Financing for Sustainable Development Report 2022

Inter-agency Task Force on Financing for Development

Bridging the Finance Divide

United Nations

Report of the Inter-agency Task Force
on Financing for Development

Financing for Sustainable Development Report 2022

United Nations

This report is a joint product of the members of the Inter-agency Task Force on Financing for Development. The Financing for Sustainable Development Office of the United Nations Department of Economic and Social Affairs serves as the coordinator and substantive editor of the Financing for Sustainable Development Report.

The online annex of the Task Force (http://developmentfinance.un.org) provides additional data and analysis on progress in implementation of the Financing for Development outcomes, including the Addis Ababa Action Agenda and relevant means of implementation targets of the Sustainable Development Goals.

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Foreword

As we release this report on financing for sustainable development, the world is under enormous and growing stress. And we, the international community, are failing to respond adequately. The COVID-19 pandemic is still raging, now in its third year. The climate crisis continues unabated and largely unaddressed, pollution and biodiversity loss continue to threaten the health of the planet, and multiple geopolitical conflicts are devastating untold lives.

The war in Ukraine is the latest in a cascade of crises for developing countries that continue to struggle to make development progress, achieve vaccine equity and achieve a just and safe recovery. The cost of energy, food and other commodities is rising, further intensifying volatility in global financial markets. There is a great danger that, as our collective attention shifts to the conflict, we neglect other crises that will not go away.

It would be a tragedy if donors increased their military expenditure at the expense of Official Development Assistance and climate action. It would also be self-defeating. Without more international support and a strengthened multilateralism, the world will diverge further, inequality will soar, and prospects for an inclusive and prosperous future will be further undermined.

We must not lose sight of the commitment of the 2030 Agenda to leave no one behind, especially at this perilous moment. Developed countries have been able to finance a rapid economic recovery from the pandemic, through massive fiscal support and aggressive monetary policy responses. But most developing countries can afford neither, despite international support. Instead, they continue to face increasingly high costs of lending and have had to cut their education and health budgets and other SDG investments, undermining not only their recovery, but also their medium and long-term development prospects.

Finance is both a contributor to the divergence we are seeing between developed and developing countries and a key to overcoming it. In my report, *Our Common Agenda*, I have identified key deficiencies in our global financial system that exacerbate inequalities and drive risk. This year's report on financing for sustainable development spells out actions designed to overcome the current paralysis of international policy-making and build a better multilateralism that can address the multiple crises we face.

We must close the financing gaps that prevent so many countries from investing in recovery, climate action and the SDGs. Developed countries must meet their ODA commitments, particularly to Least Developed Countries. We must take full advantage of our public development banks to scale up long-term financing. And we must immediately and fully finance the Access to COVID-19 Tools Accelerator so that vaccines can reach 70 per cent of the world's population during the first half of 2022.

To build a more sustainable, inclusive and resilient global economy that works for all, we must also reform the international financial architecture with rules that are inclusive, effective and fair. Our inability to address debt challenges in many countries speaks to the glaring inequities that continue to characterize our global economic order.

As well as addressing the weaknesses of the Common Framework for Debt Treatment, we must urgently work toward a more comprehensive solution to sovereign debt challenges. The United Nations can provide a neutral and inclusive venue to bring together all countries, major creditors, debtors and other relevant stakeholders to discuss how to reform the international debt architecture. This report provides the basis for such discussions.

It is time to abandon short-term profit maximization for the few and move towards a long-term outlook that integrates economic, social and environmental justice and opportunity for all. To that end, we must align all financing policies with SDG and climate priorities—government budgets, tax systems, investments, regulatory frameworks and corporate reporting requirements. And we must change how we measure, and ultimately think of progress. In a world of interlinked and systemic risk, GDP is no longer an appropriate metric of how we measure wealth and shared prosperity. We must find ways to take vulnerabilities into account more systematically in the allocation of concessional financing and actions on debt.

I commend this report's recommendations on how to close financing gaps and create a better international financing architecture. It is time to change course.

Secretary-General António Guterres

Preface

Halfway into the implementation of the 2030 Agenda, the world is at a watershed. The COVID-19 pandemic has caused a severe setback to the achievement of the Sustainable Development Goals (SDGs). The military conflict in Ukraine and heightened geopolitical risks are threatening the global recovery and pushing the most vulnerable further behind. The international community must join forces to prevent further suffering and loss. We must work together to mobilize all resources needed to secure a path to recovery and sustainable development for all.

In 2021, an additional 77 million people were living in poverty, and different capacities to respond to the COVID-19 crisis have caused sharp increases in inequality between and within countries. Growing debt vulnerabilities in many developing countries and increasing climate-related risks weigh on the outlook and may lead to a lost decade for sustainable development. Sharply rising prices for oil, gas and wheat, among others, are further adding to these risks for net importers. Concerted action is needed at all levels to close financing gaps, address debt risks, and support a sustainable, inclusive and resilient recovery.

The *2022 Financing for Sustainable Development Report* identifies a "great finance divide" as a main driver of the divergent recovery. Developed countries were able to borrow record sums at ultra-low interest rates to support their people and economies, but the pandemic response and investment in recovery of poor countries was limited by fiscal constraints.

This joint report, by over 60 agencies of the United Nations system and partner international organizations, provides analysis and puts forward policy recommendations to overcome this "finance divide" and enhance developing countries' access to financing for recovery and productive and sustainable investment. Three key messages emerge:

- **Financing gaps and rising debt risks must be urgently addressed.** All sources of finance need to be mobilized, and resources must be spent well. With limited options to raise additional domestic resources in the current moment, the international community must meet ODA commitments, support long-term sustainable finance, and address rising debt risks, including by strengthening and expanding the Common Framework for debt treatment beyond DSSI and working towards a more comprehensive solution to address sovereign debt challenges.
- **All financing flows must be aligned with sustainable development to support a greener, more inclusive, and resilient recovery.** To account for the interlinkages between the social, environmental, and economic dimensions of development—highlighted again by the pandemic—fiscal policies must address inequalities and support a just transition to a low-carbon world. Policy actions can include more progressive tax systems and stronger social protection, the pricing of carbon emissions and investment in sustainable and resilient infrastructure. Policymakers should also promote credible norms and consistent reporting standards for sustainable private investment products.
- **Enhanced transparency and a more complete information ecosystem will strengthen the ability of countries to manage risks and use resources well and in line with sustainable development.** Better quality data is needed to: enable monitoring and accountability; support private and public sector planning and management; and strengthen financial integrity. Higher quality and more complete information can also make sovereign debt markets more efficient.

The report begins with an assessment of the global macroeconomic context (Chapter I). The thematic chapter (Chapter II) explores the "great finance divide", impacts of and remedies to high borrowing costs for developing countries. The remainder of the report (Chapters III.A to III.G and IV) discusses progress in the seven action areas of the Addis Agenda, and on data. The report also responds to two specific requests included in the outcome of the 2021 ECOSOC FfD Forum: it discusses the role of credit rating agencies (Chapter II), and the potential use of the multidimensional vulnerability index (Chapters III.C, III.E, and IV.).

Additional analysis and data are presented in the comprehensive online annex of the Task Force (http://develpomentfinance.un.org).

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Overview and key messages



Overview and key messages

A year ago, the Inter-agency Task Force warned of the risk of a diverging world that could lead to a lost decade for sustainable development. Now, at the halfway mark to implementation of the 2030 Agenda, divergence is our reality. While many developed countries saw a rapid economic recovery from the pandemic shock in 2021, developing countries did not regain lost ground. In one in five developing countries, GDP per capita was projected to remain below 2019 levels by the end of 2023. This is even before accounting for the fallout from the war in Ukraine. The result is a severe setback to the Sustainable Development Goals (SDGs), with an additional 77 million people living in extreme poverty in 2021 and a dramatic increase in inequality.

Unless the international community reverses course, this divergence will persist, and may further intensify over the coming months and years. Global geopolitical tensions are rising, fueling uncertainty. The war in Ukraine has led to sharply rising commodity prices, further supply bottlenecks, and increased financial market volatility and downside economic risks, raising the specter of stagflation. The tightening of global financing conditions in the face of rising inflation will put more countries at risk of debt distress, further constraining their fiscal space and hampering economic growth. Today, 60 per cent of least developed and other low-income countries are already at high risk of, or in, debt distress. Vaccine inequity remains high—the number of vaccine doses per 100 people in least developed countries (LDCs) stood at just 23.9, against 147.4 in developed countries. Climate change will continue to exacerbate financing challenges, particularly in vulnerable countries.

The "great finance divide" has been a key driver of divergence. Developed countries borrowed record sums at ultra-low interest rates to support their economies and people through the pandemic, and to invest in recovery. Despite support by the international community, the pandemic response of poor countries has been limited by fiscal constraints. Tax revenues declined, reflecting downward trends in overall economic activity, and many countries were forced to reprioritize expenditure and cut spending in areas critical to the SDGs, such as education and public investment.

In crisis situations, access to long-term financing—international public finance and lending by development banks, as well as commercial financing—enables countries to respond and recover. Yet, for many countries, greater perceived and actual default risks are translating into higher borrowing costs in financial markets. Sovereign spreads and risk premia may seem removed from everyday life; but in the case of sovereign debt, they have a direct impact on people's lives. Sovereign borrowing in foreign currency has historically been expensive—it is associated with comparatively higher risk premia compared to other asset classes, such as corporate bonds or equities. Elevated sovereign borrowing costs also generally raise the cost of domestic private sector borrowing, further limiting investment in many developing countries.

Financing can stimulate growth—but only if it is used well. Governments' ability to borrow affordably is mainly dependent on national actions, including good governance, public financial management and institutional frameworks. Productive investments, including in resilient infrastructure, can improve debt sustainability in the long run: a growing economy helps to raise domestic tax and other revenue. A strengthened domestic financial sector can intermediate a growing savings pool into long-term financing for sustainable development. These are issues at the core of the Addis Ababa Action Agenda, but they also represent a medium- to long-term project.

In the face of a global crisis, near-time actions and additional international support are also needed. The international community has already taken significant steps to address the socioeconomic fallout from the COVID-19 pandemic. A record new allocation of special drawing rights (SDRs), provision of emergency financing at large scale and the G20 debt service suspension initiative (DSSI) have helped to finance the pandemic response and limit the number of countries in debt distress thus far. But additional efforts will be needed to close the large recovery gap, address the fallout from the war in Ukraine and rising food and energy prices in particular, and avoid scarring.

This *2022 Financing for Sustainable Development Report* of the Inter-agency Task Force lays out recommendations to enhance developing countries' access to financing for their crisis response, and for productive investments in recovery, climate action and the SDGs. Three key messages emerge from the Task Force's analysis and inform recommendations across the Addis Agenda action areas:

- **First, financing gaps and rising debt risks must be urgently addressed.** This includes raising resources from all sources of finance, as well as ensuring that these resources are spent well. Given short-term constraints, an increase in long-term sustainable public finance is needed. The international community also needs to step up efforts to address sovereign debt challenges;
- **Second, all financing flows must be aligned with sustainable development.** Recent crises have once again highlighted the interlinkages between the social, environmental and economic dimensions of development. They have underscored the need to address climate change and inequalities head on to preserve economic prospects. Growth can, in turn, help to finance environmental and social action. This implies, for example, adjusting fiscal policies, addressing greenwashing, increasing climate finance and also rethinking incentives in the international financial system;
- **Third, enhanced transparency and a more complete information ecosystem will strengthen the ability of countries to manage risks and use resources well and in line with sustainable development.** Better quality data is needed not only to enable monitoring and accountability, but also to support public and private sector planning and management, and financial integrity. Sovereign debt markets can also be more efficient with higher quality and more complete information.

Addressing the financing gap and fiscal pressures

Domestic actions are at the core of financing sustainable development. For additional financing to translate into long-term, positive outcomes, resources have to be used well. Integrated national financing frameworks (INFFs) can provide a framework to align financing policies and strategies with investment priorities and sustainable development strategies.

- **Good governance and the effective use of proceeds,** including strengthening institutions and the enabling environment, are preconditions for investments to deliver value for money. Improved public financial management and better procurement systems can prevent corruption, including in emergency spending programmes. Such actions mitigate country investment risks and can thus lower the cost of borrowing for both public and private actors;
- Developing **local financial systems** should remain a priority for developing countries and international partners. Deeper and broader local financial markets improve access to long-term financing for public and private actors, widen the investor base and reduce reliance on hard currency financing;
- Boosting **domestic revenue mobilization** requires medium-term planning and strong political will for implementation, while short- and medium-term actions can focus on tackling major sources of noncompliance, including illicit financial flows and broadening the tax base.

The official sector should increase long-term, sustainable finance and provide additional liquidity for countries in need.

- Official development assistance (ODA) providers must **scale up and meet ODA commitments,** especially to LDCs, with a greater volume of grants; as an immediate priority, the financing gap of the Access to COVID-19 Tools Accelerator **(ACT-Accelerator)** must be closed; additional support for Ukraine and refugees must not come at the expense of cross-border ODA flows to other countries in need;
- **Public development banks** have an important role to play in supporting long-term financing. They and other official providers should consider more systematic use of state-contingent clauses in their lending to provide breathing room to countries hit by shocks. The system of development banks should be strengthened by extending capacity and financial support to national institutions; multilateral and regional development banks can, in turn, benefit from national banks' detailed knowledge of local markets;
- **Blended finance** can reduce borrowing costs but needs to focus on where it can add value, with minimum concessionality to avoid diverting resources from social needs;
- **Official debt swaps**, building on regional initiatives, can create space for investments in recovery, the SDGs and climate action, particularly for countries that are fiscally constrained but do not have unsustainable debt burdens;
- **Rechanneling unused SDRs**: voluntary channeling of SDRs to countries most in need can strengthen the impact of the original allocation.

The international community also needs to address rising debt risks and the high cost of borrowing. The Common Framework for debt treatment beyond DSSI (the Common Framework) represents a meaningful step forward in the international debt architecture. But progress has been slow.

- **Strengthen the Common Framework**, including by taking timelier action; clarifying how comparability of treatment for commercial creditors will be implemented; expanding eligibility to highly indebted middle-income countries; and providing debt service suspension for the duration of negotiations;
- The international community should work towards a more **comprehensive solution to address sovereign debt challenges.**

Aligning all financing policies with SDG and climate priorities

Governments need to ensure that inequalities are reduced through use of the fiscal system.

- **Progressive tax systems** could directly reduce inequalities; expenditures should aim at reducing inequality, for example, through strengthened **social protection**;

- Gender equality can be advanced with both **gender-responsive budgeting** and **gender-responsive tax policies.**

The pandemic has emphasized the importance of financial, economic and trade systems in supporting health outcomes.

- Trade and investment policy actions are needed to address vaccine inequality and **improve access to medical products** and other technologies vital for combating the pandemic.

To address the climate crisis, there needs to be a just transition to a low-carbon world with greening of both public and private finance.

- **Pricing of carbon emissions** is a powerful tool alongside ending inefficient fossil fuel subsidies and using regulatory instruments to promote a sustainable economy;
- Countries should accelerate **investments in a sustainable energy transition**, especially given current high fossil fuel prices; development partners should align and target their support accordingly and can also use targeted blended finance instruments;
- To improve the positive impact of sustainable private investment, policymakers can promote **credible norms for sustainable investment products**, with greater disclosure and more rights for individual investors to express their sustainability preferences;
- Regulators need to adopt **globally consistent corporate sustainability reporting standards** for both privately owned and listed companies to allow policymakers, consumers and investors to integrate sustainability issues into their decisions.

Improving information ecosystems, data and transparency

Both public policy actors and private markets rely on data and access to information in their financing decision-making. However, gaps remain in data coverage and quality, particularly in regards to sustainability issues and related corporate reporting (see above), and stark divides persist between developed and developing countries. New technologies and digitalization present opportunities to close these gaps across the Addis Agenda. While enormous efforts and progress have been made, as catalogued in this report, some sectors of public and private finance have not yet effectively taken advantage of advances in technology.

- **Broadening the scope and improving the inclusivity of international sharing of tax information,** so that more countries are able to receive information that is suitable to their capacities and needs, will help to combat tax evasion and eliminate illicit financial flows;
- **Transparency in debt financing** is essential for effective debt management, debt crisis prevention and resolution. It has been a major focus of international support, but challenges remain;
- **Credit rating agencies** could provide valuable information to investors by making a clear distinction between model-based and discretionary components of sovereign ratings. **Long-term sovereign ratings could also be developed** to complement existing assessments, including by integrating climate transition pathways, as a core part of their methodologies;
- Developing measures of sustainable development and **data indicators beyond GDP could help to better inform policymaking** and direct actions towards sustainable development priorities.

About this report

The 2022 *Financing for Sustainable Development Report* of the Inter-agency Task Force begins with an assessment of the global macroeconomic context (chapter I). The thematic chapter (chapter II) explores the "great finance divide", the impacts of high borrowing costs for developing countries as well as recommended remedies. The remainder of the report (chapters III.A to III.G and IV) discusses progress in the seven action areas of the Addis Agenda, and advances in data. Each chapter gives updates on implementation and lays out the challenges and policy options at both the national and international levels—including in response to the current crisis and pandemic and climate risks. The report also responds to two specific requests included in the outcome of the 2021 Economic and Social Council Financing for Development Forum: it discusses the role of credit rating agencies (chapter II) and the potential use of the multidimensional vulnerability index (chapters III.C, III.E and IV).

The Inter-agency Task Force is made up of more than 60 United Nations agencies, programmes and offices, the regional economic commissions and other relevant international institutions. The report and its online annex draw on their combined expertise, analysis and data. The major institutional stakeholders of the financing for development process—the World Bank Group, the International Monetary Fund, the World Trade Organization, the United Nations Conference on Trade and Development and the United Nations Development Programme— play a central role, jointly with the Financing for Sustainable Development Office of the United Nations Department of Economic and Social Affairs, which also serves as the coordinator of the Inter-agency Task Force and substantive editor of the report.

The global economic context and its implications for sustainable development



Chapter I

The global economic context and its implications for sustainable development[1]

1. Introduction

The global economic outlook remains highly fragile and uncertain, clouded by the war in Ukraine and continued pandemic risks. Beyond the worsening humanitarian crisis, the economic effects from the war in Ukraine are reverberating across the world. In many countries, the war has exacerbated supply bottlenecks and further fuelled inflationary pressures, leading to rising risks of stagflation. A possible pandemic resurgence also remains a significant threat to the growth outlook of many countries.

Monetary authorities are facing difficult policy choices amid a challenging environment. Even before the latest sharp increase in global oil and food prices driven by geopolitical events, rising inflationary pressures had prompted many central banks to tighten monetary policy stances despite the highly uncertain economic recovery. However, a further tightening of global financial conditions—which might be compounded by a renewed "flight to safety"—could trigger sharp market corrections, leading to large capital outflows from developing countries and a surge in debt servicing costs. This would likely increase debt sustainability concerns and debt distress risks, and could prompt Governments to further tighten fiscal policies, which would further derail growth.[2]

Growing headwinds to the global economy are compounding the risk of a lost decade for sustainable development highlighted in last year's report. Compared to developed economies, the recovery from the pandemic has been weaker in developing economies, as reflected in larger output losses compared to pre-pandemic projections. Slower vaccination progress, a sluggish labour market recovery, limited fiscal space and tightening monetary conditions are among the key factors weighing on growth in developing countries. More subdued global growth may further dampen the recovery outlook for developing countries hit hard by the pandemic and exacerbate inequalities, posing an even larger threat to sustainable development and the achievement of the Sustainable Development Goals (SDGs). For many developing economies, the pandemic had already worsened pre-existing macroeconomic and structural vulnerabilities, including weak labour markets, elevated debt and subdued investment growth.

In many of the world's poorest countries, the pandemic has reversed several years of income gains. The number of extreme poor is expected to remain above pre-pandemic levels over the outlook period. Many countries are at risk of sinking deeper into a cycle of unsustainable debt and austerity while incidents of poverty and hunger are on the rise. This increasingly challenging environment for policymakers is compounded by growing interlinkages between economic, social and environmental factors. The increased frequency and intensity of climate-related shocks is disproportionately affecting some of the world's most vulnerable economies, leaving them further behind. Ongoing structural shifts in the global landscape, in particular the accelerated pace of automation and digitalization and the changing nature of jobs, could also disproportionately harm certain segments of the population, exacerbating inequalities.

Most developing countries are constrained in their ability to utilize fiscal policies to support the recovery and to return to the path of sustainable development. While some countries have been able to take advantage of the low interest rate environment to finance the pandemic response and invest in sustainable development, the cost of financing for many countries remains elevated and is expected to rise, amid a tightening of global financial conditions and heightened geopolitical risks. Given elevated debt vulnerabilities, many

countries are unable to sustain the fiscal stimulus needed to fully recover from the pandemic, with support measures already being withdrawn in a large number of countries.

Macroeconomic and financing policies can play a more effective role in promoting a more resilient, inclusive and sustainable recovery. Sustainable development considerations, including the impact of climate change, should be integrated into fiscal, monetary and financial policy frameworks. Decisive support from the international community is also needed in order to create the necessary fiscal space for countries to get back on track to achieve the SDGs, as well as to share the burden of tackling climate change and other common challenges.

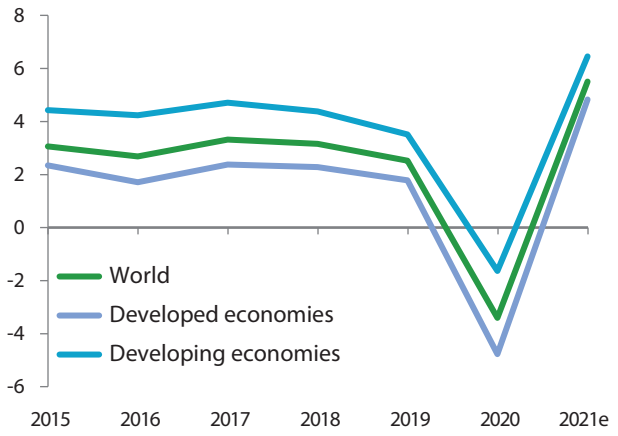
2. Outlook and risks for the global economy

2.1 Global and regional growth trends and outlook

Global output expanded by 5.5 per cent in 2021, buoyed by a low base, marking the strongest growth in almost 50 years. The easing of mobility restrictions across countries supported the release of pent-up demand and a resumption of economic activity, following the sharp recession in 2020 (figure I.1). For many developing countries, however, the economic recovery was more subdued, due mainly to slower vaccination progress, more limited policy support and deeper pandemic-induced scarring effects, including on labour markets. Global inflation rose significantly to 5.2 per cent in 2021, fuelled by a combination of supply chain disruptions, a rebound in global demand and higher commodity prices. Looking ahead, the war in Ukraine and heightened geopolitical tensions could compound global inflationary pressures and exacerbate supply disruptions and volatility in commodity prices (see box I.1). Although the recovery remains fragile, the increase in inflationary pressures has prompted many central banks to begin unwinding their accommodative monetary policies. The United States Federal Reserve's signal of a faster-than-expected pace of monetary tightening also weighed on investor sentiments in late 2021, contributing to bouts of capital outflows from emerging economies. According to data from the Institute of International Finance (IIF), non-resident portfolio flows to emerging economies excluding China turned negative in the last quarter of 2021. The global growth momentum slowed towards the latter part of 2021 and into 2022 amid the rapid spread of the Omicron variant and the waning effects of policy stimulus.

Global growth is expected to slow going forward amid increased uncertainties and downside risks. Despite the growth rebound in 2021 and a projected gradual recovery in the near term, output losses for many developing countries are expected to remain substantial compared to pre-pandemic trajectories. In nearly one fifth of developing countries, output was still expected to be below 2019 levels by the end of 2023, even before accounting for the fallout from the war in Ukraine. In Eastern Asia and South-Eastern Asia, economic activity will continue to be supported by accommodative policies in many economies, although these regions face headwinds from slowing external demand and higher energy prices. For the tourism-reliant economies, including many small island developing States (SIDS), recovery prospects will be underpinned by an upturn in tourism activity, although the pace of recovery in international travel is likely to remain uneven amid varying degrees of traveller confidence and vaccination rates.[3] Elevated commodity prices would lend some support to the economic recovery of commodity exporters, including in the Africa, Western Asia and Latin America and the Caribbean regions. For many countries in these regions, however, inflation and monetary tightening will weigh on domestic demand.

Figure I.1
Growth of world gross product
(Percentage)



Source: UN/DESA
Note: e = estimates.

