


GDP Growth



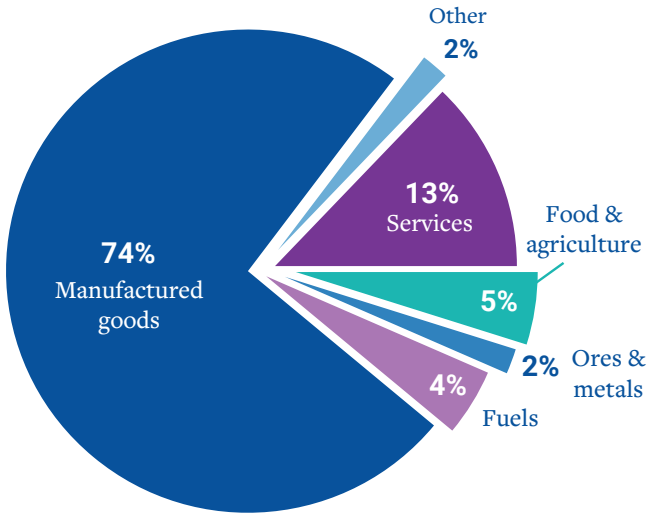
GDP per capita

2019



Export Structure

2018



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

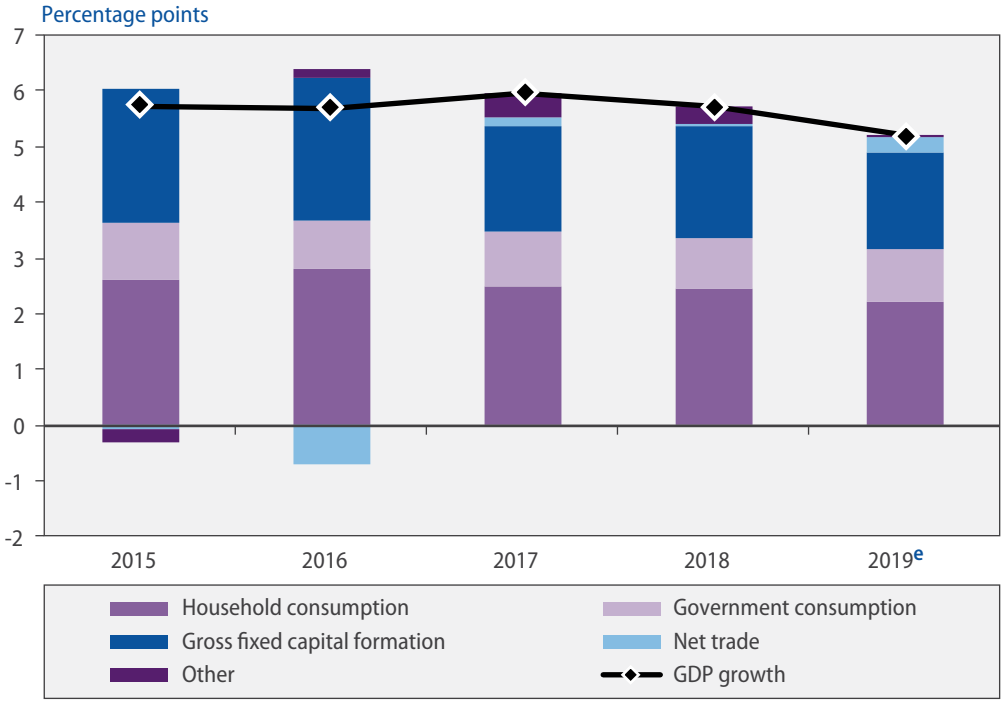
The map represents countries and/or territories or parts thereof for which data is available and/or analysed in *World Economic Situation and Prospects 2020*. The shaded areas therefore do not necessarily overlap entirely with the delimitation of their frontiers or boundaries.

East Asia: growth prospects have softened amid strong external headwinds

- The short-term growth outlook is dampened by persistent trade tensions and high policy uncertainty.
- More accommodative monetary and fiscal policies will support domestic demand.
- Strong short-term headwinds may set back policy efforts geared towards tackling the region's development challenges.

Against the backdrop of an increasingly challenging external environment, the short-term growth outlook for East Asia has weakened. In 2019, regional GDP growth slowed considerably to 5.2 per cent from 5.7 per cent the previous year (see figure III.9). Softening global demand and protracted trade tensions have dampened the region's export growth. As policy uncertainty continues to weigh on business confidence, private investment is likely to remain subdued. Nevertheless, the easing of monetary policies and more expansionary fiscal stances across many East Asian economies will mitigate the effects of external headwinds on domestic demand. Against this backdrop, the region is projected to sustain the more moderate growth pace of 5.2 per cent in 2020 and 2021. Downside risks to the growth outlook have intensified, however, stemming mainly from a potential further deterioration in trade and financial conditions. As policymakers increasingly shift their focus towards supporting short-term growth, there is also a risk that essential resources will be diverted away from efforts to achieve the region's development objectives.

Figure III.9
Contribution to GDP growth in East Asia, by expenditure component



Source: UN DESA.
Note: e = estimates.

Private consumption is likely to remain the key driver of growth

Private consumption is projected to remain the principal driver of growth in East Asia, supported by resilient labour markets, low borrowing costs and modest inflationary pressures. In several countries, including China, the Republic of Korea and Thailand, consumer spending will also be supported by new government measures (such as tax incentives and cash transfers) aimed at boosting household disposable income.

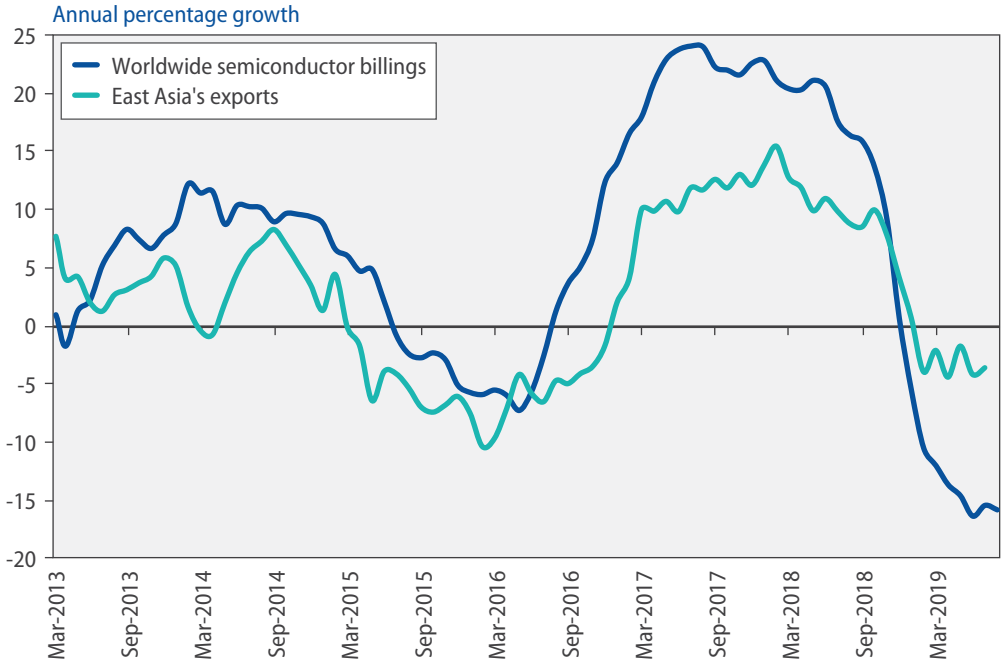
The outlook for private investment has weakened, but public infrastructure spending is likely to strengthen

Despite looser monetary conditions, the slowdown in private investment activity is expected to extend into 2020. Alongside bleak world trade prospects, high uncertainty surrounding the strength of global demand is likely to weigh on investor decisions to embark on large-scale capital expenditure plans, particularly in the export-oriented manufacturing sector. In contrast, public investment is likely to strengthen over the outlook period as Governments in the region continue to pursue infrastructure projects that are mostly geared towards improving transport connectivity. In Indonesia, the Philippines and Thailand, public spending on infrastructure is likely to regain strong growth momentum following the relatively low realization of capital expenditure linked to elections or budget delays in 2019.

Trade performance in East Asia has deteriorated amid ongoing trade tensions

The protracted high trade tensions between China and the United States significantly impacted the region's export performance in 2019. In the first nine months of the year, nominal merchandise exports contracted across almost all economies in the region, with Indonesia, the Republic of Korea and Singapore experiencing the largest declines. In addition, the continuing trade disputes exacerbated an ongoing cyclical downturn in global electronics demand (see figure III.10). In Malaysia, the Republic of Korea, Singapore and Thailand, shipments of electrical and electronics (E&E) products contracted, largely reflecting the strong integration of these economies in global and regional electronics production networks.

Figure III.10
Global semiconductor billings versus export growth in East Asia



Sources: World Semiconductor Trade Statistics; IMF Direction of Trade Statistics.
Note: Growth figures calculated based on three-month moving average, nominal dollar levels.

Recent leading indicators such as new export orders and business sentiment point towards continued weakness in regional trade going forward. While there are signs that the global electronics cycle may have reached a trough, the timing and strength of a turnaround remain uncertain. The high level of uncertainty surrounding the future direction of trade policies and the environment of elevated trade tensions continue to cloud the region's export outlook. Following a series of trade actions in 2018, the United States further expanded tariffs on China in 2019. Notably, in August 2019, the United States announced that it would impose 10 per cent tariffs on an additional $300 billion of Chinese imports, adding to the 25 per cent already levied on $250 billion of Chinese goods. This announcement was met with retaliatory measures by China, fuelling higher trade policy uncertainty. The trade conflict threatened to become more pervasive as disputes expanded to include the technology and telecommunications industries. In October 2019, however, the two parties reached a tentative agreement to delay some of the planned tariffs, and some tariffs were reduced by the end of the year. While this reflects some progress towards an improved bilateral trade relationship, trade tensions could re-escalate if negotiations over the next phase of a trade deal are protracted.

For most parts of the region, the downturn in exports has been due mainly to slower intraregional trade—primarily weaker exports to China. The imposition of United States tariffs on Chinese E&E products and components has had adverse spillover effects on many East Asian economies, given the strong cross-border production linkages of these economies with the E&E industry in China. However, several South-East Asian economies are benefitting from some trade and production diversion away from China due to the trade conflict. The Republic of Korea, Taiwan, Province of China and Viet Nam have experienced a surge in exports to the United States, and FDI inflows into the Philippines, Thailand and Viet Nam have strengthened, suggesting that some rerouting of manufacturing production away from China to other economies is taking place. In the short term, however, this is unlikely to offset the adverse impact from unresolved trade conflicts, as supply chain reconfigurations are likely to proceed at a gradual pace.

The region remains vulnerable to bouts of heightened financial market volatility

As policy uncertainty continues, investor sentiment is likely to remain fragile in East Asia over the outlook period. Financial market conditions in the region improved in 2019 following strong market turbulence that affected most emerging economies the previous year. To a certain extent, the shift towards more accommodative monetary policies by the major developed countries has supported a resumption of short-term capital flows into the emerging regions, including East Asia. Nevertheless, the sharp escalation in trade tensions, particularly in May and August, triggered heightened investor risk aversion and periodic spikes in market volatility during the year.

Equity markets and currencies in the region exhibited a mixed performance throughout 2019 as investors assessed the impact of the trade conflict on the growth prospects of individual economies. In China, stock market performance was dampened by concerns over intensifying trade actions and an ongoing slowdown in the domestic economy. During the year, the renminbi depreciated beyond RMB 7 to the United States dollar, hitting its lowest level since the global financial crisis. Notwithstanding trade-related uncertainties, China's gradual inclusion in major global bond and equity indices is likely to support portfolio inflows in the outlook period. Meanwhile, the escalation in trade tensions also resulted in marked currency depreciations in the Republic of Korea and Taiwan, Province of China. In contrast, Thailand experienced a strengthening of its domestic currency, buoyed by a large current account surplus, and the Philippine peso also appreciated against the United States dollar, supported by an increase in foreign capital inflows.

Inflation is expected to remain modest, dampened by subdued global energy prices

Inflationary pressures are expected to remain modest in most East Asian economies, reflecting softening domestic demand and a weak outlook for global energy prices. In 2019, inflation fell further below central bank targets in the Republic of Korea, Taiwan, Province of China and Thailand. Several other countries, such as Cambodia, Singapore and Viet Nam, also experienced more modest consumer price growth, mainly owing to subdued oil prices. Meanwhile, inflation slowed considerably in the Philippines as the improvement of the agricultural supply led to lower food prices in comparison with the previous year. In contrast, headline inflation rose in China, driven by a significant increase in domestic food prices due to severe weather (which hurt crop production) and the outbreak of African swine flu (which resulted in a pork shortage). Myanmar also experienced an increase in inflation during the year, fuelled in part by a further weakening of its domestic currency and higher electricity tariffs. Nevertheless, in most countries core inflation remains low, reflecting the absence of demand pressures in the region. As trade tensions continue, the inflation outlook in East Asia faces risks from a potential increase in product prices as a result of higher tariffs and more severe supply chain disruptions. Several countries also remain vulnerable to negative domestic supply shocks, which would drive up food prices.

High external risks and slowing growth have prompted an easing of monetary policy stances across the region

Against a backdrop of subdued inflation and rising headwinds to growth, central banks across the region eased monetary policy in 2019. The United States Federal Reserve decision to cut interest rates during the year also created some room for the region to lower policy rates without raising capital outflow risks. As trade tensions worsened, China reduced the reserve requirement ratio for all banks and implemented reforms to its benchmark lending rate in order to boost domestic liquidity and stimulate credit growth. At the same time, central banks in several of the region's export-oriented economies, including Malaysia, the Republic of Korea, Singapore, Thailand and Viet Nam, loosened monetary policy to support economic activity. Slowing growth also prompted Indonesia and the Philippines to embark on a monetary easing cycle, partly reversing a series of rate hikes implemented the previous year.

Given the highly challenging external environment, monetary policy in East Asia is likely to remain accommodative in the outlook period, with further monetary easing expected in parts of the region. However, monetary space is fairly limited in several countries where borrowing costs are already near historic lows; in the Republic of Korea, Taiwan, Province of China and Thailand, key policy rates are currently at or below 1.5 per cent. Furthermore, while a more prolonged period of low interest rates is likely to provide some support to short-term growth, it could potentially exacerbate financial vulnerabilities, in particular high corporate and household debt levels.

The region is expected to embark on more expansionary fiscal policies

Faced with relatively limited monetary policy space, countries in the region are likely to introduce more expansionary fiscal policies to mitigate the effects of persistent trade tensions on domestic demand. In 2019, several countries, including China, Hong Kong SAR, the Republic of Korea and Thailand, announced a range of fiscal and pro-growth measures that include lowering taxes, improving access to finance for small and medium-sized enterprises, promoting job creation and enhancing social welfare. In Indonesia, the Philippines and Thailand, public investment is expected to strengthen as Governments step up infrastructure projects aimed at boosting productivity growth and alleviating structural bottlenecks.

China is projected to expand at a more moderate pace

In China, the protracted trade dispute with the United States will continue to dampen export growth while also weighing on consumer and business sentiment. In an environment of high policy uncertainty and modest global growth, a significant rebound in

manufacturing investment appears unlikely over the outlook period. Nevertheless, the further easing of monetary and fiscal policies is expected to support domestic demand going forward. Given these factors, GDP growth is projected to moderate gradually from an estimated 6.1 per cent in 2019 to 6.0 per cent in 2020 and 5.9 per cent in 2021.

In the first three quarters of 2019, the Chinese economy expanded by 6.2 per cent, slowing from 6.7 per cent growth over the same period in 2018. Export growth decelerated sharply, driven mainly by weaker shipments to the United States and to most East Asian economies. However, net exports contributed positively to overall GDP growth, as disruptions to production networks and weaker domestic investment contributed to an even larger decline in import growth. Consumer spending remained solid in 2019, but the growth momentum moderated, as the rise in external headwinds affected consumer confidence. Notably, retail sales growth slowed during the year, attributed in part to a deeper contraction in automobile sales. Going forward, however, private consumption is expected to remain the key driver of growth for the Chinese economy, supported by resilient labour markets, steady job creation, and policy measures to lift disposable incomes.

In 2019, the Chinese authorities announced several additional policy-easing measures aimed at cushioning the adverse effects of the trade conflict. On the financial front, the central bank further lowered bank reserve requirement ratios to boost liquidity and introduced a new benchmark lending rate aimed at reducing corporate borrowing costs. In addition, the Government raised the cap for issuing special-purpose local government bonds to increase the availability of funds for infrastructure investment. It also allowed local authorities to issue bonds earlier than usual in 2019 to help facilitate progress on projects. These measures, however, may exacerbate domestic financial vulnerabilities, leading to higher financial stability risks. In an effort to bolster domestic enterprises, the Government lowered the social security contribution rates for employers and reduced the VAT rate for firms in the manufacturing, transport and construction sectors. To raise medium-term productivity growth and move up the value chain, China has also continued to prioritize efforts to boost the growth of high-technology industries; recently, the Government announced its intention to accelerate the development of blockchain technology.

Deterioration in the external environment has significantly dampened the growth outlook in the Republic of Korea and Singapore

Following a sharp decline in exports and investment, growth in the Republic of Korea is projected to experience a modest rebound, rising from 2.0 per cent in 2019 to 2.3 per cent in 2020. The Government's planned 8 per cent increase in fiscal expenditure for 2020 will provide an impetus to domestic demand, in particular private consumption. Nevertheless, export growth will likely remain sluggish amid high downside risks arising from the slowdown in the electronics cycle and lingering trade tensions with Japan. In Singapore, the economy almost stagnated in 2019, as manufacturing output contracted sharply during the year, buffeted by strong external headwinds. Looking ahead, GDP growth is expected to pick up from 0.4 per cent in 2019 to 1.2 per cent in 2020. The weakness in the electronics sector is likely to persist, dampening export-oriented industries. However, domestic demand is expected to remain resilient, supported by favourable labour market conditions and more accommodative macroeconomic policies.

Meanwhile, growth in Taiwan, Province of China is projected to remain relatively steady at 2.5 per cent in 2020, supported by resilient private consumption and strong infrastructure spending. Business investment is also likely to remain solid, supported by policy initiatives to encourage the reshoring of manufacturing production. While overall export growth moderated in 2019, shipments to the United States grew at a double-digit pace, supported by strong growth in exports of telecommunication and machinery products. This

suggests that the economy could benefit from further demand substitution going forward. In Hong Kong SAR, the economy contracted by 1.0 per cent in 2019. The negative effects of trade tensions were compounded by local social unrest, which caused severe disruptions to tourism activity and retail sales. As sentiment deteriorated, private consumption and investment experienced sharp declines during the year. Going forward, economic activity is expected to recover, with GDP projected to expand by 1.6 per cent in 2020. Recent fiscal measures, which include tax reliefs, an increase in social welfare spending, and training schemes for the jobless, will help to boost domestic demand. The baseline growth projections, however, are contingent on domestic headwinds subsiding in the outlook period.

Domestic demand in the ASEAN economies is likely to remain resilient

Despite significantly weaker export performance, growth prospects for the large economies in the Association of Southeast Asian Nations[5] (ASEAN) remain favourable, underpinned by resilient domestic demand. In the Philippines, GDP growth decelerated slightly in 2019 as budget delays contributed to a significant slowdown in public investment. As spending on infrastructure projects picks up, growth is expected to rebound from 5.9 per cent in 2019 to 6.2 per cent in 2020. Private consumption, which accounts for almost 70 per cent of GDP, is expected to remain robust, supported by improving employment, lower inflationary pressures and solid remittance inflows.

As the effects of past expansionary fiscal measures wane, GDP growth in Malaysia is expected to moderate slightly from 4.5 per cent in 2019 to 4.3 per cent in 2020. Household spending will remain the key driver of GDP growth, but the momentum is likely to ease somewhat given slowing wage growth and weakening consumer sentiment. Meanwhile, public investment is expected to pick up following the resumption of large transport infrastructure projects. Nevertheless, given the deep integration of Malaysia in global and regional value chains, a further deterioration in the external environment poses a key downside risk to its growth outlook.

In Thailand, GDP growth slowed considerably to 3.0 per cent in 2019 amid broad-based weaknesses across most economic sectors. During the year, agricultural production was adversely affected by severe drought conditions, while manufacturing activity contracted in tandem with the decline in external demand. Public investment was affected by election-related delays. As some of these factors dissipate, the economy is projected to grow at a slightly stronger pace of 3.1 per cent. The recently announced fiscal stimulus package, which includes measures to support farmers, small and medium-sized firms and low-income households, will also provide some support to domestic demand. Following slower growth of 5.0 per cent in 2019, GDP growth in Indonesia is projected to pick up slightly to 5.1 per cent in 2020. Private consumption is expected to remain robust, buoyed by healthy labour market conditions, subdued inflation and the expansion of social assistance programmes. Infrastructure spending is expected to strengthen over the outlook period, and planned reforms to improve the business environment will support increased FDI inflows going forward. Meanwhile, growth prospects for Viet Nam remain strong, with the economy projected to expand by 6.6 per cent in 2020. Private consumption is expected to remain solid, given rising incomes and moderate inflation. The economy is also benefiting from increasing FDI inflows due in part to investment diversion related to the trade conflict.

Short-term growth prospects for ASEAN least developed countries remain strong

Despite formidable external headwinds, the short-term growth prospects for LDCs in the ASEAN region remain favourable. Buoyed by resilient domestic demand and strong FDI inflows, the economies of Cambodia, Lao People's Democratic Republic and Myan-

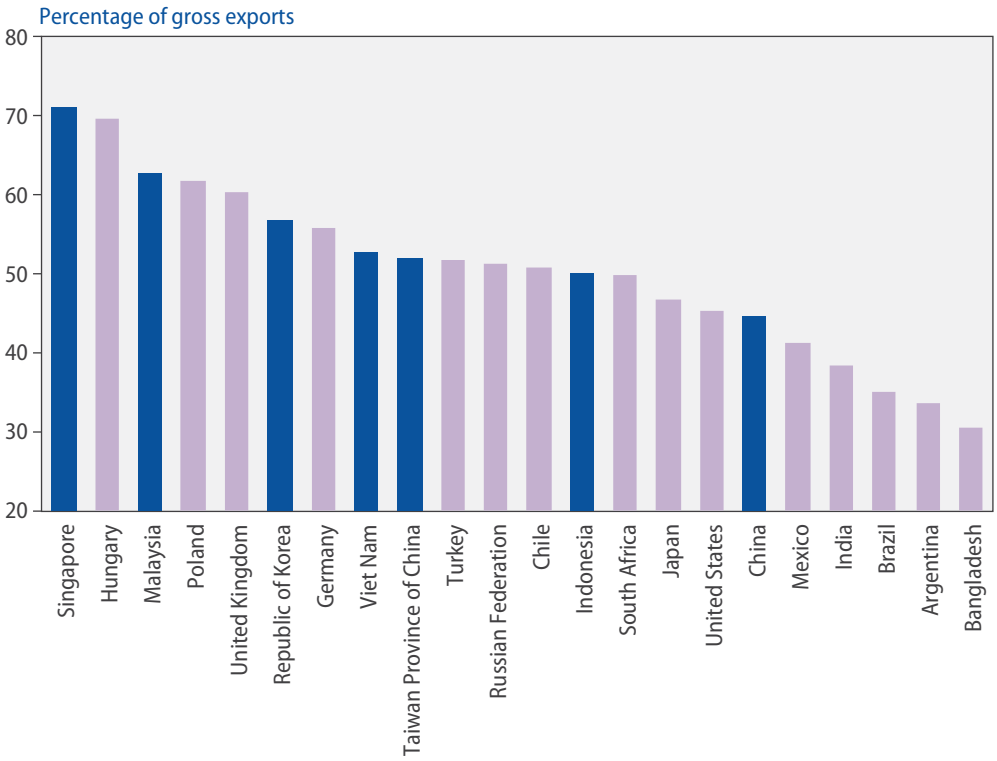
5 ASEAN member countries include Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam.

mar are projected to sustain strong GDP growth of between 6 and 7 per cent in 2020 and 2021—close to the Sustainable Development Goal growth target of at least 7 per cent for the LDCs. Nevertheless, the region's LDCs continue to face serious structural impediments, in particular poorly diversified economic structures and critical deficits in essential infrastructure, making it extremely difficult for them to boost productivity levels and enhance competitiveness.

Downside risks to the region's growth outlook have intensified

Risks to the growth outlook in East Asia are tilted to the downside. Continued high uncertainty surrounding global trade policies would prolong weaknesses in the external sector but could also generate significant spillovers to the domestic economy. Notably, economies that are deeply integrated into global value chains, in particular those that are centred upon the production of Chinese exports to the United States, are highly vulnerable to a further escalation of trade tensions (see figure III.11). In addition, financial markets in the region remain susceptible to abrupt changes in investor sentiment, potentially triggering large capital outflows. In several economies, high indebtedness—especially corporate and household debt—also poses a risk to domestic financial stability.

Figure III.11
Global value chain participation of selected economies



Source: UNCTAD-Eora Global Value Chain Database.

Note: Countries in blue are part of East Asia. Global value chain participation is estimated based on the share of exports that are imported intermediate inputs and the share of exports that are used by another country in the production of its exports.

While tackling short-term headwinds, policymakers also need to remain focused on addressing the region's development challenges

As policymakers in East Asia continue to unveil measures to boost short-term growth, they also need to remain focused on advancing the region's development agenda. Over the past two decades, most of the East Asian economies have made tremendous strides in improving development outcomes, thanks to strong and relatively stable economic growth. However, progress towards achieving the Sustainable Development Goals has been either insufficient or uneven.

On the social front, the region has made relatively solid headway in eradicating poverty, ensuring healthy lives and promoting well-being. However, pockets of weaknesses remain. For example, vulnerable employment still accounts for around half of total employment in Cambodia, Indonesia, Myanmar and Thailand. Amid insufficient job creation, high youth unemployment is also a growing concern for many countries, including Indonesia, the Republic of Korea and the Philippines. In countries such as Cambodia, Papua New Guinea and Timor-Leste, the share of the working poor (those employed but living on less than $1.90 a day at 2011 PPP) remains in the double digits. These challenges not only constrain productivity growth but also hold the region back from effectively tackling inequality and achieving further reductions in poverty rates.

Importantly, the region's rapid economic growth over the years has come at a high cost to the environment. The Asia-Pacific region, which includes the East and South Asian economies, is home to several of the world's largest carbon emitters—and to 97 of the 100 most air-polluted cities (AirVisual, 2018). For many countries, industrialization and a rising middle class are likely to translate into higher demand for resources and rising emissions in the absence of effective mitigation methods. The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP, 2016) warns that climate change and its impact on the environment and ecosystems could force more than 100 million people in the Asia-Pacific region back into extreme poverty by 2030. This highlights the urgent need for countries to incorporate environmental sustainability objectives into their national development strategies, and to understand the resource implications of achieving the Sustainable Development Goals by 2030 (see box III.3).

Box III.3

What is the cost of achieving the Sustainable Development Goals?

An assessment for the Asia-Pacific region

While many countries have mainstreamed the Sustainable Development Goals into their national development plans, only a few have conducted a comprehensive assessment of their resource implications to determine how much additional investment will be required to achieve the Goals by 2030. Such an assessment could help countries effectively mobilize public, private, domestic and external resources and allocate them to priority areas, including through the budgetary process.

UNESCAP, in collaboration with relevant United Nations and other specialized agencies, undertook this assessment for Asia-Pacific countries. The *Economic and Social Survey for Asia and the Pacific 2019: Ambitions beyond growth* estimates that Asia-Pacific developing countries need to invest an additional $1.5 trillion per year to achieve the Sustainable Development Goals by 2030— equivalent to about 5 per cent of their combined GDP in 2018 (UNESCAP, 2019b).

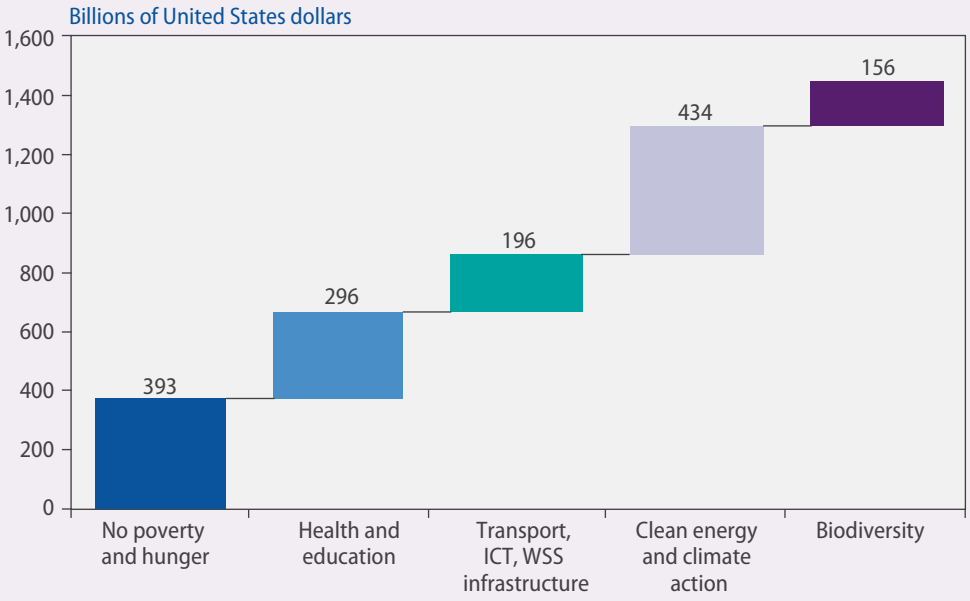
Overall, about 62 per cent of additional investment needs would be capital expenditures and 38 per cent would be current expenditures. The consideration of certain current expenditures as investment is based on a broad definition of investment that includes expenditures if they deliver clear social returns. The investments address interventions along three dimensions to deliver the following:

- ***People:*** protect and promote basic human rights to give more than 400 million people the opportunity to escape from extreme poverty and malnutrition (Goals 1 and 2); build human capacities to provide basic health care for all and a quality education for every child and youth (Goals 3 and 4);
- ***Prosperity:*** provide improved access to transport, information and communications technology, and water and sanitation (Goals 6, 9, 11 and 17);

(*continued*)

Box III.3 (*continued*)

Figure III.3.1
Total annual investment gap for achieving the Sustainable Development Goals in the Asia-Pacific region



Source: UNESCAP (2019b).

Notes: ICT – information and communication technology; WSS – water supply and sanitation.