The protracted impact of the pandemic and risks of renewed flareups continue to weigh on the economic outlook. For many developing economies, particularly least developed countries (LDCs), low vaccination coverage due to acute vaccine shortages and logistical issues poses a challenge to their recovery prospects. These countries remain highly vulnerable to renewed waves of infection which could lead to prolonged disruptions to economic activity. As of end 2021, the number of vaccine doses per 100 people in LDCs stood at just 23.9, against 147.4 in developed countries. Due to an increase in pandemic-related spending needs and a collapse in revenues, many vulnerable developing countries also face significant fiscal constraints and debt sustainability risks, hindering their ability to support a stronger recovery.

The pandemic shock has significantly increased poverty and inequality globally, leading to a substantial reversal in progress towards sustainable development. Compared to 2019, an estimated 77 million more people were living in extreme poverty in 2021, setting back the fight against poverty by nearly a decade. There is a high risk that this number will increase going forward as the war in Ukraine and soaring food prices inflict further damage on the livelihoods of many. The pandemic has also further exacerbated inequalities—both between and within countries. Even before the pandemic, inequalities were high and rising in most countries. The richest 10 per cent of the global population account for 52 per cent of global income, whereas the poorest half of the population account for 8 per cent.[4] The highly uneven pace of recovery is reflected in the larger downgrade of gross domestic product (GDP) per capita forecasts in developing countries. While the projected output loss in per capita terms of developed economies is expected to narrow substantially over the outlook period, output losses of developing countries are

Box I.1
Ukraine conflict: Implications for the global economic context

The war in Ukraine has caused the loss of thousands of civilian lives and displaced millions from their homes. Beyond the countries directly affected, the conflict's economic and financial impacts are reverberating around the world. Rising commodity prices and trade disruptions are exacerbating inflationary pressures and dampened growth expectations are weighing on the recovery from COVID-19, with severe implications for some of the poorest and most vulnerable countries. Higher food prices, in particular, risk pushing millions more into poverty. Policy actions to secure short-term fuel supplies could prolong the dependency on fossil fuels but could also be an opportunity to accelerate the sustainable energy transition needed to achieve climate goals. The conflict and its cascading impacts are threatening the return to a path towards achieving the SDGs and are increasing risks of instability and unrest around the world. At the same time, the war poses risks of increasing fragmentation of the international system, hampering a united global response.

As the conflict continues to unfold, the scale and scope of its global economic impacts are uncertain and will depend on its projected duration and severity. According to an early scenario analysis that assumes initial commodity and financial market shocks last for at least one year, global growth could be reduced by over 1 percentage point in 2022, with an increase of 2.5 percentage points in inflation.[a] The impact will, however, likely vary among countries. Net commodity importers and countries with stronger trade ties with Ukraine and the Russian Federation will be hit harder. Different response capacities will also affect outcomes, as countries with more fiscal space will be in a better position to shield consumers and firms from commodity price increases.

A review of ***global transmission channels*** can shed more light on the potential economic and financial implications for different countries:

1. Sharp increases in ***global commodity prices*** are further fuelling already high inflationary pressures across the world, eroding real incomes and weighing on demand. Amid a highly uncertain economic outlook, central banks are facing a worsening monetary policy dilemma as they attempt to balance between supporting growth and containing domestic price pressures.

With the Russian Federation being one of the world's largest fossil fuel exporters, sanctions and concerns over supply disruptions have exerted upward pressure on global prices of ***crude oil and natural gas***. While persistently higher oil prices would benefit oil-exporting countries, they would be detrimental for oil-importing countries, and increased import costs could cause a deterioration in their balance-of-payments.

The conflict is also disrupting agricultural exports and food production, causing ***global food prices*** to increase further from current multi-year highs. The Russian Federation and Ukraine account for close to 30 per cent of global wheat exports, with exports going mainly to developing countries. Surging food inflation would severely impact vulnerable households and worsen food insecurity in many developing countries that are still struggling with economic shocks from the pandemic.

2. The impact of the war on the global economic outlook through the ***trade channel*** will have asymmetric effects on different regions and countries. A steep decline in economic prospects in the Russian Federation and Ukraine will significantly impact countries with deep trade linkages with these countries, notably many in Eastern Europe. Countries that are deeply integrated into global value chains could also be significantly affected as the cross-border flow of goods is disrupted by sanctions, transport bottlenecks and reduced production capacity in certain industries.

3. The war is also impacting growth prospects through the ***confidence channel***. A continued escalation of the conflict could lead to a further collapse in confidence and a tightening of global financial conditions amid higher financial market volatility and risk premia. As geopolitical tensions continue to cast uncertainty over the global outlook, foreign direct investment flows could also slow worldwide. An increase in investor risk aversion could also trigger larger and more abrupt capital outflows from developing countries, posing a risk to growth and financial stability.

4. For many developing countries already at high risk of debt distress, the spillover effects of the war may further worsen ***debt vulnerabilities*** due to the increasing balance-of-payments and fiscal pressures described above.

5. Amid increasing defence expenditure and humanitarian needs, the war could divert resources away from ***longer-term development finance***, setting back progress towards sustainable growth and development.

Policy responses

The ***international community*** has responded quickly to the humanitarian crisis, providing support to over 4 million refugees and mobilizing emergency financing for Ukraine and neighbouring countries, as well as resources for longer-term reconstruction. This includes $2.2 billion from the European Bank for Reconstruction and Development, $2.2 billion from the European Investment Bank, $3 billion from the World Bank, $1.4 billion from the IMF, and emergency grants from the Council of Europe Development Bank.[b]

Beyond assisting the directly affected countries, the international community should stand ready to support countries that suffer from the economic and financial impacts, including through balance of payments support and food assistance, where needed. Rising food prices threaten worsening poverty and inequality in the poorest countries that are unable to provide fiscal support domestically, underscoring the impact of the great finance divide (see chapter II), and highlighting the need for increased development cooperation (see chapter III.C). Some countries may also require additional support for refinancing debt (see chapter III.E).

Additional funding will be needed to ensure that increased spending for humanitarian needs and in-donor refugee expenditures do not crowd out existing resources for development cooperation. Donor countries must scale up and meet their official development assistance (ODA) commitments despite growing fiscal domestic pressures to mitigate the domestic impacts of the war, along with potential budget reallocations towards higher defence spending in some countries.

To coordinate the global response, the United Nations Secretary-General set up a Global Crisis Response Group on Food, Energy and Finance. The

group brings together the United Nations system, international financial institutions and other stakeholders to jointly address the interconnected impacts of the war on food security, energy and financing and to propose policy options that can contribute to the achievement of the 2030 Agenda and the SDGs.

At the ***domestic level***, Governments able to do so can introduce ***fiscal support*** measures to alleviate the impact of higher food and fuel prices, targeted towards the vulnerable segments of society, including low-income households and small and medium enterprises. These measures could take the form of income support, targeted subsidies and tax rebates.

Countries should ***avoid export bans*** and other trade-restrictive measures, particularly on food and agricultural products that could add to market distortions and further increase global food prices. Further price increases could worsen widespread food insecurity, disproportionately affecting the most vulnerable.

As many countries strive to ensure energy security, there are two competing trends. On the one hand, short-term energy needs could lead to actions with negative environmental impacts. For example, increasing the use of existing coal-powered plants would cause a significant increase in greenhouse gas (GHG) emissions. In addition, new investments in fossil fuel sources could risk locking in hydrocarbon dependency over the medium term and jeopardizing the necessary reduction of GHG emissions to achieve the Paris Agreement. On the other hand, high global oil and gas prices should provide additional incentives for countries to step up investments in a ***sustainable energy transition***, taking advantage of the comparative cost advantage of modern renewable energy sources and increasing energy efficiency (see chapter III.G), while using targeted support measures to protect vulnerable populations from rising energy prices.

Source: UN/DESA.

a OECD. 2022. *OECD Economic Outlook, Interim Report: Economic and Social Impacts and Policy Implications of the War in Ukraine.* Paris: OECD Publishing. These simulations provide an initial look at the potential impact of the conflict based on the market dislocations observed in the first two weeks of the war. They do not incorporate many factors that could intensify the adverse effects of the conflict such as further sanctions, shipping disruptions, or export bans, among others.

b IMF. 2022. "Joint Statement of Heads of International Financial Institutions with Programs in Ukraine and Neighboring Countries". Press Release, 17 March, 2022.

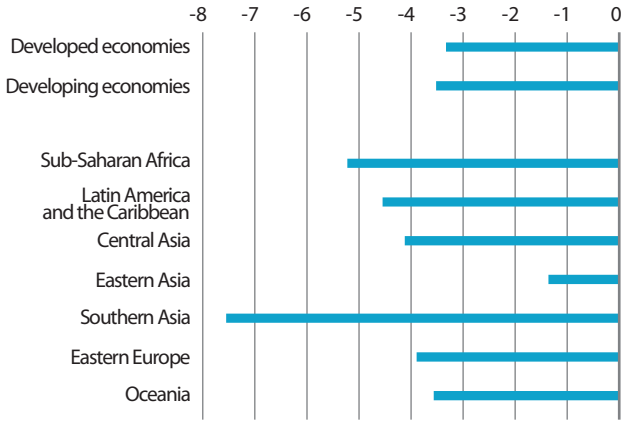
predicted to be much larger. Africa, Latin America and the Caribbean and Southern Asia are expected to experience the largest and most persistent output losses (figure I.2). Many of the poorest countries are not expected to reach pre-pandemic income levels before the middle of the decade, with a likelihood of long-term scarring (i.e., countries remaining below the pre-pandemic output trend).

The asymmetric impacts of the pandemic have exacerbated pre-existing inequalities within countries by disproportionately affecting marginalized or vulnerable groups, including low-skilled and informal workers. People who were already facing disadvantages in the labour market have experienced higher employment losses during the pandemic. These include informal workers, youth, migrant workers, the elderly and women. As women typically earn less and hold less secure jobs, they have been more susceptible to layoffs and have also exhibited a higher tendency to exit the labour force compared to men, due in part to childcare responsibilities. Between 2019 and 2020, women lost 54 million jobs globally, a 4.2 per cent decline in employment (compared to 3.0 per cent for men). By the end of 2021, while it is estimated that men have regained pre-pandemic employment levels, there would still be 13 million fewer women in the labour force. Drawing on data from 45 countries, prime working-age women were more likely than men to report losing their jobs (28 per cent of women versus 24 per cent of men), while partnered women with children in the household were those most likely to lose their jobs (30 per cent of women versus 23 per cent of men) during the pandemic.[5] Gender impacts of the pandemic on labour markets have also varied between developed and developing economies. In developing countries, the pandemic has had visibly stronger negative effects on women's employment and labour force participation relative to men, but this was not the case in developed countries.[6] At the same time, individuals at the very top, in terms of both income and wealth, have seen gains during the pandemic, in part because they benefited from the fiscal and monetary policy responses. In several developed countries, asset purchase programmes are likely to have contributed to the widening of wealth inequality, given that the increase in prices of financial assets disproportionately benefited higher income groups. [7]In 2021, the average income of people in the bottom 40 per cent of the global income distribution was estimated to be 6.7 per cent lower compared to 2019. However, the average income of the top 40 per cent was down by only 2.8 per cent.[8] One calculation showed that the wealth of the world's 10 richest men doubled over the course of the pandemic.[9] Surging food prices, exacerbated by the rise in geopolitical risks, will also hit the poorest segments of the population the hardest, leading to higher food insecurity and exacerbating the pandemic's impact on income inequality. In 2021, food prices rose by 22 per cent, reaching their highest level in a decade.[10]

Significant learning losses will have repercussions on medium-term development prospects. Amid prolonged school closures, the pandemic is translating into significant losses in human capital and a dire education crisis for many developing countries. Despite government efforts to deliver remote learning where possible, learning outcomes have generally been poor (see chapter III.G). The share of 10-year-olds in low- and middle-income countries who cannot read a basic text is estimated to have reached 70 per cent in 2021, an increase of 17 percentage points from 2019.[11] Without a clear strategy to recover these losses, the effects of delayed education will be felt for decades.

The impact of the pandemic on labour markets will continue to be felt through the outlook period, with a high degree of unevenness across countries and sectors. High-income countries have experienced a relatively stronger labour market recovery. Their employment-to-population ratio was just 1.2 percentage points lower in 2021 compared to pre-crisis, although some sectors are facing acute labour shortages which have created logistical bottlenecks. In contrast, the employment-to-population ratio for lower-middle-income and low-income countries in 2021 were both still 2.1 percentage points lower than pre-crisis.[12] For a large number of developing countries, slower

Figure I.2
GDP per capita losses by development status and region, 2021
(Percentage change between current and pre-pandemic forecasts)



Source: UN/DESA estimates.

vaccination progress has made it difficult to ease workplace restrictions[13] and has impaired workers' willingness to return to work in person. Many developing countries also lack the capacity to sustain large-scale fiscal stimulus, including social protection measures, to support workers and livelihoods.[14]

The pandemic is likely to have accelerated several trends that could have significant implications for labour markets. A more rapid pace of digitalization and automation is threatening to make many job losses permanent, while deepening the digital divide (see chapter III.G). In addition, the expansion of the gig economy, where workers are often classified as self-employed rather than employees, has led to a rise in more precarious work conditions. In many countries, social protection, and sometimes healthcare, are tied to employment. This trend could exacerbate inequalities as it precludes more workers from basic benefits such as paid sick leave and access to unemployment insurance.

2.2 Deterioration in public finances

Shrinking fiscal space and rising debt sustainability risks in many parts of the world will prompt the withdrawal of needed fiscal support. Despite facing multiple downside risks and a highly uncertain economic recovery, fiscal support in most developing economies is expected to be largely unwound by 2023. For a number of countries, the withdrawal of fiscal stimulus has been faster than expected, with many measures having expired by late 2021. Furthermore, as global financial conditions tighten, pressures for fiscal consolidation are intensifying for many developing economies.

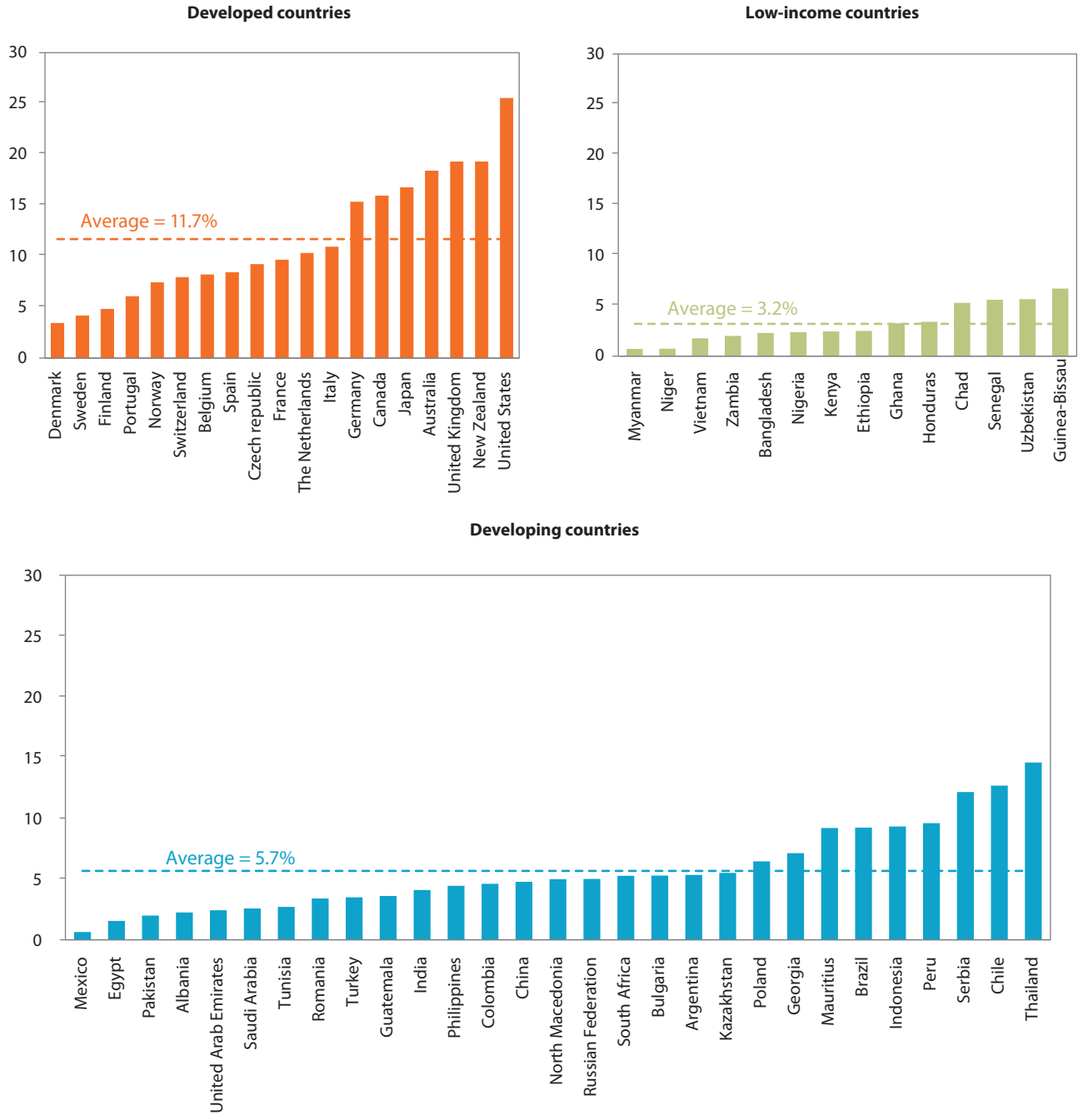
Differences in fiscal space have contributed to the divergence in recovery prospects across countries. Fiscal measures amounted to around 10 per cent of GDP or more in most developed countries and exceeded 20 per cent of GDP in some large economies. Together, developed countries accounted for the vast majority of around $17 trillion in global fiscal measures implemented in response to COVID-19. However, many developing countries entered the crisis with already elevated debt and weak fiscal positions, which severely constrained their ability to effectively manage the health crisis and contain the pandemic's economic fallout[15] (figure I.3). While some developing countries were able to take advantage of low interest rates to finance investment, many others have faced prohibitively high borrowing costs. Sovereign borrowing costs for most of the developing countries able to access markets have remained much higher than those of developed countries during the pandemic (figure I.4).

Large pandemic-related fiscal support and declines in revenue have pushed public debt levels up to record highs. Across regions, government debt-to-GDP ratios have risen sharply (figure I.5) and are expected to remain elevated given persistent weak revenues. While public debt has gone up significantly across all income groups, debt servicing is posing a much greater challenge for low- and middle-income economies due to the higher cost of debt and lower government revenues (see chapter III.E). Moreover, many developing countries have seen a rise in external debt burdens (figure I.6), with the external debt stock of low- and middle-income countries combined rising by 5.3 per cent to $8.7 trillion in 2020, from 2019. Higher commodity prices due to geopolitical risks may put additional pressure on the balance of payments of oil-importing countries, worsening debt sustainability. For many developing countries, high debt servicing costs are diverting resources away from pandemic response and investments towards supporting a sustainable recovery (see chapter II). For more than half of the countries in sub-Saharan Africa, debt servicing costs account for at least one quarter of government revenue. With risks to debt sustainability rising, most developing countries have already withdrawn or are expected to withdraw most fiscal stimulus measures over the outlook period. However, amid a highly uncertain outlook as regards the pandemic, premature fiscal consolidation could stall the recovery process, ultimately resulting in higher—rather than lower—debt-to-GDP ratios.

Policy responses by the international community have been significant but insufficient. The G20's Debt Service Suspension Initiative (DSSI) temporarily eased financing constraints for many developing countries and helped to avert a more widespread and systemic debt crisis. With expiration of the DSSI, however, the implementation of the Common Framework for Debt Treatments Beyond the DSSI (Common Framework) needs to be stepped up and several of its design elements need to be improved. Despite still-elevated risks of debt distress in many developing countries, only three countries have requested debt treatments under the Common Framework thus far (see chapter III.E). In addition, while the IMF's new allocation of Special Drawing Rights (SDRs) of $650 billion constitutes an important measure to enhance liquidity, it is not sufficient to address the financing challenges of developing countries (see chapter III.F).

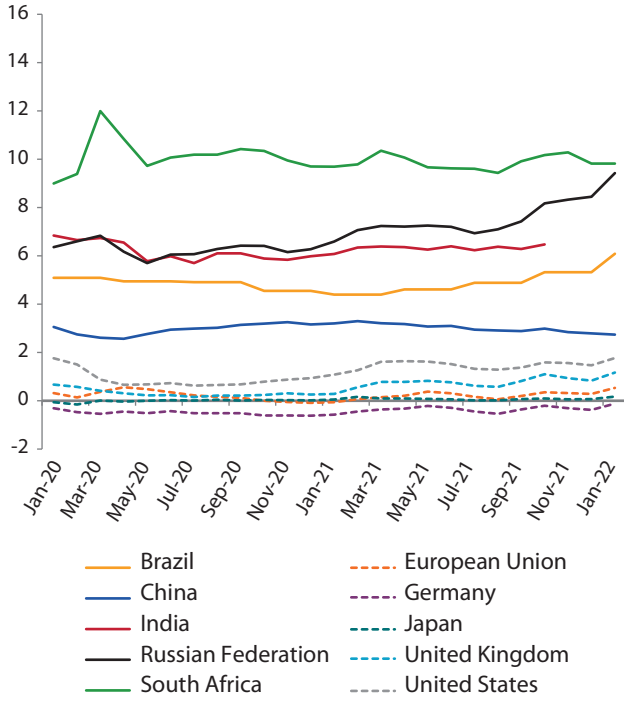
Many developing countries have been diverting resources from public investments that promote sustainable development. In several developed countries, the availability of sufficient fiscal space has enabled them to not only roll out immediate measures to counter the pandemic, but also to channel resources towards strengthening social protection and supporting productive investments, such as in research and development, green energy and digital technologies. Examples include the European Union's Next Generation EU recovery plan and the Infrastructure Investment and Jobs Act in the United States. In contrast, for many developing economies, especially low-income countries, fiscal stimulus packages to counter the pandemic effects were largely funded by cutting public investment and reallocating resources from many key areas of

Figure I.3
Fiscal response to COVID-19 in selected countries, as a share of GDP
(Percentage of GDP)



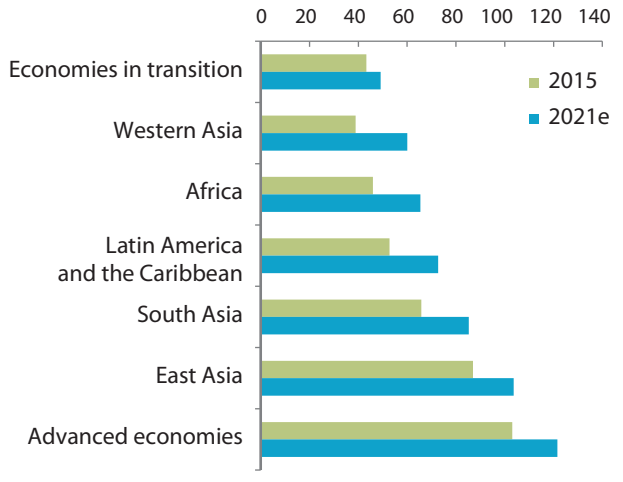
Source: IMF, Fiscal Monitor Database of Country Fiscal Measures in Response to the COVID-19 Pandemic (October 2021 version), available at www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19.
Note: A country's fiscal response is estimated as the sum of its additional public spending and foregone revenue, between January 2020 – September 2021. The average fiscal response for each country group represents the mean of the selected countries.

Figure I.4
10-year government bond yields of selected developed and large economies
(Percentage)



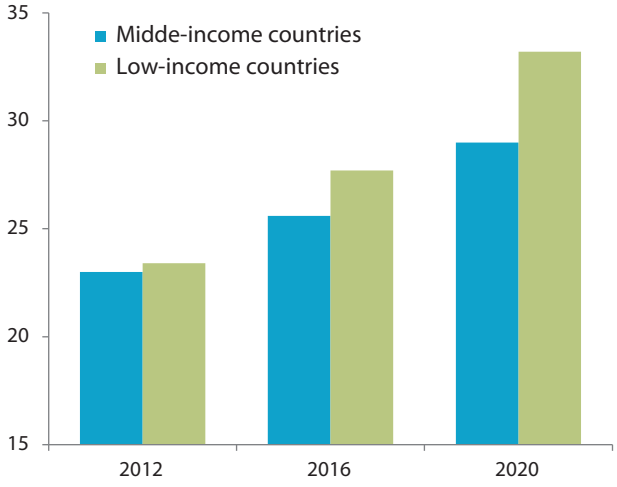
Source: CEIC (accessed on 23 February 2022).

Figure I.5
General government gross debt
(Percentage of GDP)



Source: World Economic Outlook Database, IMF.
Note: e = estimates.