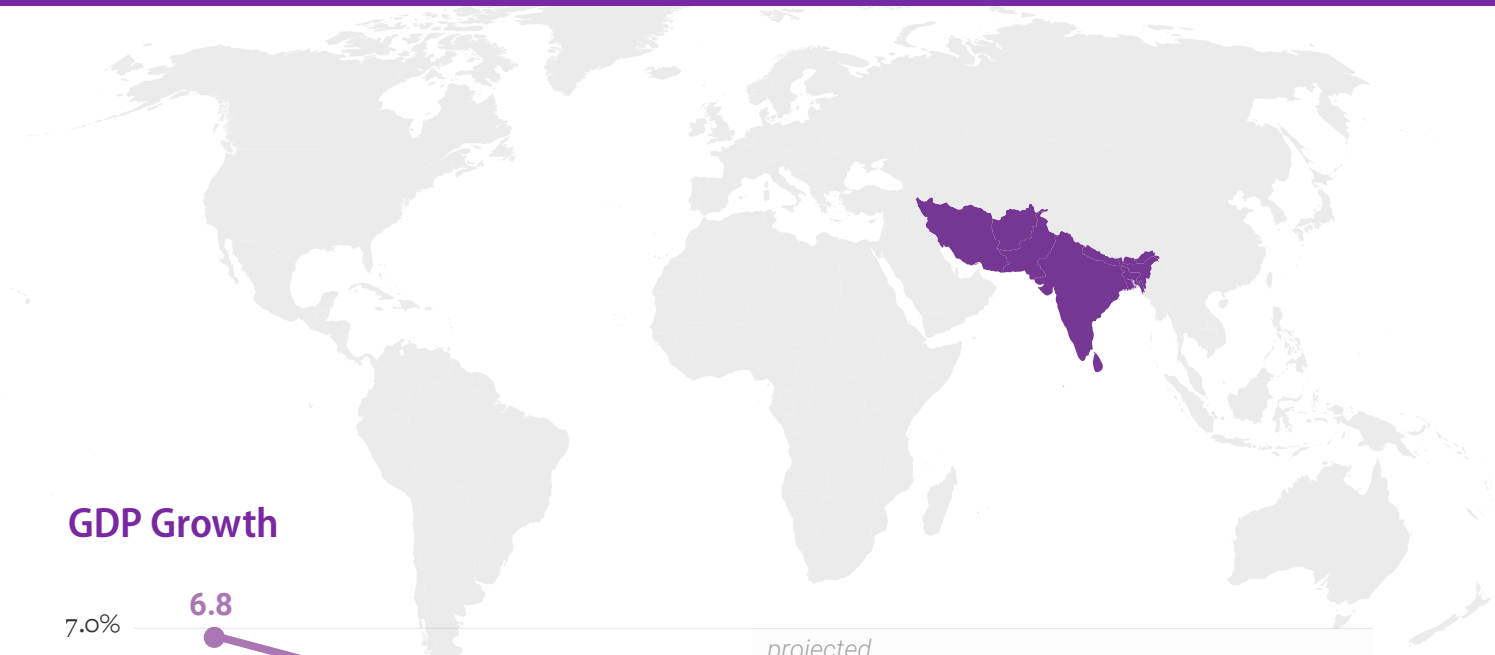
- ***Planet:*** secure humanity's future by providing clean energy (Goals 7 and 13) and climate-resilient infrastructure (Goals 9 and 13); ensure that humanity can live in harmony with nature by protecting biodiversity (Goals 14 and 15).

The most expensive commitment is transitioning to clean and affordable energy (Goals 7 and 13), for which the region requires an additional investment of $434 billion per year (see box figure III.3.1). Despite significant efforts, progress towards meeting clean energy targets has thus far been uneven. The share of renewable energy in the overall energy mix remained largely unchanged between 2000 and 2018, in spite of the substantial headway made by several countries. The potential for energy efficiency gains is high in the region because of the large amount of infrastructure that will be built and the new technologies that will be adopted in the coming decades. Many of the efficiency innovations are also economically attractive, as they reduce costs, especially over the medium to long term. For example, in 2009 the Government of India distributed 1.41 million energy-efficient compact fluorescent bulbs to replace incandescent lamps, resulting in a reduction of 90,000 tons of carbon emissions per annum, as well as a reduction in costs given the much longer lifespan of the compact fluorescent bulbs.

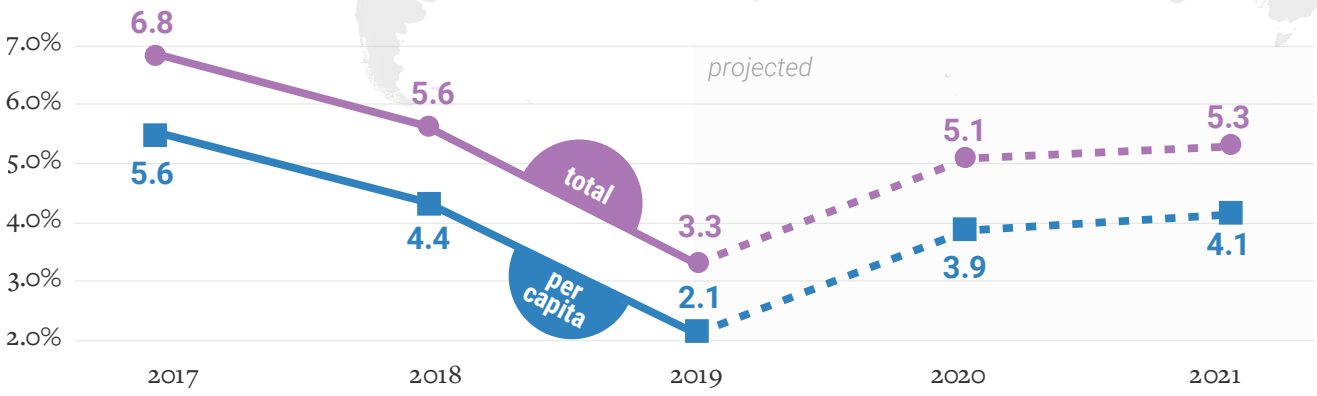
Financing the Sustainable Development Goals is well within reach for many countries as long as they undertake manageable fiscal reforms, including improved fiscal efficiency, a shift in spending priorities, and enhanced revenue mobilization. However, some countries face daunting challenges; the 2019 *Survey* reveals that the additional investment needs represent more than 16 per cent of GDP for least developed countries in the region and more than 10 per cent of GDP for countries in South and South-west Asia, in comparison with the regional average of 5 per cent. Given their extreme vulnerability to climate change and catastrophic weather events, the Pacific island developing States will need substantial additional investment in disaster-resilient infrastructure, as their annual losses associated with natural disasters are nine times higher than the regional average. The far higher investment requirements for some countries highlight the continuing need for international development support as well as greater South-South cooperation.

Author: Shuvojit Banerjee (UNESCAP).

South Asia

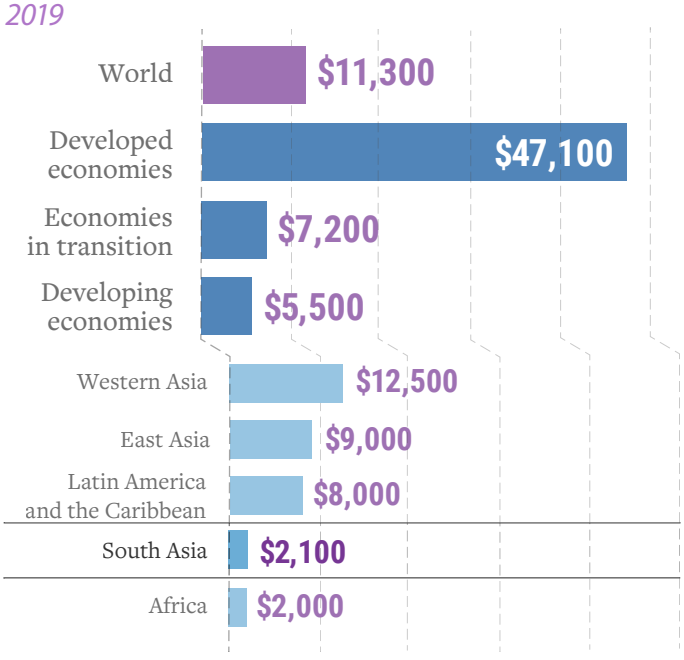


GDP Growth



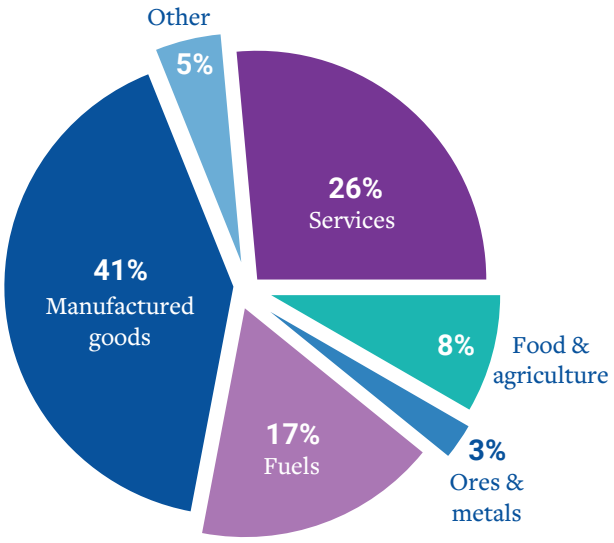
GDP per capita

2019



Export Structure

2018



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The map represents countries and/or territories or parts thereof for which data is available and/or analysed in *World Economic Situation and Prospects 2020*. The shaded areas therefore do not necessarily overlap entirely with the delimitation of their frontiers or boundaries.

South Asia: ongoing efforts are needed to restore strong economic growth

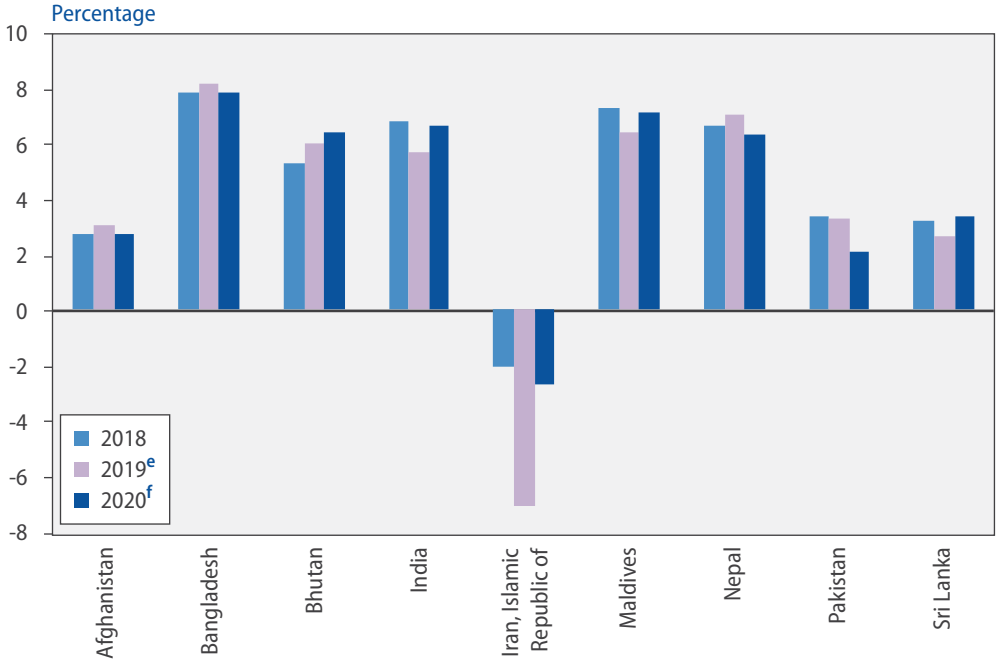
- Economic growth has slowed substantially in South Asia but is expected to recover as one-off factors wane and fiscal stimulus kicks in.
- South Asian economies remain highly exposed to a wide range of shocks, in particular extreme weather events and commodity price fluctuations.
- As growth recovers, South Asia will have to redirect spending to address structural barriers to development.

South Asia struggles with both external and domestic sources of distress

Economic growth took a hit in much of South Asia in 2019 as the impact of the global economic slowdown was compounded by country-specific crises. The economic slump in India, the deepening recession in the Islamic Republic of Iran, and the looming twin fiscal and balance-of-payments crises in Pakistan have affected the outlook for many of the smaller economies in the region, which have struggled to maintain solid growth rates in an increasingly challenging global environment. Regional GDP growth fell faster than the global average, dropping from 5.6 per cent in 2018 to 3.3 per cent in 2019, but was moderated by strong growth in Bangladesh, Bhutan, Maldives and Nepal. The regional outlook for the next couple of years is slightly more optimistic, however, with growth expected to pick up to 5.1 per cent in 2020 and 5.3 per cent in 2021 as the effects of one-off shocks dissipate and policymakers in South Asia accelerate fiscal stimulus efforts (see figure III.12). Structural constraints will need to be addressed, however, if the high growth rates enjoyed in previous years are to be restored.

While countries in South Asia are each dealing with their own structural challenges, they share a number of external and domestic downside risks that could cloud their economic outlook. External factors include ongoing trade disputes, geopolitical uncertainty

Figure III.12
GDP growth in South Asia



Source: UN DESA.

Note: **e** = estimates; **f** = forecast. GDP growth percentages are on a fiscal-year basis for Afghanistan, Bangladesh, India, the Islamic Republic of Iran, Nepal and Pakistan and on a calendar-year basis for Bhutan, Maldives and Sri Lanka.

and the increasing impact of climate change—all failures of global coordination that could severely jeopardize prospects for continued growth in the region. Although domestic factors are more diverse, there are again several common issues. Prospects for some countries in the region are dampened by political uncertainty and growing security concerns—and their negative impact on investment and consumer sentiment. A reallocation of government spending will likely be necessary to address evolving needs and any crises that may emerge within this context; however, this will limit the fiscal space to address barriers to structural transformation, in particular infrastructure bottlenecks, low productivity and persistent inequalities. An overdependence on domestic consumption or exports to drive economic growth has left many countries in the region vulnerable to shocks. Resource price fluctuations can put pressure on inflation, limiting economic activity and increasing the burden on policymakers to address short-term shocks.

Shocks in India, the Islamic Republic of Iran and Pakistan are felt across the region…

In India, the rate of economic expansion fell sharply from 6.8 per cent in 2018 to 5.7 per cent in 2019 owing to slackening investment, subdued consumer sentiment, and weak manufacturing and services growth. The slowdown in India has dampened export growth across the region but has had a particularly serious impact on countries such as Afghanistan and Nepal, whose economies rely heavily on trade in raw and minimally processed goods with India. The Government of India has responded to the country's disappointing economic growth performance—the combined result of policy uncertainty, a credit crunch, and the pass-through effects of the global slowdown—by committing to fiscal stimulus measures such as corporate tax cuts, increased government spending and expanded support for the struggling automobile industry to complement its already loose but thus far largely ineffective monetary policy. The resulting growth in investment and private consumption is expected to boost economic expansion from 2020 onward, though it will probably take several years for growth rates to return to their previous levels, as the Government will find it increasingly difficult to keep up the fiscal expansion. Economic growth in India is expected to return to 6.6 per cent in 2020, with inflation close to 4 per cent. The government deficit is expected to widen in the coming years, limiting the country's space for spending on infrastructure, social security and other increasingly important priorities for long-term development.

In the Islamic Republic of Iran, GDP contracted by 7.1 per cent in 2019 following a decline of 2.0 per cent the previous year. Serious flooding, the reintroduction of sanctions by the United States, and increasing tensions with Saudi Arabia have hit the economy hard, sending the country's exports into a nosedive. Investment and private consumption growth have decelerated amid growing social unrest. While the Government has already increased spending to address challenges created by the economic recession, it will take several years for economic growth to return to positive territory. The country's critical lack of economic diversification will continue to cloud its economic outlook.

Pakistan, meanwhile, has been struggling with a balance-of-payments crisis and the burden of high public debt, which have led to an arrangement with the IMF and corresponding fiscal tightening. High inflation and security concerns have hurt domestic demand and private investment, and the Government's ability to address the slowdown has been severely curtailed by the fiscal tightening. Export growth has fallen to 0.4 per cent owing to disappointing sales of textiles, which constitute 60 per cent of the country's goods exports. GDP growth has remained weak at 3.3 per cent in both 2018 and 2019—well below the 4–6 per cent range of previous years. Nevertheless, the economy of Pakistan is expected to recover slightly from 2021 onward as increased government revenues from a

tax hike allow expanded public investment and as other government reforms required by the IMF begin to bear fruit. Continued commitment to reform, combined with productive investment in infrastructure and strategic capacity development, will be critical for the country to find its way back to its previous growth path.

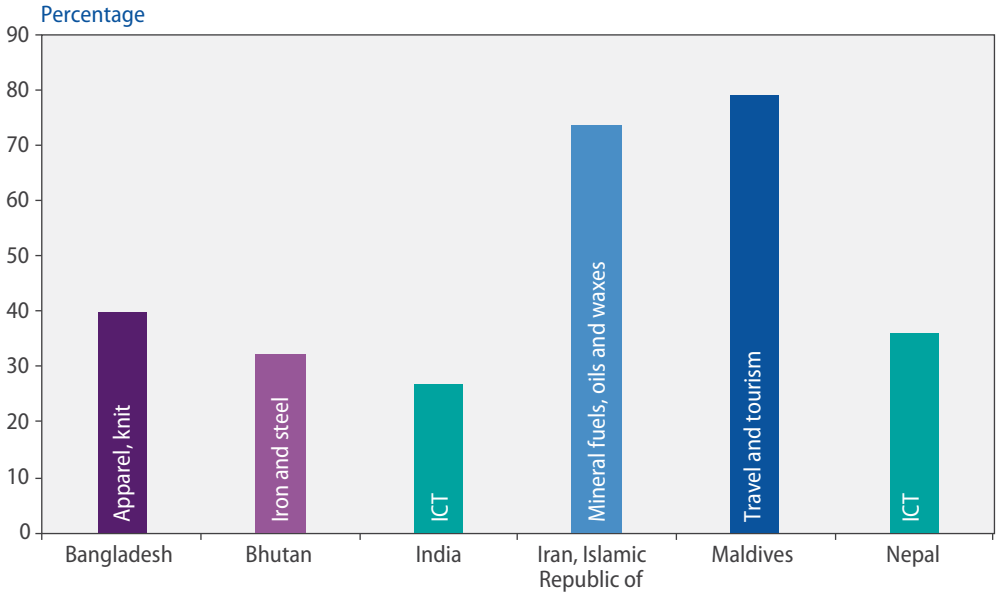
…except in Bangladesh, Bhutan and Maldives, which have managed to exceed expectations

Several economies in the region have actually exceeded growth expectations—sometimes thanks in part to the same factors that have troubled their neighbours. While global trade disputes and geopolitical tensions have dampened economic growth elsewhere, Bangladesh, Bhutan and Maldives have taken advantage of significant economic opportunities created by the turmoil. Driven by the expansion of its garment industry, which has prospered partially as a result of trade disputes between the United States and China, Bangladesh enjoyed exceptional GDP growth of 8.1 per cent in 2019. Maldives saw its economy continue to grow at a rate of 6.4 per cent in 2019 as it benefited from strong growth in the tourism sector, which flourished thanks to the opening of a new airport. Strong investment growth in Bhutan boosted the rate of economic expansion from 5.3 per cent in 2018 to 6.0 per cent in 2019. It is worth noting, however, that the drivers of current economic growth also expose significant weaknesses, as all of these countries rely heavily on a small number of sectors for their economic development (see figure III.13). Bangladesh, for example, continues to depend strongly on the textiles and garment industry, a sector that ranks poorly in terms of product complexity, rendering the country's economy among the least complex in the world and leaving it highly exposed to external shocks. Meanwhile, tourism accounted for 79 per cent of exports from Maldives and for more than a quarter of the export earnings of Bhutan and Nepal. These countries will need to use the increased government revenues expected in the coming years to invest in infrastructure and productive capabilities outside of their traditional industries so that they can move up the global value chains.

A moderation in inflation allows for more accommodative monetary policy

The countries of South Asia have faced a combination of rising food prices, oil price fluctuations and domestic constraints; however, inflation figures and the associated monetary policy responses have been divergent across the region. Thanks to slow growth in

Figure III.13
Share of largest sector in total exports, 2017



Source: UN DESA, based on data from The Growth Lab at Harvard University, The Atlas of Economic Complexity (http://www.atlas.cid.harvard.edu).

Note: Merchandise sectors are described at the two-digit level (HS-2); services sectors are based on the Extended Balance of Payments Services Classification 2010 (EBOPS 2010) category.

both fuel and food prices, inflationary pressures have eased somewhat in many parts of the region, with rates dropping below target levels in India and Sri Lanka. The Reserve Bank of India has responded by pursuing a more accommodative stance, reflected in a series of policy interest-rate cuts in 2019, to complement the Government's pledge to provide fiscal stimulus. Meanwhile, the State Bank of Pakistan is balancing a stronger commitment to inflation targeting with a managed depreciation of the currency, but this is complicated by increases in energy tariffs that have been imposed as part of the fiscal reform package. While the tightened monetary policy in Pakistan is expected to help move inflation towards target levels in the years to come, the country's inflation remains extremely vulnerable to fuel price fluctuations and weather conditions, as is the case for most countries in the region. A good harvest and resulting moderate food price inflation will be of critical importance for the region's poor, whose household budgets are strongly linked to food prices.

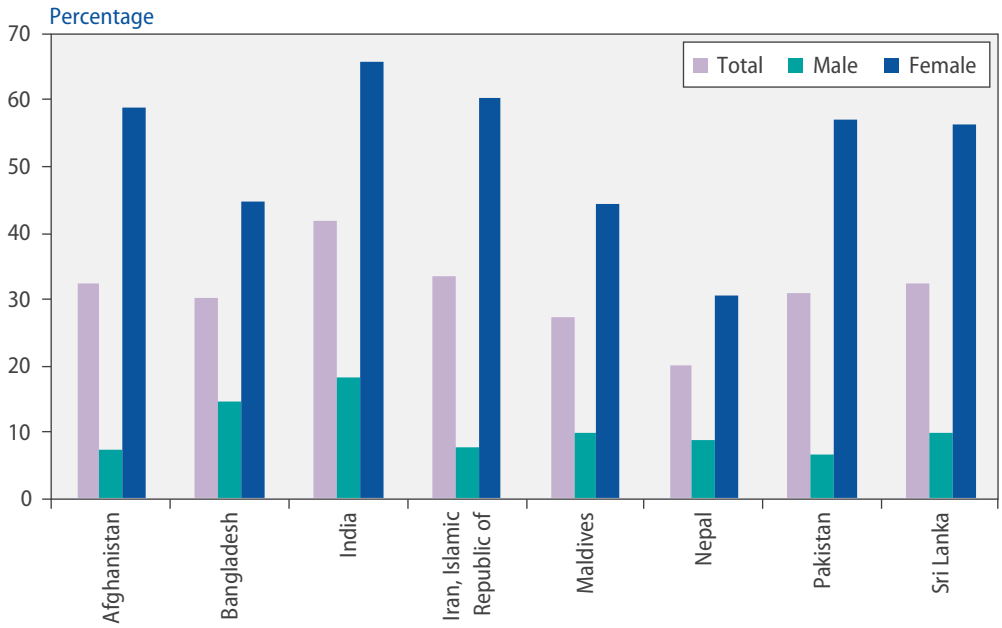
Structural challenges loom on the horizon, with the effects of climate change, low labour productivity and inequalities becoming increasingly acute

Climate change will be the principal long-term risk for South Asian countries owing to their high dependence on fishing and agriculture, geographical structures, and insufficiently climate-resilient infrastructures. Natural disasters such as flooding and landslides have already proven to be extremely destructive in the region, and it is expected that they will only increase in frequency. Under business as usual, the Asian Development Bank projects that rising global temperatures will reduce GDP in South Asia by nearly 9 per cent by the end of century—not including the human and financial costs from floods, droughts and other extreme weather events—with Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka suffering the greatest losses (Ahmed and Suphachalasai, 2014). A large proportion of these economic losses will fall on agriculture, forestry and fisheries, which together account for an estimated 42.7 per cent of the region's employment share—second only to sub-Saharan Africa. Without action, higher temperatures and shifting precipitation patterns are projected to reduce the living standards of around 800 million people in South Asia by 2050 through changes in agricultural and labour productivity, health, migration and other factors that affect economic growth and poverty reduction (Mani and others, 2018). South Asian countries will need to invest heavily in adaptation measures while promoting the transition to cleaner sources of energy. The energy transition, while urgently needed, will not come without significant expense, however. The Islamic Republic of Iran, in particular, is highly exposed to the effects of an energy transition owing to its extremely high dependence on fossil-fuel assets, which are at substantial risk of becoming stranded.

The region's young labour force is its greatest capital and has the potential to be a key driver of development, particularly within the Sustainable Development Goal framework. However, there are serious systemic and structural barriers to employment. Labour productivity in South Asia is among the lowest in the world, and informal employment is widespread (accounting for as much as 84.7 per cent of non-agricultural employment in India, for example). While average productivity growth in South Asia outpaces the global average, countries such as Afghanistan and Nepal are falling further behind. Across the region, young people are among those struggling the most. In Afghanistan, Bangladesh, Pakistan and Sri Lanka, for example, more than 30 per cent of youth are not in education, employment or training (see figure III.14); in India, this figure is over 40 per cent. Meanwhile, female labour force participation in South Asia has dwindled and is currently at 26 per cent, compared with 52 per cent for Latin America and the Caribbean and 58 per cent for East Asia and the Pacific. Demographic pressures and rapid urbanization will further compound these problems. Policymakers in South Asia urgently need to take steps to address barriers to labour force participation, particularly for women and youth. Improving access to decent employment will support both social development and economic productivity.

Figure III.14

Share of youth not in employment, education or training (youth NEET rate)

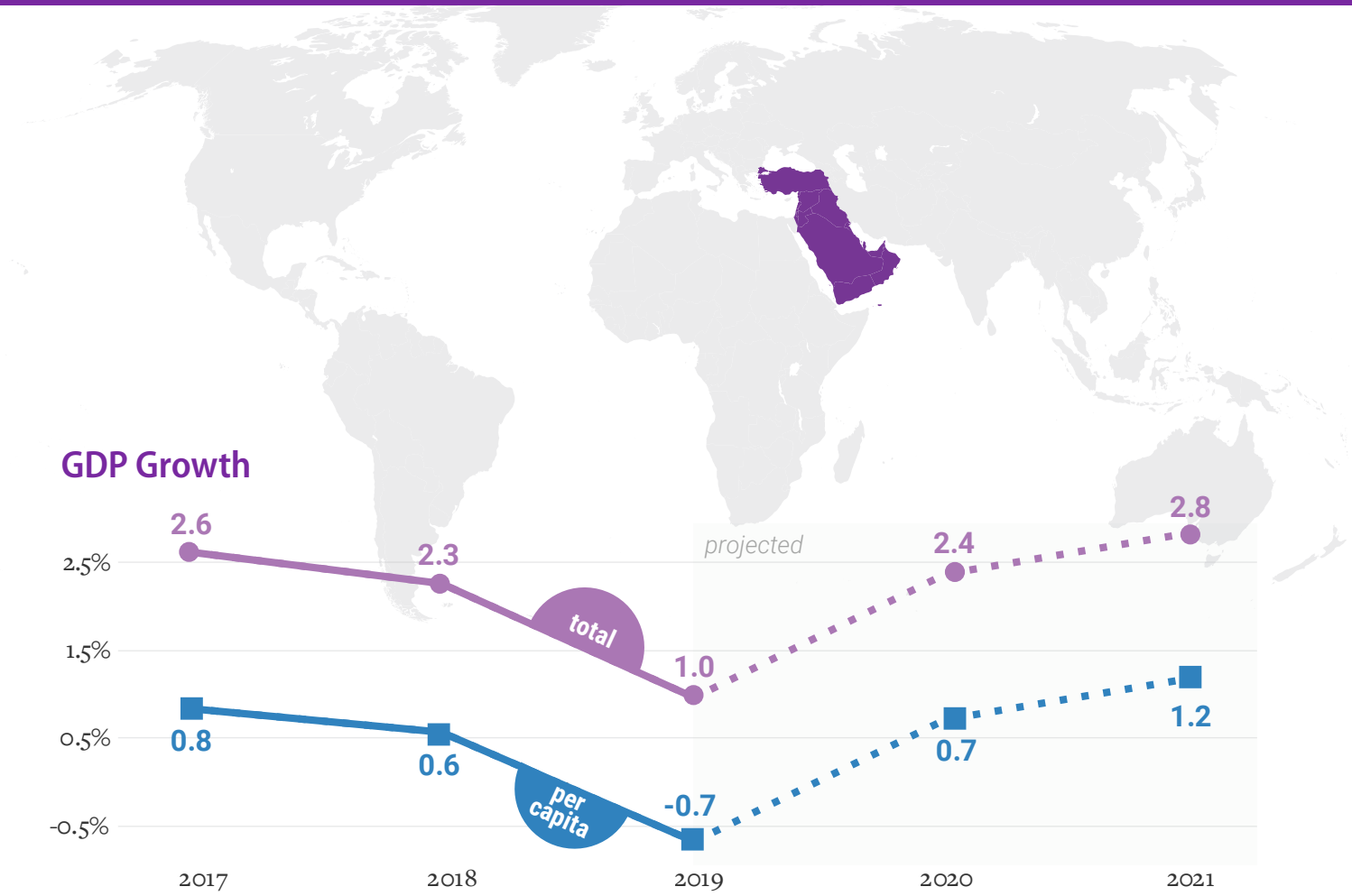


Source: ILOSTAT.

Note: The youth NEET rate represents young people who are not in employment, education or training as a share of the total number of young people aged 20–34, by gender. Figures are based on the most recent observations for the period 2010–2018.

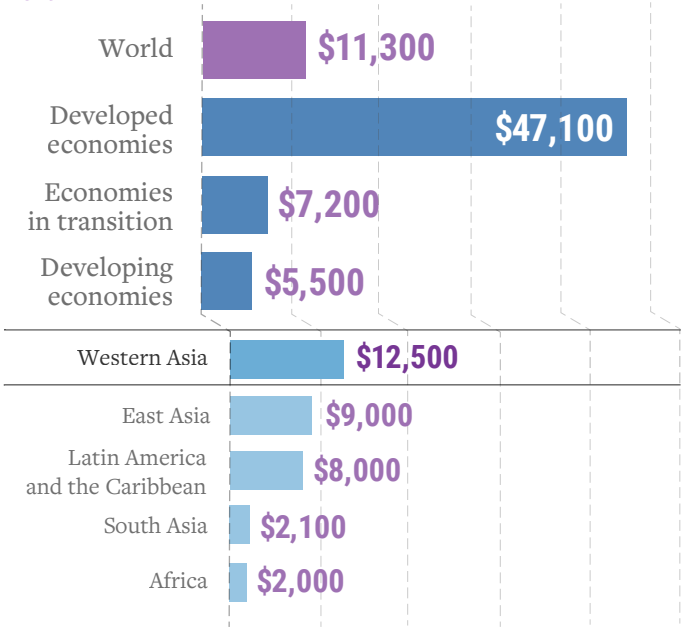
Development prospects are also held back by persistent and often expanding inequalities. UNESCAP (2018) indicates that income inequalities increased in India, Bangladesh and Sri Lanka between the early 1990s and the early 2010s. The top 10 per cent of earners in India receive 54.2 per cent of the total national income. Gender inequalities also remain high in the subregion, according to UNDP (2019). Girls are substantially less likely than boys to complete secondary or higher education, and half of the girls in South Asia are married before the age of 18, limiting their prospects for meaningful participation in the labour market. Continued improvements in social protection coverage, comprehensive support for women's rights, the availability of affordable education and health-care services, and effective public service delivery in all areas will be needed to ensure that every individual has a chance to contribute to the development of his or her country.

Western Asia



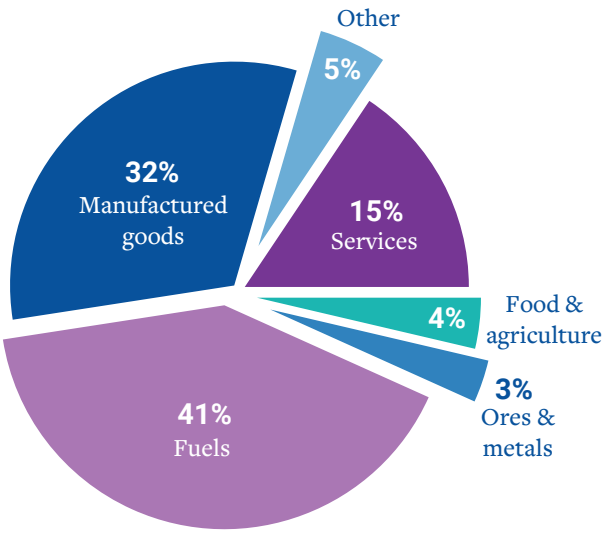
GDP per capita

2019



Export Structure

2018



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Western Asia: growth fails to bounce back in the face of sluggish demand

- Demand for both energy and non-energy exports is weakening.
- A regional real estate slump is weighing on domestic demand.
- Economic prospects remain inextricably linked to geopolitical uncertainties.