Figure I.6
External debt to GNI
(Percentage)



Source: World Bank, International Debt Statistics, October 2021.

sustainable development. International support such as the DSSI enabled beneficiaries to increase COVID-related spending, but nowhere near the levels of richer countries; it also could not prevent spending cuts in areas critical to long-term sustainable development.

As countries face rising fiscal pressures, the impact of fiscal consolidation would be disproportionately larger for certain segments of society. About two thirds of low- and lower-middle-income countries have cut education budgets since the onset of the pandemic.[16] Recent estimates also suggest that the pandemic has impacted social spending on child protection, nutrition and water and sanitation.[17] Women would also disproportionally suffer from any austerity going forward as they are more likely to be employed in the public sector and fill the gap—often through their unpaid work—when health and education services are cut.[18] As a result, unmet financing needs for the SDGs have further increased with a worsening baseline, with estimates of a 20 per cent increase in spending needs for key SDG sectors.[19]

2.3 Growing challenges for monetary policy

Rising inflationary pressures have prompted a shift towards tighter monetary policy stances globally. In 2021, global headline inflation surged to 5.2 per cent, more than 2 percentage points above its trend rate over the past 10 years. The rise in inflation in 2021, from a low base, was attributed to a combination of factors, including supply-side bottlenecks, a rebound in demand, higher commodity prices and the expiration of tax benefits and subsidies in some countries. Heightened geopolitical risks could further fuel global inflation by possibly exacerbating supply disruptions and energy shortages. The recent rise in inflation has been particularly pronounced in countries such as the United States and regions including the euro area, Latin America and the Caribbean and the Commonwealth of Independent States. Further price shocks could threaten to de-anchor inflation expectations and raise concerns over a wage-price spiral. In efforts to contain inflationary pressures, a growing

number of central banks have started to tighten their monetary policy stances (figures I.7a and I.7b). In the first five weeks of 2022 alone, 24 central banks increased interest rates.[20] The Federal Reserve started the tapering of its asset purchase programmes in November 2021, raised its key policy rate in March 2022[21] and hinted at several additional rate hikes in the coming months. Since December 2021, the Bank of England has raised its key policy rate by a total of 75 basis points to 0.75 per cent. The European Central Bank (ECB) confirmed it would be ending asset purchases under its pandemic emergency purchase programme at the end of March 2022. Given the uncertainties arising from increased geopolitical tensions, however, several central banks including the ECB have announced that they could re-assess policy paths incorporating the latest developments.

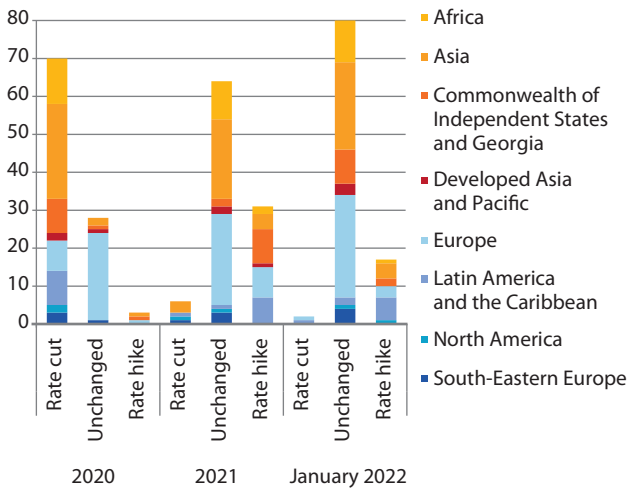
In many developing countries, concerns over rising inflation and exchange rate pressures have led to even earlier withdrawals of monetary support. Central banks in more than one third of developing economies, particularly energy importers, increased their policy rates in 2021. While 27 developing countries adopted asset purchase programmes for the first time during the pandemic, these asset purchases were much smaller in scale and shorter in duration compared to those in developed countries. This was largely due to concerns over currency depreciations, inflation and weak local currency portfolio flows.[22]

A faster-than-expected pace of monetary tightening in developed economies could lead to heightened global financial market volatility, with adverse spillovers on developing economies. High uncertainty over the tightening of global monetary conditions caused a deterioration in investor risk sentiments in late 2021 that extended into early 2022, as inflation concerns were exacerbated by rising geopolitical tensions and the global spread of the Omicron variant. Excluding China, emerging economies experienced non-resident portfolio outflows of $7.7 billion in January 2022, following outflows of $3.8 billion in the last quarter of 2021. A sharper-than-expected monetary tightening cycle, particularly in the United States, or a renewed "flight to safety" could trigger more disorderly corrections in global financial markets. In this environment, developing economies could suffer even larger capital outflows and currency depreciations, which could destabilize domestic financial conditions and affect growth. Policymakers should have the full range of policies at their disposal to mitigate the effects of large capital flow volatility. In turn, clear and transparent communication of monetary policy shifts by the major developed economies can help to reduce negative spillovers on developing economies (see chapter III.F).

Tightening global financial conditions further increase risks for developing countries with high debt levels and large external financing needs. With revenue prospects still weak, an increase in global interest rates would exacerbate debt vulnerabilities for many developing country Governments. Higher debt service costs and an increase in refinancing and roll-over risks will cause more countries to face challenges in repaying their debt obligations. The increase in interest rates could prompt the Governments of many developing countries to undertake premature fiscal consolidation, posing a drag to growth and hindering the recovery prospects.

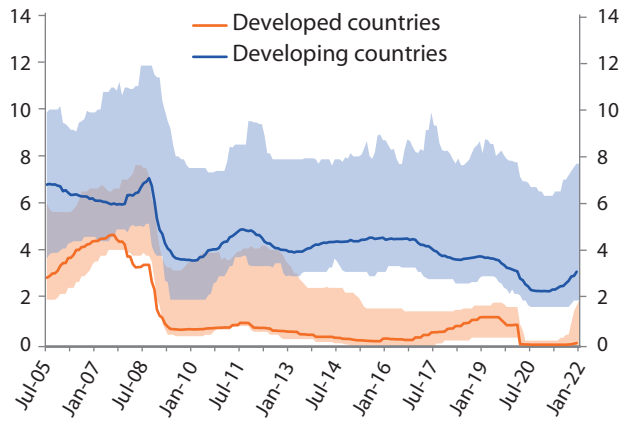
Central banks worldwide face difficult trade-offs in unwinding policy support. Against a backdrop of heightened geopolitical risks, an ongoing pandemic, rising inflationary pressures and an incipient economic recovery, there is a substantial risk of monetary policy mistakes. The strong financial market turbulence and market sell-offs in January 2022 illustrate how rapidly investor sentiments can change in an environment of high economic and policy uncertainties. For many developing economies, monetary tightening is taking place amid large COVID-19-related output shortfalls and weak employment. While too-fast monetary tightening could derail a still fragile economic recovery, too-slow monetary tightening could potentially entrench inflation expectations.

Figure I.7a
Policy rate decisions by region
(Number of countries)



Source: CEIC (accessed on 23 February 2022).
Note: 101 central Banks are covered in 2020 and 2021, and 99 central banks are covered in January 2022, based on available data.

Figure I.7b
Policy rates of developed and developing countries
(Percentage)



Source: UN/DESA, based on data from the Bank for International Settlements, CEIC and World Bank Open Data (accessed on 23 February 2022).
Note: The lines display the GDP-weighted average policy rates for a set of 36 developing countries and a set of 14 developed economies plus the euro area. The shaded areas indicate the range between the twenty-fifth and seventy-fifth percentile of the respective policy rates.

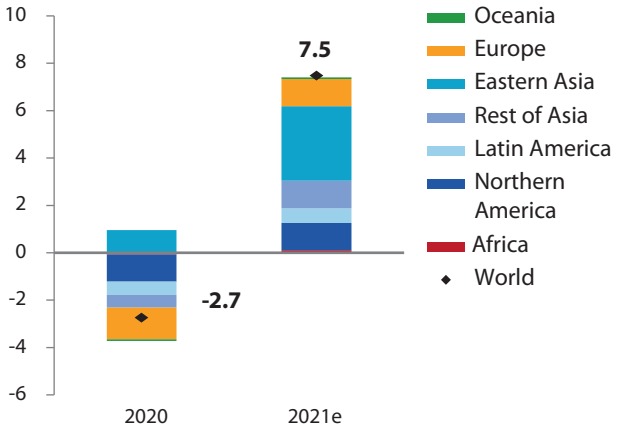
2.4 Weak investment prospects

Amid high uncertainty, investment prospects are weak in most developing countries. Global investment rebounded by 7.5 per cent in 2021, following a contraction of 2.7 per cent in 2020. The strong growth figure, however, was primarily due to a low base and an exceptionally supportive policy environment in most economies. The recovery in investment was highly uneven across countries and regions (figure I.8). Investment growth in China and the United States accounted for more than 50 per cent of the improvement in global investment in 2021. While global foreign direct investment (FDI) rebounded strongly in 2021, almost three quarters of the increase was recorded in developed economies. The recovery in investment was more subdued in developing economies, particularly in LDCs (see chapter III.B).

Recovery in investment is also uneven across sectors. In major developed countries, the rebound in investment was driven mainly by an increase in spending on machinery and equipment (figure I.9). In the United States, the sharp rebound in overall gross fixed capital formation was also attributed to a strong performance in the intellectual property products sector, which includes software and research and development. While the Federal Reserve's shift to a less accommodative policy stance will weigh on investor sentiment, the recently passed Infrastructure Investment and Jobs Act will provide a boost to public investment in the United States going forward. In China, while construction investment is likely to continue slowing, targeted fiscal policies will support investment in technology and innovation.

Global investment growth is projected to slow against a backdrop of high global uncertainty, tighter financial conditions and waning policy stimulus. For many developing countries, elevated public debt and rising borrowing costs will constrain the ability of Governments to sustain large-scale public investment. Private investment across countries will likely be dampened by persistent high uncertainty over the growth outlook, demand conditions and increasing interest rates. Given the weak recovery in revenues, many firms are faced with weak balance sheets and high debt, constraining capital expenditure plans. Compared to before the pandemic, the debt-to-GDP ratio of non-financial corporations has risen sharply across advanced and emerging economies (figure I.10). At the same time, in some countries, heightened geopolitical risks, elevated political uncertainty and social unrest will continue to depress investment prospects. A prolonged period of weak investment will not only weigh on productivity growth, but also threaten progress in all areas of sustainable development.

Figure I.8
Regional contribution to global investment growth
(Percentage points)



Source: UN/DESA.
Note: e = estimates.

Longer-term investment prospects are particularly challenging for developing economies that depend heavily on fossil fuels. Despite the sharp rise in oil and gas prices in 2021, which has extended into 2022 due to geopolitical risks, investment in many large fossil fuel producers has been slow to recover. As the world transitions towards net-zero carbon emissions, these countries face the prospect of significant economic and financial losses. A recent study[23] estimates that fossil fuel assets worth $11 trillion to $14 trillion could become worthless by 2036.[24] Comprehensive plans are therefore needed to ensure that investment promotes economic diversification towards new, low-carbon technology sectors.

2.5 Climate risks

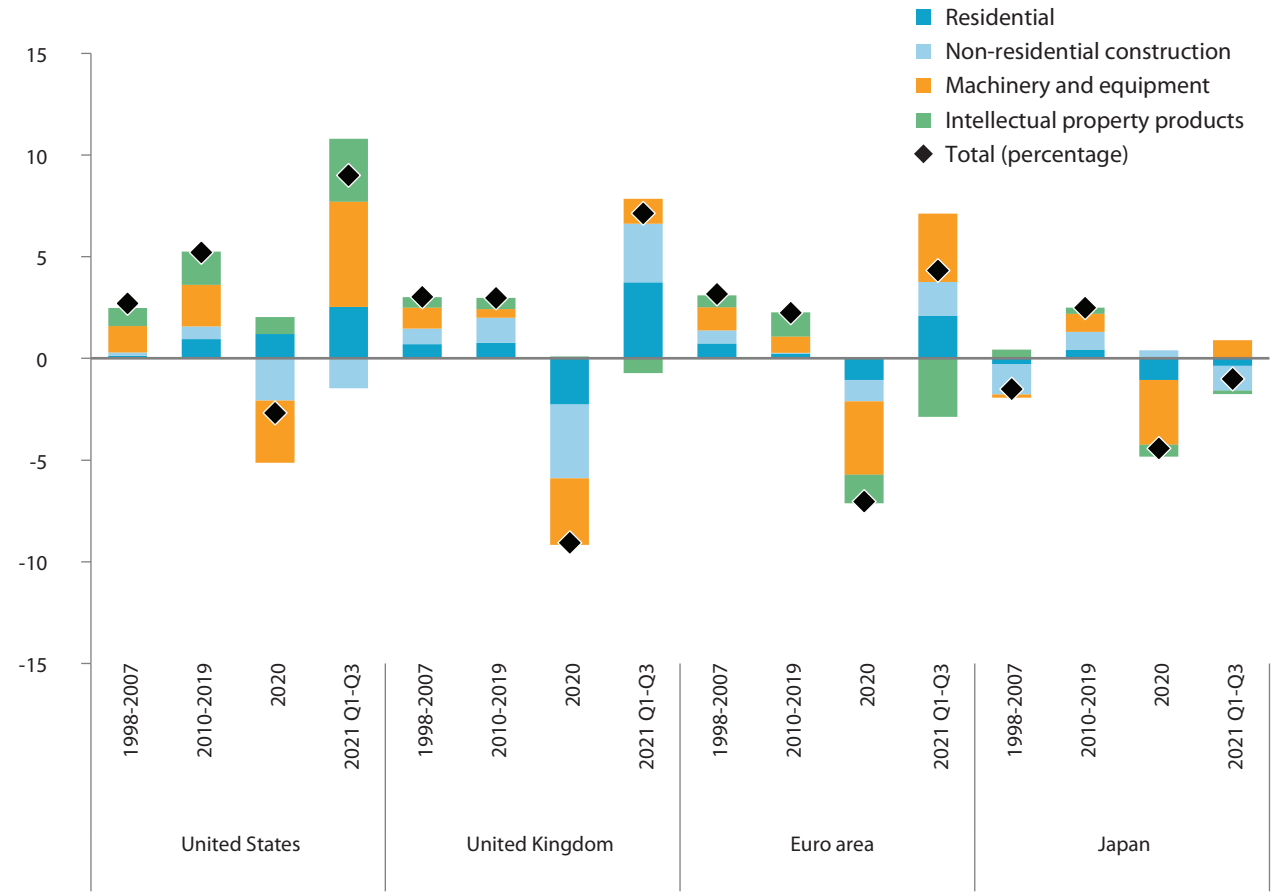
More frequent and intensified climate-related shocks pose a major threat to global development prospects. According to the International Disaster Database,[25] more than 10 million people were affected by storms and heatwaves in 2021. Arctic temperatures recorded a new high of 38°C.[26] Many developing countries—including some with large numbers of extremely poor people[27]—suffered from droughts, threatening people's access to water and nutritious food. After a short period of reduction due to pandemic-related mobility restrictions, carbon emissions have started to increase again, exacerbating climate risks. The Intergovernmental Panel on Climate Change (IPCC) warns that if the current warming rate continues, the world will reach human-induced global warming of 1.5°C around 2040, breaching the Paris Agreement.[28]

Economic damage and losses from climate change are disproportionately higher for already vulnerable countries, leaving these economies further behind. Many of the economies that are highly susceptible to climate-related disasters, including LDCs and SIDS, have limited policy space to provide additional support to the economy following a climate shock. Climate shocks could also exacerbate debt burdens, leaving the affected countries more vulnerable to sovereign debt crises. For SIDS, the economic impact could be disproportionately large as their coastal infrastructure—their lifelines for external trade, food and energy security and tourism—is at high and growing risk of climate change effects. For instance, the annual average loss in capital investment due to disasters in developing SIDS in the Pacific is estimated to be about 18 per cent of their total investment, compared with a 1.9 per cent average loss for all Asia-Pacific countries.[29] Unmitigated climate change would contribute to a widening of inequality between countries.

2.6 Policy options for countries to build back better

Bold and decisive actions are needed at all levels to avert a lost decade for sustainable development. Countries need to create sufficient fiscal space and mobilize financing from all sources to

Figure I.9
Annual investment growth in selected developed economies, by asset type
(Percentage points)

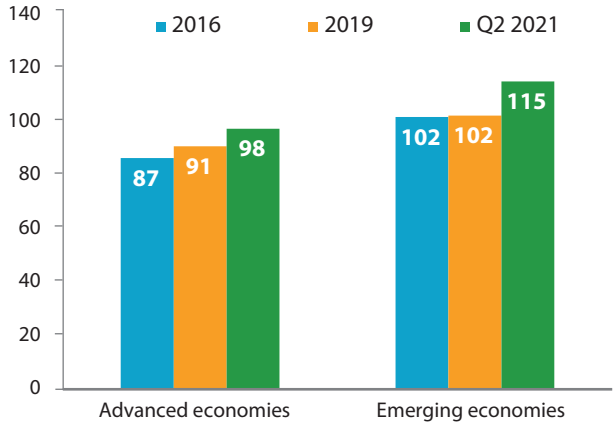


Source: UN/DESA, based on data from CEIC and EuroStat.
Note: Figures are in constant prices. Data for the United Kingdom, euro area, and Japan are total investment, data for the United States are private investment.

avert a protracted crisis and slow recovery, and to invest long term in climate action and the SDGs (see chapter II). Required actions include well-targeted fiscal policies that support a resilient, inclusive and sustainable recovery while preserving fiscal sustainability and contributing to carbon emissions reductions (see chapter III.A). Contributions of private finance and investments to sustainable development must also increase, which can be supported by policy measures to strengthen the investment climate and set appropriate regulatory frameworks (see chapters II and III.B). Concerted efforts by the international community are needed to help developing economies, particularly LDCs and SIDS, address urgent balance-of-payment needs and expand the resources available to finance pandemic recovery efforts and invest in sustainable development (see chapters III.C and III.F).

The Addis Ababa Action Agenda provides a comprehensive framework to address the policy challenges outlined in this chapter. The subsequent chapters of this report highlight progress and implementation gaps in each action area of the Addis Agenda and put forward detailed policy recommendations that can help countries to overcome the current crisis and get back on track to achieve the SDGs.

Figure I.10
Debt of non-financial corporations
(Percentage of GDP)



Source: Bank for International Settlements.

Endnotes

1 This chapter is based on the following reports: *World Economic Situation and Prospects 2022*; *World Economic Outlook Update, January 2022: Rising Caseloads, A Disrupted Recovery, and Higher Inflation*; *World Economic Outlook, October 2021: Recovery during a Pandemic; Trade and Development Report 2021: From Recovery to Resilience: The Development Dimension*; and Global *Economic Prospects, January 2022*.

2 Debt may not be a concern for some commodity-exporting countries due to high global commodity prices.

3 World Tourism Organization. 2022. *UNWTO World Tourism Barometer* (January).

4 Chancel, Lucas, Thomas Piketty, Emmanuel Saez, Gabriel Zucman et al. 2021. "World Inequality Report 2022". *World Inequality Lab*.

5 Azcona, Ginette et al. 2020. "From insights to action: Gender equality in the wake of COVID-19". *UN Women*.

6 See IMF. 2021. *World Economic Outlook* (October).

7 Chapter II of the *World Economic Situation and Prospects 2022* provides a comprehensive assessment of the distributional effects of asset purchase programmes.

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9 Ahmed, Nabil, Anna Marriott, Nafkote Dabi, Megan Lowthers, Max Lawson, Leah Mugehera. 2022. "Inequality Kills: The unparalleled action needed to combat unprecedented inequality in the wake of COVID-19". *Oxfam International*.

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11 World Bank. 2021. "World Bank: Pandemic Threatens to Drive Unprecedented Number of Children into Learning Poverty". *World Bank*. 29 October 2021.

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13 The ILO (2021) shows that higher rates of vaccination are associated with less stringent workplace restrictions. ILO Monitor: COVID-19 and the World of Work, Eighth Edition. Available at www.ilo.org/global/topics/coronavirus/impacts-and-responses/WCMS_824092/lang--en/index.htm.

14 The ILO (2021) estimates that a 1 per cent increase of annual GDP in the fiscal policy response is associated with 0.3 percentage points increase in working hours. ILO Monitor: COVID-19 and the World of Work, Eighth Edition.

15 For instance, Angola, Bahrain, Belize, Cabo Verde, Congo, Dominica, Egypt, Jamaica, Pakistan, Sri Lanka, Sudan, Zambia entered the pandemic with general government gross debt above 80 per cent of GDP and their discretionary fiscal response to the pandemic during January 2020 and September 2021 was less than 3 per cent of GDP.

16 World Bank and United Nations Educational, Scientific and Cultural Organization (UNESCO). 2021. *Education Finance Watch 2021* (February).

17 United Nations Children's Fund (UNICEF). 2021. *COVID-19 and the Looming Debt Crisis*.

18 UN Women. 2014. *The Global Economic Crisis and Gender Equality*. New York: UN Women.

19 Benedek, Dora et al. 2021. "A Post-Pandemic Assessment of the Sustainable Development Goals". IMF Staff Discussion Note.

20 Central Bank News. Available at http://www.centralbanknews.info/p/eas.html.

21 After reducing the volume of net asset purchases by $15 billion in November and October 2021, the Federal Reserve announced to speed up the tapering process to counter persistently high inflation. From January 2022, net asset purchases are expected to decrease by $30 billion per month and end in March.

22 See for example IMF. 2021. *Global Financial Stability Report* (October).

23 Mercure, Jean-Francois et al. 2021. "Reframing Incentives for Climate Policy Action". *Nature Energy*, 6: 1133–1143. Available at www.nature.com/articles/s41560-021-00934-2.

24 Stranded assets comprise investments, infrastructure, equipment, contracts and know-how that suffer from unforeseen or premature write-downs or devaluation due to the energy transition.

25 International Disaster Database. Available at www.emdat.be.

26 World Meteorological Organization (WMO). 2021. "WMO recognizes new Arctic temperature record of 38°C". *World Meteorological Organization*. Available at https://public.wmo.int/en/media/press-release/wmo-recognizes-new-arctic-temperature-record-of-38%E2%81%B0c.

27 Including Afghanistan, Somalia and Syrian Arab Republic.

28 The Paris Agreement sets long-term goals to limit the global temperature increase in this century to 2 degrees Celsius while pursuing efforts to limit the increase even further to 1.5 degrees.

29 United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP). 2019. *Economic and Social Survey of Asia and the Pacific 2019: Ambitions beyond Growth.* Available at https://www.unescap.org/publications/economic-and-social-survey-asia-and-pacific-2019-ambitions-beyond-growth.

Overcoming the “great finance divide”



Chapter II

Overcoming the "great finance divide"

1. Introduction

Fiscal constraints in developing countries are driving a widening "pandemic recovery gap" that threatens achievement of the Sustainable Development Goals (SDGs). Developed countries have been financing a large-scale response to the COVID-19 pandemic at historically low interest rates. Many developing countries—faced with significantly higher borrowing costs in, and intermittent access to, international financial markets—have been more hamstrung in their response. This so-called "great finance divide" contributed to developing countries' diminished ability to finance an appropriate response to a historic shock. If left unaddressed, it will further exacerbate the divergence in development prospects, and pandemic scarring will fatally undermine achievement of the SDGs.

Debt financing enables countries to respond to emergencies such as the pandemic and to fund long-term investments, including in climate action and the SDGs. But if not used well, it can constrain policy space down the line and jeopardize fiscal sustainability and financial stability. Sovereign borrowing allows Governments to ramp up spending and provide assistance during a crisis, when private actors may be unable to do so. It allows countries to invest in the future when productive investment opportunities, which support the public good, arise. Such investments can help to achieve public policy objectives *and* increase the tax base and capacity to service debt over time. But benefits can be sustained only if risks are managed carefully and resources used effectively. Rapid build-ups in debt often end in financial crises. The challenge is to increase access to long-term, affordable and stable financing, and to use proceeds productively so that public policy goals are achieved *and* fiscal capacity is enhanced.

Without addressing financing gaps, countries may forego productive investments to meet economic, social and environmental needs, which is undesirable for reasons of both equity and efficiency. Debt financing is most appropriate for investments that generate direct returns and/or enhance a country's fiscal capacity over relevant time horizons, for example, infrastructure investments. Such investments in sustainable development should find funding from investors with sufficiently long time horizons, such as pension funds and/or public development banks; however, for a variety of reasons, they currently do not. Other forms of public spending may not directly enhance fiscal capacity and are unlikely to be funded by commercial investors, even in the long run, but may be indispensable to avert large costs (climate action), eradicate poverty or achieve other SDGs. These are priorities that the international community has committed to support and that should find funding from concessional sources.