In 2019, Western Asia experienced a sharp decline in the rate of economic expansion owing to both sluggish domestic demand and weakening external demand, with average GDP growth estimated to have dropped to 1.0 per cent from 2.3 per cent in 2018. The slump in the real estate sector dampened both consumption and investment through a negative wealth effect. Energy-importing countries faced tightening fiscal and balance-of-payments constraints. For the member countries of the Cooperation Council for the Arab States of the Gulf (GCC),[6] the contribution of the energy sector to GDP growth is estimated to have been negligible. While oil prices have fallen from their latest peak in October 2018 (see chapter I), the level of crude oil production has barely changed since that time due to OPEC-led supply ceiling coordination. Non-energy exports have also faced weakening demand from Europe, South Asia and East Asia. Moreover, ongoing conflict and an unstable security situation in the Syrian Arab Republic and Yemen have suppressed the recovery in intraregional trade.

Economic prospects for Western Asia are clouded by oil price, real estate and geopolitical risks

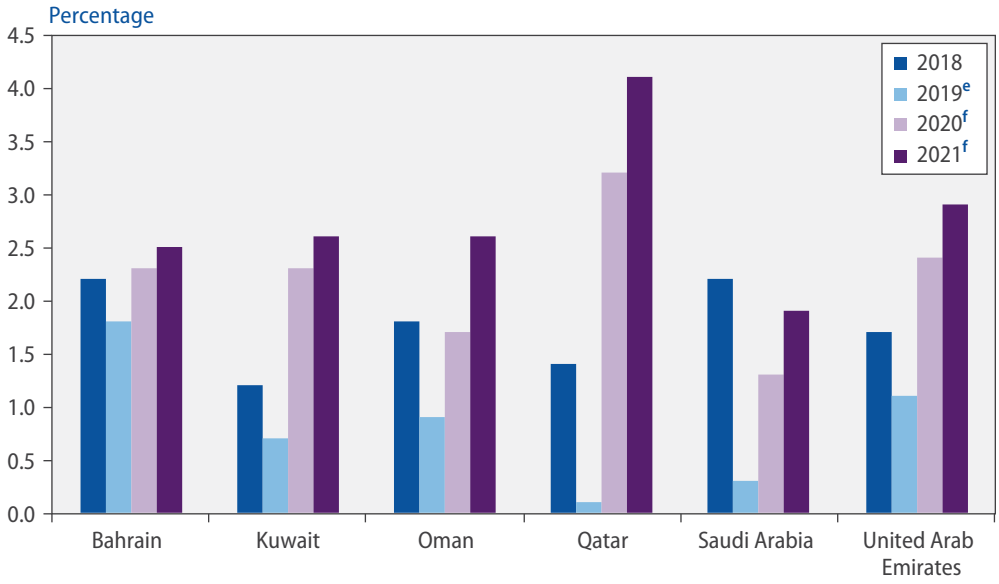
For the region as a whole, average GDP growth is forecast at 2.4 per cent in 2020 and 2.8 per cent in 2021. While weak external demand will continue to weigh on the region, recovering credit growth, a stabilization of the real estate sector, and ongoing economic reform are expected to support domestic demand growth. The main downside risks are a substantial decline in oil prices, further deterioration in the real estate sector, and the intensification of geopolitical risk events.

The contribution of the energy sector to growth in GCC economies was negligible in 2019

As a group, the GCC economies experienced a substantial slowdown in growth in 2019 (see figure III.15). As the OPEC-led agreement on the crude oil production ceiling was extended in July, production levels changed very little from the previous year in the GCC region—even in the non-OPEC member countries (Bahrain, Oman and Qatar). The region's exports of natural gas also stagnated; the global oversupply depressed natural gas prices, and the region's gas exporters (Oman, Qatar and the United Arab Emirates) lost market shares to emerging gas exporters. The contribution of the energy sector to economic growth in GCC countries was negligible in 2019, and domestic demand growth also slowed, mainly owing to declining real estate values. The slump in the real estate sector weighed on private investment and the consumption of durable goods. Consequently, the growth rate for broad money in the GCC economies stayed well below the peak reached in 2014. Capital inflows from South Asia, which sustained the growth of the non-energy sector in the recent past, also weakened. Nevertheless, the GCC economies are expected to experience a modest recovery during 2020 and 2021 as the real estate sector stabilizes. In Saudi Arabia and the United Arab Emirates, in particular, broad money growth is projected to recover in line with a moderately accelerating expansion of domestic demand. Ongoing reform efforts by the Governments to facilitate economic diversification should also contribute to the recovery.

6 The six GCC members include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

Figure III.15
GDP growth prospects for GCC countries



Source: UN DESA.
Note: **e** = estimate; **f** = forecast.

Iraq is benefiting from growing oil revenues, with economic growth estimated at 3.2 per cent for 2019 and forecast at 4.8 per cent for 2020. The 2019 budget was expansionary, with a 27 per cent increase in spending over the 2018 budget. However, insufficient public service provision and a lack of social cohesion have resulted in growing social unrest, including frequent street demonstrations.

Jordan has managed to sustain domestic demand growth against its balance-of-payments constraints by increasing exports and foreign capital inflows. However, the speed of expansion is insufficient to provide an appreciable boost to per capita income levels, which have declined significantly due to the influx of refugees from the Syrian Arab Republic; real per capita GDP in 2019 was 10 per cent below the level prevailing in 2010. Following GDP growth of 1.9 per cent in 2019, a modest acceleration to 2.2 per cent is expected in 2020 as ongoing reforms are implemented in line with the provisions of the recently launched London Initiative (United Kingdom Cabinet Office, 2019).

Balance-of-payments constraints have tightened in Lebanon

Unlike Jordan, Lebanon experienced a tightening of balance-of-payments constraints as foreign capital inflows continued to dwindle. The central bank ran down its foreign reserves by $4 billion over the first seven months of 2019 to alleviate these constraints. However, the pressure on the Lebanese pound mounted due to a severe shortage in United States dollar liquidity. Deteriorating economic sentiment resulted in widespread social unrest towards the end of 2019. The economic prospects for 2020 are highly uncertain, as much will depend on the stabilization of the sociopolitical situation.

Despite the continuing armed conflict in parts of the Syrian Arab Republic, the economy expanded by an estimated 10.1 per cent in 2019 as a result of increased reconstruction activity. Growth is forecast to decline to 3.7 per cent in 2020 as the momentum of reconstruction slows. The country continues to face balance-of-payments constraints, as it has become more import-dependent under economic sanctions. The Syrian pound saw a significant depreciation in 2019 in the parallel market.

Macroeconomic and humanitarian conditions remain dire in Yemen

In early 2019, the United Nations Office for the Coordination of Humanitarian Affairs (2019) stated that the humanitarian crisis in Yemen was the worst in the world.

Throughout the year, the macroeconomic and humanitarian situations remained dire as the armed conflict continued. Severe damage to the country's food supply capacity has caused widespread food insecurity. In aggregate terms, the country's economy is projected to expand at a moderate pace, with growth increasing from 1.2 per cent in 2019 to 3.6 per cent in 2020 as Yemen reaps the benefits of the recent resumption of crude oil exports. However, while this may create some fiscal space, it does not imply an improvement of economic welfare.

The economy of the State of Palestine continues to be negatively affected by political tensions and instability. Economic growth accelerated moderately to 1.4 per cent in 2019 as a two-year contraction of the economy in the Gaza Strip came to an end. The economy in the West Bank continues to grow, but the pace remains slow. Overall, the Palestinian economy is forecast to expand by 2.6 per cent in 2020.

In Israel, economic expansion slowed as the result of a precautionary measure undertaken by the central bank to manage the economy, which was showing signs of overheating. Nevertheless, the value of financial and real estate assets grew over the year, providing support for domestic demand. Exports also showed robust growth. The Israeli economy is estimated to have grown by 3.1 per cent in 2019 and is forecast to grow at a similar pace in 2020.

Turkey recovers from recession

Turkey spent the year recovering from a recession, achieving growth estimated at 0.4 per cent in 2019 after registering two consecutive quarterly declines in GDP in the second half of 2018 as the economy adjusted to a steep depreciation of the Turkish lira. While the pace of recovery in industrial production remains slow, declining imports have eased pressures on the Turkish lira. For 2020, a moderate recovery in domestic demand growth is expected, but the recovery in manufacturing exports is projected to be slow as demand from the European Union remains weak. Balance-of-payments constraints will effectively limit real GDP growth to 2.4 per cent in 2020.

Weak domestic demand has subdued inflationary pressure in the region

In terms of consumer price dynamics, inflationary pressures in the region remain generally subdued. Saudi Arabia and the United Arab Emirates even experienced deflation in 2019, reflecting weak domestic demand. A significant drop in the price of housing-related items pulled down general price levels in GCC economies. Weak domestic demand also contributed to low inflation in Iraq and Jordan in 2019, whereas tightening balance-of-payments constraints created inflationary pressures in Lebanon, the Syrian Arab Republic and Yemen to varying extents. The consumer price inflation rate in Turkey remains high relative to most of the region, but inflation has receded from the recent peak in September 2018 driven by the depreciation of the Turkish lira. For 2020, consumer price inflation rates are forecast to remain generally low in the region, but the expected recovery in domestic demand will create mild inflationary pressure. Tighter balance-of-payments constraints are expected to contribute to higher inflationary pressures in Lebanon, the Syrian Arab Republic, Turkey and Yemen.

Fiscal stances appear cautious

In 2019, following the shift in the monetary policy of the United States, central banks in Bahrain, Jordan, Kuwait, Qatar, Saudi Arabia and the United Arab Emirates loosened their monetary stances. The Bank of Israel is expected to shift to an accommodative stance in 2020. After a series of policy rate cuts in 2019, the Central Bank of the Republic of Turkey is expected to maintain its policy interest rate in 2020. On the fiscal side, caution prevailed in 2019, and this trend is forecast to continue in 2020. Governments in the GCC countries refrained from activating significant stimulus measures despite a recovery in oil revenues. This cautious stance is accompanied by efforts towards revenue diversification, exemplified by the recent introduction of the VAT in Saudi Arabia and the United Arab

Box III.4

Policy simulations of alternative energy subsidy reforms: strategies towards macroeconomic sustainability in the Arab region

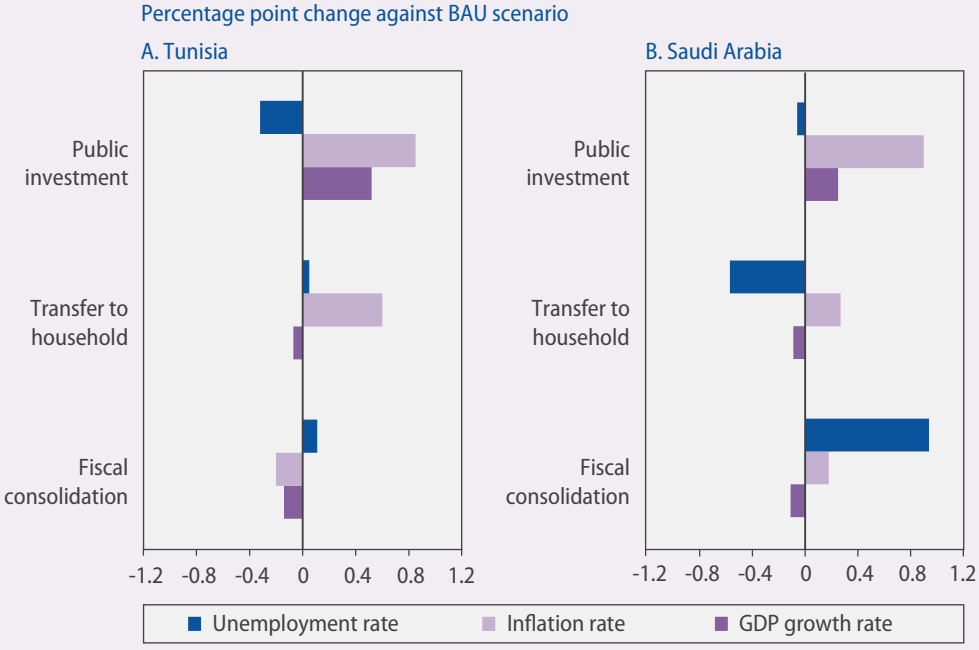
Many Arab countries, including both oil exporters and oil importers, rely on high energy subsidies to maintain low domestic energy prices; these subsidies amount to $117 billion in the Arab region, accounting for more than one fourth of the global total of $436 billion. The costliness of energy subsidies raises concerns about the sustainability of macroeconomic development trajectories in many Arab countries. In particular, the severe fluctuations in global oil prices over the past several years have revealed structural fiscal deficit challenges in many countries. Macroeconomic management is further complicated by the persistent geopolitical tensions in the region.

In response to these concerns, many Arab countries have identified the reform of their existing energy subsidy systems as an urgent policy priority in order to balance the trade-off between stable energy prices in an environment of fluctuating oil prices and maintaining fiscal sustainability. A computable general equilibrium (CGE) model offers an empirical approach motivated by a renewed emphasis by Arab policymakers on the macroeconomic implications of energy subsidy reforms. The CGE model is designed to evaluate the effects of three hypothetical reform scenarios based on case studies of two countries—Tunisia (an oil importer) and Saudi Arabia (an oil exporter). Within this framework, the "savings" from the withdrawal of energy subsidies are (a) used to fund additional public investment programmes; (b) transferred to households as a lump sum; or (c) directed towards the reduction of the fiscal deficit. The results of the simulations, based on a 10 per cent increase in energy prices, are compared with the initially set business as usual (BAU) scenario for the period 2018-2023 (see box figure III.4.1).

For Tunisia, the simulations reveal that among the three policy options, increasing public investment has the most positive impact on growth and unemployment, increasing economic growth by 0.52 percentage points and reducing unemployment by 0.32 percentage points. The fiscal consolidation option produces the least favourable outcome, reducing growth by 0.14 percentage points and increas-

Figure III.4.1

Results of the CGE modelling assessment



Source: Author's own elaboration on the basis of UNESCWA (2019).

(*continued*)

Box III.4 (*continued*)

ing the unemployment rate by 0.11 percentage points, while the policy option of the transfer to households has a relatively moderate impact, leading to a decrease in growth by 0.07 percentage points and a 0.05 percentage point increase in the unemployment rate. The impact on domestic price dynamics appears to be highest when the option of public investment is selected.

Similar modelling results are observed for Saudi Arabia, with a few exceptions—the most noteworthy being that the allocation of the fiscal space arising from an energy subsidy reform involving lump-sum transfers to households is the best alternative for reducing unemployment. It is worth noting that as part of its Vision 2030 initiative, Saudi Arabia is implementing a cash transfer scheme called the Citizen Account Program to support increased household employment, especially for economically vulnerable segments of the population. This policy is also designed to contribute to improving access to education and social services for such groups.

Although higher energy prices from subsidy reforms negatively impact economic growth as higher inflation squeezes real income, the reforms are expected to eventually improve the fiscal balance in both countries. In the short term, the gradual removal of the energy subsidy would lead to lower financing needs. A long-term implementation strategy needs to address the heterogeneous effects of the reforms on the economy. If the improvement in the fiscal balance is channelled towards increasing public spending in growth-enhancing sectors, the potential exists to generate inclusive growth for the economy, though at the expense of higher inflation.

To direct increased fiscal spending towards achieving not only growth but growth that is inclusive, policymakers have to focus on several additional issues, including, first and foremost, ensuring that public spending promotes the diversification of the economy away from excessive reliance on activities relating to resource extraction. For example, supporting small and medium-sized enterprises through the provision of tax advantages or government grants creates a broader base of economic activity that benefits broader sections of the population (in terms of income level, gender, geographic location and other criteria). Economic and investment policies have to be accompanied by dedicated socioeconomic policies specifically aimed at increasing income levels among the poor and promoting gender equality in employment; examples in this regard include improving access to education and implementing wage assistance programmes.

A final key consideration is the environmental impact of subsidy reforms. Phasing out subsidies and charging the real price of energy would contribute to reducing emissions and the wasteful consumption of energy resources and would release financial resources that could be invested in green technologies. Concrete steps must be taken to explore the development experiences of Arab countries and policy options that can contribute to balancing the economic, social and environmental dimensions of sustainable development.

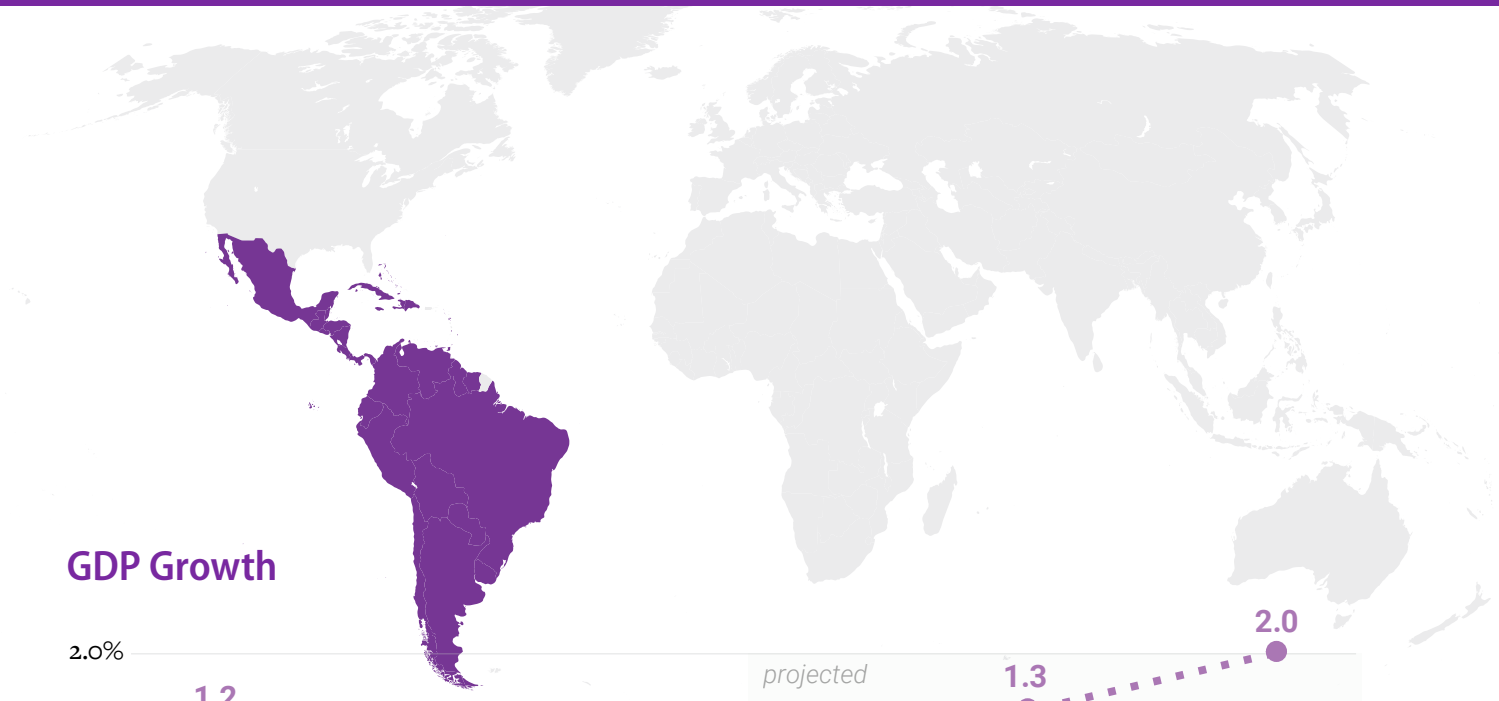
Author: Seung Jin Baek (UNESCWA).

Emirates. As oil prices are forecast to remain weak, fiscal stances are expected to remain relatively tight in GCC countries, and the same is true for other economies in the region, especially Jordan, Lebanon, the Syrian Arab Republic and Yemen.

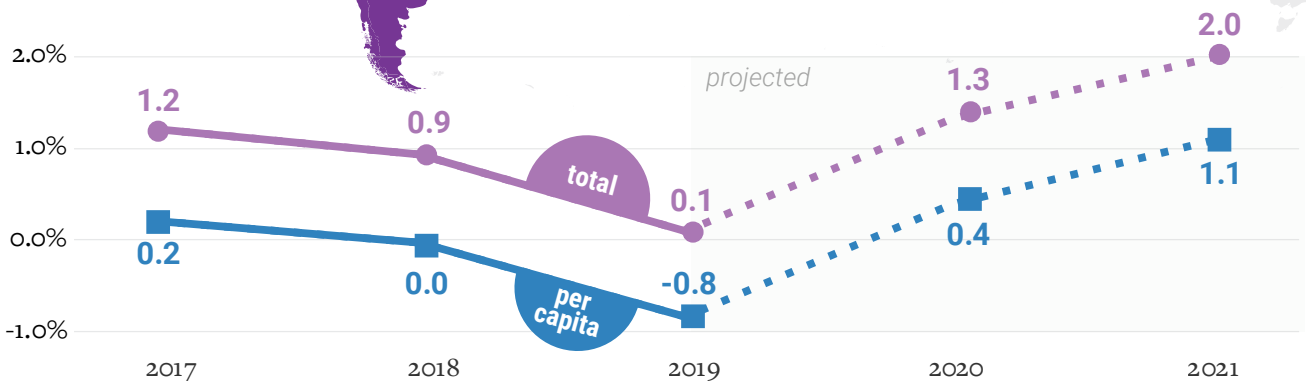
Unemployment remains high

The unemployment rate remains high in the region. The leading cause of social unrest, as witnessed in Iraq and Lebanon in 2019, is the lack of decent employment opportunities. Unemployment in Jordan reached 19.2 per cent in the second quarter of 2019—the highest rate since 1993. The employment situation deteriorated rapidly in Turkey as the seasonally adjusted unemployment rate surged to 13.9 per cent in July 2019, up from 10.8 per cent a year earlier. In Saudi Arabia, the unemployment rate edged down to 12.3 per cent in the second quarter of 2019 from 12.7 per cent at the end of 2018. The gender gap in employment opportunities persists, with female unemployment remaining significantly higher than male unemployment. In the second quarter of 2019, the female unemployment rate stood at 27.2 per cent in Jordan and 31.1 per cent in Saudi Arabia.

Latin America and the Caribbean

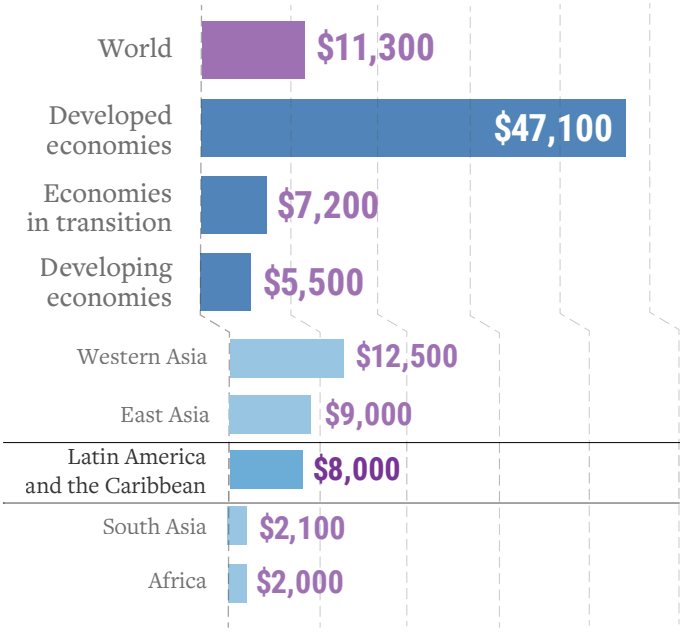


GDP Growth



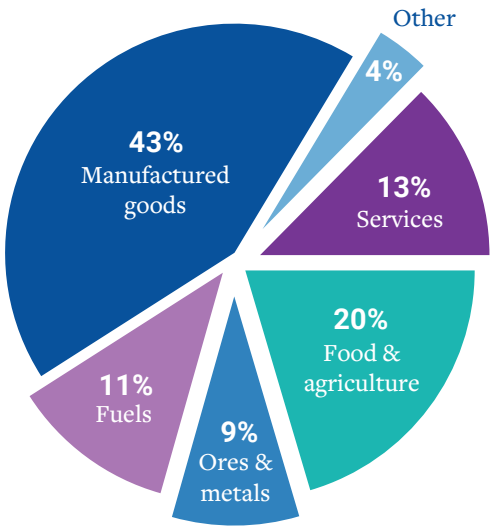
GDP per capita

2019



Export Structure

2018



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
The map represents countries and/or territories or parts thereof for which data is available and/or analysed in *World Economic Situation and Prospects 2020*. The shaded areas therefore do not necessarily overlap entirely with the delimitation of their frontiers or boundaries.

Latin America and the Caribbean: the region is mired in a prolonged economic slump

- The regional growth outlook remains weak amid difficult external conditions and heightened policy uncertainty.
- Fiscal pressures create challenges for short-term macroeconomic management and also dampen long-term growth prospects.
- Economic stagnation and large inequalities undermine progress towards achieving the Sustainable Development Goals.

The region is mired in a prolonged economic slump

Latin America and the Caribbean[7] is undergoing a prolonged economic slump that is undermining progress towards the Sustainable Development Goals. Amid challenging external conditions, heightened policy uncertainty and country-specific headwinds, the region's GDP grew by only 0.1 per cent in 2019, down from 0.9 per cent the previous year. The slowdown was broad-based across subregions, and growth in the region's largest economies (Argentina, Brazil and Mexico) was much weaker than expected. A slow and uneven recovery is projected over the next two years, with regional growth averaging 1.3 per cent in 2020 and 2.0 per cent in 2021. Domestic demand will likely be supported by more accommodative monetary policy and moderate inflationary pressures. Consumer and business sentiment are expected to improve gradually in many countries, including Brazil and Mexico. The risks to the outlook are skewed to the downside, however. On the external front, the region is vulnerable to a further slowdown in global trade and lower commodity prices. In addition, abrupt changes in investor sentiment could trigger renewed financial volatility and large capital outflows. On the domestic front, policy uncertainty, political turmoil and social unrest threaten to weigh on growth in several economies. In many cases, these challenges are compounded by a lack of fiscal policy space as Governments continue to grapple with sizeable public deficits and elevated debt burdens.

The broad-based slowdown has raised fears of another lost decade

Buffeted by mounting internal and external headwinds, economic conditions across the region have deteriorated significantly over the past year. GDP growth in 2019 was slower than expected in 24 out of 27 countries, and in 14 countries, including Argentina, Brazil and Mexico, per capita GDP nearly stagnated or declined. Since the end of the commodity boom in 2013/14, the region has failed to achieve meaningful economic growth. Average per capita GDP today is nearly 4 per cent below the 2014 level.[8] At the same time, progress in reducing inequality appears to have slowed. Standard measures of income inequality, such as the Gini or Theil index, have shown little improvement since 2014 (UNECLAC, 2019b). With few exceptions, levels of inequality across the region remain very high, and vast segments of society lack economic opportunity.

Failure to deliver inclusive growth has fuelled popular discontent

Amid lower average incomes and persistently high inequality, poverty levels have trended upward in recent years. According to UNECLAC estimates, 63 million people in the region were living below the extreme poverty line in 2018, up from 46 million in 2014 (ibid.). The total number of poor is likely to have increased further in 2019, as the

7 The country classification is based on the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC). The region of Latin America and the Caribbean comprises three subregions: South America; Mexico and Central America (which includes Caribbean countries that are considered part of Latin America, namely, Cuba, the Dominican Republic and Haiti); and the Caribbean.

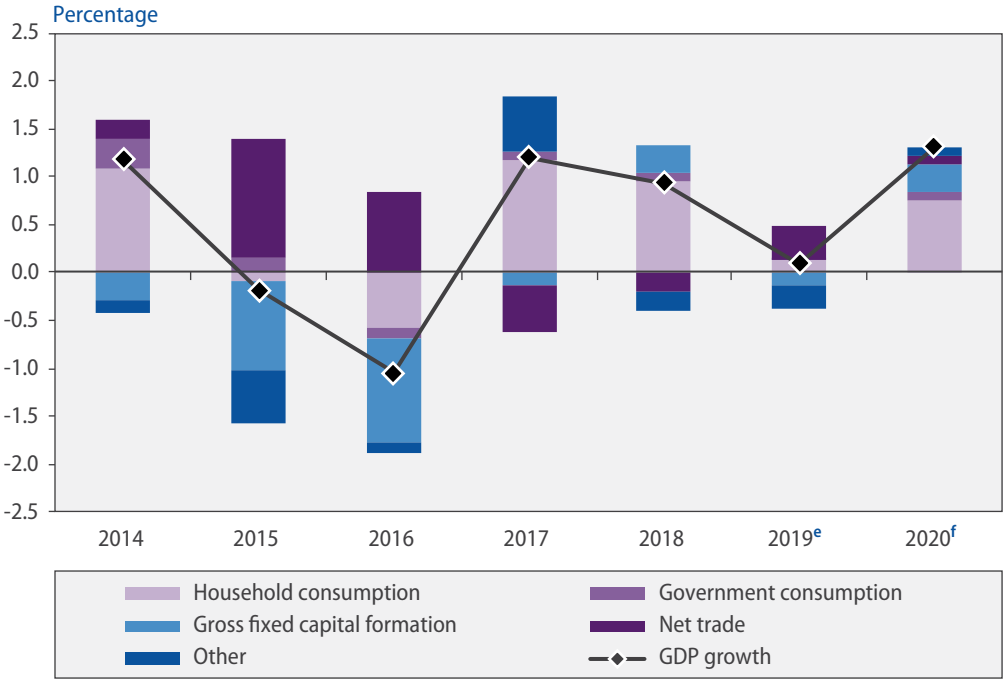
8 When the Bolivarian Republic of Venezuela (which is estimated to have suffered a cumulative output decline of about 60 per cent over the past five years) is excluded from the sample, the decline in per capita GDP in Latin America and the Caribbean since 2014 is estimated at 1.6 per cent.

region's average per capita income fell by about 0.8 per cent. The failure to deliver inclusive economic growth, coupled with an erosion of trust in political institutions, has fuelled growing popular discontent in parts of the region. Over the past year, public unrest and violent protests have erupted or intensified in many countries, including Argentina, the Plurinational State of Bolivia, Chile, Ecuador, Haiti, Honduras, Nicaragua, Peru and the Bolivarian Republic of Venezuela.

Domestic demand is expected to pick up slightly after stagnating in 2019

Amid increased social tensions, heightened domestic policy uncertainty and challenging international conditions, all components of aggregate demand weakened in 2019 (see figure III.16). Despite generally subdued inflation, growth in private consumption almost came to a halt, held back by rising unemployment and slower wage gains. With consumer confidence expected to gradually pick up, private consumption will likely start to recover in 2020, again becoming the main driver of regional growth. Public expenditure across the region will remain weak, as many Governments are still facing fiscal consolidation pressures. Aggregate investment contracted in 2019, even as monetary policy was loosened in many countries. While Brazil saw a moderate recovery in fixed capital formation amid record-low interest rates, there were sharp declines in investment demand in Mexico and (especially) Argentina in the wake of high policy uncertainty. The investment climate

Figure III.16
Composition of GDP growth in Latin America and the Caribbean



Source: UN DESA.
Note: e = estimate; f = forecast.

in Latin America and the Caribbean will likely remain challenging in 2020, though low interest rates and gradually improving business confidence in some large economies should support a mild recovery.

Net trade contributes positively to growth as imports weaken

Regional trade has been negatively affected by increased global uncertainty, slower import demand among key trading partners, and weak intraregional dynamics. Amid lower prices for many of the region's exports, export values are estimated to have declined slightly

in 2019. Export volumes held up relatively well, showing a small increase over the previous year thanks to robust growth in Mexico, Central America and the Caribbean. As trade tensions between the United States and China escalated, Mexico benefited from a diversion of trade flows, particularly in the vehicles, auto parts, electronics and machinery sectors. By contrast, South American exports declined notably amid sluggish global demand for the subregion's main commodities, including oil and copper. On the import side, most countries have seen significant declines over the past year as domestic demand has slowed, with capital goods and intermediate inputs generally more affected than consumer goods (UNECLAC, 2019a). The contraction in imports was most severe in the Bolivarian Republic of Venezuela and Argentina amid collapsing domestic currencies and limited access to foreign exchange. With imports slowing more than exports, net trade contributed positively to regional growth in 2019. While uncertainties in the international trade environment persist, the baseline scenario projects a gradual upturn in the region's exports and imports during the outlook period.

A robust recovery in South America remains elusive

In South America, annual GDP contracted by an estimated 0.1 per cent in 2019. External headwinds, such as slowing global trade and lower commodity prices, have compounded country-specific problems, including contractions in mining and agricultural output in Brazil, Chile and Paraguay; sociopolitical tensions and unrest in the Plurinational State of Bolivia, Chile, Ecuador and Peru; and the deepening economic crisis in Argentina, which has adversely affected the neighbouring countries of Brazil, Paraguay and Uruguay. Some of the negative factors that have been weighing on growth over the past year are likely to persist in 2020. Moreover, the subregion faces major structural obstacles, including overdependence on commodities, large informal sectors and low labour productivity growth. Against this backdrop, a return to robust growth will likely remain elusive in the near term. Economic activity is projected to pick up only slowly, with average growth forecast at 1.1 per cent in 2020 and 2.0 per cent in 2021. A failure to achieve robust and inclusive growth threatens to further exacerbate social tensions.

Brazil will recover slowly, while Argentina remains in recession

This modest recovery will likely be supported by gradually improving conditions in Brazil, where the recent approval of a broad pension reform is expected to help restore economic confidence. While additional policy measures are needed to unlock investment, lower interest rates and improving sentiment should lift domestic demand. In Argentina, the economy is projected to remain in recession in 2020 after the IMF-supported macroeconomic adjustment programme has failed to halt the downward spiral. High policy uncertainty, severe fiscal austerity measures and escalating inflation have resulted in a sharp contraction in consumer spending and investment. The short-term outlook is subject to major risks and uncertainties, as the country depends heavily on IMF funding to satisfy its large financing needs, and the policy direction of the new Government remains unclear. The situation is even bleaker in the Bolivarian Republic of Venezuela, where no end to the deep political, economic and social crisis is in sight. Economic prospects for the Plurinational State of Bolivia and Chile have become increasingly uncertain. In Chile, deep social discontent led to nationwide protests against inequality in 2019. While the short-term growth outlook will be adversely affected, the implementation of a "social agenda" by the Government—possibly together with additional structural reforms—would deliver more inclusive and sustainable growth in the medium term. In the Plurinational State of Bolivia, a highly volatile political situation and subdued commodity prices are expected to weigh on growth in 2020. In the remaining countries of the subregion, including Colombia, Ecuador, Paraguay, Peru and Uruguay, economic activity will likely pick up on the back of recovering domestic demand.

Policy uncertainty and austerity weigh on growth in Mexico

The growth outlook for Mexico and Central America has deteriorated significantly over the past year. Growth is now projected to average only 1.6 per cent in 2020 after falling to a 10-year low of 0.5 per cent in 2019. The sharper-than-expected downturn in Mexico has weighed on the subregion's performance. Despite solid export growth, economic activity in Mexico almost came to a standstill in 2019 as policy uncertainty and fiscal austerity dragged down investment. More accommodative monetary policy is expected to support a mild recovery in 2020, but the domestic and external risks remain significant.

Slow growth in Central America exacerbates development challenges

The growth outlook remains subdued in many parts of Central America, especially in view of the subregion's daunting development challenges. Worryingly, average incomes will decline further in Nicaragua and Haiti in 2020—and these are already the two countries with the lowest GDP per capita in Latin America and the Caribbean. The prospects for the northern countries of Central America—El Salvador, Guatemala and Honduras—are slightly more favourable. However, in 2020 and 2021, per capita incomes are expected to increase by only about 1.3 per cent per year, a rate that is clearly insufficient to address pressing structural problems such as large infrastructure deficits and the lack of decent employment opportunities, especially for young people. The Dominican Republic and Panama will likely remain the subregion's fastest-growing economies despite facing external headwinds in the form of weaker global trade and slowing growth in the United States.

Economic growth in the Caribbean is constrained by fiscal consolidation and a sensitivity to climate shocks

Ongoing fiscal consolidation efforts continue to weigh on economic expansion in the Caribbean, where growth slowed to an estimated 1.2 per cent in 2019. Many Caribbean countries are plagued by high levels of debt; in the Bahamas, Barbados, Belize, Jamaica, Suriname, and Trinidad and Tobago, debt-servicing costs alone absorb more than 10 per cent of government revenue (see box III.5). In many cases, the debt burden is associated with the high exposure of these relatively small countries to extreme weather events such as hurricanes. The devastation wrought by Hurricane Dorian on the Abaco and Grand Bahama islands in September 2019 exemplifies such vulnerability; fiscal consolidation measures had the Bahamas on track to record a sharp decline in the deficit last year, but hurricane-related losses pushed the economy into recession, necessitating additional fiscal spending and an estimated increase in government borrowing equivalent to 9 per cent of GDP. Meanwhile, Belize has suffered from severe drought, which has led both to agricultural losses and to energy disruption, as the country relies heavily on hydropower.

Strong acceleration in aggregate GDP growth is projected for the Caribbean in 2020, driven largely by the commencement of oil production in Guyana, where output is expected to reach up to 120,000 barrels per day. Excluding Guyana, only a modest acceleration is anticipated, as many countries in the region will continue to rein in public spending.

Labour market indicators paint a bleak picture

The broad-based downturn in economic activity over the past year has been accompanied by a renewed deterioration in labour market conditions across the region. Having risen significantly between 2015 and 2017, the average rate of unemployment again trended higher in 2019. Argentina and Brazil saw double-digit unemployment rates in the third quarter, and underemployment was even more widespread. As economic activity slowed in Mexico, unemployment also started to rise, albeit from a very low level. Other labour market indicators reinforce this bleak picture. In many economies, the average quality of employment has been declining, as most new jobs are being created in the informal sector (UNECLAC and ILO, 2019). Meanwhile, real wage growth remained sluggish after slowing to a 10-year low in 2018. The region's employment outlook continues to be clouded by serious structural obstacles, including high levels of informality, low productivity, high rates of youth unemployment and significant gender inequalities.

Inflation is generally muted amid low demand-side pressures

Most of the region's economies continue to see low inflation. Demand-side pressures remain generally subdued amid excess capacity and slowing wage growth. Low international commodity prices have also contributed to muted inflation. In Brazil, Chile, Colombia, Guatemala, Mexico, Paraguay and Peru, inflation levels are close to or below central bank targets. These targets have gained credibility over time, with inflation expectations becoming more anchored (Mariscall, Powell and Tavella, 2017). In Ecuador, El Salvador and Panama—the countries that are fully dollarized—price levels have remained largely stable. In 2020, price pressures are projected to edge up in most countries as domestic demand starts to recover, but inflation will generally remain benign. The main exceptions are Argentina and the Bolivarian Republic of Venezuela, where inflation continues to soar. In Argentina, the consumer price inflation rate exceeded 50 per cent in late 2019 after heightened political uncertainty led to a sharp depreciation of the peso. With foreign reserves declining rapidly, the Government introduced capital controls, including obligations for exporters to repatriate foreign-currency earnings and restrictions on foreign-exchange purchases. While these measures are expected to slow upward price pressures, inflation is projected to remain above 20 per cent in the coming years. In the Bolivarian Republic of Venezuela, hyperinflation will likely persist in the absence of wide-ranging structural reforms to rebuild public finances, stabilize the currency and resolve the debt crisis.

The region relies on monetary policy to buffer the slowdown

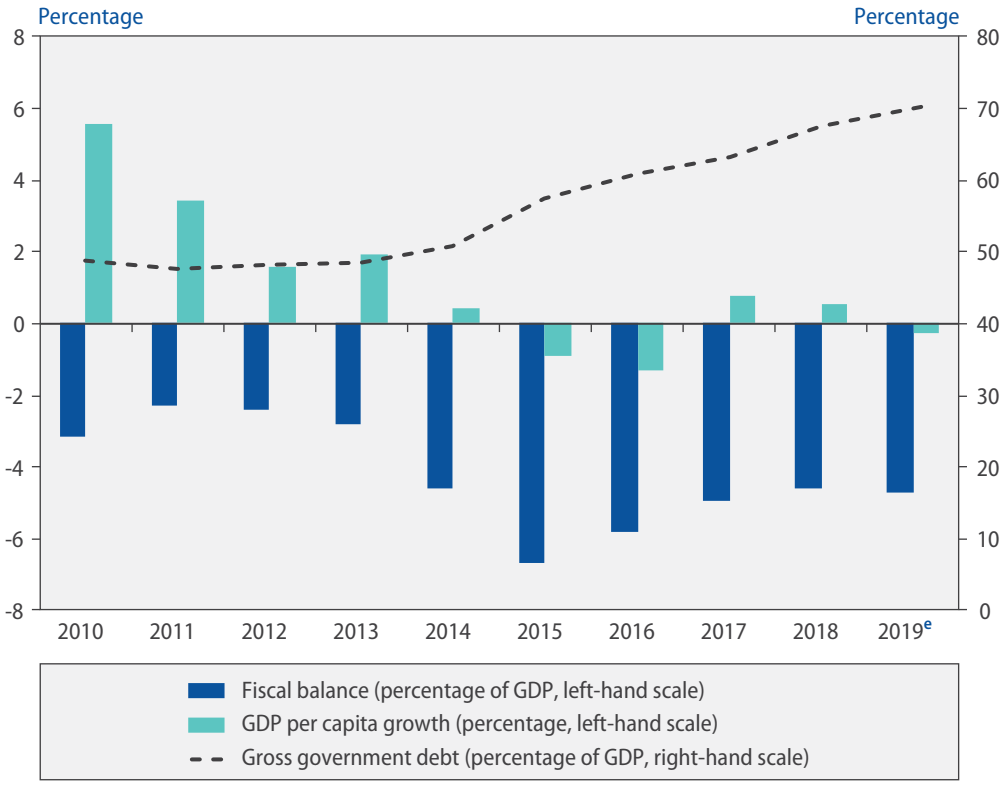
As fiscal space remains limited, countries in Latin America and the Caribbean are relying on monetary policy to buffer the growth slowdown. Amid low inflationary pressures and recent policy rate cuts by the United States Federal Reserve, many central banks have been making use of available monetary space to support aggregate demand. In Brazil, the central bank cut the benchmark interest rate to an all-time low of 5 per cent in October 2019. Policy rates were also reduced in Chile, Costa Rica, the Dominican Republic, Mexico, Paraguay and Peru. The weak demand conditions that prevail in most of the region's economies would normally warrant further monetary easing. However, with current policy rates at or near historical lows in countries such as Brazil, Chile, Jamaica and Paraguay, space for further monetary easing is limited. Moreover, in the context of fragile financial market sentiment, additional rate cuts could increase exchange rate volatility. Large depreciations of local currencies would not only fuel inflation but also increase risks related to currency mismatches.

Fiscal pressures remain large as public debt rises

Latin America and the Caribbean continues to face significant fiscal pressures, creating challenges for short-term macroeconomic management and longer-term development objectives. In many countries, fiscal consolidation continued in 2019 and primary balances improved; the largest adjustments were seen in Argentina, Barbados and Ecuador. Despite consolidation efforts, however, overall budget deficits remained sizeable and debt levels continued to rise (see figure III.17). In fact, all countries except Barbados and Jamaica recorded a fiscal deficit in 2019; in the Plurinational State of Bolivia, Brazil, Costa Rica, Suriname, and Trinidad and Tobago, the deficit exceeded 5 per cent of GDP. As a result, gross government debt as a share of GDP increased further in most countries. In the current low-growth environment, fiscal consolidation efforts are largely offset by higher debt-servicing costs, and debt burdens continue to rise. Average interest payments increased from 1.7 to 2.7 per cent of GDP between 2010 and 2019;[9] in Brazil and Jamaica, interest payments accounted for more than 5 per cent of GDP. Moreover, given the difficulties in raising revenues, fiscal consolidation across the region is focused primarily on reductions in primary expenditures, especially public investment. Average capital expenditure is estimated to have declined to

9 In the Caribbean, interest payments as a share of GDP have declined slightly in recent years from a high level. Mexico, Central America and South America have seen further rises.

Figure III.17
Fiscal and growth performance in Latin America and the Caribbean



Sources: UN DESA and IMF, World Economic Outlook database, October 2019.

Notes: All data are averages weighted by real GDP. The sample excludes Cuba and the Bolivarian Republic of Venezuela owing to a lack of data.
e = estimates.

a historical low of 3.1 per cent of GDP in 2019, with negative implications for productive capacity and future growth. Hence, in the current situation, not only is fiscal policy unable to play a countercyclical role, but by delaying much-needed investment, it may also hamper the region's long-term growth prospects.

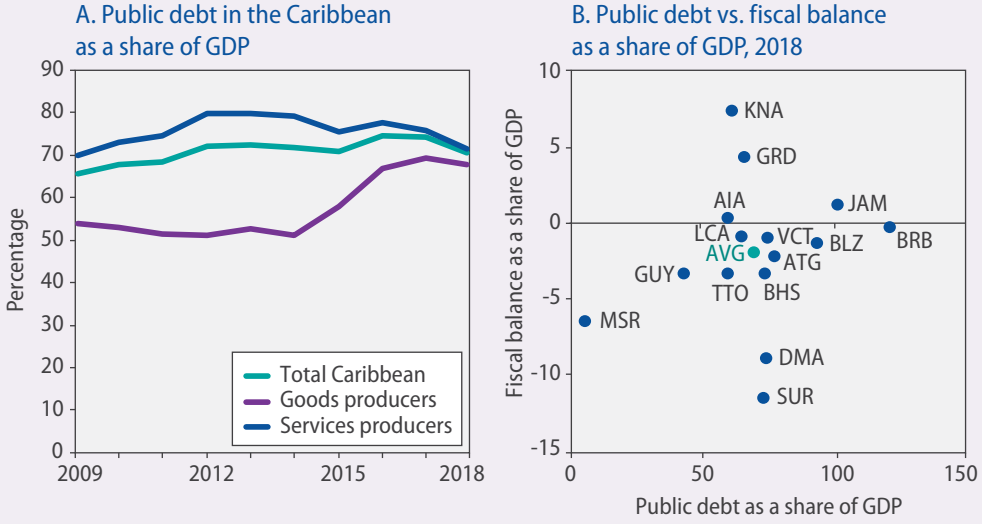
Box III.5

The debt challenge in the Caribbean[a]

For the past decade, Caribbean countries have faced the dual challenge of high debt and low economic growth. Since the global financial crisis of 2008–2009, the regional economy has expanded at an average rate of 1.4 per cent, with GDP growth averaging 1.2 per cent for services producers and 1.9 per cent for goods producers.[b] At the end of 2018, the total debt burden of the Caribbean stood at $56.1 billion, and the average debt-to-GDP ratio was 70.3 per cent; 12 countries registered debt-to-GDP ratios exceeding 60 per cent, with several of them ranking among the most highly indebted countries in the world.

Figure III.5.1

Public debt and fiscal balance figures for the Caribbean region



Source: Eastern Caribbean Central Bank and UNECLAC, based on official figures.

Notes: Data in panel A are simple averages of country level figures. See table J in the Statistical annex for country codes in panel B.
AVG = regional average.

High debt-servicing costs constitute another feature of the debt challenge facing the Caribbean. Total debt-service payments averaged more than 30 per cent of government revenue in 2017. Box figure III.5.1.A illustrates the increase in debt across the region since 2008; the services-producing economies that were hard-hit by the global financial crisis have experienced higher debt levels, and on the heels of the decline in commodity prices, goods producers have seen an increase in debt since 2014. Despite fiscal consolidation efforts—some undertaken in the context of IMF-supported stabilization programmes—most Caribbean countries continue to run fiscal deficits. Box figure III.5.1.B indicates that such deficits averaged 2.0 per cent of GDP in 2018. This implies that many Caribbean economies have limited fiscal space for investing in the modernization of key infrastructures and social and economic development programmes needed to achieve the Sustainable Development Goals.

The debt buildup has been due not only to negative external economic shocks, but also to the impact of climate change and natural disasters. In 2017 alone, the total costs associated with hurricane damage were estimated at $93 billion. The Caribbean has experienced more costly and more frequent disasters than any other region with small island developing States. In the face of these circumstances, fiscal consolidation efforts to reduce the debt burden in Caribbean member States have been undercut by the need to foster stronger growth, preventing debt from declining to sustainable levels.

UNECLAC has proposed a bifurcated strategy to address the challenges faced by the highly indebted countries in the Caribbean. Analysis of the debt situation has revealed broad heterogeneity in the level and composition of public debt in the region. Economies such as Antigua and Barbuda, Barbados, Jamaica and Saint Lucia have high levels of domestic debt, while others owe most of their debt to

(*continued*)

a For the purposes of this publication, the Caribbean refers only to the English- and Dutch-speaking Caribbean countries and excludes Cuba, the Dominican Republic and Haiti.

b The services producers are Anguilla, Antigua and Barbuda, the Bahamas, Barbados, Dominica, Grenada, Jamaica, Montserrat, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines; the goods producers are Belize, Guyana, Suriname, and Trinidad and Tobago.

Box III.5 (*continued*)

either multilateral or bilateral creditors. Jamaica, Belize and Saint Lucia also owe a significant proportion of their debt to private external creditors. This diversity in Caribbean debt makes a one-size-fits-all solution impractical.

The two-pronged UNECLAC strategy is focused on both debt reduction and growth enhancement. To stimulate growth, UNECLAC supports the establishment of a Caribbean resilience facility or resilience fund, which could be housed within a single credible regional financial institution or a combination of regional development banks. Such a facility would be capitalized by donors wishing to help finance climate projects and other forms of resilience-building activities within the Caribbean. Co-financing of resilience projects through grant funding from the Green Climate Fund (GCF) would allow lower borrowing costs and support growth, thereby reducing the debt burden.

To address the severe debt constraints, UNECLAC suggests that donors interested in supporting Caribbean resilience contribute to the Caribbean resilience facility by purchasing some portion of the Caribbean external debt at a discount. The initiative does not rule out voluntary discounts from creditors such as Paris Club members who may wish to invest in resilience. The implication of the discounted debt is that Caribbean member States will carry smaller debt-service burdens. As part of the agreement, these member States will be required to invest in climate-resilience projects, which could also be co-financed with GCF resources.

These two elements of the UNECLAC strategy aim to provide some fiscal space for member States. This initiative is necessary since conventional fiscal adjustment has so far proven insufficient to relieve the high debt burdens of Caribbean countries.

Source: This contribution is attributed to the Economic Development Division, United Nations Economic Commission for Latin America and the Caribbean (UNECLAC) Chile, and the Economic Development and Integration Unit of the UNECLAC subregional headquarters for the Caribbean.

Statistical annex

Country classifications

Data sources, country classifications and aggregation methodology

The statistical annex contains a set of data that the *World Economic Situation and Prospects* (*WESP*) employs to delineate trends in various dimensions of the world economy.

Data sources

The annex was prepared by the Economic Analysis and Policy Division (EAPD) of the Department of Economic and Social Affairs of the United Nations Secretariat (UN DESA). It is based on information obtained from the Statistics Division and the Population Division of UN DESA, as well as from the five United Nations regional commissions, the United Nations Conference on Trade and Development (UNCTAD), the International Monetary Fund (IMF), the World Bank, the Organization for Economic Cooperation and Development (OECD), Eurostat and national sources. Estimates for 2019 and forecasts for 2020 and 2021 were made by EAPD in consultation with the regional commissions and UNCTAD, partly guided by the World Economic Forecasting Model (WEFM) of EAPD.[1] Longer-term projections are based on a technical model-based extension of the WEFM.

Data presented in the *WESP* may differ from those published by other organizations for several reasons, including differences in timing, sample composition and aggregation methods. Historical data may differ from those in previous editions of the *WESP* because of updating and changes in the availability of data for individual countries.

Country classifications

For analytical purposes, the *WESP* classifies all countries of the world into one of three broad categories: developed economies, economies in transition and developing economies.[2] The composition of these analytical groupings, specified in tables A, B and C, is intended to reflect basic economic country conditions, and are not strictly aligned with the regional classifications defined by the Statistics Division of UN DESA known as M49.[3] Table A.4 reports estimates for regional GDP growth according to the M49 definitions for comparison. Several countries (in particular the economies in transition) have characteristics that could place them in more than one category; however, for purposes of analysis, the groupings have been made mutually exclusive. Within each broad category, some subgroups are defined based either on geographical location or on ad hoc criteria, such as the subgroup of "major developed economies", which is based on the membership of the Group of Seven.

1 See Altshuler et al. (2016).

2 These analytical groupings are not strictly aligned with geographic groupings of Developed Regions and Developing Regions designated by the Statistics Division of UN DESA.

3 Full details of the M49 standard can be found on the Statistics Division website at https://unstats.un.org/unsd/methodology/m49.

In parts of the analysis, a distinction is made between fuel exporters and fuel importers. An economy is classified as a fuel exporter if the share of fuel exports in its total merchandise exports is greater than 20 per cent and the level of fuel exports is at least 20 per cent higher than that of the country's fuel imports (table D). This criterion is drawn from the share of fuel exports in the total value of world merchandise trade. Fuels include coal, oil and natural gas.

For other parts of the analysis, countries have been classified by their level of development as measured by per capita gross national income (GNI). Accordingly, countries have been grouped as high-income, upper-middle-income, lower-middle-income and low-income (table E). To maintain compatibility with similar classifications used elsewhere, the threshold levels of GNI per capita are those established by the World Bank. Countries with less than $1,025 GNI per capita are classified as low-income countries, those with between $1,026 and $3,995 as lower-middle-income countries, those with between $3,996 and $12,375 as upper-middle-income countries, and those with incomes of more than $12,375 as high-income countries. GNI per capita in dollar terms is estimated using the World Bank Atlas method,[4] and the classification in table E is based on data for 2018.

The list of the least developed countries (LDCs) is determined by the United Nations Economic and Social Council and, ultimately, by the General Assembly, on the basis of recommendations made by the Committee for Development Policy. The basic criteria for inclusion require that certain thresholds be met with regard to per capita GNI, a human assets index and an economic vulnerability index.[5] As of December 2018, there were 47 LDCs (table F).

The WESP also makes reference to the group of heavily indebted poor countries (HIPCs), which are considered by the World Bank and IMF as part of their debt-relief initiative (the Enhanced HIPC Initiative).[6] In December 2018, there were 39 HIPCs (table G).

Aggregation methodology

Aggregate data are either sums or weighted averages of individual country data. Unless otherwise indicated, multi-year averages of growth rates are expressed as compound annual percentage rates of change. The convention followed is to omit the base year in a multi-year growth rate. For example, the 10-year average growth rate for the decade of the 2000s would be identified as the average annual growth rate for the period from 2001 to 2010.

The WESP utilizes market exchange rate conversions of national data in order to aggregate output of individual countries into regional and global totals. The growth of output in each group of countries is calculated from the sum of gross domestic product (GDP) of individual countries measured at 2010 prices and exchange rates. This method supplies a reasonable set of aggregate growth rates for a period of about 15 years, centred on 2010.

The exchange rate-based aggregation method differs from the one mainly applied by the IMF for their estimates of world and regional economic growth, which is based on purchasing power parity (PPP) weights. Over the past two decades, the growth of world

4 See http://data.worldbank.org/about/country-classifications.

5 Handbook on the Least Developed Country Category: Inclusion, Graduation and Special Support Measures (United Nations publication, Sales No. E.18.II.A.1). Available from https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/2018CDPhandbook.pdf .

6 International Monetary Fund, Debt Relief Under the Heavily Indebted Poor Countries (HIPC) Initiative. Available from https://www.imf.org/en/About/Factsheets/Sheets/2016/08/01/16/11/Debt-Relief- Under-the-Heavily-Indebted-Poor-Countries-Initiative.

gross product (WGP) on the basis of the exchange rate-based approach has been below that based on PPP weights. This is because developing countries, in the aggregate, have seen significantly higher economic growth than the rest of the world in the 1990s and 2000s and the share in WGP of these countries is larger under PPP measurements than under market exchange rates. Table I.1 in Chapter I reports world output growth with PPP weights as a comparator.

Table A
Developed economies

North America	Europe		Major developed economies (G7)
	European Union	Other Europe	
Canada United States	**EU-15** Austria[a] Belgium[a] Denmark Finland[a] France[a] Germany[a] Greece[a] Ireland[a] Italy[a] Luxembourg[a] Netherlands[a] Portugal[a] Spain[a] Sweden United Kingdom[b]	Iceland Norway Switzerland	Canada France Germany Italy Japan United Kingdom United States
Developed Asia and Pacific	**EU-13**[c] Bulgaria Croatia Cyprus[a] Czechia Estonia[a] Hungary Latvia[a] Lithuania[a] Malta[a] Poland Romania Slovakia[a] Slovenia[a]		
Australia Japan New Zealand			

a Member of Euro area.
b At the time of writing, the United Kingdom was a member of the EU and is therefore included in all EU aggregations. The country is scheduled to withdraw from the EU at the end of January 2020.
c Used in reference to the 13 countries that joined the EU since 2004.

Table B
Economies in transition

South-Eastern Europe	Commonwealth of Independent States and Georgia[a]	
Albania	Armenia	Republic of Moldova
Bosnia and Herzegovina	Azerbaijan	Russian Federation
Montenegro	Belarus	Tajikistan
North Macedonia	Georgia[a]	Turkmenistan
Serbia	Kazakhstan	Ukraine[b]
	Kyrgyzstan	Uzbekistan

a Georgia officially left the Commonwealth of Independent States on 18 August 2009. However, its performance is discussed in the context of this group of countries for reasons of geographic proximity and similarities in economic structure.
b Starting in 2010, data for the Ukraine excludes the temporarily occupied territory of the Autonomous Republic of Crimea and Sevastopol.

Table C
Developing economies by region[a]

Africa		Asia	Latin America and the Caribbean
North Africa	**Southern Africa**	**East Asia**[b]	**Caribbean**
Algeria	Angola	Brunei Darussalam	Bahamas
Egypt	Botswana	Cambodia	Barbados
Libya	Eswatini	China	Belize
Mauritania	Lesotho	Democratic People's Republic of Korea	Guyana
Morocco	Malawi	Fiji	Jamaica
Sudan	Mauritius	Hong Kong SAR[c]	Suriname
Tunisia	Mozambique	Indonesia	Trinidad and Tobago
Central Africa	Namibia	Kiribati	**Mexico and Central America**
Cameroon	South Africa	Lao People's Democratic Republic	Costa Rica
Central African Republic	Zambia	Malaysia	Cuba
Chad	Zimbabwe	Mongolia	Dominican Republic
Congo	**West Africa**	Myanmar	El Salvador
Equatorial Guinea	Benin	Papua New Guinea	Guatemala
Gabon	Burkina Faso	Philippines	Haiti
Sao Tome and Prinicipe	Cabo Verde	Republic of Korea	Honduras
East Africa	Côte d'Ivoire	Samoa	Mexico
Burundi	Gambia	Singapore	Nicaragua
Comoros	Ghana	Solomon Islands	Panama
Democratic Republic of the Congo	Guinea	Taiwan Province of China	**South America**
Djibouti	Guinea-Bissau	Thailand	Argentina
Eritrea	Liberia	Timor-Leste	Bolivia (Plurinational State of)
Ethiopia	Mali	Vanuatu	Brazil
Kenya	Niger	Viet Nam	Chile
Madagascar	Nigeria	**South Asia**	Colombia
Rwanda	Senegal	Afghanistan	Ecuador
Somalia	Sierra Leone	Bangladesh	Paraguay
South Sudan	Togo	Bhutan	Peru
Uganda		India	Uruguay
United Republic of Tanzania		Iran (Islamic Republic of)	Venezuela (Bolivarian Republic of)
		Maldives	
		Nepal	
		Pakistan	
		Sri Lanka	
		Western Asia	
		Bahrain	
		Iraq	
		Israel	
		Jordan	
		Kuwait	
		Lebanon	
		Oman	
		Qatar	
		Saudi Arabia	
		State of Palestine	
		Syrian Arab Republic	
		Turkey	
		United Arab Emirates	
		Yemen	

a Economies systematically monitored for the World Economic Situation and Prospects report. These analytical groupings differ from the geographical aggregations defined according to M49.

b Throughout the report the term 'East Asia' is used in reference to this set of developing countries, and excludes Japan.

c Special Administrative Region of China.

Table D
Fuel-exporting countries

Developed countries	Economies in transition	Developing countries			
		Latin America and the Caribbean	Africa	East Asia	South Asia
Australia	Azerbaijan	Bolivia (Plurinational State of)	Algeria	Brunei Darussalam	Iran (Islamic Republic of)
Norway	Kazakhstan	Colombia	Angola	Democratic People's Republic of Korea	Western Asia
	Russian Federation	Ecuador	Cameroon	Indonesia	Bahrain
	Turkmenistan	Trinidad and Tobago	Chad	Mongolia	Iraq
		Venezuela (Bolivarian Republic of)	Congo	Papua New Guinea	Kuwait
			Equatorial Guinea		Oman
			Gabon		Qatar
			Libya		Saudi Arabia
			Mozambique		United Arab Emirates
			Nigeria		Yemen

Source: UN DESA, based on data from UNCTAD.