To reverse the divergence in recovery and achieve the SDGs, countries will need reliable access to affordable financing from concessional and non-concessional (public, private, domestic and international) sources. A package of measures can help developing countries to mobilize affordable, long-term financing and spend the resources effectively to achieve policy objectives:

- **Spending mobilized resources effectively on shared priorities** is a precondition for translating additional financing into development impact and enhanced fiscal capacity to service debt. This includes strengthening public investment efficiency and good governance more broadly and also linking investment and development partner support to country-owned, medium-term plans, for example, through an Integrated National Financing Framework;
- **Mobilizing additional public financing** for investment in public policy priorities, such as raising domestic resources (see chapter III.A). Public development banks can play an important role, given their ability to lend long term and countercyclically at affordable rates;
- **Reducing borrowing costs and procyclical volatility of borrowing from commercial sources** through: domestic actions to reduce risks and strengthen the enabling environment and international efforts to reduce volatility in global markets; improvements in the information ecosystem, including longer-term ratings and debt sustainability assessments; and exploiting the growing interest in sustainability issues to reduce borrowing costs; and

- **Addressing debt overhangs** to reduce debt burdens and free up resources for investment in climate action and the SDGs.

These actions cut across the action areas of the Addis Ababa Action Agenda. Some of the detailed analysis and recommendations, as well as key complementary actions, are covered throughout the chapters of the report and referenced below.

2. The great finance divide

Developing countries are confronted with financing at higher costs, shorter maturities and greater volatility. The pandemic has exacerbated the differentiated abilities of countries to respond to the crisis and invest in climate action and the SDGs (section 2.1). This divergence is at least in part due to financing conditions. A range of factors, including investor perceptions and uncertainty over their repayment capacity and structural challenges and constraints mean that developing countries pay elevated risk premia in markets and face debt sustainability concerns at lower levels of debt (section 2.2). Exploring some of the underlying drivers of this financing divide (section 2.3) helps to inform the policy recommendations laid out in the third part of the chapter.

2.1 A constrained response to the pandemic and limited ability to invest in climate action and the SDGs

A divergent pandemic response

The outbreak of COVID-19 delivered a seismic shock to the global economy, but developed countries were able to respond with aggressive macroeconomic policies. The pandemic triggered a contraction in consumption, investment, employment and income at unprecedented speed (see chapter I). Policymakers in developed countries responded in an aggressive and in some respects unprecedented way to mitigate social and economic impacts. They delivered fiscal support at massive scale and backstopped fiscal measures through aggressive and unconventional monetary policy. This macro-policy response achieved its intended short-term objectives. Household incomes and financial markets in developed countries stabilized. For example, there are indications that poor households in particular benefited from fiscal support in the United States, in marked contrast to the recovery from the world financial and economic crisis a decade earlier.[1]

Developing countries were more constrained in their policy response. Fiscal and monetary policy responses were dependent on national circumstances and policy space, as well as on the international support provided. But on average, and compared to developed countries, they were more restrained, with a more limited fiscal response and more limited monetary accommodation to support fiscal policies. In middle-income countries (MICs), fiscal policy was supportive, if at a smaller scale than in developed countries, and is being withdrawn earlier in some countries due to tight borrowing constraints.[2] In least developed countries (LDCs), fiscal policy remained much more limited despite international support. On the monetary policy side, many developing country central banks lowered interest rates and reserve requirements, with some adopting unconventional measures for the first time. But their interventions were smaller in scale and shorter in duration than in developed countries due to concerns over currency depreciations, inflation and capital outflows[3] (see chapter I).

This more limited response, along with a lack of vaccine availability, has led to a more protracted crisis in developing countries, with large and potentially long-term ramifications on SDG prospects. Despite the support the international community did provide, foregone economic losses from the pandemic compared to pre-pandemic projections are much larger in developing countries than in developed countries. These differences are projected to persist over the medium term, translating into major setbacks to sustainable development prospects in health, employment, gender equality and the fight against poverty. As a result, unmet financing needs for the SDGs have further increased with a worsening baseline, with estimates of a 20 per cent increase in spending needs for key SDG sectors.[4]

Long-term investments in climate action and the SDGs

The contrasting pandemic response is mirrored in divergent rates of investment and capital spending. In major developed economies, fiscal responses to the pandemic have focused on supporting and shaping the recovery—for example, in the context of infrastructure legislation in the United States and the European Union's "NextGenerationEU" recovery plan.[5] These public investment packages, which are (potentially) large in scale, emphasize sustainability and climate action. The NextGenerationEU Recovery and Resilience Facility is expected to provide loans and grants of over €700 billion for European Union Member States' public investments through 2026. In sharp contrast, poor countries had to reprioritize public expenditures and cut spending in areas critical to long-term sustainable development. While the G20 Debt Service Suspension Initiative (DSSI) and other forms of multilateral and bilateral support provided them with important breathing space, allowing for additional COVID-19 related expenditure, capital spending among the 43 participating countries fell by 1.1 percentage points on average in 2020 and is projected to remain below pre-crisis levels in 2021. Investment in education fell as well.[6] Total investment rates in developing countries are not projected to return to pre-pandemic levels over the next two years, in contrast to developed countries,[7] with investment recovery particularly subdued in LDCs (see chapter I).

Yet, SDG and climate progress requires a significant scaling up of investments. Public capital stocks have been deteriorating across income groups (with some notable exceptions) over the last 30 years due to falling public investment ratios. Additional investments needed to achieve the SDGs and climate targets are large: in core infrastructure such as roads, electricity, water and sanitation, they amount to around 2.7 per cent of gross domestic product (GDP) in MICs and 9.8 per cent of GDP in LDCs and other low-income countries (LICs) through 2030.[8] Public investments to reach net zero emissions alone are estimated at around 2 per cent of GDP annually over the next decade.[9]

Such SDG investments require access to long-term financing. Financing constraints stand in the way of a "big push" investment drive for recovery, SDG progress and climate action. This investment push will need to include both public and private investment. Private investment is more appropriate for some sectors and investments than others, particularly those that offer competitive, risk-adjusted financial returns. Yet the cost of borrowing for private investment is not independent of that for sovereigns (the so-called "sovereign ceiling", see chapter III.B). Thus, a high sovereign borrowing not only affects public investment; it can also

reduce the attractiveness of otherwise investable or "bankable" projects for private investors. Without addressing financing gaps, countries will forego investments with high social returns, which are critical for achieving the SDGs:

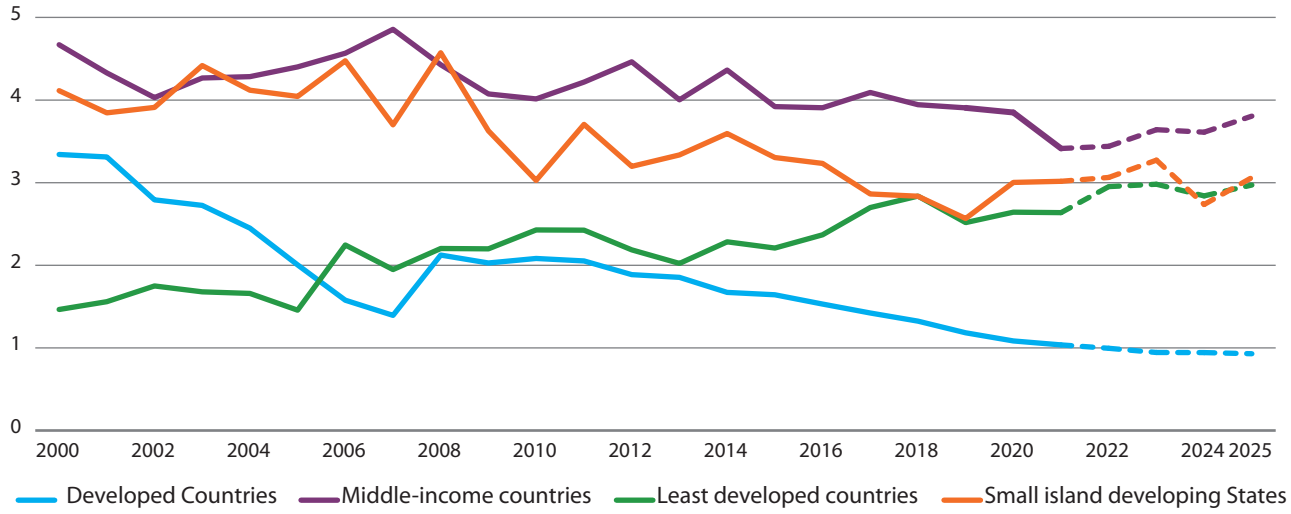
- Many SDG investments, such as productive investments in physical capital and infrastructure have positive financial returns, but long gestation periods. They should thus find financing from investors with sufficiently long time horizons, such as pension funds and/or public development banks (see chapters III.B and III.C). Investments in green infrastructure also have large output and employment multipliers and thus significant co-benefits for sustainable development;
- Other investments may not have expected direct financial returns associated with them but may still stimulate economic growth and enhance fiscal capacity over the medium to long term. Public investments in health and education, for example, not only impact individual welfare but also growth prospects (although over long time horizons of 15 years or more).[10] These will likely need public financing;
- Other investments may not directly enhance fiscal capacity, even in the long run, and may never deliver financial returns. However, they may still have large social returns, be indispensable to avert large costs (climate action) and/or deliver on shared global priorities such as poverty eradication—priorities that the international community has committed to support.

2.2 Costs and terms of capital

Developing countries are typically faced with a relatively high cost of capital. In the low interest environment of recent years, the average interest cost of outstanding sovereign debt in developed countries fell to around 1 per cent. The average cost for developing countries is significantly higher. LDCs, which have access to concessional lending, have increasingly tapped international markets in recent years, dragging up their average borrowing cost and worsening their debt dynamics. For example, in 2021, African and LDC sovereign Eurobonds were issued with yields above 5 per cent, and yields in 40 per cent of African bonds exceeded 8 per cent. While debt service burdens in developed countries remain low, even at high levels of debt, developing countries, including some of the most vulnerable among them, dedicate a large and growing share of their fiscal resources to servicing public debt (see figures II.1a and II.1b).

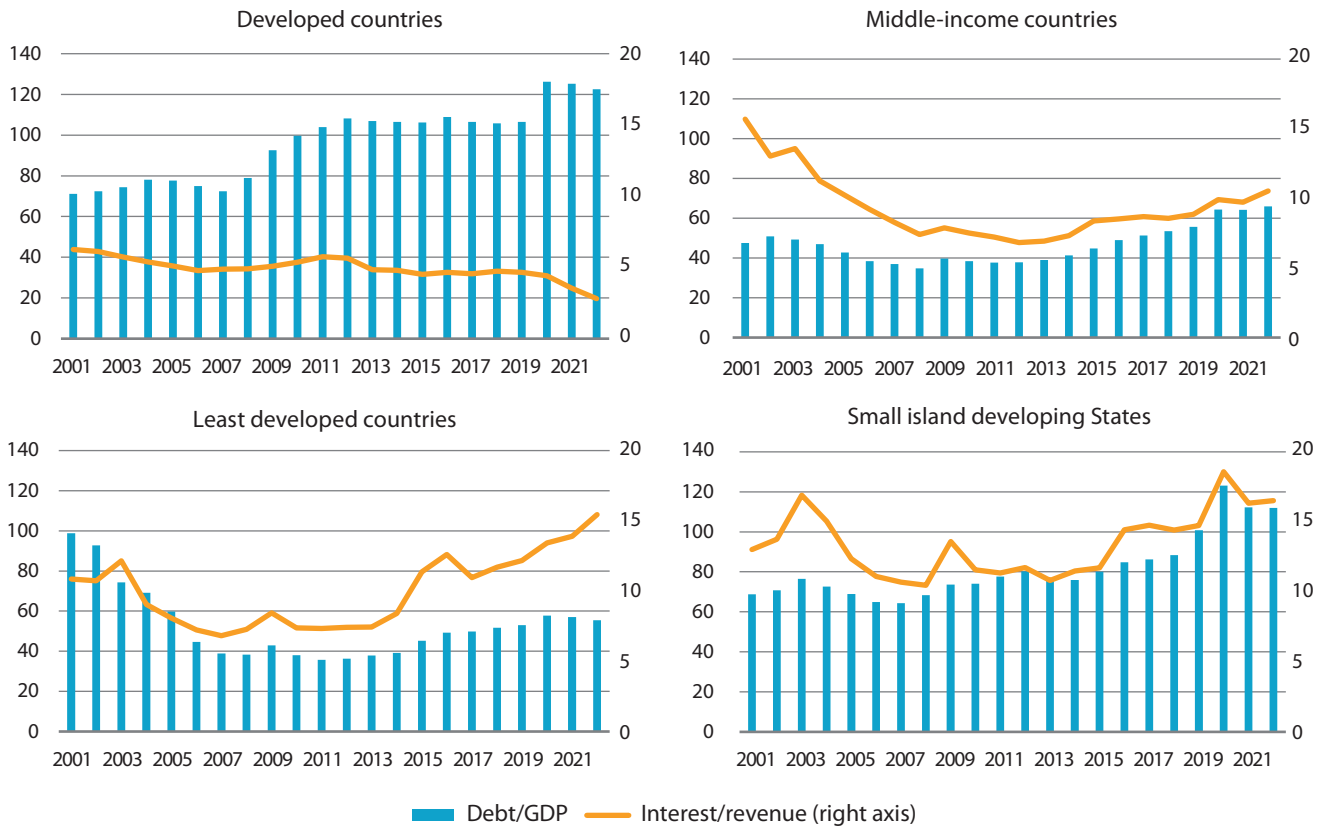
Many developing countries still face limitations in issuing long-term domestic debt. Domestic debt now accounts for almost half of the total debt of all developing countries (up from less than a third 20 years ago). In total, developing countries are increasingly relying on savings from domestic residents to finance deficits, although the share remains significantly lower for LDCs and LICs.[11] But "original sin"—the idea that many countries are unable to raise long-term funding in their domestic currency—has not been fully "redeemed". Many LDCs in particular are still left with suboptimal choices—either to borrow at short maturities domestically, usually from the banking sector (which creates maturity mismatches when financing long-term investments and increases the risk of sovereign banking sector nexus in the event of a crisis), or in foreign currency in international markets (creating currency mismatches for national investments that do not necessarily generate foreign exchange earnings).[12] More generally, issuing domestic debt that is in local currency and/or under domestic law, remains more expensive for countries that are perceived as high risk (including as measured by low credit ratings).[13] This also applies to developed countries—in the Eurozone, sovereign bonds issued under foreign jurisdiction trade at a premium for borrowers perceived as "high risk".[14]

Figure II.1a
Average interest cost of outstanding government debt
(Median, in per cent)



Source: Volz, Ulrich and Damon Aitken. 2022. "Public Debt in the Time of COVID-19 and the Climate Crisis". Background Paper for the Financing for Sustainable Development Report 2022. Figure compiled with data from the IMF and IIF.

Figure II.1b
Debt stocks and debt servicing costs
(Percentages)



Source: IMF WEO data, with UN/DESA staff calculations.

Investors have historically demanded sizeable compensation for investing in foreign currency sovereign debt. While developing countries have reduced reliance on such foreign currency borrowing in recent years, many still face difficulty issuing long-term debt domestically (see also below). Yet, foreign currency borrowing is expensive. Over the last 200 years, the average annual return of foreign currency debt to investors has been around 7 per cent, after accounting for losses from defaults. This exceeded the "risk free" return on US and UK bonds by an average of 4 percentage points (in finance terms, the credit spread, or additional cost of finance for Eurobond issuances is 4 per cent).[15]

Returns for investors have been greater since the mid-1990s in the period of bond financing, compared to returns from bank loans that dominated prior to that. Following the Brady plan in the late 1980s, which securitized bank loans into tradeable securities, developing country sovereign borrowing shifted from commercial bank loans to bond issuances. Since 1995, total returns to investors (net of losses from defaults) have averaged almost 10 per cent—a historical high, with a credit spread of around 6 percentage points over the risk-free rate. To put this spread into context, external sovereign bonds are the best performing asset class, outperforming other asset classes such as equities or corporate bonds. This is true even when adjusted for risk (measured by short-term volatility of secondary market prices).[16] Foreign currency bonds more than compensate investors for the risks they face, even through a period of repeated financial turmoil in developing countries. High investor returns equal high borrowing costs for countries. This raises the question of how much investor "excess returns" has cost developing countries and to what extent "excess borrowing costs" have contributed to debt crises.

High spreads on foreign currency bonds reflect perceptions of high default risk; such perceptions can sometimes become self-fulfilling. Sovereign spreads represent investors' default risk perceptions, primarily determined by country fundamentals. A deterioration in global financing conditions can change risk perceptions and sometimes trigger liquidity crises even in countries that had a sustainable debt trajectory and are solvent. At that point, borrowing costs could rise sharply and default expectations can become "self-fulfilling".[17]

2.3 Underlying drivers of limited policy space

Improving financing terms calls for addressing underlying macroeconomic constraints. More expensive and more intermittent access to financing has constrained developing countries' macro-policy response to COVID-19 and limits fiscal space to invest in climate action and the SDGs. These more challenging financing conditions are linked to a whole host of factors, including institutional and governance quality,

rate and resilience of economic growth, the state of public finances and external balances and monetary flexibility. Macroeconomic constraints—the focus of this chapter—play an important role; addressing these will be key to increasing developing countries' fiscal and monetary policy space.

The aggressive macro-policy response in developed countries reflects a broader shift in the "conventional wisdom" of macroeconomic policy that preceded the pandemic. With ultra-low interest rates unable to avert a slow recovery from the 2008 world financial and economic crisis, conventional monetary policy had appeared increasingly toothless. This led to several key shifts:[18]

- Unconventional monetary policies, such as quantitative easing, and a blurring of the boundaries between fiscal and monetary policies;[19]
- A reappraisal of the role of fiscal policy in what some have called a "new fiscal consensus", which accepts that macroeconomic policy measures are needed to support aggregate demand in light of weak private sector demand; that the onus is on fiscal policy to do so as monetary policy is exhausted at the zero lower bound; and that additional fiscal support is feasible as debt remains sustainable even at higher levels in a low interest environment;[20]
- In parallel, policymakers are paying increasing attention to the links between traditional objectives of macroeconomic policy and broader sustainable development considerations such as inequality and climate change. Inequality has become a central concern in this regard, identified as one of the drivers of growing household indebtedness and depressed aggregate demand.[21] There are calls for a significant scaling up of public investments in physical and social infrastructure, and climate adaptation and mitigation.[22] Both inequality and climate change, for example, have also come into the focus of central banks (see chapter III.F and previous editions of the *Financing for Sustainable Development Report*).[23]

However, there are limits to how well this new-found flexibility "travels" to developing countries due to underlying constraints that translate into less policy space; rising inflation also puts it into question in developed countries. Fiscal space is more limited in many developing countries because debt sustainability concerns tend to arise at lower levels of debt than in developed countries. In addition to the general challenges with assessing countries' solvency noted above, developing countries tend to have less flexibility to adjust their fiscal stance in crises, and there is more volatility and uncertainty over their growth prospects and interest costs. The greater dependence of many developing countries on foreign savings and foreign currency borrowing further exacerbates vulnerability and uncertainty, as it makes countries more vulnerable to the global financial cycle and sudden stops. Together with often less well-anchored inflation expectations, this can limit monetary policy space (see box II.1 for details). As inflationary pressures continue to rise, with global inflation increasing to over 5 per cent in 2021 (see chapter I), and central banks start to tighten their policy stances in response, rising borrowing costs may also become a more pressing concern in developed countries again.

Box II.1
Limits to fiscal and monetary policy space

Fiscal space and debt sustainability

Fiscal space is limited even at comparatively lower levels of debt for many developing countries. Assessments of sovereign debt sustainability focus on public debt trajectories over the near to medium term under reasonable growth and policy assumptions and how those trajectories are affected by different shocks.[24] A stable trajectory requires that primary balances (the difference between public revenue and public expenditure other than interest payments on debt) are sufficient to cover debt service or interest on the existing debt stock. Debt trajectories are thus driven by the fiscal policy stance (primary balances) and the interest rate-growth differential. Because developing countries tend to have less ability to adjust their fiscal policy stance, and face greater uncertainty over future growth and interest rates, they are faced with higher default risk.

- **Primary balances are more challenging to adjust.** Public non-interest expenditure represents a smaller share of GDP in poorer countries. This is for two reasons: first, their public budgets are comparatively much smaller. Second, developing countries dedicate a larger share of their public budgets to interest payments on average. They need to make a larger effort for an equivalent (in GDP terms) adjustment of their primary balance. LDCs, for example, mobilize only half as much revenue as a share of GDP as developed countries, but spend triple the share of that revenue on interest payments. They would have to increase the primary balance by 10 per cent to achieve an adjustment of 1 percentage point of GDP, more than twice the effort that would be required for the average developed country. Observed primary balances are more stable in developing countries, hinting at the difficulty of adjusting them through the business cycle;[25]
- **There may also be a greater level of uncertainty around primary balances.** Greater vulnerability to external shocks and disasters and higher political risk or volatility of terms of trade may all translate into more volatile fiscal balances. Lower levels of debt transparency and large contingent liabilities, which increase uncertainty around "true primary balances", can also contribute and lead to increased risk premia (see also chapter III.E);[26]
- **Interest-growth differentials have become less favourable.** Developing countries on average grow faster than developed countries. LDCs and other LICs in particular also benefit from access to concessional finance, leading to more advantageous interest-growth differentials—their capacity to service debt has grown faster than interest that accrues on it. However, over the last decade with increased market access, their cost of borrowing has increased. While primary deficits, though volatile, stayed in line with historical averages prior to the pandemic, rising borrowing costs and lower growth rates became a major driver of debt increases.[27] This is in marked contrast to developed countries, which have benefited from near-zero interest rates;
- **Developing countries also have more volatile interest-growth differentials, further increasing**

uncertainty. Interest rates are volatile due to shallower financial markets and to reliance on foreign savings and foreign currency borrowing, which makes debt stocks and interest costs vulnerable to exchange rate movements. This volatility is pronounced in periods of financial stress—countries that issue reserve currencies are much less likely to see interest rates spike (safe havens may even see interest rates fall during a crisis). This can lead to sharp increases in risk premia in developing countries.[28]

Monetary policy space

The ability to ease monetary conditions may be limited due to poorly anchored inflation expectations, weak fiscal positions, shallow financial markets and vulnerability to capital outflows. Developing countries and LDCs in particular are much more vulnerable to external price shocks. Approximately three quarters of the variability of core inflation rates in LICs can be explained by external shocks, for example, those emanating from volatile global energy and food prices.[29] As a result, inflation rates are less stable and inflation expectations less well-anchored. Underdeveloped financial markets may also impede monetary policy transmission channels—policy rates may not be passed on effectively to market participants, for example, because of market segmentation, dollarization or limited financial inclusion. All these factors can limit monetary policy space and effectiveness. A weak fiscal position and vulnerability to capital outflows further exacerbate this challenge.

These challenges are heightened in those developing countries that are reliant on foreign savings and that issue debt in foreign currency. Lowering policy rates will put downward pressure on exchange rates (for countries with floating rates). Depreciations will, in turn, increase debt service costs on foreign currency denominated debt. Central banks' ability to act as a lender of last resort in their domestic markets, providing loans to domestic financial institutions when market financing dries up, is also constrained. Foreign currency reserves may not suffice to repay creditors at short notice, potentially triggering currency and banking crises. More generally, developing countries that need to service and roll over foreign currency debt and finance imports, including health-related imports in the context of the pandemic, are vulnerable to volatility in international capital markets. Such vulnerabilities have increased as external debt stocks as a percentage of exports of goods and services and primary income have steadily risen over the last decade across developing countries.

International capital flows are driven by global factors beyond the control of developing countries to a significant degree. Global liquidity conditions and related risk aversion or risk appetite are an important driver of gross capital flows. Portfolio equity and debt flows into different regions and countries are highly correlated with each other and with global factors, such as growth and real interest rates in developed countries and risk aversion and uncertainty in global markets.[30] Such global factors have become more important determinants of capital flows compared to domestic factors over the last decade, such that "keeping one's own house in order is necessary but not sufficient for sustainable capital flows in the new world order".[31] And liquidity problems, be they triggered by domestic conditions or a sudden stop linked to global developments—such as in the early phases of the pandemic—can quickly turn into solvency challenges. An increase in risk premia and borrowing costs, for example, due to decreasing global risk appetite and lower global liquidity, can become "a self-fulfilling prophecy" and turn a liquidity challenge into a solvency crisis and default. This exacerbates both debt sustainability risks and constrains developing countries' monetary policy space.[32]

Source: UN/DESA.