Table E
Economies by per capita GNI in June 2019[a]

High-income		Upper-middle-income		Lower-middle-income	
Australia	Latvia	Albania	Jamaica	Angola	Lesotho
Austria	Lithuania	Algeria	Jordan	Bangladesh	Mauritania
Bahamas	Luxembourg	Argentina[b]	Kazakhstan	Bhutan	Mongolia
Bahrain	Malta	Armenia	Lebanon	Bolivia (Plurinational State of)	Morocco
Barbados	Netherlands	Azerbaijan	Libya	Cabo Verde	Myanmar
Belgium	New Zealand	Belarus	Malaysia	Cambodia	Nicaragua
Brunei Darussalam	Norway	Belize	Maldives	Cameroon	Nigeria
Canada	Oman	Bosnia and Herzegovina	Mauritius	Comoros[c]	Pakistan
Chile	Panama	Botswana	Mexico	Congo	Papua New Guinea
Croatia	Poland	Brazil	Montenegro	Côte d'Ivoire	Philippines
Cyprus	Portugal	Bulgaria	Namibia	Djibouti	Republic of Moldova
Czechia	Qatar	China	North Macedonia	Egypt	Sao Tome and Principe
Denmark	Republic of Korea	Colombia	Paraguay	El Salvador	Senegal[c]
Estonia	Saudi Arabia	Costa Rica	Peru	Eswatini	Solomon Islands
Finland	Singapore	Cuba	Romania	Ghana	State of Palestine
France	Slovak Republic	Dominican Republic	Russian Federation	Honduras	Sudan
Germany	Slovenia	Ecuador	Samoa	India	Timor-Leste
Greece	Spain	Equatorial Guinea	Serbia	Indonesia	Tunisia
Hong Kong SAR[d]	Sweden	Fiji	South Africa	Kenya	Ukraine
Hungary	Switzerland	Gabon	Sri Lanka[c]	Kiribati	Uzbekistan
Iceland	Taiwan Province of China	Georgia[c]	Suriname	Kyrgyzstan	Vanuatu
Ireland	Trinidad and Tobago	Guatemala	Thailand	Lao People's Democratic Republic	Viet Nam
Israel	United Arab Emirates	Guyana	Turkey		Zambia
Italy	United Kingdom	Iran (Islamic Republic of)	Turkmenistan		Zimbabwe[c]
Japan	United States	Iraq	Venezuela (Bolivarian Republic of)		
Kuwait	Uruguay				

Low-income			
Afghanistan	Democratic Republic of the Congo	Malawi	Syrian Arab Republic
Benin	Eritrea	Mali	Tajikistan
Burkina Faso	Ethiopia	Mozambique	Togo
Burundi	Gambia	Nepal	Uganda
Central African Republic	Guinea	Niger	United Republic of Tanzania
Chad	Guinea-Bissau	Rwanda	Yemen
Comoros	Haiti	Sierra Leone	
Democratic People's Republic of Korea	Liberia	Somalia	
	Madagascar	South Sudan	

Source: World Bank, Country classification by income (https://datahelpdesk.worldbank.org/knowledgebase/articles/906519).

a Economies systematically monitored for the World Economic Situation and Prospects report, based on World Bank country classifications by income.

b Indicates the country has been shifted downward by one category from previous year's classification.

c Indicates the country has been shifted upward by one category from previous year's classification.

d Special Administrative Region of China.

Table F
Least developed countries (*as of December 2018*)

Africa		East Asia	South Asia	Western Asia	Latin America and the Caribbean
Angola	Malawi	Cambodia	Afghanistan	Yemen	Haiti
Benin	Mali	Kiribati	Bangladesh		
Burkina Faso	Mauritania	Lao People's Democratic Republic	Bhutan		
Burundi	Mozambique	Myanmar	Nepal		
Central African Republic	Niger	Solomon Islands			
Chad	Rwanda	Timor Leste			
Comoros	Sao Tome and Principe	Tuvalu[a]			
Democratic Republic of the Congo	Senegal	Vanuatu			
Djibouti	Sierra Leone				
Eritrea	Somalia				
Ethiopia	South Sudan				
Gambia	Sudan				
Guinea	Togo				
Guinea-Bissau	Uganda				
Lesotho	United Republic of Tanzania				
Liberia	Zambia				
Madagascar					

Source: UN DESA (https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/ldc_list.pdf).

a Economies not systematically monitored for the World Economic Situation and Prospects report.

Table G
Heavily indebted poor countries (*as of December 2018*)

Post-completion point HIPCs[a]		Pre-decision point HIPCs[b]
Afghanistan	Haiti	Eritrea
Benin	Honduras	Somalia
Bolivia	Liberia	Sudan
Burkina Faso	Madagascar	
Burundi	Malawi	
Cameroon	Mali	
Central African Republic	Mauritania	
Chad	Mozambique	
Comoros	Nicaragua	
Congo	Niger	
Côte D'Ivoire	Rwanda	
Democratic Republic of the Congo	Sao Tome and Principe	
Ethiopia	Senegal	
Gambia	Sierra Leone	
Ghana	Togo	
Guinea	Uganda	
Guinea-Bissau	United Republic of Tanzania	
Guyana	Zambia	

Source: The World Bank and the International Monetary Fund (https://www.imf.org/en/About/Factsheets/Sheets/2016/08/01/16/11/Debt-Relief- Under-the-Heavily-Indebted-Poor-Countries-Initiative).

a Countries that have qualified for irrevocable debt relief under the HIPC Initiative.

b Countries that are potentially eligible and may wish to avail themselves of the HIPC Initiative or the Multilateral Debt Relief Initiative (MDRI).

Table H
Small island developing States

United Nations members		Non-UN members/Associate members of the Regional Commissions[a]
Antigua and Barbuda[a]	Marshall Islands[a]	American Samoa
Bahamas	Mauritius	Anguilla
Bahrain	Nauru[a]	Aruba
Barbados	Palau[a]	Bermuda
Belize	Papua New Guinea	British Virgin Islands
Cabo Verde	Saint Kitts and Nevis[a]	Cayman Islands
Comoros	Saint Lucia[a]	Commonwealth of Northern Marianas
Cuba	Saint Vincent and the Grenadines[a]	Cook Islands
Dominica[a]	Samoa	Curaçao
Dominican Republic	Sao Tome and Príncipe	French Polynesia
Federated States of Micronesia[a]	Seychelles[a]	Guadeloupe
Fiji	Singapore	Guam
Grenada[a]	Solomon Islands	Martinique
Guinea-Bissau	Suriname	Montserrat
Guyana	Timor-Leste	New Caledonia
Haiti	Tonga[a]	Niue
Jamaica	Trinidad and Tobago	Puerto Rico
Kiribati	Tuvalu[a]	Sint Maarten
Maldives	Vanuatu	Turks and Caicos Islands
		U.S. Virgin Islands

Source: UN DESA (https://sustainabledevelopment.un.org/topics/sids/list).

a Economies not systematically monitored for the World Economic Situation and Prospects report.

Table I
Landlocked developing countries

Landlocked developing countries		
Afghanistan	Ethiopia	North Macedonia
Armenia	Kazakhstan	Paraguay
Azerbaijan	Kyrgystan	Republic of Moldova
Bhutan	Lao People's Democratic Republic	Rwanda
Bolivia (Plurinational State of)	Lesotho	South Sudan
Botswana	Malawi	Tajikistan
Burkina Faso	Mali	Turkmenistan
Burundi	Mongolia	Uganda
Central African Republic	Nepal	Uzbekistan
Chad	Niger	Zambia
Eswatini		Zimbabwe

Source: UN-OHRLLS (http://unohrlls.org/about-lldcs/country-profiles/).

Table J
International Organization for Standardization of Country Codes

ISO Code	Country	ISO Code	Country	ISO Code	Country	ISO Code	Country
AFG	Afghanistan	DZA	Algeria	LBN	Lebanon	ROU	Romania
AGO	Angola	ECU	Ecuador	LBR	Liberia	RUS	Russian Federation
AIA	Anguilla	EGY	Egypt	LBY	Libya	RWA	Rwanda
ALB	Albania	ERI	Eritrea	LCA	Saint Lucia	SAU	Saudi Arabia
AND	Andorra	ESP	Spain	LIE	Liechtenstein	SDN	Sudan
ARE	United Arab Emirates	EST	Estonia	LKA	Sri Lanka	SEN	Senegal
ARG	Argentina	ETH	Ethiopia	LSO	Lesotho	SGP	Singapore
ARM	Armenia	FIN	Finland	LTU	Lithuania	SLB	Solomon Islands
ATG	Antigua and Barbuda	FJI	Fiji	LUX	Luxembourg	SLE	Sierra Leone
AUS	Australia	FRA	France	LVA	Latvia	SLV	El Salvador
AUT	Austria	FSM	Micronesia (Federated States of)	MAR	Morocco	SMR	San Marino
AZE	Azerbaijan			MCO	Monaco	SOM	Somalia
BDI	Burundi	GAB	Gabon	MDA	Republic of Moldova	SRB	Serbia
BEL	Belgium	GBR	United Kingdom of Great Britain and Northern Ireland	MDG	Madagascar	SSD	South Sudan
BEN	Benin			MDV	Maldives	STP	Sao Tome and Principe
BFA	Burkina Faso			MEX	Mexico		
BGD	Bangladesh	GEO	Georgia	MHL	Marshall Islands	SUR	Suriname
BGR	Bulgaria	GHA	Ghana	MKD	North Macedonia	SVK	Slovakia
BHR	Bahrain	GIN	Guinea	MLI	Mali	SVN	Slovenia
BHS	Bahamas	GMB	Gambia	MLT	Malta	SWE	Sweden
BIH	Bosnia and Herzegovina	GNB	Guinea-Bissau	MMR	Myanmar	SWZ	Eswatini
		GNQ	Equatorial Guinea	MNE	Montenegro	SYC	Seychelles
BLR	Belarus	GRC	Greece	MNG	Mongolia	SYR	Syrian Arab Republic
BLZ	Belize	GRD	Grenada	MOZ	Mozambique	TCD	Chad
BOL	Bolivia (Plurinational State of)	GTM	Guatemala	MRT	Mauritania	TGO	Togo
		GUY	Guyana	MSR	Montserrat	THA	Thailand
BRA	Brazil	HND	Honduras	MUS	Mauritius	TJK	Tajikistan
BRB	Barbados	HRV	Croatia	MWI	Malawi	TKM	Turkmenistan
BRN	Brunei Darussalam	HTI	Haiti	MYS	Malaysia	TLS	Timor-Leste
BTN	Bhutan	HUN	Hungary	NAM	Namibia	TON	Tonga
BWA	Botswana	IDN	Indonesia	NER	Niger	TTO	Trinidad and Tobago
CAF	Central African Republic	IND	India	NGA	Nigeria	TUN	Tunisia
		IRL	Ireland	NIC	Nicaragua	TUR	Turkey
CAN	Canada	IRN	Iran (Islamic Republic of)	NLD	Netherlands	TUV	Tuvalu
CHE	Switzerland			NOR	Norway	TZA	United Republic of Tanzania
CHL	Chile	IRQ	Iraq	NPL	Nepal		
CHN	China	ISL	Iceland	NRU	Nauru	UGA	Uganda
CIV	Côte D'Ivoire	ISR	Israel	NZL	New Zealand	UKR	Ukraine
CMR	Cameroon	ITA	Italy	OMN	Oman	URY	Uruguay
COD	Democratic Republic of the Congo	JAM	Jamaica	PAK	Pakistan	USA	United States of America
		JOR	Jordan	PAN	Panama		
COG	Congo	JPN	Japan	PER	Peru	UZB	Uzbekistan
COL	Colombia	KAZ	Kazakhstan	PHL	Philippines	VCT	Saint Vincent and the Grenadines
COM	Comoros	KEN	Kenya	PLW	Palau		
CPV	Cabo Verde	KGZ	Kyrgyzstan	PNG	Papua New Guinea	VEN	Venezuela (Bolivarian Republic of)
CRI	Costa Rica	KHM	Cambodia	POL	Poland		
CUB	Cuba	KIR	Kiribati	PRK	Democratic People's Republic of Korea	VNM	Viet Nam
CYP	Cyprus	KNA	Saint Kitts and Nevis			VUT	Vanuatu
CZE	Czechia	KOR	Republic of Korea	PRT	Portugal	WSM	Samoa
DEU	Germany	KWT	Kuwait	PRY	Paraguay	YEM	Yemen
DJI	Djibouti	LAO	Lao People's Democratic Republic	PSE	State of Palestine	ZAF	South Africa
DMA	Dominica			QAT	Qatar	ZMB	Zambia
DNK	Denmark					ZWE	Zimbabwe
DOM	Dominican Republic						

Annex tables

Table A.1
Developed economies: rates of growth of real GDP

Annual percentage change

	1997–2011[a]	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Developed economies	**2.0**	**1.1**	**1.2**	**1.9**	**2.3**	**1.7**	**2.4**	**2.2**	**1.7**	**1.5**	**1.7**
United States	2.4	2.2	1.8	2.5	2.9	1.6	2.4	2.9	2.2	1.7	1.8
Canada	2.7	1.8	2.3	2.9	0.7	1.1	3.0	1.9	1.5	1.5	1.6
Japan	0.6	1.5	2.0	0.4	1.2	0.6	1.9	0.8	0.7	0.9	1.3
Australia	3.3	3.9	2.2	2.6	2.5	2.8	2.5	2.7	1.8	2.1	2.2
New Zealand	2.8	2.6	2.2	3.1	4.1	4.2	2.7	2.8	2.6	2.9	2.8
European Union	**1.9**	**-0.4**	**0.3**	**1.7**	**2.3**	**2.0**	**2.6**	**2.0**	**1.4**	**1.6**	**1.7**
EU-15	**1.8**	**-0.5**	**0.2**	**1.6**	**2.2**	**1.9**	**2.4**	**1.8**	**1.2**	**1.4**	**1.6**
Austria	2.1	0.7	0.0	0.7	1.0	2.1	2.5	2.4	1.3	1.5	1.6
Belgium	2.1	0.2	0.2	1.3	1.7	1.5	1.7	1.4	1.4	1.6	2.0
Denmark	1.4	0.2	0.9	1.6	2.3	2.4	2.3	1.5	1.9	2.0	2.0
Finland	2.7	-1.4	-1.0	-0.4	0.6	2.6	3.1	1.7	1.4	1.6	1.7
France	1.9	0.3	0.6	1.0	1.1	1.1	2.3	1.7	1.3	1.5	1.6
Germany	1.4	0.4	0.4	2.2	1.7	2.2	2.5	1.5	0.7	1.3	1.4
Greece	1.5	-7.3	-3.2	0.7	-0.4	-0.2	1.5	1.9	1.7	1.9	2.0
Ireland	4.6	0.2	1.4	8.6	25.2	3.7	8.1	8.2	4.3	3.1	3.2
Italy	0.8	-3.0	-1.8	0.0	0.8	1.3	1.7	0.8	0.1	0.6	0.7
Luxembourg	3.8	-0.4	3.7	4.3	4.3	4.6	1.8	3.1	2.1	2.3	2.0
Netherlands	2.2	-1.0	-0.1	1.4	2.0	2.2	2.9	2.6	1.6	1.8	1.2
Portugal	1.5	-4.1	-0.9	0.8	1.8	2.0	3.5	2.4	2.0	2.1	1.9
Spain	2.6	-3.0	-1.4	1.4	3.8	3.0	2.9	2.4	2.2	1.9	1.9
Sweden	2.7	-0.6	1.1	2.7	4.4	2.4	2.4	2.3	1.8	1.9	2.2
United Kingdom	2.1	1.5	2.1	2.6	2.4	1.9	1.9	1.4	1.1	1.2	1.8
EU-13	**3.4**	**0.7**	**1.2**	**3.0**	**3.9**	**3.2**	**4.8**	**4.3**	**3.8**	**3.3**	**3.2**
Bulgaria	3.3	0.4	0.3	1.9	4.0	3.8	3.5	3.1	3.6	3.0	2.9
Croatia	2.4	-2.2	-0.6	-0.1	2.5	3.4	3.2	2.5	2.8	2.7	2.5
Cyprus	3.5	-3.5	-6.5	-1.9	3.4	6.7	4.4	4.0	3.4	2.7	2.9
Czechia	2.5	-0.8	-0.5	2.7	5.3	2.5	4.4	3.0	2.7	2.5	2.4
Estonia	4.4	3.1	1.3	3.0	1.8	2.6	5.7	4.8	3.9	3.5	3.0
Hungary	2.5	-1.5	2.0	4.2	3.8	2.2	4.3	5.1	5.0	3.8	3.5
Latvia	4.5	4.0	2.4	1.9	3.0	2.1	4.6	4.8	2.6	3.0	3.0
Lithuania	4.5	3.8	3.6	3.5	2.0	2.6	4.2	3.6	3.8	3.0	2.7
Malta	2.9	2.8	4.6	8.7	10.8	5.7	6.7	6.8	4.8	5.0	4.5
Poland	4.3	1.6	1.4	3.3	3.8	3.1	4.9	5.1	4.3	3.6	3.6
Romania	2.6	2.1	3.5	3.4	3.9	4.8	7.0	4.1	4.1	3.8	3.5
Slovakia	4.2	1.7	1.5	2.8	4.2	3.1	3.2	4.1	2.5	2.7	2.9
Slovenia	3.0	-2.6	-1.0	2.8	2.2	3.1	4.8	4.1	2.6	2.7	2.7
Other Europe	**2.0**	**1.7**	**1.5**	**2.2**	**1.6**	**1.5**	**2.1**	**2.2**	**1.8**	**1.9**	**2.1**
Iceland	3.4	1.3	4.1	2.1	4.7	6.6	4.4	4.8	3.8	2.8	2.6
Norway	2.0	2.7	1.0	2.0	2.0	1.1	2.3	1.3	1.9	2.1	2.2
Switzerland	2.1	1.0	1.9	2.4	1.3	1.7	1.8	2.8	1.7	1.8	1.9
Memorandum items											
North America	2.5	2.2	1.9	2.6	2.7	1.6	2.4	2.8	2.1	1.7	1.7
Developed Asia and Pacific	1.0	2.0	2.0	0.8	1.5	1.1	2.1	1.2	1.0	1.1	1.5
Europe	1.9	-0.3	0.3	1.8	2.3	2.0	2.6	2.0	1.5	1.6	1.7
Major developed economies	1.8	1.4	1.4	1.9	2.1	1.5	2.3	2.0	1.5	1.4	1.6
Euro area	1.8	-0.9	-0.3	1.4	2.1	1.9	2.5	1.9	1.2	1.4	1.5

Source: UN DESA, based on data of the United Nations Statistics Division and UN DESA forecasts.
Note: Regional aggregates calculated at 2010 prices and exchange rates.
a Average percentage change.
b Partly estimated.
c Baseline scenario forecasts, based in part on UN DESA World Economic Forecasting Model.

Table A.2
Economies in transition: rates of growth of real GDP

Annual percentage change

	1997–2011[a]	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Economies in transition	**4.5**	**3.5**	**2.4**	**1.0**	**-1.8**	**0.8**	**2.2**	**2.7**	**1.9**	**2.3**	**2.5**
South-Eastern Europe	**4.1**	**-0.5**	**2.6**	**0.2**	**2.4**	**3.2**	**2.5**	**3.9**	**3.1**	**3.4**	**3.4**
Albania	5.0	1.5	1.0	1.8	2.2	3.3	3.8	4.1	2.6	3.0	3.0
Bosnia and Herzegovina	6.7	-0.9	2.4	1.2	3.1	3.1	3.2	3.1	2.5	3.0	3.0
Montenegro	3.5	-2.7	3.5	1.8	3.4	2.9	4.7	4.5	3.0	3.0	3.0
North Macedonia	3.0	-0.4	2.9	3.6	3.8	2.9	0.2	2.7	3.4	3.2	3.4
Serbia	3.3	-0.7	3.0	-1.6	1.8	3.4	2.0	4.5	3.4	3.8	3.8
Commonwealth of Independent States and Georgia[d]	**4.6**	**3.6**	**2.4**	**1.0**	**-1.9**	**0.7**	**2.1**	**2.7**	**1.8**	**2.3**	**2.4**
Commonwealth of Independent States and Georgia – net fuel exporters	**4.6**	**3.8**	**2.4**	**1.3**	**-1.7**	**0.4**	**1.9**	**2.5**	**1.5**	**2.1**	**2.2**
Azerbaijan	11.9	2.2	5.8	2.8	1.0	-3.1	0.1	1.4	2.3	2.5	2.6
Kazakhstan	6.9	4.8	6.0	4.2	1.2	1.1	4.0	4.1	4.0	3.5	3.5
Russian Federation	4.2	3.7	1.8	0.7	-2.3	0.3	1.6	2.3	1.1	1.8	2.0
Turkmenistan	7.1	11.1	10.2	10.3	6.5	6.2	6.5	6.2	6.2	5.6	5.2
Commonwealth of Independent States and Georgia – net fuel importers	**4.5**	**2.4**	**2.3**	**-0.8**	**-3.3**	**2.3**	**3.6**	**4.0**	**3.9**	**3.7**	**3.8**
Armenia	7.0	7.2	3.3	3.6	3.2	0.2	7.5	7.5	6.5	5.4	5.6
Belarus	7.2	1.7	1.0	1.7	-3.8	-2.5	2.5	3.0	1.1	2.0	2.5
Georgia[d]	5.9	6.4	3.4	4.6	2.9	2.8	4.8	4.7	4.8	4.5	4.5
Kyrgyzstan	4.5	-0.1	10.9	4.0	3.9	4.3	4.6	3.5	5.8	4.5	4.1
Republic of Moldova	3.3	-0.6	9.0	5.0	-0.3	4.4	4.7	2.8	5.2	3.9	3.8
Tajikistan	6.8	7.5	7.4	6.7	6.0	6.9	7.1	7.0	7.0	6.0	5.9
Ukraine[e]	3.0	0.2	0.0	-6.6	-9.8	2.4	2.5	3.3	3.6	3.0	3.0
Uzbekistan	6.4	8.2	8.0	8.0	7.9	6.2	5.2	5.1	5.7	5.7	5.5

Source: UN DESA, based on data of the United Nations Statistics Division and UN DESA forecasts.

Note: Regional aggregates calculated at 2010 prices and exchange rates.

a Average percentage change.

b Partly estimated.

c Baseline scenario forecasts, based in part on UN DESA World Economic Forecasting Model.

d Georgia officially left the Commonwealth of Independent States on 18 August 2009. However, its performance is discussed in the context of this group of countries for reasons of geographic proximity and similarities in economic structure.

e Starting in 2010, data for Ukraine excludes the temporarily occupied territory of the Autonomous Republic of Crimea and Sevastopol.

Table A.3
Developing economies: rates of growth of real GDP

Annual percentage change

	1997–2011[a]	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Developing countries[d]	**5.3**	**5.0**	**4.9**	**4.5**	**4.1**	**4.0**	**4.5**	**4.2**	**3.4**	**4.0**	**4.3**
Africa	**4.5**	**5.7**	**2.3**	**3.6**	**2.7**	**1.6**	**2.9**	**2.7**	**2.9**	**3.2**	**3.5**
North Africa	**3.9**	**8.6**	**-2.9**	**0.7**	**2.6**	**2.9**	**4.0**	**2.6**	**3.4**	**3.6**	**3.7**
Algeria	3.6	3.4	2.8	3.8	3.7	3.2	1.4	2.1	2.0	2.3	2.5
Egypt[e]	4.8	2.2	2.2	2.9	4.4	4.3	4.2	5.3	5.5	5.8	5.3
Libya	-2.4	124.7	-52.1	-50.1	-45.5	-16.1	64.0	17.9	5.2	4.5	4.3
Mauritania	3.8	5.8	6.1	5.6	0.9	1.7	3.5	3.0	4.2	4.6	4.7
Morocco	4.4	3.0	4.5	2.7	4.5	1.1	4.1	3.0	2.8	3.0	3.8
Sudan[e]	6.4	-2.2	2.2	3.2	3.0	3.5	3.2	-2.1	-1.0	-0.1	1.5
Tunisia	4.2	4.0	2.9	3.0	1.2	1.3	1.8	2.5	1.4	2.0	3.0
East Africa	**4.9**	**1.5**	**7.8**	**7.7**	**6.3**	**5.4**	**5.4**	**6.3**	**6.0**	**6.0**	**6.2**
Burundi	2.6	4.4	4.9	4.2	-0.4	2.8	0.0	0.1	1.8	1.9	2.5
Comoros	1.8	6.3	8.9	3.9	2.0	4.1	3.4	2.8	2.5	3.2	3.5
Democratic Republic of the Congo	2.2	7.1	8.5	9.5	6.9	2.4	3.7	5.8	4.8	5.0	5.6
Djibouti	3.9	4.8	5.0	8.9	9.7	8.7	4.1	6.7	6.8	6.0	6.3
Eritrea	1.3	7.0	4.7	2.9	2.6	1.8	5.0	4.2	4.8	5.0	4.9
Ethiopia	7.4	9.6	10.4	10.3	9.0	8.5	8.1	6.8	7.3	7.5	7.4
Kenya	3.7	4.6	5.9	5.4	5.7	5.9	4.9	6.3	5.6	5.5	5.7
Madagascar	3.0	3.0	2.3	3.3	3.1	4.0	3.9	5.2	5.2	5.3	5.1
Rwanda	8.5	8.6	4.7	7.6	8.9	6.0	6.1	8.6	7.4	7.3	7.1
Somalia	2.5	2.6	2.6	3.7	2.7	4.9	2.3	3.1	3.5	3.4	3.5
South Sudan	5.6	-49.8	29.9	21.7	3.4	0.3	-0.7	-1.2	7.8	8.1	7.0
Uganda	7.3	3.2	4.7	4.5	5.7	2.6	5.0	8.9	6.2	6.0	6.1
United Republic of Tanzania	6.0	5.1	6.8	6.7	6.2	6.9	6.8	7.0	5.8	5.5	6.2
Central Africa	**4.9**	**6.7**	**0.9**	**4.7**	**-0.8**	**-0.1**	**0.3**	**1.6**	**2.7**	**2.9**	**3.1**
Cameroon	4.1	4.5	5.4	5.9	5.7	4.6	3.5	4.1	4.0	4.2	4.7
Central African Republic	2.5	5.1	-36.4	0.1	4.3	4.8	4.5	3.8	4.6	4.8	4.9
Chad	7.1	8.2	3.2	2.6	3.9	-2.6	-1.9	3.1	3.8	5.5	4.9
Congo	4.4	9.6	-2.5	9.7	-13.2	-2.8	-3.1	0.8	3.5	2.3	1.4
Equatorial Guinea	19.2	8.3	-4.1	0.4	-9.1	-8.6	-3.2	-4.7	-2.5	-2.9	-2.6
Gabon	0.9	5.3	5.6	4.3	3.9	2.1	0.5	1.2	2.5	2.8	3.3
Sao Tome and Principe	4.2	3.1	4.8	6.5	3.9	4.2	3.9	3.0	3.0	3.5	4.6
West Africa	**6.0**	**5.4**	**5.8**	**5.9**	**3.2**	**0.5**	**2.7**	**3.3**	**3.5**	**3.6**	**3.8**
Benin	4.2	4.6	6.9	6.5	6.5	5.0	5.8	6.5	6.8	6.5	6.5
Burkina Faso	5.8	6.5	5.8	4.3	3.9	5.9	6.3	6.0	6.0	5.9	6.0
Cabo Verde	6.1	1.1	0.8	0.6	1.0	4.7	4.0	4.7	4.8	4.6	4.6
Côte D'Ivoire	1.1	10.1	9.3	8.8	8.8	8.0	7.7	7.4	7.4	7.1	6.9
Gambia	3.2	5.2	2.9	-1.4	4.1	1.9	4.8	6.5	5.7	5.5	4.7
Ghana	5.9	9.3	7.3	2.9	2.2	3.4	8.1	6.3	7.0	6.0	5.3
Guinea	3.5	5.9	3.9	3.7	3.8	10.5	8.2	5.8	6.1	6.0	6.0
Guinea-Bissau	2.1	-1.7	3.3	1.0	6.1	6.3	5.9	3.8	4.9	4.6	5.2
Liberia	14.0	11.3	4.6	5.2	9.3	-0.5	2.4	1.2	0.4	1.6	1.3
Mali	8.6	11.2	7.0	7.8	7.6	8.8	6.9	6.7	5.2	5.3	5.4
Niger	4.1	11.8	5.3	7.5	4.3	4.9	4.9	5.2	6.1	5.9	5.7

Table A.3
Developing economies: rates of growth of real GDP (*continued*)

Annual percentage change

	1997–2011[a]	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Nigeria	6.8	4.3	5.4	6.3	2.7	-1.6	0.8	1.9	2.1	2.3	2.7
Senegal	4.1	4.0	3.9	4.1	6.4	6.2	6.7	6.2	6.7	6.9	7.4
Sierra Leone	4.5	15.2	20.7	4.6	-20.5	6.3	3.8	4.6	5.0	5.1	5.2
Togo	2.1	6.5	6.1	5.9	5.7	5.6	4.4	4.7	5.1	5.3	5.3
Southern Africa	**3.9**	**3.9**	**3.4**	**2.8**	**1.4**	**0.4**	**1.1**	**0.9**	**0.3**	**0.9**	**1.9**
Angola	7.2	8.5	5.0	4.8	0.9	-2.6	-2.5	-1.7	-1.5	-1.0	1.5
Botswana	4.5	4.5	11.3	4.1	-1.7	4.3	2.9	4.5	4.0	3.2	4.9
Eswatini	3.0	4.7	6.4	1.9	0.4	1.4	2.0	0.2	0.6	1.2	1.6
Lesotho	3.7	6.0	1.8	3.1	1.6	3.6	0.1	1.5	2.0	0.5	1.9
Malawi	4.0	-0.6	6.3	6.2	3.3	2.7	5.2	4.0	4.2	5.0	4.5
Mauritius	4.5	3.5	3.4	3.7	3.6	3.8	3.9	3.8	3.5	4.0	3.9
Mozambique	8.0	7.2	7.1	7.4	6.6	3.8	3.7	3.3	1.5	5.5	6.0
Namibia	4.4	5.1	5.6	6.4	6.1	1.1	-0.9	-0.1	-1.0	1.2	2.0
South Africa	3.2	2.2	2.5	1.8	1.2	0.4	1.4	0.8	0.5	0.9	1.4
Zambia	6.1	7.6	5.1	4.7	2.9	3.8	3.5	3.5	1.5	2.3	3.1
Zimbabwe	2.1	16.7	2.0	2.4	1.8	0.8	4.7	4.8	-5.5	-2.5	3.0
Africa - net fuel exporters	**5.1**	**9.8**	**-0.4**	**3.2**	**1.4**	**-0.6**	**1.1**	**1.8**	**1.8**	**2.1**	**2.7**
Africa - net fuel importers	**4.2**	**3.1**	**4.1**	**3.8**	**3.5**	**3.0**	**3.9**	**3.2**	**3.5**	**3.8**	**4.0**
East and South Asia	**6.8**	**5.9**	**6.1**	**6.2**	**5.8**	**6.1**	**6.1**	**5.7**	**4.8**	**5.2**	**5.2**
East Asia	**7.2**	**6.5**	**6.4**	**6.1**	**5.7**	**5.7**	**5.9**	**5.7**	**5.2**	**5.2**	**5.2**
Brunei Darussalam	1.4	0.9	-2.1	-2.5	-0.4	-2.5	1.3	0.1	1.1	1.5	2.5
Cambodia	7.9	7.3	7.5	7.1	7.0	6.9	7.0	7.7	7.1	6.9	6.8
China	9.9	7.9	7.8	7.3	6.9	6.7	6.8	6.6	6.1	6.0	5.9
Democratic People's Republic of Korea	0.8	1.3	1.1	1.0	-1.1	3.9	-3.5	-4.2	1.8	2.2	2.8
Fiji	1.6	1.4	4.7	5.6	4.7	2.6	5.2	3.2	3.5	3.4	3.3
Hong Kong SAR[f]	3.6	1.7	3.1	2.8	2.4	2.2	3.8	3.0	-1.0	1.6	2.0
Indonesia	3.6	6.0	5.6	5.0	4.9	5.0	5.1	5.2	5.0	5.1	5.2
Kiribati	1.5	4.8	4.1	-0.5	10.3	1.3	3.1	2.1	2.2	2.3	2.7
Lao People's Democratic Republic	7.0	7.9	8.0	7.6	7.3	7.0	6.9	6.3	6.2	6.4	6.5
Malaysia	4.4	5.5	4.7	6.0	5.1	4.4	5.7	4.7	4.5	4.3	4.5
Mongolia	6.2	12.5	11.6	8.1	2.5	1.4	5.4	6.6	7.0	6.3	6.2
Myanmar[e]	10.7	7.3	8.4	8.0	7.0	5.9	6.8	6.8	6.7	6.8	7.0
Papua New Guinea	2.6	4.7	3.8	12.1	6.9	-0.7	-1.5	0.0	3.6	3.4	4.6
Philippines	4.2	6.7	7.1	6.1	6.1	6.9	6.7	6.2	5.9	6.2	6.3
Republic of Korea	4.5	2.4	3.2	3.2	2.8	2.9	3.2	2.7	2.0	2.3	2.4
Samoa	3.0	-4.0	0.8	2.6	6.7	3.7	-0.6	0.7	3.0	5.0	5.1
Singapore	5.7	4.4	4.8	3.9	2.9	3.0	3.7	3.1	0.4	1.2	1.8
Solomon Islands	2.6	2.6	3.0	2.3	2.5	3.5	3.5	3.4	3.0	2.4	2.5
Taiwan Province of China	4.6	2.1	2.2	4.0	0.8	1.5	3.1	2.6	2.5	2.5	2.4
Thailand	3.0	7.2	2.7	1.0	3.1	3.4	4.0	4.1	3.0	3.1	3.3
Timor-Leste	7.2	5.0	-11.0	-26.0	20.9	0.8	-8.0	0.8	4.5	4.8	5.0
Vanuatu	3.0	1.8	2.0	2.3	0.2	3.5	3.5	3.2	3.6	3.4	3.3
Viet Nam	6.6	5.2	5.4	6.0	6.7	6.2	6.8	7.1	6.9	6.6	6.5

Table A.3
Developing economies: rates of growth of real GDP (*continued*)

Annual percentage change

	1997–2011[a]	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
South Asia	**5.6**	**3.5**	**4.6**	**6.3**	**6.2**	**8.0**	**6.8**	**5.6**	**3.3**	**5.1**	**5.3**
Afghanistan[e]	6.7	10.9	6.5	3.1	1.0	2.2	2.7	2.7	3.0	2.7	4.3
Bangladesh[e]	5.7	6.5	6.0	6.1	6.6	7.1	7.3	7.9	8.1	7.8	7.1
Bhutan	8.2	5.1	2.1	6.6	6.6	8.0	4.6	5.3	6.0	6.4	6.5
India[e]	6.4	5.5	6.4	7.4	8.0	8.2	7.2	6.8	5.7	6.6	6.3
Iran (Islamic Republic of)[e]	3.9	-7.4	-0.2	4.6	-1.3	13.4	3.8	-2.0	-7.1	-2.7	-1.2
Maldives	5.5	2.5	7.3	7.3	2.9	7.3	6.9	7.3	6.4	7.1	5.9
Nepal[e]	4.1	4.8	4.1	6.0	3.3	0.6	8.2	6.7	7.1	6.3	5.3
Pakistan[e]	3.7	4.4	4.7	4.7	5.5	5.6	5.8	3.3	3.3	2.1	3.3
Sri Lanka	5.4	9.1	3.4	5.0	5.0	4.5	3.4	3.2	2.6	3.4	4.1
East and South Asia – net fuel exporters	**3.7**	**1.9**	**2.9**	**4.5**	**3.2**	**6.4**	**5.1**	**3.3**	**0.9**	**2.7**	**3.4**
East and South Asia – net fuel importers	**7.3**	**6.4**	**6.4**	**6.3**	**6.1**	**6.1**	**6.2**	**6.0**	**5.2**	**5.4**	**5.4**
Western Asia	**4.4**	**4.4**	**4.9**	**3.5**	**4.1**	**3.3**	**2.6**	**2.3**	**1.0**	**2.4**	**2.8**
Western Asia – net fuel exporters	**4.6**	**6.1**	**3.9**	**2.9**	**3.5**	**3.3**	**-0.7**	**1.6**	**0.9**	**2.2**	**2.9**
Bahrain	5.0	3.7	5.4	4.4	2.9	3.6	4.2	2.2	1.8	2.3	2.5
Iraq	7.3	13.9	7.6	0.2	4.7	13.8	-3.8	-1.0	3.2	4.8	5.8
Kuwait	4.3	6.6	1.1	0.5	0.6	2.9	-3.5	1.2	0.7	2.3	2.6
Oman	3.1	9.0	5.1	1.5	4.6	5.1	0.3	1.8	0.9	1.7	2.6
Qatar	13.0	4.7	4.4	4.0	3.7	2.1	1.6	1.4	0.1	3.1	4.0
Saudi Arabia	3.3	5.4	2.7	3.7	4.1	1.7	-0.8	2.2	0.3	1.3	1.9
United Arab Emirates	4.8	4.5	5.1	4.3	5.1	3.1	0.5	1.7	1.1	2.4	2.9
Yemen	3.4	2.2	3.6	-10.6	-30.3	-14.8	-5.9	-2.7	1.2	3.6	4.3
Western Asia – net fuel importers	**4.2**	**2.6**	**6.0**	**4.3**	**4.8**	**3.1**	**6.3**	**3.0**	**1.1**	**2.5**	**2.8**
Israel	3.8	2.1	4.2	4.0	2.2	4.0	3.6	3.5	3.1	3.1	3.2
Jordan	5.3	2.1	2.4	3.4	2.6	2.1	2.1	1.9	1.9	2.2	2.0
Lebanon	4.0	2.7	2.6	1.9	0.4	1.6	0.6	0.3	-0.5	0.3	1.4
State of Palestine	4.9	6.3	2.2	-0.2	3.4	4.7	3.1	0.9	1.4	2.6	2.6
Syrian Arab Republic	4.2	-26.3	-26.3	-14.7	-6.1	-4.0	1.9	11.5	10.1	3.7	3.3
Turkey	4.3	4.8	8.5	5.2	6.1	3.2	7.5	2.8	0.4	2.4	2.8
Latin America and the Caribbean[g]	**3.2**	**2.8**	**2.9**	**1.2**	**-0.2**	**-1.1**	**1.2**	**0.9**	**0.1**	**1.3**	**2.0**
South America	**3.3**	**2.4**	**3.3**	**0.5**	**-1.6**	**-2.6**	**0.7**	**0.4**	**-0.1**	**1.1**	**2.0**
Argentina	3.2	-1.0	2.4	-2.5	2.7	-2.1	2.7	-2.5	-3.0	-1.3	0.8
Bolivia (Plurinational State of)	3.8	5.1	6.8	5.5	4.9	4.3	4.2	4.2	3.0	3.0	3.2
Brazil	3.2	1.9	3.0	0.5	-3.5	-3.3	1.3	1.1	1.0	1.7	2.3
Chile	4.1	5.3	4.0	1.8	2.3	1.7	1.3	4.0	0.8	1.0	1.8
Colombia	3.3	3.9	4.6	4.7	3.0	2.1	1.4	2.6	3.2	3.5	3.3
Ecuador	3.5	5.6	4.9	3.8	0.1	-1.2	2.4	1.4	-0.2	0.1	0.6
Paraguay	3.8	-0.5	8.4	4.9	3.1	4.3	5.0	3.7	0.2	3.0	3.0
Peru	4.8	6.1	5.9	2.4	3.3	4.0	2.5	4.0	2.3	3.2	3.5
Uruguay	2.7	3.5	4.6	3.2	0.4	1.7	2.6	1.6	0.3	1.5	1.7
Venezuela (Bolivarian Republic of)	2.6	5.6	1.3	-3.9	-6.2	-17.0	-15.7	-19.6	-25.5	-14.0	-7.2

Table A.3
Developing economies: rates of growth of real GDP (*continued*)

Annual percentage change

	1997–2011[a]	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Mexico and Central America	**2.9**	**3.7**	**1.9**	**3.0**	**3.6**	**3.1**	**2.4**	**2.3**	**0.5**	**1.6**	**1.9**
Costa Rica	4.5	4.8	2.3	3.5	3.6	4.2	3.4	2.7	1.8	1.9	2.2
Cuba	4.6	3.0	2.8	1.0	4.4	0.5	1.8	2.2	0.5	0.5	1.5
Dominican Republic	5.3	2.7	4.9	7.1	6.9	6.7	4.7	7.0	4.8	4.7	4.5
El Salvador	2.5	2.8	2.2	1.7	2.4	2.5	2.3	2.5	2.2	2.3	2.2
Guatemala	3.6	3.0	3.7	4.2	4.1	3.1	2.8	3.1	3.3	3.2	3.3
Haiti[e]	1.0	2.9	4.2	2.8	1.2	1.5	1.2	1.5	-0.7	0.3	0.6
Honduras	3.8	4.1	2.8	3.1	3.8	3.9	4.8	3.7	2.9	2.9	3.2
Mexico	2.5	3.6	1.4	2.8	3.3	2.9	2.1	2.0	0.0	1.3	1.6
Nicaragua	3.6	6.5	4.9	4.8	4.8	4.6	4.7	-3.8	-5.3	-1.4	0.0
Panama	6.0	9.8	6.9	5.1	5.7	5.0	5.3	3.7	3.5	3.8	4.1
Caribbean	**3.2**	**0.8**	**0.7**	**0.2**	**1.1**	**-2.2**	**-0.2**	**1.6**	**1.2**	**5.7**	**3.4**
Bahamas	1.9	0.0	-3.0	0.7	0.6	0.4	0.1	1.6	0.9	-0.6	2.1
Barbados	1.1	-0.1	-1.4	-0.2	2.2	2.3	-0.2	-0.6	0.0	1.3	1.5
Belize	4.7	2.9	0.9	3.7	3.4	-0.6	1.4	3.0	2.1	1.9	1.8
Guyana	2.4	5.3	5.0	3.9	3.1	3.4	2.2	4.1	4.5	85.6	17.0
Jamaica	1.4	-0.6	0.5	0.7	0.9	1.4	1.0	1.7	1.7	1.6	1.9
Suriname	4.2	2.7	2.9	0.3	-3.4	-5.6	1.7	-0.3	2.1	1.7	2.3
Trinidad and Tobago	6.0	1.3	2.0	-1.0	1.8	-6.5	-1.9	1.9	0.4	1.5	2.0
Latin America and the Caribbean – net fuel exporters	**3.2**	**4.7**	**3.4**	**1.3**	**-0.5**	**-4.8**	**-3.4**	**-3.1**	**-3.3**	**0.2**	**1.4**
Latin America and the Caribbean – net fuel importers	**3.2**	**2.5**	**2.8**	**1.2**	**-0.1**	**-0.5**	**1.9**	**1.5**	**0.5**	**1.5**	**2.1**
Memorandum items:											
Least developed countries	5.8	4.8	5.7	5.3	3.8	4.0	4.5	4.6	4.9	5.1	5.4
Africa (excluding Libya)	4.7	3.8	4.2	4.4	3.0	1.7	2.7	2.6	2.9	3.2	3.5
North Africa (excluding Libya)	4.4	2.5	2.8	3.4	3.8	3.1	3.4	2.3	3.4	3.6	3.7
East Asia (excluding China)	4.2	4.2	4.1	4.0	3.6	3.7	4.2	4.0	3.2	3.6	3.7
South Asia (excluding India)	4.3	0.0	1.6	4.5	2.8	7.8	5.6	2.8	-1.4	1.2	2.5
Western Asia (excluding Israel and Turkey)	4.6	4.6	2.9	2.5	3.2	3.2	-0.6	1.7	1.0	2.2	2.8
Arab States[h]	4.4	5.7	1.2	2.0	3.1	3.1	0.7	1.9	1.7	2.6	3.1
Landlocked developing economies	6.2	4.4	6.8	5.6	3.4	3.1	4.4	4.6	4.4	4.4	4.5
Small island developing economies	4.9	3.5	3.9	3.5	3.6	2.5	3.0	3.2	1.4	2.3	2.5

Source: UN DESA, based on data of the United Nations Statistics Division, UN/ECLAC and UN DESA forecasts.

Note: Regional aggregates calculated at 2010 prices and exchange rates.

a Average percentage change.

b Partly estimated.

c Baseline scenario forecasts, based in part on UN DESA World Economic Forecasting Model.

d Covering countries that account for 98 per cent of the population of all developing countries.

e Fiscal-year basis.

f Special Administrative Region of China.

g Figures for Latin America and the Caribbean for 2012–2020 were provided by UN/ECLAC.

h Includes data for Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, and Yemen.

Table A.4
Growth of world output and gross domestic product by SDG regions

Annual percentage change

	2017	2018	2019[a]	2020[b]	2021[b]
World	**3.2**	**3.0**	**2.3**	**2.5**	**2.7**
Developed regions	**2.4**	**2.2**	**1.6**	**1.6**	**1.7**
Developing regions	**4.5**	**4.2**	**3.4**	**4.1**	**4.3**
Africa	**2.9**	**2.7**	**2.9**	**3.2**	**3.5**
Northern Africa	4.0	2.6	3.4	3.6	3.7
Eastern Africa	5.5	6.0	4.8	5.2	5.7
Middle Africa	-0.5	0.8	1.2	1.6	2.8
Southern Africa	1.4	0.9	0.6	1.0	1.6
Western Africa	2.7	3.3	3.5	3.6	3.8
Americas	**2.1**	**2.4**	**1.7**	**1.6**	**1.8**
Northern America	2.4	2.8	2.1	1.7	1.7
Latin America and the Caribbean	1.2	0.9	0.1	1.3	2.0
Caribbean	2.2	3.7	2.2	2.3	2.8
Central America	2.3	2.1	0.3	1.5	1.8
South America	0.8	0.4	-0.1	1.2	2.1
Asia	4.8	4.3	3.6	4.0	4.2
Central Asia	4.7	4.6	4.8	4.3	4.2
Eastern Asia	4.8	4.3	3.9	4.0	4.1
Southern Asia	6.8	5.6	3.3	5.1	5.3
South-eastern Asia	5.1	5.0	4.4	4.5	4.7
Western Asia	2.6	2.3	1.1	2.4	2.9
Europe	**2.5**	**2.0**	**1.4**	**1.6**	**1.8**
Eastern Europe	3.0	3.2	2.4	2.5	2.6
Northern Europe	2.6	2.1	1.6	1.6	2.0
Southern Europe	2.3	1.6	1.2	1.3	1.4
Western Europe	2.4	1.8	1.1	1.4	1.5
Oceania	**2.5**	**2.7**	**1.9**	**2.2**	**2.3**

Sources: UN DESA, based on data of the United Nations Statistics Division and UN DESA forecasts.

Notes: Regional aggregates in this table follow geographic regions defined under the Standard Country or Area Codes for Statistical Use (known as M49) and are not strictly comparable to those in the WESP. Full details on the M49 standard can be found on the United Nations Statistics Division website at https://unstats.un.org/unsd/methodology/m49. Calculated at 2010 prices and exchange rates.

a Partly estimated.

b Baseline scenario forecasts, based in part on UN DESA World Economic Forecasting Model.

Table A.5
Developed economies: consumer price inflation

Annual percentage change[a]

	2011	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Developed economies	**2.6**	**1.9**	**1.3**	**1.4**	**0.3**	**0.7**	**1.7**	**2.0**	**1.6**	**1.7**	**1.9**
United States	3.2	2.1	1.5	1.6	0.1	1.3	2.1	2.4	1.8	2.0	2.1
Canada	2.9	1.5	0.9	1.9	1.1	1.4	1.6	2.3	2.1	1.9	1.8
Japan	-0.3	-0.1	0.3	2.8	0.8	-0.1	0.5	1.0	0.7	0.7	1.3
Australia	3.3	1.8	2.4	2.5	1.5	1.3	1.9	1.9	1.6	1.6	1.9
New Zealand	4.0	1.1	1.1	1.2	0.3	0.6	1.9	1.6	1.4	1.4	2.1
European Union	**3.0**	**2.6**	**1.5**	**0.6**	**0.1**	**0.3**	**1.7**	**1.8**	**1.6**	**1.7**	**1.9**
EU-15	**1.9**	**2.9**	**2.5**	**1.5**	**0.6**	**0.2**	**0.3**	**1.7**	**1.8**	**1.5**	**1.6**
Austria	3.6	2.6	2.1	1.5	0.8	1.0	2.2	2.1	1.7	2.1	2.0
Belgium	3.4	2.6	1.2	0.5	0.6	1.8	2.2	2.3	2.3	2.3	2.4
Denmark	2.7	2.4	0.5	0.4	0.2	0.0	1.1	0.7	1.2	1.6	2.1
Finland	3.3	3.2	2.2	1.2	-0.2	0.4	0.8	1.2	1.4	1.4	1.6
France	2.3	2.2	1.0	0.6	0.1	0.3	1.2	2.1	1.2	1.4	1.7
Germany	2.5	2.1	1.6	0.7	0.7	0.4	1.7	1.9	1.6	1.7	1.9
Greece	3.1	1.0	-0.9	-1.4	-1.1	0.0	1.1	0.8	1.0	1.1	1.5
Ireland	1.2	1.8	0.5	0.3	0.0	-0.2	0.3	0.7	1.1	1.2	1.4
Italy	2.9	3.3	1.3	0.2	0.1	-0.1	1.4	1.2	0.9	1.1	1.3
Luxembourg	3.7	2.9	1.7	0.7	0.1	0.0	2.1	2.0	2.5	2.6	2.5
Netherlands	2.5	2.8	2.6	0.3	0.2	0.1	1.3	1.6	1.9	2.1	2.2
Portugal	3.6	2.8	0.4	-0.2	0.5	0.6	1.6	1.2	1.6	2.1	2.4
Spain	3.0	2.4	1.5	-0.2	-0.6	-0.3	2.0	1.7	1.3	1.6	1.9
Sweden	1.4	0.9	0.4	0.2	0.7	1.1	1.9	2.0	2.2	2.2	2.1
United Kingdom	4.5	2.9	2.5	1.5	0.0	0.7	2.7	2.4	1.9	2.0	2.1
EU-13	**3.7**	**3.7**	**1.4**	**0.3**	**-0.4**	**-0.2**	**1.8**	**2.1**	**2.7**	**2.3**	**2.2**
Bulgaria	3.4	2.4	0.4	-1.6	-1.1	-1.3	1.2	2.6	2.7	2.3	2.0
Croatia	2.2	3.4	2.3	0.2	-0.3	-0.6	1.3	1.5	1.0	1.5	1.6
Cyprus	3.5	3.1	0.4	-0.3	-1.5	-1.2	0.7	0.8	1.4	1.9	2.3
Czechia	2.2	3.6	1.3	0.5	0.2	0.7	2.4	1.9	2.7	2.0	2.0
Estonia	5.1	4.2	3.2	0.5	0.1	0.8	3.7	3.4	2.5	2.1	2.1
Hungary	3.9	5.7	1.7	0.0	0.1	0.5	2.4	2.9	3.0	3.0	2.9
Latvia	4.2	2.3	0.0	0.7	0.2	0.1	2.9	2.6	2.9	2.7	2.0
Lithuania	4.1	3.2	1.2	0.2	-0.7	0.7	3.7	2.5	2.3	2.2	2.3
Malta	2.5	3.2	1.0	0.8	1.2	0.9	1.3	1.7	1.7	1.9	2.2
Poland	3.9	3.6	0.8	0.1	-0.7	-0.2	1.6	1.2	2.7	2.3	2.1
Romania	5.8	3.4	3.2	1.4	-0.4	-1.1	1.1	4.1	3.9	3.0	3.0
Slovakia	4.1	3.7	1.5	-0.1	-0.3	-0.5	1.4	2.5	2.5	2.1	2.1
Slovenia	2.1	2.8	1.9	0.4	-0.8	-0.2	1.6	1.9	1.4	1.6	1.6
Other European countries	**0.6**	**-0.2**	**0.9**	**0.8**	**0.4**	**1.3**	**1.1**	**1.8**	**1.4**	**1.4**	**1.6**
Iceland	4.2	6.0	4.1	1.0	0.3	0.8	-1.6	0.7	1.8	1.9	2.1
Norway	1.3	0.3	2.0	1.9	2.0	3.9	1.8	3.0	2.3	2.1	2.0
Switzerland	0.1	-0.7	0.1	0.0	-0.8	-0.5	0.6	0.9	0.7	0.9	1.3
Memorandum items:											
North America	3.1	2.0	1.4	1.6	0.2	1.3	2.1	2.4	1.8	2.0	2.1
Developed Asia and Pacific	0.4	0.3	0.7	2.7	0.9	0.1	0.8	1.2	0.9	0.9	1.4
Europe	2.9	2.4	1.5	0.6	0.2	0.4	1.7	1.8	1.6	1.7	1.9
Major developed economies	2.5	1.8	1.3	1.6	0.3	0.7	1.7	2.0	1.5	1.6	1.8
Euro area	2.7	2.5	1.4	0.4	0.2	0.2	1.5	1.7	1.4	1.6	1.8

Sources: UN DESA, based on OECD Main Economic Indicators; Eurostat; individual national sources; and UN DESA forecasts.

a Data for country groups are weighted averages, where weights for each year are based on 2010 GDP in United States dollars.

b Partly estimated.

c Baseline scenario forecasts, based in part on UN DESA World Economic Forecasting Model.

Table A.6
Economies in transition: consumer price inflation

Annual percentage change[a]

	2011	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Economies in transition	**9.6**	**6.2**	**6.4**	**7.8**	**15.7**	**7.9**	**5.1**	**4.0**	**4.9**	**4.3**	**4.1**
South-Eastern Europe	**7.2**	**4.7**	**4.4**	**1.1**	**0.9**	**0.6**	**2.5**	**1.8**	**1.7**	**1.8**	**1.9**
Albania	3.4	2.0	1.9	1.6	1.9	1.3	2.0	2.0	1.5	1.8	2.0
Bosnia and Herzegovina	3.7	2.1	-0.1	-0.9	-1.0	-1.1	1.2	1.4	1.1	1.5	1.7
Montenegro	3.5	4.1	2.2	-0.7	1.5	-0.3	2.4	2.6	0.5	0.9	0.9
North Macedonia	3.2	1.8	2.7	0.0	0.1	0.2	2.1	1.5	1.5	1.5	1.5
Serbia	11.2	7.3	7.7	2.3	1.5	1.3	3.4	2.0	2.1	2.2	2.2
Commonwealth of Independent States and Georgia[d]	**9.7**	**6.3**	**6.5**	**8.1**	**16.3**	**8.2**	**5.2**	**4.1**	**5.0**	**4.4**	**4.1**
Commonwealth of Independent States and Georgia – net fuel exporters	**8.4**	**5.0**	**6.6**	**7.5**	**14.3**	**7.8**	**4.3**	**3.3**	**4.6**	**4.1**	**3.8**
Azerbaijan	7.9	1.1	2.4	1.4	4.0	12.4	12.9	1.9	3.0	2.8	3.0
Kazakhstan	8.5	5.2	5.9	6.8	6.7	14.4	7.4	6.0	5.8	5.2	5.0
Russian Federation	8.4	5.1	6.8	7.8	15.5	7.0	3.7	2.9	4.4	4.0	3.7
Turkmenistan	5.3	5.3	6.8	6.0	7.4	3.6	8.0	13.6	11.0	8.0	6.0
Commonwealth of Independent States and Georgia – net fuel importers	**18.4**	**14.9**	**6.0**	**11.8**	**29.3**	**11.0**	**11.0**	**9.5**	**7.8**	**6.5**	**6.1**
Armenia	7.7	2.6	5.8	3.0	3.7	-1.4	1.0	2.5	3.0	2.8	3.0
Belarus	53.2	59.2	18.3	18.1	13.5	11.8	6.0	4.9	5.4	5.0	4.8
Georgia[d]	8.5	-0.9	-0.5	3.1	4.0	2.1	6.0	2.6	4.0	3.5	3.4
Kyrgyzstan	16.6	2.8	6.6	7.5	6.5	0.4	3.2	1.5	1.0	1.5	2.0
Republic of Moldova	7.7	4.5	4.6	5.1	9.7	6.4	6.6	3.0	4.3	3.8	3.5
Tajikistan	12.4	5.8	5.0	6.1	5.7	6.0	7.3	3.8	5.4	6.2	6.7
Ukraine[e]	8.0	0.6	-0.2	12.1	48.7	13.9	14.4	11.0	8.0	7.0	6.5
Uzbekistan	12.4	11.9	11.7	9.1	8.5	8.0	12.5	17.9	14.5	10.1	8.9

Sources: UN DESA, based on data of the United Nations Statistics Division, individual national sources and UN DESA forecasts.

a Data for country groups are weighted averages, where weights for each year are based on 2010 GDP in United States dollars.

b Partly estimated.

c Baseline scenario forecasts, based in part on UN DESA World Economic Forecasting Model.

d Georgia officially left the Commonwealth of Independent States on 18 August 2009. However, its performance is discussed in the context of this group of countries for reasons of geographic proximity and similarities in economic structure.

e Starting in 2010, data for Ukraine excludes the temporarily occupied territory of the Autonomous Republic of Crimea and Sevastopol.

Table A.7
Developing economies: consumer price inflation

Annual percentage change[a]

	2011	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Developing countries by region[d]	**6.3**	**5.3**	**5.6**	**4.7**	**4.4**	**5.4**	**4.5**	**5.2**	**5.4**	**5.1**	**4.6**
Africa	**8.9**	**9.0**	**6.9**	**6.8**	**7.3**	**13.8**	**14.7**	**10.6**	**9.1**	**8.2**	**7.3**
North Africa	**8.2**	**8.6**	**7.8**	**7.7**	**7.8**	**11.3**	**17.7**	**13.3**	**8.8**	**8.6**	**7.9**
Algeria	4.5	8.9	3.3	2.9	4.8	6.4	5.6	4.3	3.8	3.6	2.9
Egypt	10.1	7.1	9.4	10.1	10.4	13.8	29.5	14.4	9.8	10.2	9.3
Libya	15.5	6.1	2.6	2.4	9.8	25.9	25.8	13.6	-1.0	6.9	5.3
Mauritania	5.7	4.9	4.1	3.5	3.3	1.5	2.3	3.1	2.2	3.1	3.7
Morocco	0.9	1.3	1.9	0.4	1.6	1.6	0.8	1.9	0.4	2.1	2.3
Sudan	18.1	35.6	36.5	36.9	16.9	17.8	32.4	63.3	53.1	35.1	34.5
Tunisia	3.2	4.6	5.3	4.6	4.4	3.6	5.3	7.3	6.9	6.0	5.0
East Africa	**19.3**	**16.2**	**5.4**	**5.2**	**9.7**	**38.9**	**28.8**	**16.6**	**12.6**	**9.0**	**8.1**
Burundi	9.6	18.2	7.9	4.4	5.5	5.6	16.1	-2.8	-1.9	5.2	5.7
Comoros	1.8	6.3	-4.3	1.3	2.0	1.8	1.0	2.0	2.9	2.5	3.0
Democratic Republic of the Congo	15.3	9.7	0.8	1.2	0.7	2.9	41.5	29.3	14.9	7.7	4.0
Djibouti	5.1	3.7	2.7	1.3	-0.8	2.7	0.6	0.1	1.4	2.5	3.2
Eritrea	3.9	6.0	6.5	10.0	9.0	9.0	9.0	9.0	9.4	8.9	7.8
Ethiopia	33.3	24.1	8.1	7.4	10.1	7.3	9.8	13.8	11.5	8.8	8.4
Kenya	14.0	9.4	5.7	6.9	6.6	6.3	8.0	4.7	6.2	6.4	6.3
Madagascar	9.5	5.7	5.8	6.1	7.4	6.7	8.3	7.3	6.4	6.1	5.9
Rwanda	3.1	10.3	5.9	2.4	2.5	7.2	8.3	-0.3	2.3	5.3	5.3
Somalia	-3.0	-1.9	-3.2	-5.6	-5.6	-0.9	3.7	2.7	2.5	2.6	2.0
South Sudan	47.3	45.1	1.7	3.4	50.4	401.8	213.6	99.7	72.0	40.8	34.0
Uganda	16.6	12.7	4.9	3.1	5.6	5.7	5.2	2.6	2.9	4.1	4.6
United Republic of Tanzania	12.7	16.0	7.9	6.1	5.6	5.2	5.3	3.5	3.8	3.6	4.3
Central Africa	**1.9**	**4.8**	**2.1**	**3.2**	**3.0**	**1.4**	**0.9**	**2.0**	**2.3**	**2.5**	**2.6**
Cameroon	2.9	2.7	2.1	1.9	2.7	0.9	0.6	1.1	1.3	1.7	2.2
Central African Republic	1.3	5.8	1.5	25.3	37.1	4.6	4.1	3.0	1.1	0.1	-0.1
Chad	-3.7	14.0	0.1	1.7	3.7	-1.1	-0.9	2.5	2.8	2.9	2.7
Congo	1.8	5.0	4.6	0.9	3.2	3.2	0.5	1.2	2.1	2.9	3.3
Equatorial Guinea	4.8	3.7	2.9	4.3	1.7	1.4	0.7	1.1	2.2	2.6	2.8
Gabon	1.3	2.7	0.5	4.7	-0.3	2.1	2.7	4.7	4.3	3.7	3.0
Sao Tome and Principe	14.3	10.6	8.1	7.0	5.2	5.4	5.7	7.9	4.9	3.1	2.1
West Africa	**9.6**	**10.2**	**7.6**	**7.4**	**8.4**	**13.2**	**13.6**	**10.2**	**9.0**	**7.6**	**6.4**
Benin	2.7	6.7	0.9	-1.0	0.3	-0.8	0.1	1.0	2.3	2.6	2.7
Burkina Faso	2.8	3.8	0.5	-0.3	1.0	-0.2	0.4	1.9	2.1	2.2	2.6
Cabo Verde	4.5	2.5	1.5	-0.2	0.1	-1.4	0.8	1.3	1.5	2.1	2.5
Côte D'Ivoire	4.9	1.3	2.6	0.4	1.3	0.7	0.7	0.4	1.4	2.1	2.6
Gambia	4.8	4.3	5.7	5.9	6.8	7.2	8.0	6.5	6.6	6.3	5.5
Ghana	8.7	7.1	11.7	15.5	17.1	17.5	12.4	9.8	9.4	8.4	7.7
Guinea	21.4	15.2	11.9	9.7	8.2	8.2	8.9	9.8	9.1	8.8	8.8
Guinea-Bissau	5.0	2.1	1.2	-1.5	1.4	1.6	1.4	1.4	1.3	1.4	1.7
Liberia	8.5	6.8	7.6	9.9	7.7	8.8	12.4	23.6	15.0	7.7	2.3
Mali	3.0	5.3	-0.6	0.9	1.5	-1.8	1.8	1.7	1.8	1.8	1.9
Niger	2.9	0.5	2.3	-0.9	-0.6	1.7	2.8	3.0	3.1	2.7	2.4

Table A.7
Developing economies: consumer price inflation (*continued*)

Annual percentage change[a]