3. A multifaceted policy response

Achieving the SDGs will require access to affordable, long-term and stable sources of financing and their effective use. Financing can come from public sources—development banks, bilateral providers—or from markets. The former are well placed to fund SDG investments because of shared objectives and long time horizons and will thus need to be a primary source. The latter have scale, but are more short-term oriented and demand high risk premia from developing countries. Tapping global savings for SDG investments thus requires addressing underlying drivers of the high cost of capital for developing countries, such as uncertainty and information gaps, volatility in global markets and systemic risks, and short-term incentives. Enhanced access to finance alone will not, however, achieve the desired impact if resources are not used effectively; efforts to reinforce transparency, accountability, risk management and good governance at large must be commensurate to the scaling up of financing, so that public policy goals are achieved *and* fiscal capacity is enhanced.

The policy options listed below aim to support the provision of additional financing from official sources and markets on favourable terms that reduce cost and volatility, address debt overhangs where needed and ensure that resources mobilized are spent effectively for shared priorities. The policy options aim to address the lack of funding, reduce developing country borrowing costs through national and global actions, and lower vulnerability to external shocks and capital flow volatility that further constrain their macroeconomic policy space. They are clustered in four areas:

i Spending mobilized resources effectively and in line with shared priorities;

ii Public finance provision and the role of public development banks;

iii Access to commercial financing at better terms, including both national and global efforts; and

iv Addressing debt overhangs.

These policy options can address both "efficiency" and "equity" issues. In part, they address inefficiencies in both policymaking and in markets by strengthening institutional and policy frameworks; closing information gaps; enhancing transparency; and addressing investor time horizons and gaps in the international policy architecture to lower volatility and uncertainty. However, enhanced efficiency alone will not suffice—the financing gaps are too large, particularly in countries with limited fiscal capacities. Closing these is an equity issue that requires the mobilization of additional concessional finance for shared priorities such as climate action and the SDGs.

The focus of these options is broadly on debt, in light of the current specific challenges laid out above. But debt financing cannot be seen in isolation. It is intrinsically linked to countries' macrofiscal and budget frameworks and their revenue strategies as well as all other action areas of the Addis Agenda. The remainder of the report addresses these in detail and provides relevant recommendations, particularly on: domestic resource mobilization (chapter III.A), which provides the long-term revenue base for servicing debt; private finance and investment (chapter III.B), which is a key complementary or even primary source of financing and investment in core SDG and climate priority areas; and different types of international concessional finance (see chapter III.C).

3.1 Good governance and effective use of proceeds

Achieving the efficiency and equity objectives laid out above will depend on how effectively mobilized resources are used, and on carefully managing associated risks. Equitable and sustainable growth provides the basis for revenue mobilization, reduced reliance on foreign savings and achievement of development objectives in the long run. Higher growth rates also improve debt dynamics—if growth rates exceed interest rates, public debt becomes sustainable at higher levels. Debt financing can support recovery and growth, but it is no silver bullet. Rapid build-ups in debt often end in crises. About 50 per cent of "debt booms"—periods of significant increases in debt-to-GDP ratios—have been accompanied by financial crises.[33] For additional debt financing (or debt relief) to translate into positive long-term outcomes, risks have to be carefully managed and resources used well.

Access to more—and more diverse—sources of debt financing increases the burden on debt managers to carefully manage risk. Despite improvements, debt management capacity in some countries has not kept pace with the rising complexity of the financing landscape. This endangers countries' ability to effectively manage the trade-off between the cost of borrowing and associated risk of financial instruments. Medium-term debt management strategies can help countries to meet their financing requirements, including those associated with investments in recovery, climate action and SDGs, and to manage their debt portfolios in a prudent manner.

Transparency is a precondition for effective debt management. Data gaps undermine countries' ability to effectively manage their debt, and for borrowers and their creditors to assess the sustainability of debt. Enhancing debt transparency and the related capacities of developing countries has been a key focus of the international community, but important gaps remain. Closing these coverage gaps, for example, in relation to state-owned enterprises or on terms and conditions of lending, becomes a high priority when the demands on public financing increase in the context of a crisis response or an expansion of public investment (see chapter III.E).

The scale-up of financing must be accompanied by commensurate efforts to improve governance more broadly. Governance challenges often stand in the way of financial resources and policies being effectively translated into desired development outcomes. Measures of governance quality, such as the rule of law, the absence of corruption and the quality of institutions, are important determinants of the long-term growth prospects of countries and thus also of their capacity to carry debt.[34] The effective management of public resources is a central aspect of good governance. Lack of transparency and accountability, corruption and misuse of public financing undermine public trust in the state; at grand scale, corruption will have significant negative fiscal and macroeconomic implications. Reducing corruption, on the other hand, has been associated with higher tax revenue generation, substantively enhancing countries' fiscal capacity.[35]

Sources of financing and their terms should match the characteristics of the investments or spending they are used for. Debt financing is most appropriate for projects and investments that generate direct returns and/or enhance a country's fiscal capacity over relevant time horizons, such as infrastructure investments. Other SDG priority areas, such as health and education, require increases in recurrent spending and, accordingly, sustained increases in domestic revenues.

The efficacy of additional public investments also depends on strengthened infrastructure governance and related public financial management processes. The efficiency of public investment is a key determinant of its growth and debt sustainability impacts, but evidence suggests that efficiency gaps are sizeable. On average, more than one third of resources are lost in the public investment process (when compared to best performers), with wide variations between countries. The quality of infrastructure governance and public investment management strongly impacts macroeconomic outcomes. In developing countries with strong governance records, additional public investments tend to have stronger positive impacts on growth, crowd in private investment and do not lead to rising debt ratios.[36] Existing assessments suggest that countries' weaknesses tend to be most pronounced in institutions specific to public investment rather than public financial management functions that relate not just to infrastructure but to a broader set of issues. Strengthening public sector capacities in this area, including project appraisal, selection, implementation and maintenance, is thus a priority.[37]

Public investment decisions should be guided by a country's medium-term sustainable development strategies and plans. Public investment priorities should emerge from broader national development priorities, for example, as an investment strategy that is associated with a medium-term plan and that identifies priorities based on development objectives and cost estimates. This is likely to enhance policy coherence toward broader objectives such as structural transformation. Linking public investment decisions to a medium-term fiscal and budget framework and debt management strategy can reduce the volatility of financing for capital expenditure. Stronger medium-term budget practices are associated with higher and less volatile public investment performance.[38] Integrated National Financing Frameworks can help countries to align their investment strategies and related financing decisions with their overall development plans.

Any conditionalities associated with resources provided for the achievement of climate or SDG priorities must be anchored in such nationally determined and owned priorities and plans. There is great potential in exploiting shared interests and objectives around climate action and the SDGs to mobilize additional resources for developing countries. To ensure that such resources are indeed used for their intended purposes in an effective manner, they should be tied to nationally owned and developed strategies and plans, based on lessons learned over many years in the development effectiveness area. Integrated National Financing Frameworks can guide development partners and other actors in their support.

3.2 Additional international public financing and public development banks

International public finance is an affordable and stable source of long-term finance. It must play a leading role in financing investments in recovery, the SDGs and climate action. International public finance is well placed to fund these investments for two reasons: first, public finance providers should have longer time horizons than private investors, allowing them to "engage in market arbitrage" and fund those long-term productive investments that others eschew. That is to say, with many private actors investing with shorter time horizons, there should be long-term investment opportunities that are under-priced and that a patient investor could fund profitable, thus "arbitraging" market behaviour. Second, public finance providers share SDG and climate priorities and are seeking sustainable development impact (possibly combined with financial viability) rather than maximization of financial returns. Hence, they are willing to provide concessional financing for investments that would otherwise not be competitive on a risk-return adjusted basis.

Public development banks can lend long term, at affordable rates and countercyclically, easing financing pressures during crises. Because they have public backing, development banks can fund their activities cheaply and pass this advantage on to their borrowers through lower interest rates and longer maturities, extending up to 40 years for concessional loans by the multilateral development banks (MDBs), for example. Often, they combine financial support with technical assistance and focus on projects and sectors well-aligned with climate action and the SDGs. Finally, they are better placed to absorb and manage rollover risks and have the capacity to act countercyclically. Both the MDBs and national and regional development banks have done so in the current crisis (see chapter III.C).[39] Public development banks already have a large footprint—527 development banks and development finance institutions have total assets of US$13 trillion,[40] with a small number of very large banks holding the vast majority of assets. Public development banks are estimated to finance around 10 per cent of investment globally.[41] But they could do more. In light of large unmet public financing needs, their role could be further strengthened in terms of the scale of their lending, lending terms and their cooperation as a "development bank system".

MDBs can further expand their lending through capital increases and balance sheet optimization. MDBs have been constrained in their COVID-19 response due to limited financial capacity (see chapter III.C of the *Financing for Sustainable Development Report 2021*). To further increase their lending capacity, their capital position could be strengthened and use of their capital optimized. This includes:

- **Capital increases** to non-concessional windows and early replenishments of concessional lending windows. Such capital increases could be tied to specific SDG or climate priorities, as suggested in the climate-dedicated capital increase by the United Nations Independent Expert Group on Climate Finance;[42]
- More **effective use of the existing capital base.** Studies show that MDBs could significantly increase lending without impacting their credit ratings (see chapter III.C). The G20 has initiated a review of MDB capital adequacy frameworks; and
- **Rechannelling unused SDRs** through MDBs that are already prescribed holders. Any proposal for channelling SDRs via MDBs needs to address national regulatory, policy, and institutional arrangements that guide the level of flexibility countries have outside established IMF options. (See chapters III.C and III.F.)

Public development banks can provide lending on terms that support long-term and stable access to finance. Lending on such terms could help to address the key risks and uncertainties laid out above, including rollover and exchange rate risks associated with short-term and foreign currency borrowing, liquidity risks and sudden stops.

- MDBs in particular provide **lending at long maturities** (median maturities for MDB loans are 23 years in MICs and 30 years in LDCs, see chapter III.C); as noted in the *Financing for Sustainable Development Report 2021*, the lengthening of such maturities to 50 years, at fixed interest rates, could be considered, particularly for financing investments with a positive but very long-term impact on growth, including for non-concessional loans such as for health and education. This would need to be accompanied by capital increases to account for the greater need for risk capital;
- **Countercyclicality could be further strengthened.** Public development banks, along with bilateral lenders, should consider greater and more systematic use of state-contingent clauses in their own lending, with a view to providing breathing room to countries hit by shocks (akin to automatizing an initiative like the DSSI in case of a systemic crisis). Thus far, state-contingent clauses have been used at a small scale, for example, through the French Development Agency's Prêt Très Concesionnel Contracyclique (PTCC). They could complement quick-disbursing and insurance mechanisms to provide fiscal space when it is most needed (see the *Financing for Sustainable Development Report 2021*). Development banks could also help to familiarize market participants with such clauses and thus help to overcome first-mover problems in their use in commercial borrowing;
- **MDBs should also consider increasing lending in local currency.** Providing a greater share of their lending to sovereigns in local currencies would contribute to lowering borrowers' debt risk profiles, particularly when lending for projects that are unlikely to generate foreign currency earnings. Both the Asian Infrastructure Investment Bank and the New Development Bank have prioritized such lending. MDBs that have geographically diversified portfolios should be in a better position to manage currency risks. The Addis Agenda encouraged further growth in this area and the use of diversification to manage related risks.

National and sub-regional development banks should be strengthened. Development banks and development finance institutions play an important role in all regions and at all levels. In the Latin America and Caribbean region, for example, financing for the COVID-19 response from sub-regional and national development banks significantly exceeded that by the MDBs.[43] Existing surveys have found that national development banks both lend long term and play a countercyclical role during crises.[44] However, they tend to play a much smaller role in poorer regions. In LDCs and LICs, they are smaller in number and in size, even relative to the size of their host economies, and suffer from governance challenges, constraints in capacity and capital.[45] These challenges are linked. The size of national and sub-regional development banks is constrained by the fiscal capacity of the sovereign that backstops their activities; a poorly run institution that runs into solvency challenges could, in turn, threaten

sovereign balance sheets. They could benefit from capacity and financial support from larger and more established development banks in the context of a strengthened development bank system. Such support had been provided until the 1970s, when the World Bank Group advised and financed a number of national institutions. With renewed recognition of their role, such relationships could be strengthened through financial cooperation and technical assistance.[46] In turn, regional and global institutions can benefit from the local knowledge of national institutions. The "Finance in Common" system can play an important role in this regard, as it is supports closer cooperation between public development banks through strategic dialogue, joint methodologies and measures and innovative co-financing.

Other sources of concessional financing should be scaled up. Development banks play a special role because of their ability to lever public contributions in financial markets. But public financing must be scaled up through other channels as well—starting with traditional donors meeting their overseas development assistance and climate finance commitments, and channelling unused SDRs to LICs and MICs in need, mindful of the challenges noted above; several proposals have been made in this regard (see chapter III.F).

3.3 Enhancing stability and reducing uncertainty in markets

Commercial funding is a large source of financing for long-term investment for a growing number of developing countries, but it is not playing the role it should play. Commercial financing can be costly and volatile. Borrowing terms depend on macroeconomic fundamentals and other idiosyncratic factors such as political risks, climate-related risks and disasters, but also on the global financial cycle. To play its role as a source of stable and long-term financing for sustainable development, efforts are needed to (i) reduce (actual and perceived) risks, including those emanating at both national and global levels; (ii) enhance the information ecosystem to enable longer-term and sustainable investments; and (iii) share risks between public and private actors (e.g., through blended finance mechanisms) for investments in shared priorities when appropriate. Relevant policy options are clustered in actions at the national and global levels.

"Macro-fundamentals" and other domestic factors

Domestic determinants of borrowing costs include but are not limited to macro-fundamentals, domestic institutions and the enabling environment. Sovereign yields are influenced by a range of national and global factors. They include credit risk related to the fiscal situation, debt stocks and growth prospects; inflation, monetary policy and other macro-financial variables; foreign exposure, exchange rate volatility and related factors; domestic financial market conditions, including the size of the foreign investor base; perceptions of political risk and stability; and global liquidity conditions.[47] Beyond macro-fundamentals and global conditions, studies have also found (lack of) transparency and information to impact risk premia.[48]

Growth-oriented and resilient macro-fiscal frameworks reduce risk and risk perceptions. Macro-fiscal frameworks anchor fiscal policies and annual budgets in a medium-term policy framework. Their primary objective is to stabilize economic activity and public service delivery in the short term and through business cycles, and to promote economic growth and sustainable development over the longer term, which ultimately also support long-term debt sustainability. With regard to the former, a key challenge is to overcome the "procyclicality trap" of fiscal policy, which has long plagued developing countries[49] and which has been the main focus of support in the current crisis. Systematically strengthening these capacities on the expenditure side could include strengthening social protection systems and protecting or even expanding capital spending in downturns, for example, through pre-approved public investments that are "shovel-ready". It also includes the ability to save in good times (see also chapter III.A). With regard to the "structural role" of fiscal policy, this is about the ability to contribute to sustained growth in incomes and aggregate demand, for example, by addressing inequalities and supporting technological progress and structural transformation.[50] As such, it links macroeconomic, budgetary and debt sustainability objectives to longer-term sustainable development and growth priorities.

Reducing reliance on foreign currency borrowing can reduce risk premia. In light of large unmet investment needs, many developing countries rely on foreign savings to finance a sizeable share of their domestic investment. But reliance on foreign savings is risky, as episodes of prolonged current account deficits often end in crisis.[51] This speaks to the need to attract more non-debt-creating sources of external financing, in particular foreign direct investment, to deepen domestic financial markets and reduce the reliance on foreign currency debt (see box II.2 and chapter III.B). More immediately, macroprudential measures help to dampen both domestic financial cycles and capital inflow volatility.[52] Capital flow management measures can complement macroprudential policies, particularly in crisis situations. "Pre-emptive" and countercyclical measures aimed at dampening excessive portfolio inflows during boom times lower the risk of sudden stops and risk premia on foreign currency lending during crises[53] (see chapter III.F).

Global sources of volatility and risk

Steps should be taken to mitigate global "push factors". As global factors have become increasingly important in determining capital flows and their volatility, policy actions will also be needed at global level in order to reduce developing countries' vulnerability to sudden stops and to improve their lending terms. Monetary policies in the centre are a key driver of the global financial cycle. Major central banks can contribute to dampening that cycle by increasing the transparency of their decision-making, providing forward guidance to markets and taking into account the spillover effects of their monetary policy decisions. This is increasingly justified even within the terms of their own domestic mandates, as "spillbacks"—the second order impacts of tightening financial conditions through lower growth in developing countries—have increased significantly.[54] This also calls for greater consideration of their global macroprudential responsibilities in financial sector regulation (see also chapter III.F).

More global action is needed to prevent and speedily resolve liquidity and solvency crises. Despite its significant extension in the wake of the 2008 world financial and economic crisis, the global financial safety net continues to face resource constraints and gaps in coverage. IMF emergency lending and the SDR allocation have been the main

Box II.2
Local currency government bond market development

Deep and efficient domestic government debt markets can help to strengthen resilience to shocks in times of financial turbulence. Recent financial crises, including the turmoil in financial markets caused by the COVID-19 pandemic, have shown that efficient Local Currency Borrowing Markets (LCBMs) can increase financial resilience by mitigating currency risk, which is often a source of financial distress. In addition, the development of LCBMs is a cornerstone of broader capital market development that helps to price risk appropriately, allows participants in financial markets to better manage their portfolios and provides a more effective conduit for monetary policy. In turn, these factors help to boost a country's long-term economic growth potential.

Developing domestic debt markets is a complex process that requires multiple and interdependent policy actions. Although broad guidelines and general principles to develop LCBMs are available, their translation into specific reforms is a daunting task because it requires actions from a broad range of stakeholders, including the debt manager; the central bank; regulators; the providers of trading, payment, clearing and settlement systems; and other policymakers. As countries tend to be at different levels of development along these various dimensions, further developing their LCBMs requires a country-specific, customized approach.

To anchor this approach, the IMF and World Bank have developed a guidance note to provide a comprehensive and systematic framework for LCBM development.[a] Recognizing the obstacles that hamper the implementation of LCBM reforms, the guidance note starts with a systematic assessment of the preconditions for success and the stages of market development along the typical six major building blocks of LCBM development: money market, primary market, investor base, secondary market, financial market infrastructure, and the legal and regulatory framework. Applying a series of specific indicators, the guidance note framework allows for (a) the identification of gaps in a country's LCBM, (b) the assessment of a country's stage of market development, and (c) the identification of possible peers that may provide replicable lessons.

Source: IMF.

a International Monetary Fund and World Bank. 2021. "Guidance Note for Developing Local Currency Bond Markets". IMF Analytical Note 2021/001. March.

instruments accessible to most countries, while regional financing arrangements (RFAs) have not lived up to their potential. Beyond expansion of the IMF's financing capacity, a strengthening of RFAs should be considered (see chapter III.F). When liquidity turns into solvency challenges, defaults on external debt are often protracted in the absence of a formal debt resolution framework (see chapter III.E). Formalizing implementation procedures of the Common Framework and addressing some of its shortcomings (timeliness; eligibility; provision of standstills for countries approaching the Common Framework; and clarifying private sector participation through comparability of treatment) would be an important step in the right direction.

Transparency and the information ecosystem

Enhanced debt transparency can reduce uncertainty premia. Challenges remain over countries' disclosure of their full set of liabilities, which can impact borrowing costs. Transparency remains a challenge particularly for debt incurred beyond central government, by, for example, municipalities and state-owned enterprises, and for other types of contingent liabilities, domestic and non-tradeable external debt and resource-backed loans. A more complex debt landscape increases reporting burdens on debt management offices with limited capacities; some creditors also insist on confidentiality clauses that tie debtors' hands. The lack of transparency comes at a concrete fiscal cost, however, in addition to undermining accountability to citizens. While hiding the true extent of debt may lower costs in the short term or help to circumvent fiscal rules, in the long term *more* transparent debt management results in higher credit ratings and ultimately reduces risk premia.[55] Increased transparency across countries can, over time, reduce uncertainty, risk perception and borrowing costs for the entire asset class. Improving transparency will require investments in public debt management and in legal, institutional and operational frameworks and related international support; it will furthermore require creditors refraining from confidentiality clauses and disclosing relevant information, and the international community streamlining and consolidating debt reporting requirements and databases to lower reporting burdens and enhance transparency (see chapter III.E).

Further extending the horizon of credit ratings and debt sustainability assessments would complement the existing information ecosystem and could provide important insights for long-term oriented actors. Credit rating agencies provide information to investors and financial markets to help them price risk. Ratings thus affect the volume, cost and stability of access to market financing. The IMF and World Bank's debt sustainability assessments also monitor relevant country risks and provide early warning for debt distress. For LICs in particular, debt sustainability assessments determine countries' eligibility for and the terms of concessional financing (see chapter III.E). Existing assessments adopt a short- to medium-term time horizon—assessing capacity to service debt is typically three years for credit ratings in practice and somewhat longer (five to ten years) for the debt sustainability assessments. Because (perceived and actual) solvency risks can affect (the terms of) market access, and liquidity crises can turn into solvency crises, short-term-focused ratings do serve a purpose in helping creditors to evaluate near-term risks. But they risk enhancing procyclicality in markets rather than dampening it and would not capture long-term risks such as climate risks. They do not, therefore, fully incorporate many issues that are of critical importance to actors with longer time horizons—public borrowers, a growing number of investors and the international community at large. Several steps are already being taken—and additional steps could be taken—to address these concerns:

- Debt sustainability assessments by international financial institutions increasingly incorporate long-term considerations despite the challenges noted above, including climate and disaster risks for relevant countries and the growth impacts of public investments (see chapter III.E and previous editions of the *Financing for Sustainable Development Report*);

- Few Governments systematically value their public commercial assets, which can create a bias against capital spending. More active management of these public assets, for example, in dedicated public wealth funds or on the balance sheets of national development banks, could lead to more effective use, generate additional income and complement debt sustainability assessments with a better understanding of government net worth.[56] There is evidence that bond markets do take the composition of fiscal policy into account when they have such information, with deficit increases driven by increases in public investment lowering sovereign spreads;[57]
- Related discussions are ongoing in regard to fiscal rules, for example, in the context of the European Union's fiscal framework. A proposed "green golden rule" would exclude public investments in climate action from consideration in existing deficit and debt limits. This would incentive capital spending on climate priorities; in countries that face debt sustainability concerns, it would make the tension between shared political commitment to climate action and budget constraints explicit and facilitate a political solution;[58]
- Long-term credit ratings could be an important complement to existing ratings and assessments. They would be particularly valuable for investors with long-term liabilities such as pension funds, but would help all creditors to better understand the fundamentals of the countries in which they are investing (see box II.3 on credit rating agencies).

Box II.3
Credit rating agencies and sovereign financing

Credit ratings play an important role in international capital markets as they provide creditors with assessments of a debtor's relative risk of default. Inaccurate ratings can impact the cost of borrowing and the stability of the international financial system, as demonstrated during the 2008 world financial and economic crisis. That crisis resulted in regulatory reforms to reduce the mechanistic reliance of financial regulation on ratings and address conflicts of interest, particularly in relation to ratings of corporates and structured finance.

Sovereign ratings are structurally different from corporate ratings in that analysts' judgements about political risks and "willingness to pay" play a much greater role. Since sovereign ratings often act as a country-level ceiling for corporate ratings, they affect both public and corporate borrowing and thus overall investment in the SDGs.

A detailed analysis found that 61 out of 154 rated sovereigns were downgraded by at least one of the big three credit rating agencies (CRAs) during the COVID-19 pandemic. Developing countries accounted for nearly all the sovereign downgrades, negative outlooks and reviews for downgrades, with MICs representing 60 per cent of the downgrades (see figure II.2). Developed countries, which saw much larger debt increases and economic slowdowns, largely escaped downgrades—reinforcing their access to ample, cheap market financing. This discrepancy, which could be due to a host of reasons, underlines the importance of transparent methodologies so as not to undermine confidence in ratings.

In addition to ratings' impact on the cost of borrowing, three additional questions related to developing country sovereign credit ratings stand out: (i) the term of assessments and integration of climate change and other non-economic factors; (ii) incorporation of public sector actions, including official debt restructurings such as DSSI, into ratings analysis; and (iii) potential sell-offs from "cliff effects" and financial market instability.