	2011	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Nigeria	10.8	12.2	8.5	8.1	9.0	15.7	16.5	12.1	10.4	8.6	7.0
Senegal	3.4	1.4	0.7	-1.1	0.1	0.8	1.3	0.5	1.3	1.9	2.5
Sierra Leone	6.8	6.6	5.5	4.6	6.7	10.9	18.2	16.9	18.8	17.2	14.2
Togo	3.6	2.6	1.8	0.2	2.6	1.3	-1.0	0.9	1.1	1.6	2.2
Southern Africa	**6.6**	**6.6**	**6.4**	**6.3**	**5.6**	**11.0**	**9.4**	**7.2**	**9.6**	**8.7**	**7.8**
Angola	13.5	10.3	8.8	7.3	10.3	32.4	31.7	20.2	18.9	17.2	15.9
Botswana	8.5	7.5	5.9	4.4	3.1	2.8	3.3	3.2	3.8	3.7	4.3
Eswatini	6.1	8.9	5.6	5.7	5.0	7.8	6.2	4.8	3.0	4.5	5.4
Lesotho	5.0	6.1	5.0	5.3	3.2	6.6	5.3	4.0	5.1	5.3	5.3
Malawi	7.6	21.3	27.3	23.8	21.9	21.7	11.5	12.4	9.4	9.1	8.9
Mauritius	6.5	3.9	3.5	3.2	1.3	1.0	3.7	3.2	1.8	3.0	4.1
Mozambique	11.2	2.6	4.3	2.6	3.6	17.4	15.1	3.9	4.9	4.9	4.7
Namibia	5.0	6.7	5.6	5.3	3.4	6.7	6.1	4.3	3.5	4.1	5.1
South Africa	5.0	5.7	5.8	6.1	4.5	6.6	5.2	4.5	4.6	5.0	5.2
Zambia	6.4	6.6	7.0	7.8	10.1	17.9	6.6	7.5	8.5	8.7	8.6
Zimbabwe	3.5	3.7	1.6	-0.2	-2.4	-1.6	0.9	10.6	148.7	99.9	50.4
Africa – net fuel exporters	**9.4**	**9.8**	**6.1**	**5.7**	**7.6**	**15.1**	**15.2**	**10.4**	**7.9**	**7.6**	**6.5**
Africa – net fuel importers	**8.6**	**8.5**	**7.4**	**7.6**	**7.1**	**13.0**	**14.3**	**10.8**	**10.0**	**8.5**	**7.8**
East and South Asia	**6.4**	**4.7**	**5.4**	**3.5**	**2.7**	**2.6**	**2.3**	**3.6**	**3.8**	**3.6**	**3.3**
East Asia	**5.2**	**2.8**	**2.8**	**2.3**	**1.6**	**1.9**	**1.8**	**2.1**	**2.2**	**2.1**	**2.1**
Brunei Darussalam	0.1	0.1	0.4	-0.2	-0.4	-0.7	-1.3	1.0	-0.1	0.8	1.5
Cambodia	5.5	2.9	2.9	3.9	1.2	3.0	2.9	2.4	2.1	2.5	2.7
China	5.6	2.6	2.6	1.9	1.4	2.0	1.6	2.1	2.6	2.2	2.0
Democratic People's Republic of Korea	6.8	4.0	1.6	3.7	3.1	-0.6	7.2	4.7	4.8	5.0	4.9
Fiji	7.3	3.4	2.9	0.5	1.4	3.9	3.4	4.1	4.1	3.8	3.5
Hong Kong SAR[e]	5.3	4.1	4.3	4.4	3.0	2.4	1.5	2.4	2.6	2.5	2.3
Indonesia	5.4	4.3	6.4	6.4	6.4	3.5	3.8	3.2	3.3	3.3	3.2
Kiribati	1.5	-3.0	-1.5	2.1	0.6	1.9	0.4	1.9	2.1	2.4	2.8
Lao People's Democratic Republic	7.6	4.3	6.4	4.1	1.3	1.6	0.8	2.0	2.6	3.0	2.8
Malaysia	3.2	1.7	2.1	3.1	2.1	2.1	3.9	0.9	1.0	1.8	2.0
Mongolia	8.4	14.3	10.5	12.2	6.6	1.1	4.1	6.8	8.5	7.6	7.1
Myanmar	5.0	1.5	5.5	5.0	9.5	7.0	4.6	6.9	7.8	7.0	6.3
Papua New Guinea	4.4	4.5	5.0	5.2	6.0	6.7	5.4	4.7	4.3	4.1	4.2
Philippines	4.7	3.0	2.6	3.6	0.7	1.3	2.9	5.2	2.8	3.0	3.2
Republic of Korea	4.0	2.2	1.3	1.3	0.7	1.0	1.9	1.5	0.5	1.4	1.6
Samoa	5.2	2.0	0.6	-0.4	0.7	1.3	1.7	4.2	4.0	3.8	3.4
Singapore	5.2	4.6	2.4	1.0	-0.5	-0.5	0.6	0.4	0.6	0.8	1.0
Solomon Islands	7.3	5.9	5.4	5.2	-0.6	0.5	0.5	1.0	1.5	2.0	2.4
Taiwan Province of China	1.4	1.9	0.8	1.2	-0.3	1.4	0.6	1.3	0.5	0.9	1.6
Thailand	3.8	3.0	2.2	1.9	-0.9	0.2	0.7	1.1	0.8	1.2	1.2
Timor-Leste	13.5	11.8	11.1	0.7	0.6	-1.3	0.6	2.3	1.2	2.1	2.6
Vanuatu	0.9	1.3	1.5	0.8	2.5	0.8	3.1	2.8	2.3	1.7	1.5
Viet Nam	18.7	9.1	6.6	4.7	0.9	3.2	3.5	3.5	2.6	3.0	3.2

Table A.7
Developing economies: consumer price inflation (*continued*)

Annual percentage change[a]

	2011	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
South Asia	**11.5**	**12.2**	**15.7**	**8.4**	**7.0**	**5.6**	**4.3**	**9.8**	**10.2**	**9.6**	**8.4**
Afghanistan	11.8	6.4	7.4	4.7	-0.7	4.4	5.0	0.6	1.7	3.3	3.8
Bangladesh	11.4	6.2	7.5	7.0	6.2	5.5	5.7	5.5	5.1	5.9	2.0
Bhutan	8.8	10.9	7.0	8.3	4.5	4.3	3.9	2.7	3.0	3.6	4.2
India	8.9	9.3	10.9	6.4	5.9	4.9	2.5	4.9	4.1	3.9	3.7
Iran (Islamic Republic of)	20.9	25.7	39.3	17.2	13.7	8.7	10.0	31.2	33.5	32.4	27.8
Maldives	11.3	10.9	3.8	2.1	1.0	0.5	2.8	-0.1	0.9	1.7	2.2
Nepal	9.2	9.5	9.0	8.4	7.9	8.8	3.6	4.2	4.1	4.2	4.1
Pakistan	11.9	9.7	7.7	7.2	2.5	3.8	4.1	5.1	9.8	6.8	5.8
Sri Lanka	6.7	7.5	6.9	3.2	3.8	4.0	7.7	2.1	3.0	3.2	3.5
East and South Asia – net fuel exporters	**11.1**	**12.2**	**18.4**	**10.3**	**9.0**	**5.3**	**6.1**	**13.6**	**14.4**	**14.1**	**12.3**
East and South Asia – net fuel importers	**5.9**	**3.9**	**3.9**	**2.8**	**2.0**	**2.3**	**1.9**	**2.5**	**2.6**	**2.4**	**2.3**
Western Asia	**4.9**	**5.6**	**6.2**	**4.9**	**4.7**	**4.7**	**4.5**	**6.8**	**5.6**	**6.1**	**5.9**
Western Asia – net fuel exporters	**4.3**	**2.8**	**2.8**	**2.5**	**2.6**	**2.2**	**0.8**	**2.6**	**-0.1**	**2.2**	**2.9**
Bahrain	-0.4	2.8	3.3	2.6	1.8	2.8	1.4	2.1	1.4	2.0	2.2
Iraq	5.8	6.1	1.9	2.2	1.4	0.6	0.2	0.4	0.4	2.2	2.8
Kuwait	4.8	3.3	2.7	3.1	3.7	3.5	1.5	0.6	1.1	2.0	2.1
Oman	4.0	2.9	1.0	1.0	0.1	1.1	1.6	0.9	0.7	2.3	2.5
Qatar	1.1	2.3	3.2	3.4	1.6	2.9	0.4	0.3	0.3	1.3	2.7
Saudi Arabia	5.8	2.9	3.5	2.2	1.2	2.1	-0.8	2.5	-0.9	1.5	2.6
United Arab Emirates	0.9	0.7	1.1	2.3	4.1	1.6	2.0	3.1	-1.5	2.8	2.9
Yemen	19.5	9.9	11.0	8.1	23.9	11.9	18.0	30.7	14.7	12.3	11.7
Western Asia – net fuel importers	**5.6**	**8.7**	**10.0**	**7.5**	**7.0**	**7.6**	**8.8**	**11.6**	**12.0**	**10.6**	**9.2**
Israel	3.5	1.7	1.6	0.5	-0.6	-0.5	0.2	0.8	1.0	1.5	2.0
Jordan	4.2	4.5	4.8	2.9	-0.9	-0.8	3.3	4.5	0.7	2.4	1.8
Lebanon	5.0	6.6	4.8	1.9	-3.7	-0.8	4.3	6.1	2.9	4.0	2.4
State of Palestine	2.9	2.8	1.7	1.7	1.4	-0.2	0.2	-0.2	2.0	1.6	1.7
Syrian Arab Republic	4.8	36.5	82.3	22.6	38.4	47.7	18.1	0.9	24.1	26.1	12.0
Turkey	6.5	9.0	7.5	8.9	7.7	7.7	11.1	16.3	15.3	12.8	11.9
Latin America and the Caribbean[d]	**5.7**	**5.2**	**5.3**	**6.5**	**7.6**	**9.2**	**5.9**	**6.4**	**7.7**	**7.1**	**5.9**
South America[d]	**6.4**	**5.6**	**5.9**	**7.6**	**9.5**	**11.8**	**6.1**	**7.2**	**9.5**	**8.6**	**7.0**
Argentina	9.8	10.0	10.6	21.4	21.5	40.5	25.7	34.2	53.1	44.2	30.2
Bolivia (Plurinational State of)	9.9	4.5	5.8	5.8	4.1	3.6	2.8	2.3	1.9	2.5	2.6
Brazil	6.6	5.4	6.2	6.3	9.0	8.7	3.4	3.7	3.6	3.8	4.0
Chile	3.3	3.0	1.9	4.7	4.3	3.8	2.2	2.4	2.1	2.6	2.7
Colombia	3.4	3.2	2.0	2.9	5.0	7.5	4.3	3.2	3.6	3.7	4.0
Ecuador	4.5	5.1	2.7	3.6	4.0	1.7	0.4	-0.2	0.2	0.7	1.4
Paraguay	8.3	3.7	2.7	5.0	3.1	4.1	3.6	4.0	2.5	3.2	3.5
Peru	3.4	3.7	2.8	3.2	3.6	3.6	2.8	1.3	1.4	1.6	1.9
Uruguay	8.1	8.1	8.6	8.9	8.7	9.6	6.2	7.6	7.7	7.0	6.3
Venezuela (Bolivarian Republic of)	26.1	21.1	40.6	62.2	121.7	254.9	438.1	65374.1	...	...	...

Table A.7
Developing economies: consumer price inflation (*continued*)

Annual percentage change[a]

	2011	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Mexico and Central America	**3.8**	**4.0**	**3.8**	**3.8**	**2.7**	**2.5**	**5.2**	**4.5**	**3.3**	**3.2**	**3.2**
Costa Rica	4.9	4.5	5.2	4.5	0.9	0.0	1.6	2.2	2.1	2.5	2.5
Cuba	1.3	1.9	0.6	1.1	4.9	-0.5	-1.1	1.9	1.9	2.2	2.4
Dominican Republic	8.5	3.7	4.8	3.0	0.8	1.6	3.3	3.6	1.4	2.2	2.9
El Salvador	5.1	1.7	0.8	1.1	-0.7	0.6	1.0	1.1	0.1	0.3	0.6
Guatemala	6.2	3.8	4.3	3.4	2.4	4.4	4.4	3.8	3.9	3.5	3.7
Haiti	8.4	6.3	5.9	4.6	9.0	13.8	14.7	14.0	18.5	19.0	16.0
Honduras	6.8	5.2	5.2	6.1	3.2	2.7	3.9	4.3	4.3	3.9	3.7
Mexico	3.4	4.1	3.8	4.0	2.8	2.8	6.0	4.9	3.5	3.4	3.2
Nicaragua	8.5	7.5	7.1	6.0	3.9	3.4	4.0	4.8	5.5	6.0	5.6
Panama	5.9	5.7	4.0	2.6	0.1	0.7	0.9	0.8	-0.6	0.4	0.8
Caribbean	**6.5**	**6.3**	**4.6**	**4.7**	**3.3**	**5.8**	**4.1**	**2.5**	**2.3**	**2.4**	**2.7**
Bahamas	3.2	2.0	0.3	1.2	1.9	-0.3	1.5	2.3	2.8	2.4	2.1
Barbados	9.4	4.5	1.8	1.9	-1.1	1.1	4.7	3.7	2.3	2.0	1.8
Belize	1.5	1.4	0.5	1.0	-0.7	0.7	1.1	0.3	0.0	1.0	1.6
Guyana	5.0	2.4	2.1	0.6	-1.0	0.8	1.9	1.2	0.3	2.4	3.4
Jamaica	7.5	6.9	9.4	8.3	3.7	2.3	4.4	3.7	3.5	4.4	5.0
Suriname	17.7	5.0	1.9	3.4	6.9	53.0	21.5	6.9	5.0	4.4	6.3
Trinidad and Tobago	5.1	9.3	5.2	5.7	4.6	3.1	1.9	1.0	1.3	1.1	1.1
Latin America and the Caribbean – net fuel exporters	**4.0**	**3.9**	**2.5**	**3.3**	**4.7**	**6.1**	**3.4**	**2.5**	**2.8**	**3.0**	**3.3**
Latin America and the Caribbean – net fuel importers	**5.8**	**5.3**	**5.6**	**6.8**	**7.8**	**9.5**	**6.1**	**6.7**	**8.2**	**7.4**	**6.1**
Memorandum items:											
Least developed countries	12.8	11.6	8.9	8.1	9.1	19.6	17.5	15.9	13.1	10.5	9.2
East Asia (excluding China)	4.6	3.2	3.0	3.0	1.9	1.7	2.2	2.1	1.6	2.0	2.1
South Asia (excluding India)	16.2	17.6	24.5	12.2	9.1	6.7	7.7	18.8	21.1	20.0	16.8
Western Asia (excluding Israel and Turkey)	4.3	4.4	6.2	3.4	3.9	4.0	1.7	2.7	1.0	3.2	3.2
Arab States[f]	5.6	5.7	6.7	4.8	5.1	6.3	6.8	6.1	3.5	5.0	4.7
Landlocked developing economies	10.6	8.2	5.8	5.6	7.0	19.1	12.4	8.7	10.0	7.8	6.5
Small island developing States	5.1	4.3	2.9	2.0	1.3	1.1	1.6	1.7	1.6	1.8	2.1

Sources: UN DESA, based on data of the United Nations Statistics Division, individual national sources and UN DESA forecasts.
a Data for country groups are weighted averages, where weights for each year are based on 2010 GDP in United States dollars.
b Partly estimated.
c Baseline scenario forecasts, based in part on UN DESA World Economic Forecasting Model.
d Regional aggregates exclude Venezuela (Bolivarian Republic of).
e Special Administrative Region of China.
f Includes data for Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, and Yemen.

Table A.8
Developed economies: unemployment rates[a,b]

Percentage of labour force

	2011	2012	2013	2014	2015	2016	2017	2018	2019[c]	2020[d]	2021[d]
Developed economies	**8.5**	**9.5**	**8.5**	**7.8**	**7.1**	**6.5**	**5.8**	**5.2**	**4.9**	**4.9**	**4.9**
United States	8.9	8.1	7.4	6.2	5.3	4.9	4.4	3.9	3.7	3.6	3.7
Canada	7.5	7.3	7.1	6.9	6.9	7.0	6.3	5.8	5.6	5.9	6.2
Japan	4.6	4.4	4.0	3.6	3.4	3.1	2.8	2.4	2.4	2.4	2.3
Australia	5.1	5.2	5.7	6.1	6.1	5.7	5.6	5.3	5.4	5.7	6.0
New Zealand	6.0	6.4	5.8	5.4	5.4	5.1	4.7	4.3	4.2	4.0	4.0
European Union	**9.7**	**10.5**	**10.9**	**10.2**	**9.4**	**8.5**	**7.6**	**6.8**	**6.4**	**6.3**	**6.1**
EU-15	**9.6**	**10.6**	**11.1**	**10.5**	**9.8**	**9.0**	**8.2**	**7.5**	**7.0**	**6.9**	**6.8**
Austria	4.6	4.9	5.4	5.6	5.7	6.0	5.5	4.9	4.7	5.2	5.3
Belgium	7.2	7.6	8.4	8.5	8.5	7.8	7.1	6.0	5.4	5.1	4.9
Denmark	7.6	7.5	7.0	6.6	6.2	6.2	5.7	5.0	4.5	4.4	3.9
Finland	7.8	7.7	8.2	8.7	9.4	8.8	8.6	7.4	6.7	6.4	6.0
France	9.2	9.8	10.3	10.3	10.4	10.1	9.4	9.1	8.8	8.7	8.5
Germany	5.8	5.4	5.2	5.0	4.6	4.1	3.8	3.4	3.3	3.4	3.4
Greece	17.9	24.5	27.5	26.5	24.9	23.6	21.5	19.3	17.5	15.9	14.3
Ireland	15.4	15.5	13.8	11.9	10.0	8.4	6.7	5.8	5.3	6.4	7.3
Italy	8.4	10.7	12.1	12.7	11.9	11.7	11.2	10.6	10.4	10.7	10.8
Luxembourg	4.8	5.1	5.9	6.0	6.5	6.3	5.6	5.5	5.4	5.8	5.9
Netherlands	5.0	5.8	7.3	7.4	6.9	6.0	4.9	3.8	3.4	3.4	3.7
Portugal	12.9	15.8	16.4	14.1	12.6	11.2	9.0	7.0	5.6	4.7	4.3
Spain	21.4	24.8	26.1	24.5	22.1	19.6	17.2	15.3	13.8	12.8	11.8
Sweden	7.8	8.0	8.0	7.9	7.4	6.9	6.7	6.3	6.1	6.0	5.8
United Kingdom	8.1	7.9	7.5	6.1	5.3	4.8	4.3	4.0	4.0	4.2	4.3
EU-13	**9.8**	**10.0**	**10.1**	**9.0**	**7.9**	**6.6**	**5.4**	**4.4**	**3.9**	**3.8**	**3.6**
Bulgaria	11.3	12.3	13.0	11.4	9.2	7.6	6.2	5.2	4.5	4.2	3.9
Croatia	13.7	15.8	17.4	17.2	16.1	13.4	11.0	8.4	6.8	6.0	5.5
Cyprus	7.9	11.9	15.9	16.1	15.0	13.0	11.1	8.4	6.8	6.0	5.3
Czech Republic	6.7	7.0	7.0	6.1	5.1	4.0	2.9	2.2	1.8	2.1	2.0
Estonia	12.3	10.0	8.6	7.4	6.2	6.8	5.8	5.4	5.2	5.1	4.8
Hungary	11.0	11.0	10.2	7.7	6.8	5.1	4.2	3.7	3.5	3.5	3.5
Latvia	16.2	15.0	11.9	10.8	9.9	9.6	8.7	7.4	7.1	6.8	6.7
Lithuania	15.4	13.4	11.8	10.7	9.1	7.9	7.1	6.2	5.6	5.2	4.8
Malta	6.4	6.2	6.1	5.7	5.4	4.7	4.0	3.7	3.7	4.0	4.1
Poland	9.7	10.1	10.3	9.0	7.5	6.2	4.9	3.9	3.5	3.5	3.3
Romania	7.2	6.8	7.1	6.8	6.8	5.9	4.9	4.2	3.8	3.6	3.4
Slovakia	13.7	14.0	14.2	13.2	11.5	9.7	8.1	6.5	5.9	5.5	5.3
Slovenia	8.2	8.9	10.1	9.7	9.0	8.0	6.6	5.1	4.1	3.7	3.3
Other Europe	**4.1**	**4.1**	**4.4**	**4.4**	**4.7**	**4.8**	**4.5**	**4.4**	**4.1**	**4.2**	**4.2**
Iceland	7.1	6.0	5.4	5.0	4.0	3.0	2.8	2.7	2.0	2.4	2.6
Norway	3.4	3.3	3.8	3.6	4.5	4.8	4.2	3.9	3.4	3.2	2.8
Switzerland	4.4	4.5	4.7	4.8	4.8	4.9	4.8	4.7	4.6	4.9	5.1
Memorandum items:											
North America	8.8	8.0	7.3	6.2	5.5	5.1	4.6	4.1	3.9	3.9	4.0
Developed Asia and Pacific	4.7	4.5	4.3	4.0	3.8	3.6	3.3	2.9	2.9	3.0	3.0
Europe	9.5	10.3	10.7	10.0	9.3	8.4	7.5	6.8	6.3	6.2	6.1
Major developed economies	7.6	7.4	7.1	6.4	5.8	5.4	5.0	4.5	4.4	4.4	4.5
Euro area	10.2	11.4	12.0	11.6	10.9	10.0	9.1	8.2	7.7	7.5	7.3

Sources: UN DESA, based on data from Eurostat; OECD Main Economic Indicators; ILOSTAT; and UN DESA forecasts.

a Unemployment rates are standardized by the OECD and Eurostat for comparability across countries and over time, in conformity with the definitions of the International Labout Organization (see OECD, Standardized Unemployment Rates: Sources and Methods (Paris, 1985)).

b Data for country groups are weighted averages, where labour force is used for weights.

c Partly estimated.

d Baseline scenario forecasts, based in part on UN DESA World Economic Forecasting Model.

Table A.9
Economies in transition and developing economies: unemployment rates[a]

Percentage of labour force

	2011	2012	2013	2014	2015	2016	2017	2018	2019[b]
South-Eastern Europe									
Albania	13.5	13.4	15.9	17.5	17.1	15.2	13.8	12.3	12.0
Bosnia and Herzegovina	27.6	28.0	27.5	27.5	24.4	22.4	18.1	18.4	18.1
Montenegro	19.7	20.0	19.5	18.0	17.5	17.7	16.1	15.2	14.5
North Macedonia	31.4	46.1	29.0	39.3	26.1	23.7	22.4	20.7	17.9
Serbia	23.0	24.0	22.2	19.2	17.7	15.3	13.5	12.7	11.0
Commonwealth of Independent States and Georgia[c]									
Armenia	21.6	17.3	16.2	15.5	15.8	15.6	13.7	12.2	10.9
Azerbaijan	5.5	5.3	5.1	4.9	4.9	5.0	5.0	4.9	4.8
Belarus	0.6	0.5	0.5	0.5	1.0	5.8	5.7	4.8	4.6
Georgia[c]	19.6	19.7	19.4	17.4	16.5	16.6	13.9	12.2	10.6
Kazakhstan	5.4	5.3	5.2	5.1	4.9	5.0	4.9	4.7	4.5
Kyrgyzstan	8.5	8.4	4.1	8.1	7.6	7.2	6.9	6.7	6.6
Republic of Moldova	6.7	5.6	5.1	3.9	3.7	4.2	4.1	3.0	5.1
Russian Federation	6.5	5.4	5.5	5.2	5.6	5.6	5.2	4.8	4.5
Tajikistan	5.8	5.9	5.9	5.8	5.7	5.5	5.4	5.3	5.2
Turkmenistan	4.0	4.0	4.0	3.9	3.8	3.6	3.7	3.8	3.8
Ukraine[d]	7.9	7.5	7.2	9.3	9.1	9.3	9.5	8.8	8.6
Uzbekistan	5.0	4.9	4.9	5.1	5.2	5.2	5.8	6.2	6.1
Africa									
Algeria	10.0	11.0	9.8	10.2	11.2	10.2	9.4	8.7	8.1
Botswana	17.8	17.9	18.3	18.2	18.0	17.7	17.7	17.8	17.8
Egypt	11.8	12.6	13.2	13.1	13.1	12.4	11.7	11.0	10.1
Mauritius	7.5	7.5	7.3	7.5	7.4	6.8	6.8	6.8	6.9
Morocco	8.9	9.0	9.2	9.7	9.5	9.3	9.2	9.9	10.2
South Africa	24.7	24.7	24.6	24.9	25.2	26.6	27.1	26.9	27.3
Tunisia	18.3	17.6	15.9	15.1	15.2	15.5	15.4	15.5	15.7
Latin America and the Caribbean									
Argentina	7.2	7.2	7.1	7.3	6.5	8.5	8.4	9.2	10.5
Barbados	11.2	11.6	11.6	12.3	11.3	9.7	10.0	10.1	11.9
Bolivia (Plurinational State of)	3.8	3.2	4.0	3.5	4.4	4.7	5.1	4.9	4.7
Brazil	6.0	8.2	8.0	7.8	9.3	13.0	14.5	14.2	14.3
Chile	7.4	6.7	6.2	6.7	6.4	6.8	6.9	7.3	7.1
Colombia	11.8	11.4	10.7	10.0	9.8	10.3	10.5	10.9	11.0
Costa Rica	7.7	9.8	9.1	9.5	9.7	9.6	9.0	10.3	11.6
Dominican Republic	6.7	7.2	7.9	7.2	7.9	7.9	6.1	6.1	5.9
Ecuador	5.0	4.2	4.0	4.3	4.7	5.9	5.0	4.7	5.8
El Salvador	6.6	6.2	5.6	6.7	6.5	6.9	6.8	6.1	6.0
Guatemala	3.1	4.0	3.8	4.0	3.2	3.4	3.2	3.9	4.3
Honduras	6.8	5.6	6.0	7.5	8.8	9.0	8.2	8.0	9.7
Jamaica	12.6	13.9	15.2	13.7	13.5	13.2	11.7	9.1	8.0
Mexico	5.6	5.4	5.4	5.3	4.7	4.3	3.8	3.6	3.7
Nicaragua	8.1	8.7	7.7	8.5	7.7	6.3	5.2	7.5	10.4

Table A.9
Economies in transition and developing economies: unemployment rates[a] (*continued*)

Percentage of labour force

	2011	2012	2013	2014	2015	2016	2017	2018	2019[b]
Latin America and the Caribbean *(continued)*									
Panama	5.4	4.8	4.7	5.4	5.8	6.4	6.9	7.1	7.8
Paraguay	6.9	7.9	7.7	7.8	6.5	7.7	6.9	7.1	7.4
Peru	5.1	4.7	4.8	4.5	4.4	5.2	5.0	4.8	6.2
Trinidad and Tobago	5.1	5.0	3.6	3.3	3.5	4.0	4.8	5.1	5.5
Uruguay	6.6	6.7	6.7	6.9	7.8	8.2	8.3	8.6	8.9
Venezuela (Bolivarian Republic of)	8.3	8.1	7.8	7.2	7.0	7.3	7.6	…	…
Developing Asia									
China	4.1	4.1	4.1	4.1	4.1	4.0	3.9	3.7	3.6
Hong Kong SAR[e]	3.4	3.3	3.4	3.3	3.3	3.4	3.0	2.5	3.6
India	2.5	2.7	2.8	2.8	2.8	2.7	2.7	2.6	2.5
Indonesia	5.2	4.5	4.3	4.0	4.5	4.3	4.2	3.3	2.6
Iran, Islamic Republic of	12.5	12.6	10.4	10.6	11.1	12.4	12.1	12.0	12.8
Israel	5.6	6.9	6.2	5.9	5.2	4.8	4.2	4.0	3.8
Jordan	12.9	12.2	12.6	11.9	13.1	15.3	16.6	17.3	17.8
Malaysia	3.1	3.0	3.1	2.9	3.1	3.4	3.4	3.4	3.4
Pakistan	0.8	1.7	3.0	1.8	3.6	4.6	4.3	4.1	5.8
Philippines	3.6	3.5	3.5	3.6	3.1	2.7	2.6	2.3	2.2
Republic of Korea	3.4	3.2	3.1	3.5	3.6	3.7	3.7	3.8	4.2
Saudi Arabia	5.8	5.5	5.6	5.7	5.6	5.7	5.9	6.0	6.4
Singapore	1.9	3.7	3.9	3.7	3.8	4.1	4.5	4.8	5.2
Sri Lanka	4.1	3.9	4.2	4.2	4.5	4.2	4.2	4.3	4.5
Taiwan Province of China	4.4	4.2	4.2	4.0	3.8	3.9	3.8	3.7	3.7
Thailand	0.7	0.6	0.5	0.6	0.6	0.7	0.9	0.7	0.6
Turkey	8.8	8.2	8.7	10.0	10.3	10.9	10.9	11.0	11.4
Viet Nam	1.9	1.7	2.0	1.9	2.1	2.1	2.1	1.9	1.8

Sources: UN DESA, based on data from Eurostat; UN/ECLAC, OECD *Main Economic Indicators*; ILOSTAT; and UN DESA estimates.

a As a percentage of labour force. Reflects national definitions and coverage. Not comparable across economies.

b Partly estimated.

c Georgia officially left the Commonwealth of Independent States on 18 August 2009. However, its performance is discussed in the context of this group of countries for reasons of geographic proximity and similarities in economic structure.

d Starting in 2010, data for the Ukraine excludes the temporarily occupied territory of the Autonomous Republic of Crimea and Sevastopol.

e Special Administrative Region of China.