CRAs are already integrating climate risk into their ratings. Conversely, a country's efforts to invest in the SDGs, including in resilience and climate adaptation, should be viewed favourably in ratings that take a sufficiently long-term perspective—analogous to markets "rewarding" capital spending. The current CRA "long-term" rating is meant to cover three to five years for non-investment-grade issuers and up to ten years for investment-grade issuers. In practice, sovereign ratings use financial and economic forecasts of up to three years, which may over-emphasize near-term economic business cycle expectations and exacerbate volatility. Ideally, rating methodologies would incorporate more long-term factors, such as environmental and social risks and improvements, which could be published in new, long-term assessments that complement existing assessments. The use of scenarios for both economic and non-economic risks could make long-term assessments more manageable to produce. Such scenarios can be derived from stress tests for various adverse shocks and their impacts on debt dynamics or through probabilistic approaches that develop many scenarios and allow for the assignation of likelihoods to different debt paths, including adverse scenarios. Long-term ratings could help to reduce procyclicality and, if well implemented, to capture the positive effects of investments in climate and environmental resilience.

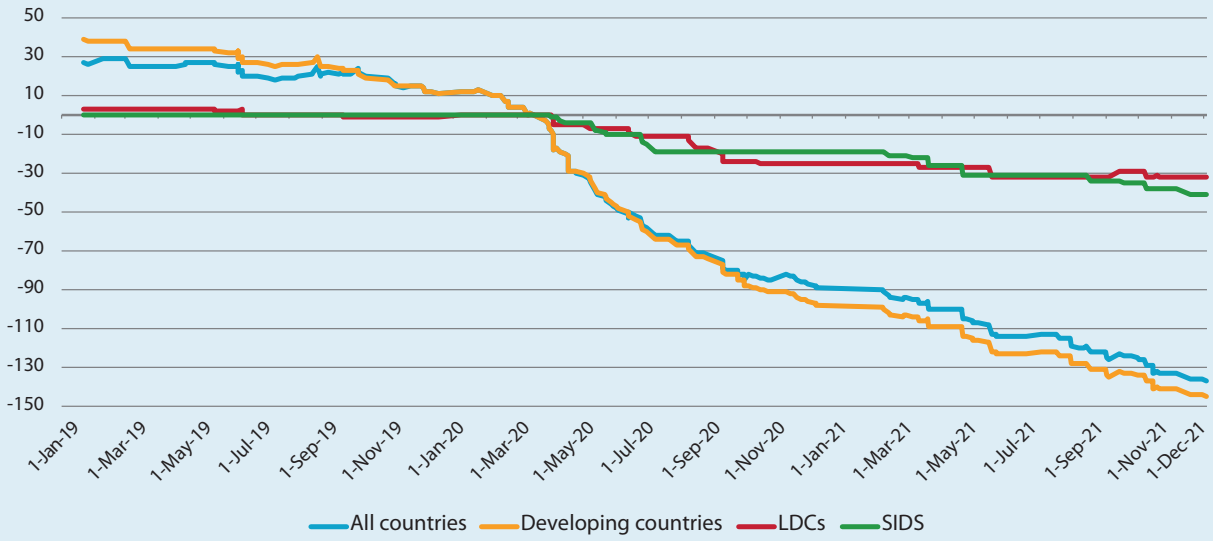
Official sector debt relief can help to strengthen countries' balance sheets and ability to repay all debt in the medium term. Despite no countries ultimately being downgraded for participation in the DSSI, some developing countries, including those with elevated debt distress risks, were deterred from joining the programme due to the fear that participation would trigger rating downgrades. Greater dialogue could have helped to avert such misunderstandings on the part of both countries and CRAs. A standing, formal structure or framework to facilitate continued dialogue could be considered.

Ratings may also be linked to price volatility beyond what would be warranted by fundamental factors, including due to so-called cliff effects. "Fallen angels" are issuers that have been downgraded from an "investment grade" rating to a sub-investment-grade rating. These issuers may face a sell-off of their debt from investors who are precluded from holding speculative grade debt due to either unreformed regulatory rules or rigid mandates of private sector investment funds, especially passive funds. Fund managers do seem to have some discretion about the timing of portfolio rebalancing in periods of extreme market stress. However, increased monitoring of this risk could be helpful. Investment managers could more explicitly adopt a portfolio approach to ratings levels in their mandates, while regulators could work to eliminate the few remaining pockets of mechanistic reliance on ratings.

Several structural factors related to CRAs and their role in the wider capital market ecosystem remain. Efforts to reduce market

concentration, with just three CRAs holding over 90 per cent of the market share, have not been effective to date. This is partly due to the enormous entry barriers for new firms given that the nature of the business is built on reputation and trust. Limited market pressures may reduce incentives to update methodologies and take advantage of new technologies in credit assessments. Structural challenges also have ongoing implications beyond sovereign ratings. Progress on these issues remains limited, as adopting effective reforms remains difficult both technically and politically. Voluntary actions by CRAs, for example, transparently separating quantitative models from value-added judgement, could increase trust and help investors to better assess the quality and objectivity of ratings; such more transparent analysis could complement existing projections and sustainability assessments by the public sector.

Figure II.2
Sovereign ratings movement over time, by country grouping, 2019–2021
(Index)



Source: UN/DESA calculations based on Moody's Analytics.
Note: This figure shows an index of rating actions by Moody's Analytics, with 0 on 11 March 2020, the date the WHO declared the global pandemic. All sovereigns are weighted equally, each positive (negative) outlook is +1 (-1); a review for upgrade (downgrade) is +2 (-2); and a positive (negative) rating change is +3 (-3).

Translating shared priorities into lower borrowing costs

Investors concerned about climate and SDG impacts may be willing to pay a premium for debt instruments that tie the use of proceeds to such priorities. Sovereigns have aimed to exploit this interest in debt issuances and in restructurings (see chapter III.E). A growing number of countries have issued green, social and sustainability bonds, with the number of sovereign sustainable bonds more than doubling in 2020-21.[59] By the end of 2020, issued sovereign green bonds amounted to USD 41.2 billion, a 65 per cent increase compared to 2019. Such bonds have been a fast-growing segment of the broader green bond market, but remain a small part of the overall and vast sovereign bond market. They can help to raise resources for key public policy priorities; sovereigns can also catalyse the broader green finance market by providing benchmark pricing and demonstration effects. Tying the use of proceeds to climate action or the SDGs may help to reduce borrowing costs. Taking advantage of investors' growing interest in sustainability issues, some studies have found that such bonds can be issued at a slightly reduced cost ("greenium").[60] (See also chapter III.B.)

The international community can also provide targeted subsidies to lower borrowing costs in markets for shared priority investments. (See also chapter III.C. for the use of guarantees in blended finance.) Partial guarantees and credit enhancements are most commonly used in sovereign debt restructurings with a view to enticing private creditor participation and acceptance of thus-enhanced newly issued bonds. Policy-based guarantees have been used on a small scale, for example, by the World Bank (but also by some bilateral providers) for borrowers not at high-risk for debt distress, to improve borrowing terms in markets. They have helped countries to diversify their creditor base, securing longer maturities and lower interest rates, in return for commitments to reforms consistent with the World Bank's broader country partnership strategies.[61] Such partial guarantees, while not appropriate for countries at high risk of debt distress, could help to mobilize financing at more attractive terms for countries with low or moderate levels of debt; development finance institutions can achieve high leverage for investments in key shared priorities. Recent research suggests that hypothetical "green sovereign bond guarantees" for climate mitigation investments in select developing countries could produce savings for borrowing countries of up to 23 per cent of the principal amount of guaranteed bonds, significantly exceeding the cost of subsidy for the provider.[62]

3.4 Addressing the debt overhang

High levels of debt mean that additional financing alone will not suffice for many countries, and that measures to address the debt overhang must be part of global efforts. With debt levels spiking across the board since the onset of the pandemic, the related costs—debt servicing, indirect costs from required policy adjustments and default risk—have also increased and reached levels that endanger SDG prospects in many countries. With expiry of the DSSI for LDCs and LICs, no comparable relief on offer for MICs, uncertain growth prospects, rising climate risks, tightening global liquidity conditions and a creditor-friendly international financial architecture, there is a high risk of countries entering protracted debt crises and a need for debt relief for affected countries.[63] Without such relief, the SDGs will be out of reach (see the *Financing for Sustainable Development Report 2021*). Ongoing initiatives such as the Common Framework play an important role in this regard, but existing implementation challenges must be addressed; in case of a systemic crisis, statutory instruments may be needed (see chapter III.E).

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Domestic public resources



Chapter III.A

Domestic public resources

1. Key messages and recommendations

The COVID-19 pandemic has had a significant impact on fiscal balances. Tax revenues fell during the first year of the pandemic, particularly in the poorest countries, while expenditure needs increased. In many countries with sufficient resources, efforts were made to respond countercyclically to the large exogenous shock. Lessons learned include the importance of long-term planning to facilitate countercyclical fiscal policy, particularly in a world characterized by fast-paced technological change and increasing variability of climatic patterns.

Countries benefit greatly from strong fiscal systems, including diversification of revenue sources, as this can give more space for Governments to implement effective countercyclical fiscal policies. Countries with weak fiscal policies and low buffers are likely to become more fragile during a crisis. Governments can prepare contingency plans in advance of shocks and in the context of medium-term revenue strategies (MTRS) and broader integrated national financing frameworks (INFF). Building longer-term forecasts into policy-making, such as for tax reforms and public investment, allows Governments to respond better to short-term or sectoral shocks and align plans with wider sustainable development objectives.

Robust fiscal systems, including both tax and expenditure, can contribute to poverty alleviation and reduced inequalities while supporting economic growth, industrial transformation and environmental sustainability. Given the ambition of the 2030 Agenda for Sustainable Development and the challenges posed by COVID-19 recovery, improving the structure of the tax system so that it is aligned with Sustainable Development Goal (SDG) financing strategies is an increasing priority for many countries. Wider tax bases can help countries to withstand shocks and contribute to effective countercyclical policy. Country-owned MTRS should guide revenue reforms to widen the base and reduce tax avoidance and tax evasion, especially by the wealthy. They can also steer tax administration reforms, which can yield significant revenue increases. Strong public financial management (PFM) can improve spending efficiency, including better procurement systems to prevent corruption, even in emergency spending programmes. These efforts should be reflected in country-owned INFFs.

Fiscal policy creates incentives that influence economic activity and social and environmental outcomes; Governments should align all aspects of public finance with sustainable development.

First, countries should effectively use the fiscal system to reduce inequality, in line with their commitments in the 2030 Agenda for Sustainable Development. A number of fiscal policies can help to address inequalities:

- *The creation or strengthening of progressive income taxes on a broad tax base, with appropriate allowances for the poor, is a key tool in addressing income inequality;*
- *Policies that raise capital income tax rates closer to the tax rates on labour income can help to ensure that wealthy people, who usually have high levels of capital income, pay appropriate taxes. Wealth or inheritance taxes can strengthen these efforts;*
- *Universal social protection systems, which directly impact inequality, also create an infrastructure that can be used for emergency and crisis response and can be designed to provide incentives for business formalization and a reduction in tax avoidance and evasion.*

Second, countries should more effectively use the fiscal system to achieve gender equality and women's empowerment:

- *Countries should design policies based on systematic analysis of the gender implications of their tax system and budgets;*
- *Public spending should respond to identified needs, including greater investment in the care economy, which will produce a*

"triple dividend" of women's labour force participation, enhanced human capabilities and decent jobs in the paid care sector.

Third, all countries have space to better align their fiscal systems with climate change mitigation and adaptation as well as other environmental goals. Climate change action may need a combination of instruments (including taxes, carbon markets, regulations and subsidies) to be politically feasible, administratively practical and effective. Specific policies that can be explored include:

- *Eliminating explicit fossil fuel subsidies and pricing carbon emissions through taxes and/or emissions trading schemes; and*
- *Public investment in clean alternatives as well as increased social transfers to mitigate any regressive effects of an end to fossil fuel subsidies or taxes on energy.*

To align with the commitments in the Addis Agenda, countries should strengthen international tax cooperation to ensure that no countries are left behind, particularly on information exchange and usage. Digitalization, combined with progress on the sharing of tax information between countries and with new international standards on beneficial ownership registration for legal vehicles, is increasing the size and depth of the information ecosystem available for tax and financial integrity enforcement. Yet, many are not able to see or benefit from this information. Authorities can:

- *Put more information in the public domain to better inform policymaking across government, including publishing information on potential impacts of new international tax norms and opening beneficial ownership registries to public use;*
- *Make better use of information at the national level, including sharing and verifying information across government; and*
- *Improve international sharing of tax information, especially for least developed countries (LDCs), so that more countries are able to receive needed information, with assistance for improving systems and the capacity to utilize the information.*

Finally, digitalization of money brings both new risks of tax avoidance, tax evasion and illicit financial flows (IFFs) as well as new enforcement possibilities. Further research and guidance are needed on how tax policies and administration, especially in developing countries, can adapt to and influence the development and usage of digital assets, including cryptoassets, stablecoins and central bank digital currencies (CBDCs).

2. Domestic resource mobilization in the COVID-19 era

2.1 Revenue trends and the ongoing impact of COVID-19

Tax revenues fell during the first year of the COVID-19 pandemic, particularly in the poorest countries. The combination of severe contractions in economic activity in the first half of 2020 and tax relief measures enacted in response to COVID-19 had led many to expect a sharp deterioration in tax mobilization in 2020. Yet, while estimated median tax revenue to gross domestic product (GDP) ratios fell in all country groups and regions in 2020 (see figure III.A.1),[1] in about half of the countries the difference between 2020 and 2019 tax-to-GDP ratios was less than 1 percentage point of GDP (see figure III.A.2) while it increased in 28 per cent of countries. The median tax-to-GDP ratio in developed regions declined by only 0.08 percentage points. Nevertheless, in most countries nominal tax revenues declined along with a decrease in GDP while spending needs increased—with negative implications for fiscal balances.

The pandemic hit tax revenues the most in the countries with the greatest needs, particularly island economies. The decline in the median tax revenue was most severe in small island developing States (SIDS). Regionally, Oceania, home to many SIDS, saw the highest median year-on-year revenue declines, of over 3.8 points of tax-to-GDP. Asia's median tax-to-GDP ratio also dropped dramatically, by 2.3 points, to below 13 per cent. Africa remained the region with the lowest median tax-to-GDP ratios, with 2020 median tax revenue remaining below 13 per cent, although it saw a decline of only 0.13 points of tax-to-GDP in 2020 (see figure III.A.1).

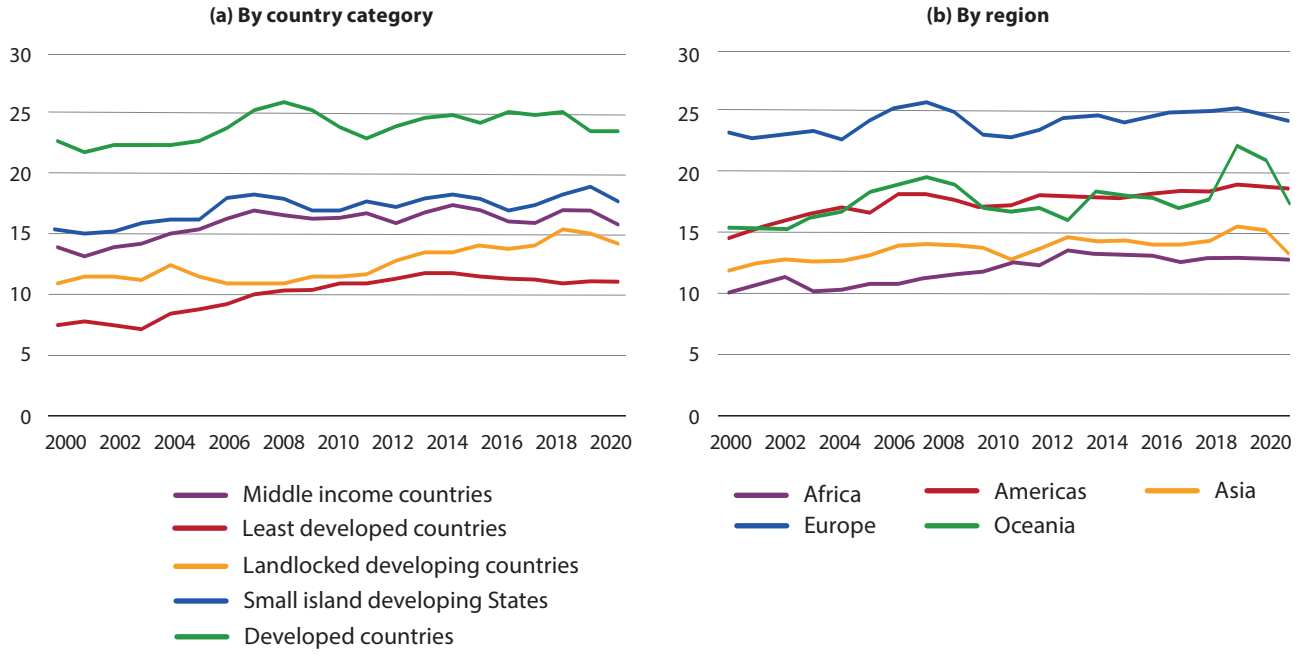
2.2 Lessons from COVID-19 experiences

Given the potential for an increase in non-economic shocks, Governments need to be prepared for increased volatility in both revenue and expenditure. The COVID-19 pandemic shows that fiscal policy needs to remain nimble and adapt to rapidly changing conditions. In any kind of shock, flexible fiscal policy, such as a discretionary fiscal stimulus, can reduce the amount of short-term damage and medium-term scarring from a crisis. Countercyclical fiscal policies that are well-adapted to country circumstances can be put in place in advance of crises, for example, automatic stabilizers. Strengthening fiscal frameworks, including MTRS, can help to reassure creditors that countercyclical fiscal support will support economic growth, a future increase in revenue in the medium term and, ultimately, long-term development prospects.[2]

COVID-19 has shown that long-term planning would benefit from accurate revenue forecasting and scenario analysis. Forecasting tax revenues during the COVID-19 pandemic has been a challenging task.[3] Traditional approaches to forecasting, based on simple tax buoyancy or macro elasticities, could likely lead to underestimation of revenue declines. As COVID-19 shows, shocks can be highly asymmetric across sectors and by size of business. The most appropriate revenue forecasting strategy will depend on the country—and in practice on data availability. Forecasts can make use of new high-frequency data sources. Preparing scenarios and models in advance can help finance and other ministries understand risks and potential impacts, as recommended in the guidance for INFFs. The development and implementation of MTRS and INFFs will also benefit from improved forecasting ability.

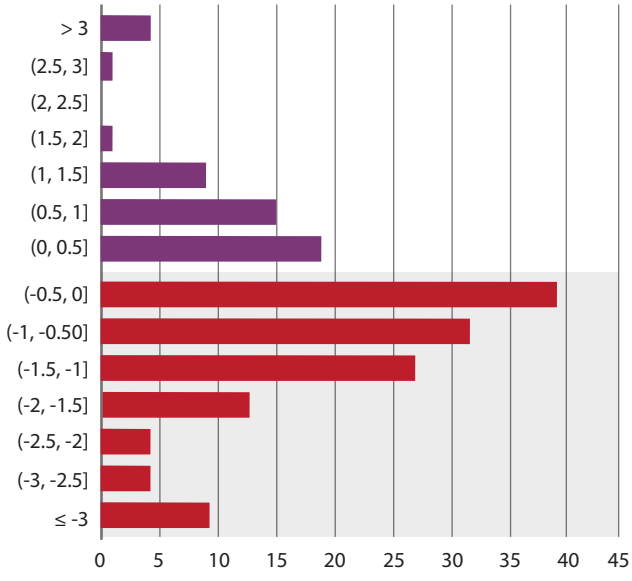
Well-designed policies to diversify and broaden the tax base can raise growth, improve equity, help to manage revenue volatility and finance an appropriate policy response. Revenue-raising measures can be more equitable and less volatile if they are applied on a tax base that includes more types of income or sectors. Governments can also focus on policies that will have fewer effects on investment and future growth and lower volatility, such as increasing excises on harmful goods such as alcohol, tobacco, sugary drinks and polluting energy sources[4] (see

Figure III.A.1
Median tax revenue by country group, 2000-2020
(Percentage of GDP)



Source: International Monetary Fund (IMF) World Economic Outlook.
Note: General government tax revenue as a percentage of GDP, M49 geographic groupings.

Figure III.A.2
Change in tax-to-GDP ratios, 2019-2020
(Number of countries)



Source: IMF World Economic Outlook.
Note: General government tax revenue as a percentage of GDP.

sections 3 and 4 below). Countries can institute solidarity taxes or other measures aimed at appropriately taxing high-net-worth individuals, who have a lower propensity for spending marginal income, either as temporary crisis response measures or more permanent policies, with appropriate measures to counter tax evasion. Strengthening property and capital gains taxation can also generate new revenue.

The pandemic has also highlighted the need for digitalizing revenue administrations to ensure business continuity and improve the efficiency of revenue collection. At the outset of the pandemic, many tax administrations closed their offices and moved to partial or almost full remote working. Digitalization of tax administration was a significant advantage in this environment. At the same time, the rapid shift to new digital services was challenging, as many administrations experienced information technology (IT) system outages due to systems that were not capable of meeting rising demand.[5] Revenue administrations can learn from the pandemic and move to smarter, IT-enabled, digital administration, which will help to improve compliance, detect evasion, support business efficiency, ensure objectivity and fairness and support transparency, exchange of information and international tax cooperation.

Strengthening PFM and budget execution can help to maximize the effectiveness of government expenditure, including in the health sector. While numerical budgetary rules are helpful in some contexts to achieve debt and deficit objectives, the pandemic has demonstrated that such rules need to provide enough flexibility to respond to unexpected events. Sometimes, recalibration of deficit rules should be considered, with additional spending flexibility directed at sectors needed

to respond to the shock, such as increased health systems expenditure during the pandemic. Drill-down improvements in PFM, for example, enhancing budget execution, can help to free up resources, especially in resource-constrained contexts, and contribute to the broader 2030 Agenda.

In light of COVID-19 experiences, countries might re-consider the financing and delivery mechanisms for their plans to achieve universal health coverage and universal social protection. Social protection system finance should pay due attention to the need for the system to operate countercyclically. Putting in place the infrastructure for social protection floors with universal coverage, as committed to in the 2030 Agenda, will prove beneficial in times of crisis. As was seen in previous crises, social health insurance schemes that link health coverage exclusively to employment can be procyclical and are not adequately designed to extend protections to the informal sector. The changing nature of work also importantly impacts the link between health coverage and social protection to employment, as the Inter-agency Task Force on Financing for Development highlighted in 2020.[6] Whenever household members lose formal sector jobs and income, the loss of health coverage both worsens health outcomes and undermines the rights-based approach to universal health coverage.[7] In contrast, countries with universal social protection systems are able to use these as mechanisms for quick and efficient delivery of emergency assistance. In their absence, some Governments cobbled together responses through the tax system and other government programmes, incurring large administrative costs and risking targeting errors and exclusion. As countries without universal health coverage look to extend their systems, they should consider financing options that can align efficiency, effectiveness and equity.

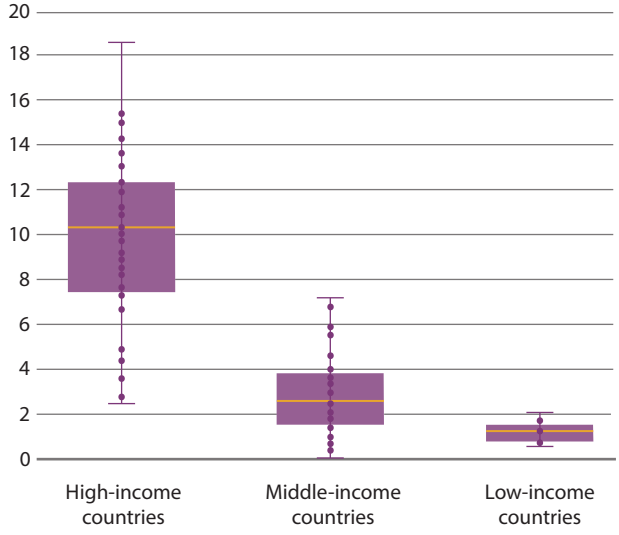
3. Addressing inequalities through the fiscal system

The economic and social repercussions of the COVID-19 pandemic have exacerbated pre-existing inequalities. The pandemic has disproportionately affected marginalized or vulnerable groups, including low-skilled and informal workers. Also, large numbers of women in some countries have dropped out of the labour force altogether –meaning that they are no longer actively looking for jobs—with lack of childcare often a major factor.[8]

Fiscal policy can reduce (or worsen) inequalities, depending on the design of the policy framework. The Inter-agency Task Force on Financing for Development has repeatedly emphasized that tax and spending should not be considered in isolation from each other. A holistic assessment of the aggregate effects of policy changes is particularly important in considering policies to address inequalities. For example, depending on the context, even use of less progressive taxes can still effectively reduce inequality if the revenue is used to fund progressive social spending and inclusive public goods and service provision. Countries need to appropriately balance equity considerations with efficiency, including ease of enforcement, potential consequences for wider economic activity and the political economy.

Growing availability of data on the impact of taxes and transfers should help policy makers to design fiscal frameworks that reduce both poverty and inequality. In March 2020, the United Nations Statistical Commission adopted a methodology for measuring the redistributive impact of fiscal policy as SDG indicator 10.4.2.[9] The indicator assesses how inequality changes once fiscal policies are taken into account by comparing pre-fiscal and post-fiscal income, as measured by the Gini coefficient, a common metric for inequality. Rich countries have strongly redistributive systems with the median country reducing the Gini index by 10 points, while fiscal policy is less effective at redistribution in middle- and low-income countries, with median reductions of only 2.5 points and 1.0 point, respectively (see figure III.A.3).

Figure III.A.3
Redistributive impact of direct taxes and cash and near-cash transfers, by country income, most recent year
(Change in Gini index)



Source: SDG Indicator 10.4.2, World Bank.
Note: The box chart shows the 75th percentile, median, and 25th percentile, as well as whisker lines for maximum and minimum excluding outliers; data for 37 high-income countries, 34 middle-income countries, and 7 low-income countries.

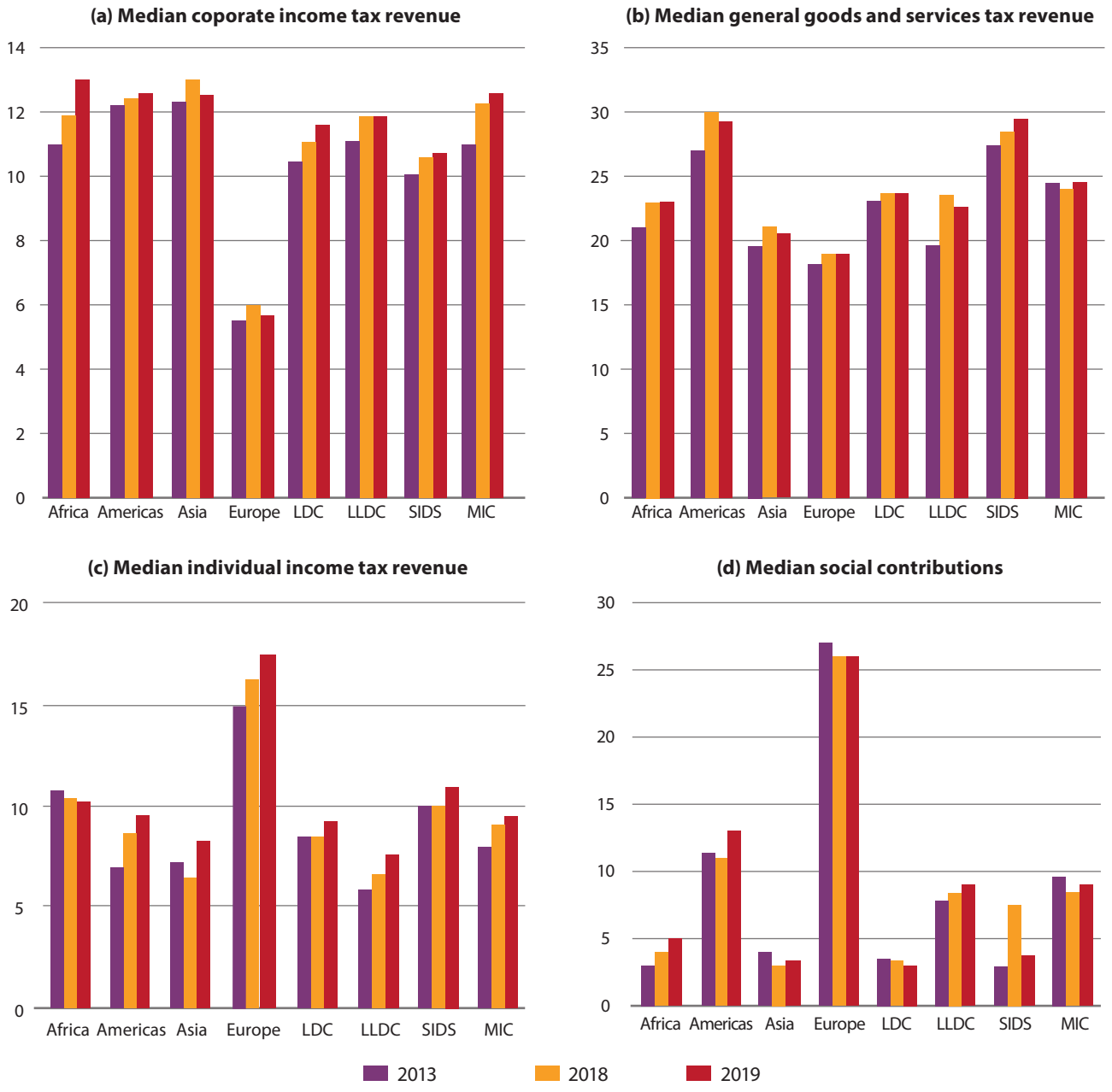
3.1 Progressivity and inequality

3.1.1 Revenue progressivity

Countries have heterogenous revenue structures with different levels of progressivity based on their economic characteristics, historical trends and national or political preferences. Taxes on income and profits are generally considered to be more progressive, with graduated rates and their incidence falling on those in the formal sector. Goods and services taxes, which generally are levied at the same rate regardless of the consumer, are often considered regressive because the poor pay a higher share of their income in such taxes, although these can be implemented alongside additional measures to compensate the poor or exempt basic consumption goods. Social security contributions, which are usually not graduated, can be designed to reduce regressivity, while also funding progressive social protection programmes (see section 3.1.3).

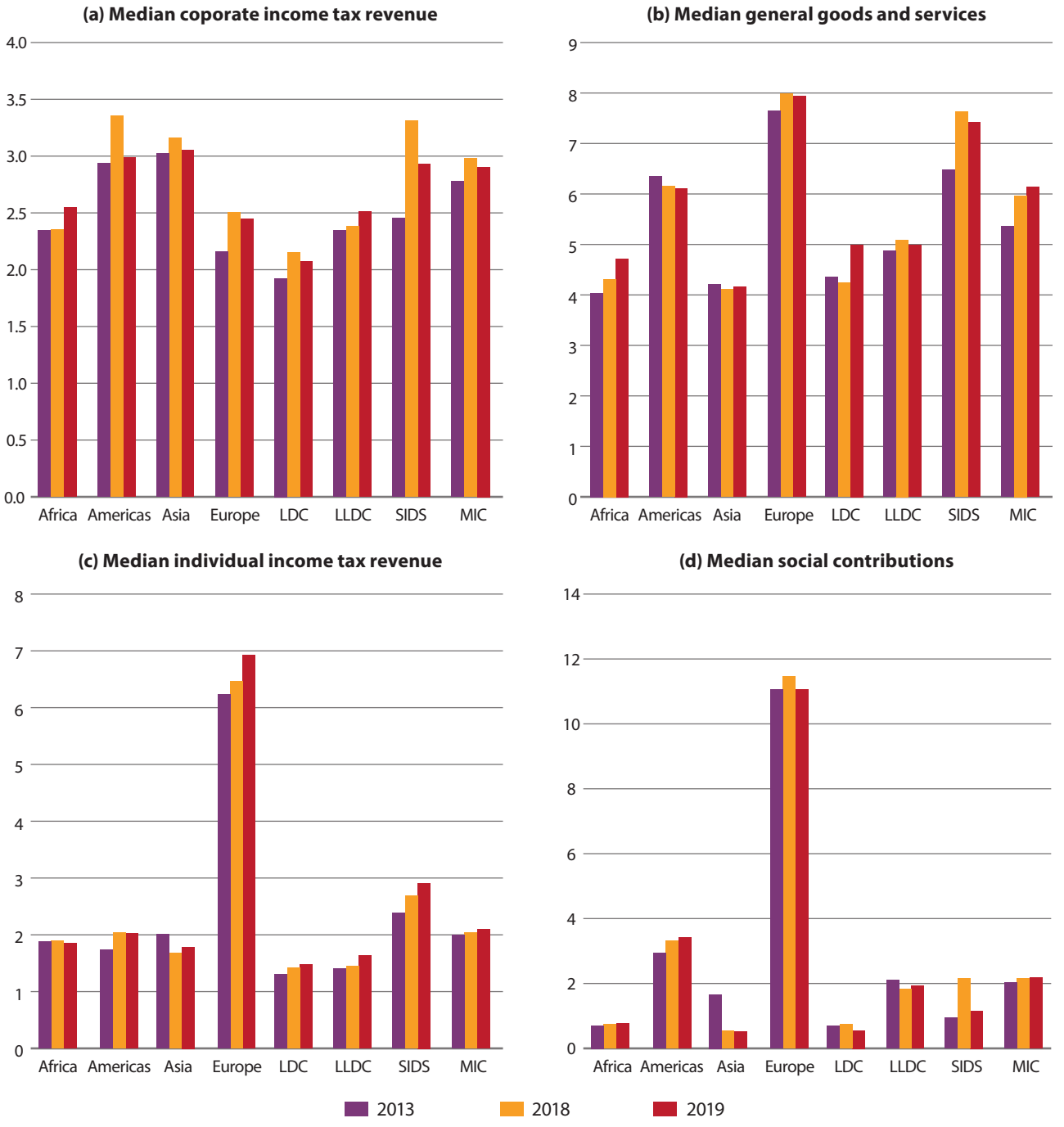
Developing countries rely more on both corporate income tax and goods and services taxes, while personal income taxes and social security contributions are more important in developed countries.

Figure III.A.4
Median revenue by type as a share of total revenue, by country grouping, 2013-2019
(Percentage)



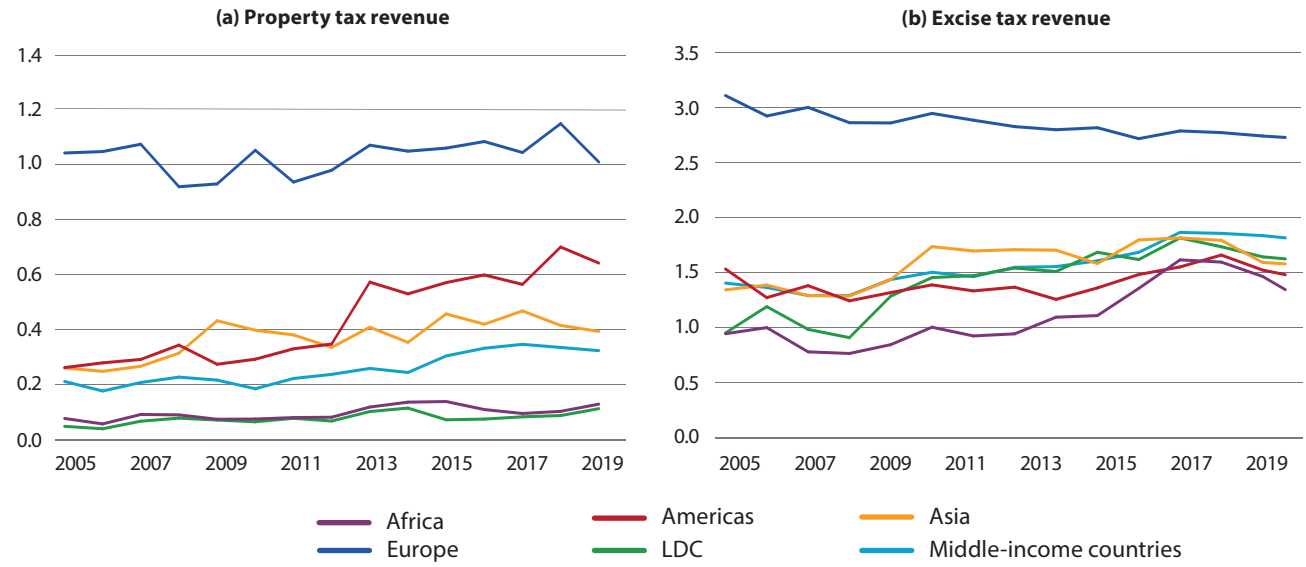
Source: UN/DESA calculations based on IMF World Revenue Longitudinal Database (WoRLD).
Note: Calculated as a share of total revenue, including social contributions. Due to gaps in data availability country sample is not fully consistent across years.

Figure III.A.5
Median revenue by type as a share of GDP, by country grouping, 2013-2019
(Percentage of GDP)



Source: UN/DESA calculations based on IMF WoRLD.
Note: Calculated as a share of GDP. Due to gaps in data availability country sample is not fully consistent across years.

Figure III.A.6
Median revenue as a share of GDP for select tax types, by country grouping, 2005-2019
(Percentage)



Source: UN/DESA calculations based on IMF WoRLD.
Note: Due to gaps in data availability country sample is not fully consistent across years.

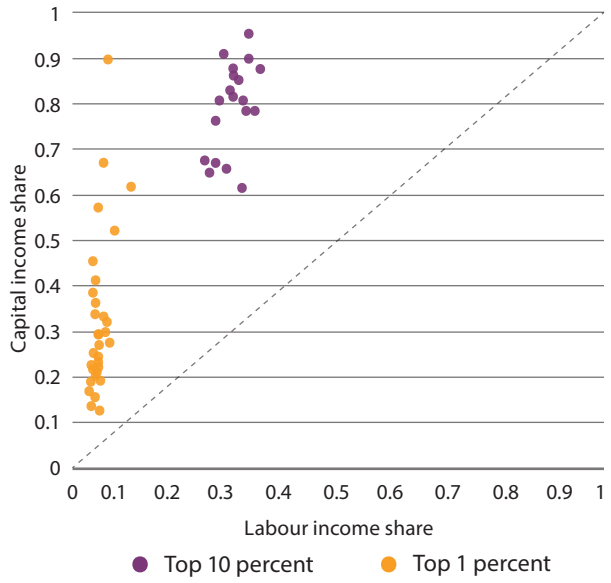
Figures III.A.4 and III.A.5 show the medians within different country groupings of different revenue sources. LDCs and African countries have a much higher reliance on corporate income taxes and goods and service taxes as a share of their revenue (figures III.A.4a and III.A.4b), with a lower ability to mobilize revenue from individual income taxes and social contributions because of high levels of informality and low wages, among other factors (figures III.A.5c and III.A.5d). While European countries raise the most revenue from goods and services taxes (figure III.A.5b), they are a relatively smaller share of total revenue than in other regions (figure III.A.4b). Property tax remains a marginal contributor to revenue (figure III.A.6a), while there has been upward convergence of mobilization of excise tax revenue between country groupings (figure III.A.6b).

Inequality can be reduced using more progressive taxes on personal income. The most straightforward way to tax high incomes is through progressive personal income tax (PIT). Top PIT rates are much lower now than in the middle of the last century. Nearly 30 countries—mostly in Eastern Europe and Central Asia—utilize flat tax regimes.[10] Optimal tax rates will vary based on country economic structures; estimates of the revenue-maximizing top tax rate in advanced economies, including social security contributions, generally are between 50 and 60 per cent. Although these results are not automatically transferrable to developing countries, in many jurisdictions there is scope to reduce income inequality by raising marginal tax rates at the top, although political acceptability is required, and policy design needs to take into account incentives for tax avoidance and evasion and the potential for economic distortions.

Lower tax rates on capital income compared to labour income has exacerbated inequality. Capital income is consistently much more concentrated at the top of the distribution than labour income, with the top 10 per cent of households by income earning less than 40 per cent of their income from labour (see figure III.A.7). A trend toward "dual income tax" systems, in which labour income and capital income are taxed separately, largely because of the administrative challenges in taxing capital income at the individual level especially when it is held offshore, coincided with a steep decline in tax rates on capital income until about 10 years ago.[11] Sometimes a flat rate is applied on capital income, incentivizing deliberate shifts of income from labour to capital bases. To overcome the administrative challenges of taxing capital income at the individual level, countries can take advantage of recent developments in digitalization—using third-party information—or adapting withholding tax systems.[12]

Well-designed wealth and inheritance taxes should be explored as countries aim to ensure fair contributions by all taxpayers. Net wealth taxes—taxes imposed on the value of an individual's net assets rather than on their annual income—target largely the same base as capital income taxes. Well-designed wealth taxes can, however, complement capital income taxes, for example, a progressive wealth tax applied above a fairly high threshold and with minimal exemptions. Successfully raising revenue requires a high level of enforcement capacity. Inheritance taxes can raise revenue and enhance equity at lower efficiency and administrative costs than some alternatives. Although most advanced economies impose estate, inheritance and gift taxes to reduce intergenerational wealth inequality, ample exemptions (such as for capital gains or real property), very high thresholds and widespread tax avoidance and evasion reduce their effectiveness. Such taxes could be designed with fewer loopholes, lower thresholds and progressive rates, alongside improved enforcement. Exchange of information for tax purposes helps to address offshore practices used by the wealthy to avoid and evade capital income, wealth and inheritance taxes (see section 5).

Figure III.A.7
Capital and labour income shares, by income level, 2018 or latest
(Percentage)

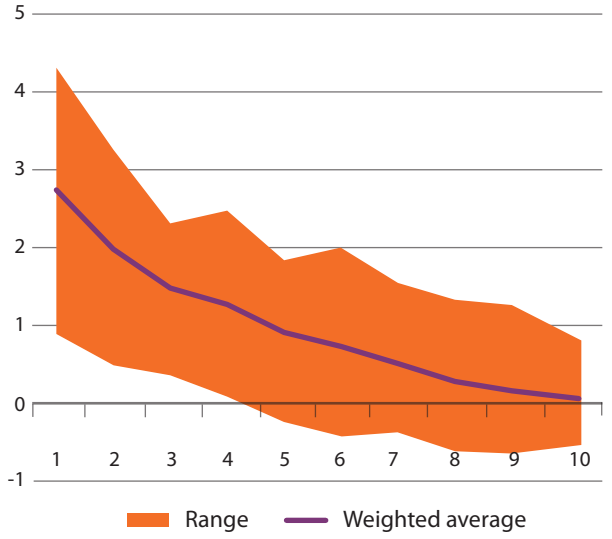


Source: IMF staff calculations based on Luxembourg Income Survey.

Excise taxes on tobacco, alcohol and sugar-sweetened beverages are pro-health taxes that reduce health inequities while increasing revenues. Lower socioeconomic status is associated with a higher risk of noncommunicable diseases as well as higher consumption of tobacco, alcohol and sugar-sweetened beverages.[13] Treatment of diseases caused by such consumption also represents a higher burden for low-income households.[14] Excise taxation can be a powerful tool for correcting the highly inequitable distribution of death and income losses, reducing catastrophic healthcare costs (see figure III.A.8).[15] Well-implemented excise taxes reduce consumption, particularly for lower-income groups,[16] and are highly cost-effective policy tools for averting millions of deaths caused annually by these products (see figure III.A.9).[17]

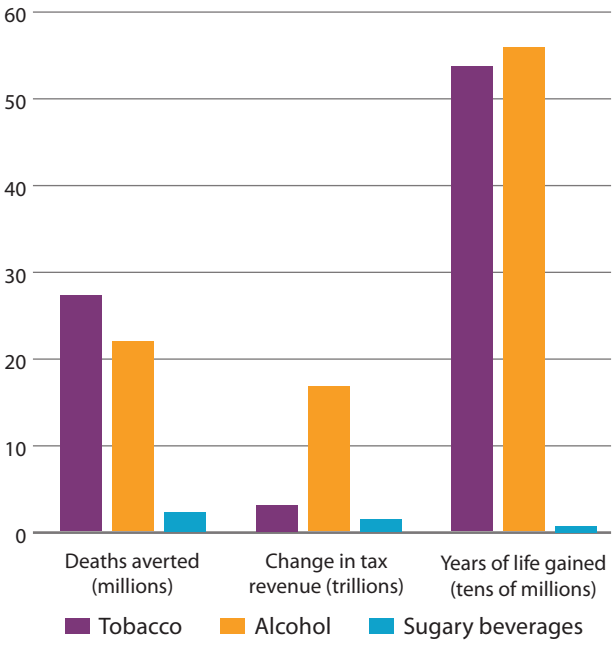
Reducing informality can also address inequalities if efforts to address non-compliance focus high up in the income distribution. Informality is a multidimensional phenomenon that exists across income levels, narrowing the tax base and weakening revenue mobilization. It is often extensive in developing countries. While it is most often a consequence of a lack of opportunities in the formal economy and the absence of other means of livelihood,[18] informality exists all along the income distribution. For example, highly paid professionals such as doctors or lawyers may take payment in cash and not declare the income; countries should respond with more dedicated enforcement. For informal small businesses, improving the design of simplified and presumptive tax regimes can induce them to enter the formal sector and continue growing in the formal economy. Governance improvements, including in tax and customs administration, are one tool to reduce informality and can help to broaden the tax base. Simplifying rules and regulations along with improved taxpayer services can also reduce the cost of compliance. A coordinated set of policies and programmes should incentivize formalization in line with

Figure III.A.8
Net household income effects of increasing tobacco prices, by household income decile
(Percentage)



Source: UN/DESA calculation based on Fuchs, Icaza & Paz 2019.
Note: Based on modelled impact of direct and indirect effects of a 100 per cent increase in the price of tobacco in eight developing countries. Weighted population average.

Figure III.A.9
Impact of increasing excise taxes on tobacco, alcohol, and sugary beverages
(Millions of people, trillions US dollars, tens of millions of years)



Source: The Task Force on Fiscal Policy for Health 2019.
Note: Modelled impact if taxes were increased in 2017 sufficiently to raise prices by 50 per cent. The impact of the increases is projected over a 50-year period (2017-2067).

international labour standards and may contribute to a more stable financing of social protection, as well as strengthening revenue mobilization.[19] Tax policy can work together with social protection and labour market policy to set incentives for business registration. For example, zero or even negative taxes (tax credits) and social insurance eligibility can promote formalization of the lowest-income enterprises.

Tax expenditures can be inefficient or ineffective and may worsen the distribution of income; they should be used more strategically. Tax incentives are a type of expenditure coded into the tax system. While sometimes used to encourage investment in the SDGs, they also reduce revenues, at least in the short term, and entail administrative costs. Forgone revenue resulting from tax expenditures is of particular concern when they do not ultimately attract additional investment but instead result in windfall gains to investors, often foreign investors or those already at the top of the domestic income or wealth distribution. Changes to international tax norms (see section 5) provide an opportunity to rethink tax expenditures. Reforms should improve tax incentive design and targeting; limit the use of wasteful and redundant incentives; ensure they are regularly reviewed; and require public transparency about revenue foregone and, possibly, the distributional implications.[20]

There is no one-size-fits-all approach towards addressing income inequality through the tax system, but planning and implementation are essential. Raising tax revenues from people with high incomes and wealth seems feasible in some countries, but elsewhere the possibilities might be more limited by institutional and enforcement constraints. All countries should build medium-term plans, to be reflected in INFFs, for effectively using the fiscal system to reduce inequality in line with their commitments in the Addis Ababa Action Agenda and the 2030 Agenda for Sustainable Development.

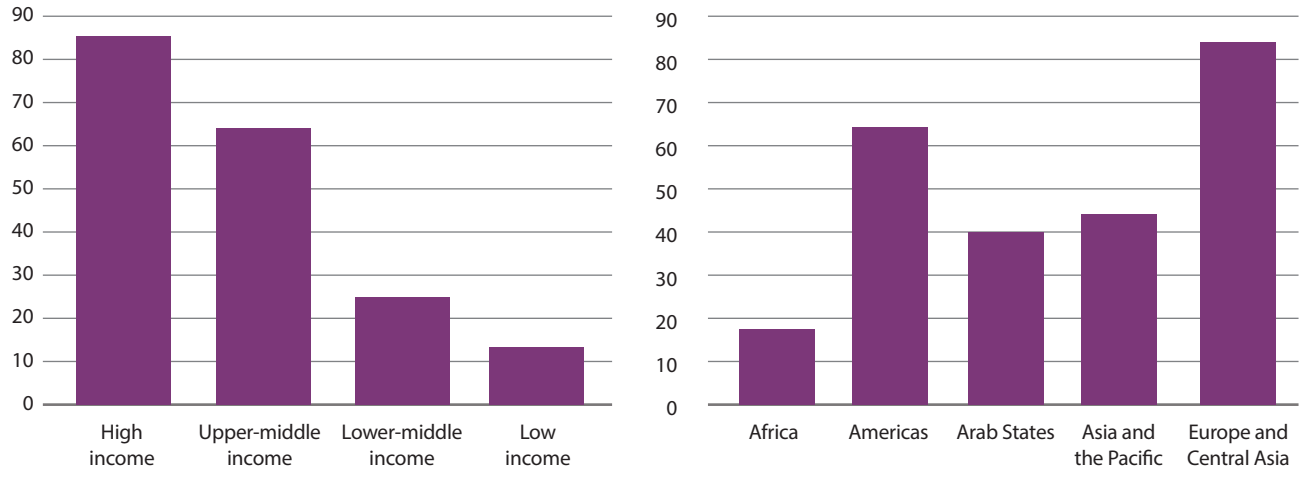
3.1.2 Social protection policies to reduce inequalities

Social protection policies are needed to reduce inequality and eliminate poverty. In the Addis Agenda, the world's Governments agreed to a "new social compact" to provide "fiscally sustainable and nationally appropriate social protection systems and measures for all, including floors". Member States also committed to "strong international support for these efforts".[21] Social protection floors are meant to convey guaranteed minimum benefits to all people at every stage of life (children, mothers with newborns, support for those without jobs, persons with disabilities, the elderly) through nationally designed and owned social protection systems.[22] They are complements to the direct provision of public goods and services.