Table A.10
Selected economies: real effective exchange rates, broad measurement[a, b]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019[c]
Developed economies										
Australia	92.9	99.3	100.0	94.8	90.1	81.0	81.8	84.6	81.4	77.2
Austria	100.6	101.1	100.0	101.7	103.2	101.0	102.6	103.5	104.7	104.2
Belgium	101.4	102.2	100.0	101.2	101.2	97.4	100.0	101.4	103.3	103.0
Bulgaria	100.8	101.8	100.0	99.9	99.6	96.9	96.8	96.7	100.1	100.2
Canada	98.6	100.8	100.0	96.4	90.3	81.2	79.4	80.8	80.0	79.5
Croatia	104.6	101.5	100.0	100.7	100.4	98.6	99.6	99.9	101.3	99.8
Czechia	100.4	102.5	100.0	97.4	92.2	91.4	93.8	97.0	100.9	100.9
Denmark	103.7	102.9	100.0	100.6	101.5	97.2	98.3	98.7	99.7	98.5
Finland	102.6	102.3	100.0	102.3	104.8	101.9	103.2	102.1	104.4	103.5
France	103.6	103.1	100.0	101.1	101.2	96.2	97.5	97.9	99.7	98.3
Germany	103.7	103.2	100.0	102.0	102.6	98.2	99.8	100.5	102.5	101.5
Greece	104.6	105.2	100.0	99.3	98.0	92.1	93.6	94.3	93.2	91.6
Hungary	102.2	101.7	100.0	98.4	95.0	92.5	93.1	94.5	93.6	92.6
Ireland	105.9	104.9	100.0	101.5	100.5	92.7	93.9	94.1	95.1	93.1
Italy	101.8	102.0	100.0	101.6	101.7	96.9	98.0	98.5	99.4	97.6
Japan	99.9	101.6	100.0	80.1	75.2	69.9	78.6	74.9	74.6	77.2
Netherlands	103.1	102.6	100.0	102.8	102.8	98.3	99.6	99.8	101.1	100.4
New Zealand	93.9	97.9	100.0	102.4	105.1	96.1	97.3	99.2	94.0	92.8
Norway	100.3	101.0	100.0	97.9	92.7	84.9	86.1	86.9	87.5	86.3
Poland	104.5	102.2	100.0	100.0	101.1	98.4	94.9	97.0	97.6	96.6
Portugal	101.1	101.9	100.0	100.0	99.3	96.8	98.7	98.8	98.3	98.3
Romania	103.4	105.9	100.0	103.6	105.0	102.5	101.3	99.2	101.0	100.6
Slovakia	98.8	99.7	100.0	101.1	101.8	99.8	100.0	98.9	100.4	100.6
Spain	102.1	102.8	100.0	101.6	101.0	95.8	96.8	98.3	98.5	97.7
Sweden	96.1	100.3	100.0	101.3	96.3	91.1	91.8	91.0	86.7	83.8
Switzerland	95.0	104.3	100.0	98.5	99.1	104.6	102.7	101.0	98.0	99.3
United Kingdom	95.5	96.3	100.0	98.7	105.5	110.3	98.5	93.8	95.4	93.1
United States	102.1	97.8	100.0	100.1	101.9	112.8	117.7	118.5	115.7	121.4
Economies in transition										
Azerbaijan	94.3	96.7	100.0	99.7	103.5	95.5	70.1	71.0	72.2	75.5
Belarus	124.9	104.3	100.0	107.8	119.6	110.1	101.6	99.5	97.8	101.0
Kazakhstan	96.1	96.0	100.0	100.6	93.5	93.4	71.0	76.9	75.8	72.7
Russian Federation	93.7	98.3	100.0	100.2	90.0	74.3	74.4	86.8	79.5	80.9
Ukraine[d]	97.5	98.0	100.0	96.4	73.9	69.9	70.1	73.6	77.8	87.9
Developing economies										
Algeria	96.1	95.5	100.0	98.0	99.8	95.3	94.4	95.4	92.0	95.1
Argentina	102.4	99.2	100.0	90.9	74.3	87.6	77.7	85.6	59.7	60.8
Bangladesh	106.9	103.7	100.0	110.7	118.6	135.4	143.3	145.0	142.8	150.0
Brazil	106.3	111.8	100.0	94.5	92.4	75.5	80.2	89.8	73.7	72.8
Chile	97.2	98.4	100.0	98.9	89.6	87.1	88.5	92.4	91.3	87.4
China	93.2	96.1	100.0	103.8	106.5	114.3	109.0	106.3	106.5	105.2

Table A.10
Selected economies: real effective exchange rates, broad measurement[a, b] (*continued*)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019[c]
Developing economies (*continued*)										
Colombia	94.2	95.4	100.0	96.3	91.4	74.1	72.8	79.4	68.4	65.4
Dominican Republic	99.4	100.3	100.0	96.8	94.7	96.3	96.6	95.4	86.0	85.7
Egypt	97.1	94.8	100.0	94.2	101.0	111.9	98.3	69.4	77.5	89.5
Ethiopia	79.5	84.7	100.0	100.4	100.8	109.9	112.1	108.4	104.2	110.5
Guatemala	94.3	98.4	100.0	102.0	106.4	114.5	122.0	130.0	124.5	126.0
Hong Kong SAR[e]	102.4	98.2	100.0	101.9	105.0	112.2	117.4	117.2	115.3	119.5
India	106.4	105.9	100.0	99.4	101.0	107.4	108.5	112.8	107.6	109.0
Indonesia	104.3	104.3	100.0	95.1	89.1	89.9	94.1	95.5	89.9	93.4
Iran, Islamic Republic of	83.5	91.8	100.0	90.3	74.5	79.4	82.0	82.7	86.5	96.6
Israel	104.4	105.8	100.0	106.2	107.3	105.8	107.8	112.6	111.0	113.6
Korea, Republic of	101.1	101.4	100.0	103.3	108.6	107.5	106.3	109.6	110.8	104.3
Kuwait	97.5	99.0	100.0	100.6	102.1	105.3	108.9	108.3	106.3	107.6
Malaysia	101.8	101.1	100.0	99.3	98.6	89.7	86.6	85.3	89.1	87.8
Mexico	102.7	103.3	100.0	105.6	104.3	92.4	80.2	82.4	81.1	83.3
Morocco	104.6	102.4	100.0	101.5	102.0	101.8	104.1	103.5	104.3	104.5
Nigeria	89.1	89.6	100.0	106.7	113.9	110.4	98.0	91.7	99.6	110.6
Pakistan	96.6	99.6	100.0	97.2	103.7	109.5	112.9	114.4	100.9	89.0
Peru	94.4	93.1	100.0	98.8	96.7	95.1	94.1	98.0	93.8	94.8
Philippines	95.8	96.2	100.0	102.0	100.9	104.9	101.7	96.9	94.6	98.5
Qatar	103.7	97.7	100.0	103.7	106.3	115.4	118.4	117.0	113.7	114.7
Saudi Arabia	98.4	97.3	100.0	102.9	104.4	112.1	114.6	111.4	110.8	110.4
Singapore	90.7	95.7	100.0	101.7	101.2	99.0	98.2	97.0	96.2	95.8
South Africa	108.5	106.6	100.0	88.9	83.7	81.1	76.5	85.7	86.8	81.3
Sri Lanka	105.4	107.4	100.0	104.4	105.6	110.4	107.9	108.3	100.3	94.7
Taiwan Province of China	100.5	100.8	100.0	100.1	98.6	98.9	98.8	104.2	103.4	100.7
Thailand	101.2	100.3	100.0	103.7	99.9	100.0	97.0	100.1	103.6	108.3
Turkey	110.1	97.1	100.0	98.7	94.4	92.1	90.8	80.7	68.0	68.1
United Arab Erirates	107.2	100.1	100.0	100.9	103.4	113.0	114.9	115.0	115.6	113.3
Uruguay	92.0	96.5	100.0	106.8	103.3	104.7	106.9	117.9	103.7	102.2
Viet Nam	94.7	94.2	100.0	104.9	108.1	112.8	116.0	115.3	114.7	117.8

Source: UN DESA.

a 2012=100.

b CPI-based indices. The real effective exchange rate gauges the effect on international price competitiveness of currency changes and inflation differentials. A rise in the index implies a fall in competitiveness and vice versa.

c Average for the first ten months.

d Starting in 2010, data for Ukraine excludes the temporarily occupied territory of the Autonomous Republic of Crimea and Sevastopol.

e Special Administrative Region of China.

Table A.11
Free market commodity price indices

Index: Year 2015=100

	Non-fuel commodities							
	Food	Tropical beverages	Vegetable oilseeds and oils	Agricultural raw materials	Minerals and metals	All groups	All groups excluding fuels	Fuels
2010	111	110	121	142	136	142	129	150
2011	135	144	151	177	164	182	158	198
2012	127	112	152	143	153	177	145	197
2013	120	90	136	131	138	170	131	194
2014	118	111	123	115	121	157	119	180
2015	100	100	100	100	100	100	100	100
2016	104	97	107	100	105	91	104	83
2017	103	94	106	105	116	106	110	104
2018	96	86	100	103	118	123	109	132
2016								
I	95	91	98	93	95	76	95	65
II	104	94	110	99	102	90	102	83
III	109	101	109	101	110	94	108	86
IV	108	101	110	105	111	101	109	96
2017								
I	109	99	109	114	117	107	113	104
II	105	93	104	103	112	101	108	97
III	100	93	107	102	118	104	110	100
IV	97	90	106	101	119	113	110	115
2018								
I	100	90	107	105	124	120	114	124
II	100	90	106	105	121	126	112	135
III	92	80	95	103	113	126	104	140
IV	94	82	92	100	114	121	105	131
2019								
I	96	79	94	101	120	115	109	119
II	97	80	89	101	123	117	110	121
III	98	81	92	97	130	112	114	110

Source: UNCTADSTAT.

Table A.12
World oil supply and demand

	2011	2012	2013	2014	2015	2016	2017	2018	2019[a]
World oil supply[b,c] (*millions of barrels per day*)	**86.9**	**89.0**	**89.3**	**91.7**	**94.3**	**94.7**	**95.5**	**98.2**	**97.7**
Developed economies	16.1	17.0	18.1	20.1	21.4	21.0	22.0	24.7	26.5
Economies in transition	13.7	13.7	13.9	14.0	14.1	14.3	14.4	14.7	15.0
Developing economies	55.0	56.2	55.1	55.3	56.6	57.1	56.8	56.5	53.9
OPEC	35.8	37.5	37.7	37.7	39.1	39.6	39.5	39.5	37.3
Non-OPEC	19.2	18.7	17.4	17.6	17.6	17.5	17.2	16.9	16.5
Processing gains[d]	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.4
Global biofuels[e]	1.9	1.9	2.0	2.2	2.3	2.4	2.4	2.6	2.8
World total demand[f]	**89.5**	**90.7**	**92.0**	**93.2**	**95.0**	**96.1**	**97.9**	**99.2**	**100.5**
Oil prices *(dollars per barrel)*									
OPEC basket[g]	107.5	109.5	105.9	96.3	49.5	40.8	52.4	69.8	64.1
Brent oil	110.9	112.0	108.9	98.9	52.3	43.7	54.2	71.2	63.4

Source: UN DESA, International Energy Agency; U.S. Energy Information Administration; and OPEC.

a Partly estimated.

b Including global biofuels, crude oil, condensates, natural gas liquids (NGLs), oil from non-conventional sources and other sources of supply.

c Totals may not add up because of rounding.

d Net volumetric gains and losses in the refining process and marine transportation losses.

e Global biofuels comprise all world biofuel production including fuel ethanol from Brazil and the United States.

f Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning.

g As of January 2019, the basket price excludes the Qatari crude "Qatar Marine".

Table A.13
World trade:[a] changes in value and volume of exports and imports, by major country group

Annual percentage change

	2011	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Dollar value of exports											
World	**18.9**	**1.5**	**2.7**	**1.9**	**-10.9**	**-2.2**	**9.9**	**10.3**	**-1.7**	**3.3**	**4.9**
Developed economies	**15.6**	**-1.6**	**3.3**	**3.2**	**-9.6**	**0.3**	**8.4**	**8.4**	**-0.4**	**3.6**	**4.8**
North America	14.4	3.5	3.2	3.9	-6.2	-2.2	6.3	6.5	-1.1	3.6	4.7
Europe	16.6	-3.1	4.9	3.2	-10.5	0.8	8.9	9.3	-0.4	3.4	4.6
Developed Asia and Pacific	11.5	-2.3	-6.6	1.8	-11.7	3.4	10.5	7.1	0.8	5.1	5.7
Economies in transition	**30.6**	**3.2**	**-0.6**	**-5.7**	**-28.7**	**-11.7**	**21.9**	**20.8**	**-1.7**	**2.9**	**4.9**
South-Eastern Europe	20.8	-6.1	15.3	4.1	-10.2	9.2	15.1	15.7	2.5	6.3	7.2
Commonwealth of Independent States and Georgia[d]	31.0	3.6	-1.1	-6.1	-29.5	-12.8	22.3	21.2	-2.0	2.7	4.8
Developing economies	**22.6**	**5.5**	**2.3**	**1.0**	**-11.1**	**-4.7**	**11.2**	**12.0**	**-3.3**	**2.8**	**5.2**
Latin America and the Caribbean	19.4	1.9	0.1	-3.2	-12.0	-3.1	11.2	8.7	-0.3	3.0	5.1
Africa	15.7	7.9	-10.4	-3.5	-27.9	-7.8	16.6	11.1	-2.0	2.8	5.4
East Asia	20.9	5.1	5.1	4.1	-5.9	-5.1	10.4	12.1	-4.6	2.4	4.7
South Asia	24.5	0.9	3.2	-4.4	-9.0	2.2	13.6	10.7	-2.7	4.3	6.2
Western Asia	36.1	11.2	0.3	-2.5	-23.5	-6.7	11.6	15.8	-0.6	3.9	6.5
Dollar value of imports											
World	**19.0**	**1.2**	**2.7**	**2.1**	**-10.0**	**-2.5**	**9.7**	**9.8**	**-1.5**	**3.1**	**4.9**
Developed economies	**16.2**	**-2.0**	**1.7**	**3.0**	**-9.9**	**-0.5**	**8.6**	**9.0**	**-0.2**	**3.1**	**4.4**
North America	13.6	3.0	0.1	3.4	-4.3	-1.9	7.0	7.1	-0.4	3.7	4.8
Europe	16.2	-5.3	3.7	3.0	-11.2	0.8	9.1	9.8	0.1	3.0	4.4
Developed Asia and Pacific	22.9	5.3	-5.4	1.5	-16.8	-4.5	9.5	9.6	-1.0	1.5	3.9
Economies in transition	**27.8**	**8.5**	**3.3**	**-9.1**	**-28.3**	**-4.7**	**19.2**	**10.7**	**0.8**	**4.1**	**5.4**
South-Eastern Europe	20.0	-6.6	4.9	4.1	-14.0	5.3	14.6	16.3	2.2	5.7	6.4
Commonwealth of Independent States and Georgia[d]	28.4	9.6	3.2	-9.9	-29.3	-5.6	19.6	10.1	0.6	4.0	5.3
Developing economies	**22.6**	**5.2**	**4.1**	**1.9**	**-8.8**	**-5.1**	**10.7**	**10.8**	**-3.4**	**3.1**	**5.6**
Latin America and the Caribbean	20.7	5.1	4.4	-0.2	-2.4	-14.0	5.1	9.7	-1.5	2.5	4.7
Africa	15.4	3.4	5.6	1.7	-17.0	-6.7	5.8	10.2	-0.7	5.5	7.7
East Asia	24.5	4.9	5.0	2.9	-9.9	-3.0	12.8	12.2	-4.7	3.0	5.3
South Asia	24.4	6.0	-3.6	-3.9	-7.5	0.7	17.8	11.4	-3.3	4.2	8.3
Western Asia	20.5	7.3	4.7	3.9	-6.9	-6.7	5.8	5.3	-0.9	2.1	4.7
Volume of exports											
World	**7.1**	**3.3**	**3.2**	**4.2**	**3.1**	**2.5**	**5.5**	**3.9**	**0.2**	**2.3**	**3.2**
Developed economies	**5.9**	**2.2**	**2.7**	**4.5**	**4.7**	**2.8**	**4.9**	**3.1**	**1.5**	**2.3**	**3.0**
North America	6.7	3.3	3.3	4.6	1.0	0.3	3.0	3.1	-0.5	2.3	3.0
Europe	6.6	2.0	2.6	3.9	6.1	3.5	5.4	3.0	2.0	2.2	2.8
Developed Asia and Pacific	-0.2	1.3	2.0	8.5	3.9	3.0	5.9	3.8	1.9	3.3	4.0
Economies in transition	**2.4**	**1.3**	**2.6**	**-0.5**	**2.0**	**3.0**	**6.0**	**5.9**	**2.9**	**3.3**	**3.4**
South-Eastern Europe	7.5	1.7	11.2	5.4	7.9	10.6	9.0	8.3	5.8	5.4	5.3
Commonwealth of Independent States and Georgia[d]	2.2	1.3	2.2	-0.8	1.7	2.7	5.8	5.7	2.7	3.2	3.3

Table A.13
World trade[a]: Changes in value and volume of exports and imports by major country group (*continued*)

Annual percentage change

	2011	2012	2013	2014	2015	2016	2017	2018	2019[b]	2020[c]	2021[c]
Developing economies	**9.4**	**5.0**	**3.9**	**4.1**	**1.0**	**2.0**	**6.3**	**4.8**	**-1.7**	**2.2**	**3.5**
Latin America and the Caribbean	6.6	2.9	1.1	1.1	4.1	1.6	2.7	4.4	1.7	2.1	2.9
Africa	-0.2	6.7	-8.6	3.8	-0.9	4.2	7.5	4.8	2.9	3.8	4.7
East Asia	9.9	4.6	6.6	5.7	1.0	1.4	7.8	4.4	-3.5	1.7	3.3
South Asia	12.6	2.7	4.2	3.0	-1.3	7.0	5.8	9.1	-3.5	2.6	4.0
Western Asia	14.2	8.9	2.3	1.4	0.6	1.5	3.2	4.4	1.5	3.1	4.1
Volume of imports											
World	**7.7**	**2.9**	**3.4**	**3.6**	**2.7**	**2.4**	**5.8**	**3.9**	**0.4**	**2.4**	**3.2**
Developed economies	**5.1**	**0.9**	**2.1**	**4.7**	**5.6**	**3.2**	**4.8**	**3.3**	**1.6**	**2.2**	**2.7**
North America	5.6	2.9	1.6	4.5	4.5	1.7	4.6	4.1	0.9	2.8	3.1
Europe	4.7	-0.6	2.3	4.5	6.9	4.5	4.9	2.9	2.1	2.0	2.5
Developed Asia and Pacific	7.0	5.4	2.1	5.9	1.1	-1.0	4.5	3.7	0.5	1.3	2.3
Economies in transition	**16.8**	**9.4**	**2.7**	**-6.1**	**-16.2**	**0.1**	**12.9**	**4.2**	**2.7**	**3.3**	**3.6**
South-Eastern Europe	5.8	0.0	3.0	6.6	3.4	7.9	9.2	8.4	5.0	4.7	4.6
Commonwealth of Independent States and Georgia[d]	17.7	10.1	2.7	-6.9	-17.6	-0.6	13.3	3.7	2.5	3.1	3.5
Developing economies	**10.8**	**5.2**	**5.2**	**3.0**	**0.1**	**1.5**	**7.0**	**4.8**	**-1.6**	**2.6**	**4.1**
Latin America and the Caribbean	10.4	4.5	3.1	0.0	-1.8	-2.3	5.1	5.4	0.1	1.8	3.0
Africa	3.6	7.2	7.2	-1.5	-1.4	0.0	4.2	3.3	2.3	4.7	5.7
East Asia	11.6	4.8	7.0	4.9	1.3	3.5	7.9	4.6	-2.9	2.4	3.8
South Asia	14.2	5.1	-5.0	-1.0	-2.9	2.5	13.7	13.4	-0.6	5.2	7.2
Western Asia	10.7	6.9	5.8	3.7	0.2	-3.1	2.1	-0.1	0.2	1.2	2.9

Source: UN DESA.

a Includes goods and services.

b Partly estimated.

c Baseline scenario forecasts, based in part on UN DESA World Economic Forecasting Model.

d Georgia officially left the Commonwealth of Independent States on 18 August 2009. However, its performance is discussed in the context of this group of countries for reasons of geographic proximity and similarities in economic structure.

Table A.14
Balance of payments on current accounts, by country or country group, summary table

Billions of dollars

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019[a]
Developed economies	**-184.8**	**-213.8**	**-150.1**	**-1.4**	**-20.9**	**23.0**	**105.1**	**189.6**	**86.6**	**40.4**
Japan	220.9	129.6	60.1	46.4	36.4	136.5	197.0	201.6	174.7	**213.4**
United States	-431.3	-445.7	-426.8	-348.8	-365.2	-407.8	-428.4	-439.6	-491.0	**-521.3**
Europe[b]	131.9	201.3	353.7	414.2	400.8	412.0	430.8	515.6	486.2	**432.3**
EU-15	47.5	130.5	249.9	281.5	289.4	302.6	343.9	439.7	384.9	**339.8**
EU-13	-50.8	-49.6	-30.5	-1.4	-4.2	1.0	7.3	7.3	-6.8	**-10.9**
Economies in transition	**62.2**	**97.6**	**58.9**	**12.5**	**51.5**	**48.3**	**-2.4**	**15.4**	**102.5**	**91.2**
South-Eastern Europe	-6.1	-9.4	-8.4	-5.6	-6.1	-3.8	-3.9	-5.0	-5.5	**-5.7**
Commonwealth of Independent States and Georgia[c]	68.3	107.0	67.3	18.2	57.6	52.2	1.5	20.4	107.9	**96.9**
Developing economies	**395.4**	**456.5**	**478.8**	**344.2**	**345.5**	**157.1**	**191.9**	**259.6**	**155.2**	**123.7**
Net fuel exporters	310.8	620.6	560.7	423.3	274.6	-131.9	-107.8	50.4	270.0	**218.2**
Net fuel importers	84.6	-164.1	-81.9	-79.1	71.0	289.0	299.6	209.2	-114.8	**-94.5**
Latin America and the Caribbean	**-98.1**	**-111.1**	**-143.9**	**-167.2**	**-179.5**	**-167.7**	**-95.2**	**-75.9**	**-95.9**	**-82.6**
Net fuel exporters	0.3	11.0	-3.6	-2.4	-10.9	-36.9	-17.3	-2.9	-8.9	**-13.3**
Net fuel importers	-98.5	-122.2	-140.2	-164.8	-168.5	-130.8	-77.9	-73.1	-87.1	**-69.3**
Africa	**4.6**	**-13.5**	**-22.0**	**-62.4**	**-118.4**	**-159.7**	**-118.7**	**-74.0**	**-74.6**	**-82.3**
Net fuel exporters	46.2	43.3	62.6	22.7	-38.7	-78.0	-42.6	-14.9	-5.5	**-13.1**
Net fuel importers	-41.6	-56.8	-84.6	-85.1	-79.7	-81.7	-76.1	-59.1	-69.2	**-69.2**
Western Asia	**103.3**	**278.7**	**355.2**	**287.9**	**203.7**	**-65.6**	**-70.4**	**-4.3**	**131.1**	**126.3**
Net fuel exporters	150.4	358.2	419.5	361.7	251.7	-34.3	-32.5	51.8	167.6	**157.7**
Net fuel importers	-47.0	-79.5	-64.3	-73.8	-48.0	-31.3	-37.9	-56.2	-36.4	**-31.3**
East and South Asia	**385.6**	**302.5**	**289.4**	**285.9**	**439.6**	**550.1**	**476.2**	**413.8**	**194.5**	**162.3**
Net fuel exporters	27.3	61.7	-5.0	-9.0	-10.3	-12.4	3.4	4.6	-8.8	**1.1**
Net fuel importers	358.3	240.8	294.5	294.9	449.9	562.5	472.8	409.2	203.3	**161.2**
World residual[d]	**272.8**	**340.3**	**387.5**	**355.4**	**376.2**	**228.5**	**294.5**	**464.6**	**344.2**	**255.2**

Source: UN DESA based on data from IMF International Financial Statistics and UN DESA estimates.

a Partly estimated.

b Europe consists of the EU-15, the EU-13 and Iceland, Norway and Switzerland (Table A).

c Georgia officially left the Commonwealth of Independent States on 18 August 2009. However, its performance is discussed in the context of this group of countries for reasons of geographic proximity and similarities in economic structure.

d Statistical discrepancy.

Table A.15
Net ODA from major sources, by type

Donor group or country	Growth rate of ODA (2016 prices and exchange rates)					ODA as a percentage of GNI	Total ODA (millions of dollars)	Percentage distribution of ODA by type, 2018			
								Bilateral	Multilateral		
	1997–2007	2007–2015	2016	2017	2018	2018	2018	Total	Total (United Nations & Other)	United Nations	Other
Total DAC countries	**5.9**	**8.8**	**10.7**	**-0.3**	**-2.7**	**0.30**	**149333**	**70.8**	**29.2**	**4.5**	**24.7**
Total EU	**6.4**	**9.4**	**14.5**	**-0.1**	**-1.2**	**0.48**	**87392**	**62.4**	**37.6**	**4.8**	**32.8**
Austria	11.9	12.0	22.2	-25.9	-12.3	0.26	1167	41.4	58.6	2.7	55.9
Belgium	7.1	10.9	19.0	-7.9	1.0	0.44	2361	57.1	42.9	6.2	36.7
Denmark	3.4	5.0	-8.2	-0.1	0.0	0.71	2568	67.8	32.2	07.9	24.2
Finland	8.3	10.8	-18.0	-0.4	-14.6	0.36	983	47.9	52.1	11.3	40.8
France[a]	2.6	5.1	6.6	14.8	4.4	0.44	12504	56.0	44.0	3.9	40.1
Germany	4.5	8.2	36.4	-2.3	-3.0	0.63	25886	76.0	24.0	2.1	21.9
Greece	9.6	13.6	55.2	-17.0	-12.0	0.13	290	13.3	86.7	5.4	81.3
Ireland	18.8	19.5	12.9	2.0	6.3	0.31	934	56.8	43.2	11.5	31.7
Italy	4.6	13.0	26.4	12.3	-21.3	0.23	4900	39.1	60.9	4.5	56.4
Luxembourg	14.8	14.4	7.1	4.2	3.7	0.98	473	70.8	29.2	11.4	17.9
Netherlands	6.1	8.2	-13.4	-3.2	5.8	0.61	5616	64.1	35.9	8.7	27.2
Portugal	7.2	8.6	9.8	7.2	-15.6	0.15	341	25.5	74.5	2.2	72.3
Spain	13.7	16.9	202.4	-41.3	-4.6	0.18	2581	27.6	72.4	2.6	69.8
Sweden	7.3	9.6	-31.1	11.1	4.5	1.04	5847	65.6	34.4	14.2	20.2
United Kingdom	10.8	11.6	7.9	3.0	1.8	0.70	19455	63.3	36.7	4.1	32.7
Australia	8.6	9.8	-6.3	-13.1	3.8	0.23	3119	78.3	21.7	4.3	17.4
Canada	7.7	8.1	-5.3	4.9	5.0	0.27	4616	75.1	24.9	4.7	20.1
Japan	-1.8	0.2	1.5	13.7	-13.4	0.20	10064	73.7	26.3	4.5	21.7
New Zealand	9.2	7.7	-0.5	-4.6	25.6	0.28	556	83.3	16.7	8.3	8.5
Norway	10.0	10.7	7.9	-10.7	-4.2	0.94	4257	75.9	24.1	10.3	13.8
Switzerland	4.6	7.6	4.6	-12.1	-2.9	0.44	3091	75.3	24.7	7.7	17.0
United States	8.0	13.0	9.9	-1.0	-5.0	0.16	33741	88.6	11.4	2.8	8.6

Source: UN DESA, based on OECD/DAC online database, available from http://www.oecd-ilibrary.org/statistics.

a Excluding flows from France to the Overseas Departments, namely Guadeloupe, French Guiana, Martinique and Réunion.

Table A.16
Total net ODA flows from OECD Development Assistance Committee countries, by type

	Net disbursements at current prices and exchange rates (billions of dollars)									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Official Development Assistance	**105.4**	**104.9**	**122.8**	**120.6**	**128.4**	**135.0**	**126.9**	**134.7**	**137.2**	**131.6**
Bilateral official development assistance	**77.5**	**73.7**	**87.1**	**83.9**	**90.6**	**94.8**	**88.4**	**93.4**	**94.7**	**94.4**
in the form of:										
Technical cooperation	22.4	15.1	17.3	17.6	18.6	18.0	18.2	16.9	17.3	..
Humanitarian aid	6.8	6.5	8.8	8.6	9.3	9.7	8.5	10.5	13.1	..
Debt forgiveness	18.9	9.7	11.1	2.0	4.2	6.3	3.3	6.1	1.4	..
Bilateral loans	-2.4	-2.2	-1.1	2.5	3.8	1.9	2.6	1.4	5.2	..
Contributions to multilateral institutions[a]	**27.9**	**31.2**	**35.7**	**36.6**	**37.8**	**40.2**	**38.5**	**41.3**	**42.6**	**37.2**
of which are:										
UN agencies	5.3	5.9	5.9	6.2	6.5	6.5	6.6	6.9	6.8	7.6
EU institutions	10.1	12.0	13.5	14.2	13.6	13.7	12.0	12.8	13.3	12.0
World Bank	7.2	6.2	8.6	7.6	8.8	10.2	8.6	9.3	9.8	8.6
Regional development banks	2.5	2.4	3.2	3.1	3.2	4.1	3.9	3.9	4.0	3.2
Others	2.7	4.7	4.4	5.4	5.7	5.8	7.5	8.4	8.7	..
Memorandum item										
Bilateral ODA to least developed countries	17.4	19.7	23.5	24.3	28.2	30.7	27.4	30.0	26.3	..

Source: UN DESA, based on OECD/DAC online database, available from http://www.oecd.org/dac/stats/idsonline.

a Grants and capital subscriptions. Does not include concessional lending to multilateral agencies.

Table A.17
Commitments and net flows of financial resources, by selected multilateral institutions

Billions of dollars

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Resource commitments[a]	**193.7**	**245.4**	**163.8**	**189.8**	**130.8**	**185.0**	**119.9**	**245.4**	**256.7**	**224.8**
Financial institutions, excluding International Monetary Fund (IMF)	**114.5**	**119.6**	**106.8**	**96.5**	**98.8**	**99.2**	**99.9**	**106.9**	**108.0**	**114.6**
Regional development banks[b]	55.1	46.2	46.9	43.0	45.8	41.1	46.9	49.8	54.0	56.0
World Bank Group[c]	59.4	73.4	59.9	53.5	53.0	58.1	53.0	57.0	54.0	58.6
International Bank for Reconstruction and Development (IBRD)	32.9	44.2	26.7	20.6	15.2	18.6	23.5	29.7	22.6	23.0
International Development Association (IDA)	14.0	14.6	16.3	14.8	16.3	22.2	19.0	16.2	19.5	24.0
International Financial Corporation (IFC)[d]	12.4	14.6	16.9	9.2	11.0	10.0	10.5	11.1	11.9	11.6
International Fund for Agricultural Development (IFAD)	0.7	0.8	1.0	1.0	0.8	0.7	1.3	0.8	1.3	1.3
International Monetary Fund (IMF)	**68.2**	**114.1**	**45.7**	**82.5**	**19.6**	**72.7**	**6.2**	**123.9**	**132.9**	**89.9**
United Nations operational agencies[e]	**11.0**	**11.6**	**11.3**	**10.8**	**12.4**	**13.1**	**13.7**	**14.7**	**15.8**	**20.4**
Net flows	**54.6**	**64.6**	**78.7**	**35.1**	**8.8**	**-5.1**	**17.7**	**32.2**	**36.3**	**82.6**
Financial institutions, excluding IMF	**22.6**	**27.2**	**38.0**	**26.3**	**22.2**	**25.0**	**35.5**	**33.8**	**36.6**	**46.8**
Regional development banks[b]	15.7	9.9	10.5	8.6	5.7	11.2	15.4	14.2	13.1	14.2
World Bank Group[c]	6.9	17.2	27.6	17.7	16.5	13.8	20.1	19.6	23.6	32.7
International Bank for Reconstruction and Development (IBRD)	-2.1	8.3	17.2	8.0	7.8	6.4	9.0	10.0	13.2	17.4
International Development Association (IDA)	7.0	7.0	9.1	7.8	7.0	7.4	9.9	8.8	8.8	14.7
International Financial Corporation (IFC)	2.1	1.9	1.2	1.9	1.6	0.1	1.3	0.8	1.6	0.6
International Fund for Agricultural Development (IFAD)	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3
International Monetary Fund (IMF)	**32.0**	**37.4**	**40.7**	**8.9**	**-13.4**	**-30.1**	**-17.9**	**-1.5**	**-0.4**	**35.8**

Source: Annual reports of the relevant multilateral institutions, various issues.

a Loans, grants, technical assistance and equity participation, as appropriate; all data are on a calendar-year basis.

b African Development Bank (AfDB), Asian Development Bank (ADB), Caribbean Development Bank (CDB), European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank (IaDB) and the International Fund for Agricultural Development (IFAD).

c Data is for fiscal year.

d Effective 2012, data does not include short-term finance.

e United Nations Development Programme (UNDP), United Nations Population Fund (UNFPA), United Nations Children's Fund (UNICEF), and the World Food Programme (WFP).

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World Economic Situation and Prospects 2020

Energy transition and the global economy

The global economy has suffered a significant slowdown amid prolonged trade disputes and wide-ranging policy uncertainties. While a slight uptick in economic activity is forecast for 2020, the *World Economic Situation and Prospects 2020* warns that economic risks remain strongly tilted to the downside, aggravated by deepening political polarization and increasing scepticism over the benefits of multilateralism. These risks could inflict severe and long-lasting damage on development prospects. They also threaten to encourage a further rise in inward-looking policies, at a point when global cooperation is paramount.

Compounding the economic slowdown, rising global temperatures and the increasing frequency and intensity of weather-related shocks press home the urgent need for a dramatic shift in the global energy mix. The *World Economic Situation and Prospects 2020* explores the global economic implications of this energy transition. The transition to a cleaner energy mix will bring not only environmental and health benefits, but economic opportunities for many. However, without appropriate policy strategies, the costs and benefits will be unevenly distributed within and between countries.

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