Governments around the world have put in place unprecedented social protection responses to the COVID-19 pandemic. As of February 2022, 209 countries and territories had adopted at least 1,721 measures to extend social protection benefits in response to the COVID-19 crisis. Over 40 per cent of those measures were focused on the working age population, including on incomes/jobs (16.4 per cent) and unemployment benefits (12.2 per cent). Most measures (1,194 cases) are linked to non-contributory programmes and are financed by general revenues, which in many countries required additional debt issuance.[23] Yet many responses in developing countries, particularly in Africa, could not address the poverty and inequality impacts of COVID-19 because of the large informal sector, which is not adequately covered by programmes.[24]

Monitoring of distributional implications of COVID-19-related social protection measures has been limited; evidence points to insufficient gender responsiveness. There are no global estimates of the numbers of people covered by COVID-19 social protection responses. An estimate regarding emergency cash transfers suggests that they reached over 1.3 billion people worldwide in 2020 and 2021, about 17 per cent of the global population.[25] Other estimates suggest that in 2020 almost 645 million people benefited from new social protection programmes/benefits in G20 countries,[26] and 326 million people (49.4 per cent of the regional population) were covered by emergency programmes in Latin America and the Caribbean.[27] Only 19.6 per cent of the over 3,000 labour market and social protection responses were classified as gender-responsive, meaning that

Figure III.A.10
Social protection coverage, by region and country income, 2020 or latest available year
(Percentage of population)



Source: International Labour Organisation (ILO), World Social Protection Database.
Note: All social protection programmes. Countries grouped by ILO regions, population-weighted average.

they addressed women's economic security or unpaid care work through provisions such as paid family leave, shorter/flexible work-time arrangements, emergency childcare services or support for long-term care facilities.[28]

Despite progress, social protection coverage remains limited. Even after expansion of coverage, only 46.9 per cent of the global population had access to at least one social protection benefit in 2020 (or latest available year).[29] Social protection coverage is highly uneven across regions, with the Americas, Europe and Central Asia having the highest coverage rates and Africa the lowest (see figure III.A.10).[30] There are also important coverage inequalities within countries, for example, rural areas typically having worse coverage.[31] Across different branches of social protection, the largest coverage gaps are in unemployment benefits (only 18.6 per cent of unemployed persons had access to a benefit in 2020 or most recent year), benefits for children (only 26.4 per cent of children have access), social assistance for the vulnerable (only 28.9 per cent of vulnerable persons not covered by other schemes have access) and employment injury benefits (only 35.4 per cent of persons experiencing employment injury have access). Cash benefits are an efficient way to alleviate poverty and ease financial distress and can be especially helpful in dealing with shocks such as the COVID-19 pandemic. High levels of informality are key drivers of the low coverage, particularly in developing countries.[32] The lack of official proof of identity can also be an access barrier.[33]

Where available, sex-disaggregated data shows significant gender gaps in social protection coverage and benefit levels. Currently, only 44.9 per cent of women with newborns worldwide receive a cash maternity benefit—ranging from 86 per cent in high-income countries to 10.5 per cent in low-income countries.[34] Increasing coverage of family leave and care credits in pension systems can improve pension adequacy despite periods spent outside the labour market due to child-rearing or elder care, particularly prevalent among women. Because women often work in precarious and invisible parts of the informal economy (e.g., as domestic or home-based workers), extensions of social protection should aim to cover these areas.[35] Well-designed social protection schemes, such as regular cash transfers made to women, can also contribute to preventing violence against women by reducing intrahousehold tensions caused by economic stress.[36] Assessments on gender gaps require better gender-disaggregated data on coverage, which remains inadequate (see figure III.A.11).

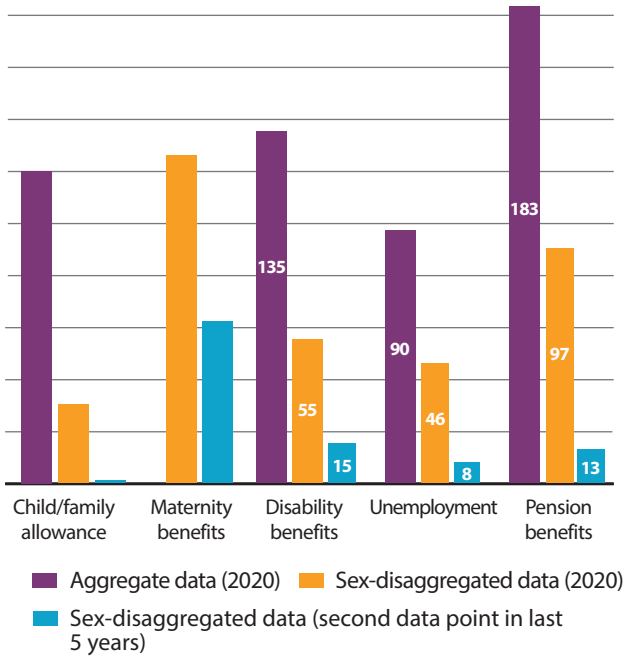
Low social protection coverage rates are driven by insufficient investment in social protection. While the world spent on average 12.9 per cent of its GDP on social protection (not including healthcare) in 2020, poorer countries with limited resources spent much less. For example, African countries spent less than one third of the global average (see figure III.A.12). Low social protection expenditure, when combined with limited spending on direct provision of public goods and services such as healthcare and education, results in the inability to reduce inequalities.

3.1.3 Social protection financing to reduce inequalities

General taxation and social security contributions can create fiscal space to finance social protection systems, making societies fairer and more resilient. Social contributions and taxes are the backbones of the financing structure of social protection systems. These systems create long-term commitments that require the availability of countercyclical resources. Countries that have successfully achieved universal social protection have undertaken conducive tax reforms to finance an extension of contributory social security schemes to workers in micro and small enterprises, self-employed persons and/or rural populations.[37] Legal and administrative reforms can cement the right to social security while also incentivizing formalization of informal enterprises. Connecting social protection information systems with other public information systems such as vital registration systems and tax administration databases can contribute to ensuring inclusion and preventing fraud.[38]

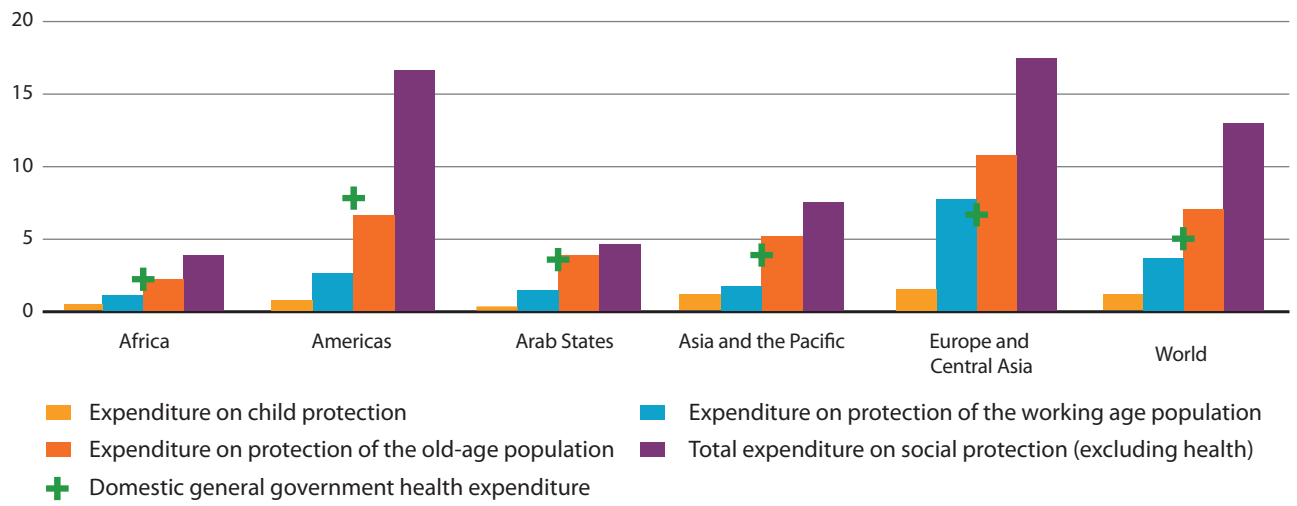
Social security contributions are the most important financing source for existing social protection programmes. Workers' and employers' social security contributions represent on average 57 per cent of total social protection expenditure.[39] Social contributions provide stability to the system by adding legal entitlements to a social contract rooted in the principle of solidarity among workers, employers and the State. The inequality impact of contributions depends on the system design. Contribution caps and flat rates mean that those on the highest incomes often pay proportionately lower contributions. The collection of social security contributions can be improved in numerous ways, including: extending legal coverage to groups previously excluded; improving governance and management; enhancing compliance enforcement; and simplifying contribution mechanisms for small- and medium-sized enterprises. The changing nature of work, with more part-time work and independent contractors, also necessitates policy responses to ensure appropriate employer contributions despite the changing legal nature of employment relationships.

Figure III.A.11
Data availability on social protection coverage, by type of benefit and disaggregation
(Number of countries)



Source: UN WOMEN.
Note: A total of 83 countries reported no statutory unemployment programme and thus no coverage for both sexes.

Figure III.A.12
Public expenditure on social protection and health, by region, 2020 or latest available year
(Percentage of GDP)



Source: ILO, World Social Protection Database.
Note: Countries grouped by ILO regions, aggregates are weighted by GDP. Total social protection expenditure (excluding health) does not always correspond to the sum of expenditures by age group, depending on data availability, source and year, and on inclusion of non-age-group-specific expenditures.

General government revenue is the second major source of social protection financing and can be used to extend coverage universally. Revenue depends on the growth of the economy and its capacity to provide for decent and productive employment and sustainable enterprises. Social protection programmes financed by general revenue can help to redistribute income, but their impact on inequality will vary based on the source of the revenue and the fiscal space. Using expanded taxes on property, individual income and profits to finance universal social protection programmes would likely reduce income inequality. Countries with tax structures that are heavily tilted towards tax revenues from goods and services—such as some in Latin America, Asia and Africa (see figures III.A.4 and III.A.5)—might see a reduced impact on inequality, or even increased inequality, depending on the social protection system design. By increasing goods and services taxes, like value added taxes, the poor would help to finance social protection, but the poor may not be eligible for social protection benefits if programmes are not properly designed. Universal coverage is instrumental, and analysis of the net redistributive effect is recommended to ensure inequality reduction when using these types of taxes. Universal coverage can also reduce gender inequality, especially as women are overrepresented in informal employment and also more frequently undertake unpaid care work.[40]

Table III.A.1
Annual financing gap to achieve SDG targets 1.3 and 3.8, by country grouping, 2020

Country group	*Financing gap*	
	$ billion	*percentage of GDP*
All low- and middle-income countries	1,192	3.8
Upper-middle income countries	363	3.1
Lower-middle income countries	751	5.1
Least developed countries	123	11.1

Source: ILO.

The investment needed to close the social protection financing gap is significant; it is achievable for most high- and middle-income countries but challenging for many LDCs. Lower- and upper-middle-income countries need to spend an estimated additional $751 billion and $363 billion annually, or 5.3 per cent and 3.1 per cent of GDP (see table III.A.1), respectively, to close the social protection gap.[41] LDCs would need to spend an additional $123 billion annually, or 11.1 per cent of their GDP. This far surpasses their current domestic revenue-raising capacity. Greater investment can expand the coverage of social protection systems over time, requiring a combination of economic growth, increased revenue mobilization and international support and solidarity, including for building the infrastructure for sustainable social protection systems and floors.

3.2 Addressing gender inequalities

Achieving gender equality and the empowerment of all women and girls is essential to sustainable development. While women's participation in the labour market can strengthen economic growth and contribute to resource mobilization, gender equality is a broader goal anchored in the 2030 Agenda, the Addis Agenda and the broader human rights framework. No country has yet achieved full gender equality, although many legal and regulatory barriers, such as explicitly discriminatory laws, are dropping.[42]

The fiscal system can be a tool to make progress towards gender equality. Domestic public financial systems can be designed and reformed to be gender-responsive.[43] Notionally gender-neutral fiscal policy can exacerbate existing inequalities or create disadvantages for women, either

Box III.A.1. Disaggregated survey data on taxation and government transfers in Ethiopia[44]

A disaggregated analysis of the tax burdens and economic needs of the most economically vulnerable—such as gender-disaggregation of the poor, informal workers and owners of small enterprises—is crucial to designing equitable and well-targeted tax and public spending policies. This is particularly important in LDCs, where formal and informal tax systems often exist in parallel and administrative data is sparse.

The 2018/19 Ethiopia Socioeconomic Survey added a tax and transfer module. The coverage of a wide array of socioeconomic data allowed authorities to complement the data in the tax module with other administrative data and explore taxation from various dimensions, including disaggregation by sex. The survey found that nationally, about 44 per cent of households contributed to informal social security institutions that fund local infrastructure and services. Initial findings underscored important differences in tax payments by subgroups. For example, two thirds of small, non-farm enterprises were owned by men; 12 per cent of these households reported paying taxes. Within this group, women-owned businesses paid nearly 25 per cent less in business income tax compared to businesses owned by men. Women-headed-households bore a larger tax incidence on land ownership and rural land use fees than men-headed and two-adult households, while gender differences at the individual level were small. Land ownership patterns, gender norms restricting women's engagement in agriculture and the gender agricultural productivity gap are likely to have contributed to increasing women's tax burden of rural land use fees and agricultural income tax.

Source: World Bank.

because it negatively affects groups where women are overrepresented, or it fails to account for longstanding structural gender inequalities such as the unequal burden of unpaid care work. Both tax policy and expenditure should contribute to gender equality and women's empowerment.

Both the direct impacts of tax on gender equality and the indirect effects should be considered when designing and implementing tax policy.[45] While a few tax systems still contain legal biases such as assigning joint business or asset income only to males, implicit gender bias is pervasive.[46] For example, tax deductions or tax credits might be associated with categories of expenses related to male-dominated sectors rather than to sectors with a high percentage of female workers.[47] However, few countries systematically assess or report on the gender implications of tax policies. A stocktaking by the Organisation for Economic Co-operation and Development (OECD) published in February 2022 showed that only 16 of 43 countries, mostly OECD/G20 members, assessed implicit biases in tax policy. An overwhelming majority of the countries have not conducted analyses of the gendered impact of tax administration and compliance measures.[48]

In terms of expenditure, gender-responsive budgeting (GRB) enables Governments to plan and use budget resources to support achievement of gender equality objectives. The application of GRB throughout the planning and budgeting cycle can contribute to implementation of measures that advance gender-responsive economic recovery, including in COVID-19 fiscal responses.[49] Progress has been made in implementing GRB, but significant challenges remain. Approximately 25 per cent of 100 countries reporting data for SDG indicator 5.c.1 have systems to track budget allocations to gender-responsive policies or programmes, while approximately 60 per cent have some features of a system. Countries have made more progress in establishing GRB guidelines and standards and using sex-disaggregated data to inform budget decisions, with variability across sectors. Fewer countries apply gender markers to their budget allocations or assess the impact of gender budget allocations through ex-post impact assessments or audits.[50] A review of practices in G20 countries, using a different methodology, found low levels of GRB implementation, especially for budget execution.[51]

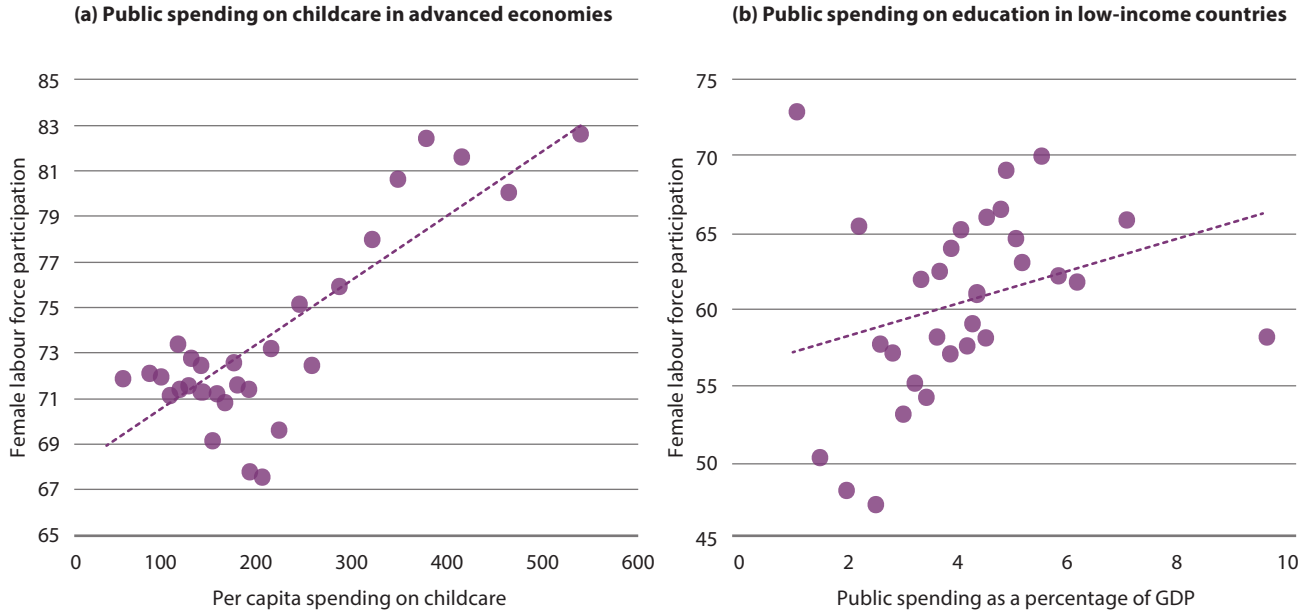
Gender-responsive procurement can contribute to the use of fiscal policies for gender equality. Public procurement represents approximately 12 per cent of global GDP,[52] but there is a gender gap in access to procurement opportunities and a lack of gender-disaggregated data. Gender-responsive procurement is defined as the selection of services, goods and civil works that consider the impact of the procurement on gender equality and women's empowerment. Countries can support positive opportunities and outcomes for women by targeting women-owned businesses as suppliers, reducing the barriers to entry faced by women-owned businesses and including decent work policies in supply chains.[53] Gender-responsive procurement can encourage private enterprises to adhere to gender-equality standards.

A disproportionate burden of care work, both paid and unpaid, is done by women, a result that is often incentivized by tax and expenditure policies. The COVID-19 pandemic has highlighted the disproportionate burden of care work borne by women and demonstrated that many health systems are reliant on unpaid health and care work.[54] Public investments in the care economy are a critical lever for achieving a job-rich, gender-responsive recovery, with public funding for childcare and education being associated with higher female labour force participation rates (see figure III.A.13).[55] Fiscal multiplier effects can also be significant, as investments in childcare services expand employment opportunities in female-dominated sectors as well as enabling more parents to enter the workforce.[56] Expanding the direct provision of care services or tax allowances for childcare can complement targeted transfers to low-income households to mitigate biases and reduce inequalities. Public sector employment policies, such as family leave, can model family friendly frameworks for the private sector, promoting equal sharing of care responsibilities. Members of this Task Force have significant capacity building programmes for using fiscal policies to promote gender equality.

4. Environmental implications of the fiscal system

To achieve the goals of international environmental agreements, including the Paris Agreement to limit climate change to 1.5 degrees Celsius, Member States need to align their fiscal systems with sustainability goals. While much effort is being placed on the private sector and regulation (see chapters III.B and III.F, respectively), many

Figure III.A.13
Relationship of public spending on childcare and education with female labour force participation
(Percentage of women 15-64, 2010 US dollars, percentage of GDP)



Source: Fruttero, Anna, et al. 2020.
Note: Graphs were obtained using bin-scatter plots with regressions of female labour force participation on the variable of interest, controlling for other relevant variables (e.g., GDP growth, GDP per capita, education level, time fixed effects).

countries are far behind in aligning domestic public finance with climate and other environmental goals. Fiscal system reforms can have the dual benefits of incentivizing sustainability while also raising additional revenue.

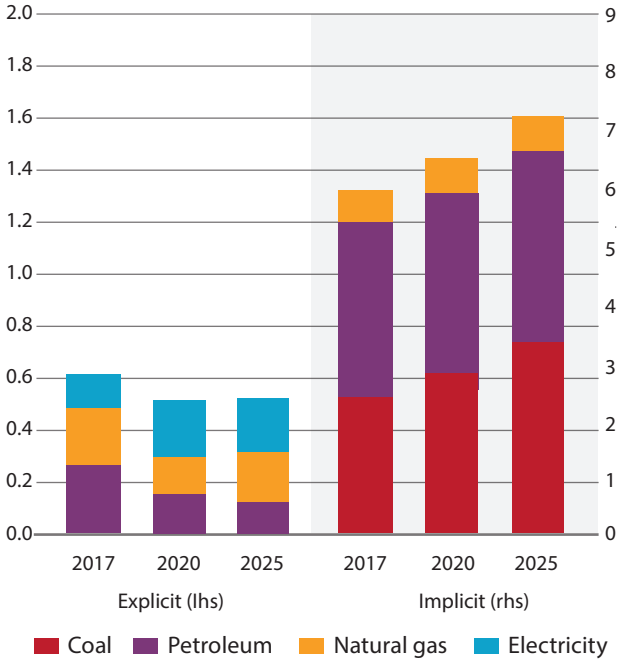
4.1 Fiscal policy and climate change

There is no country in which fuel prices reflect the full economic and environmental costs, including climate change and local pollution impacts. The largest price gaps are generally for coal, followed by natural gas, diesel and gasoline.[57] In 2020, global fossil fuel subsidies—defined as both explicit monetary subsidies and implicit environmental and social costs that are not reflected in fossil fuel prices—were around $5.9 trillion, or 6.8 per cent of GDP (see figure III.A.14). This represents a slight decline from a peak in 2018 although subsidies are projected to rise going forward.[58] Around 8 per cent of the total, or $450 billion, reflects undercharging of costs or explicit subsidies, with the largest volume for electricity, petroleum and natural gas, with only 3 per cent for coal. Explicit subsidies are mostly consumer subsidies and are largest in volume in Asia and Europe (see figure III.A.15). They are highly concentrated, with five countries providing 46 per cent of total explicit subsidies. Around 92 per cent of global fossil fuel subsidies are implicit subsidies, which are most significant for coal (41 per cent) and petroleum (46 per cent). Underpricing for local air pollution costs is the largest portion of the total subsidies (accounting for 42 per cent), followed by underpricing for climate change costs (29 per cent).

Fiscal tools and regulatory policies can incentivize climate change mitigation and adaptation. Policymakers can use a range of tools, including price mechanisms (e.g., taxes, cap-and-trade systems, and removing subsidies), regulations (such as energy efficiency standards, which can have the effect of imposing implicit carbon prices), public investments and guarantees (see chapters III.C, III.B, and III.G) and other instruments to achieve their goals. Pricing greenhouse gas emissions is the most economically efficient way to reduce carbon emissions as it makes them more expensive, incentivising changes in investment, production, and consumption patterns, as well as inducing technological advancement.

Carbon pricing is a powerful tool that provides incentives to reduce carbon-intensive activities across all sectors and for all households and enterprises throughout the economy. Carbon pricing contrasts with other tools, such as regulations, which tend to have a narrower focus. Carbon taxes also raise fiscal revenues: analysis undertaken on G20 countries shows that a $75 per tonne price could generate additional revenue of around 2 per cent of GDP.[59] Compared to cap-and-trade systems, carbon taxes have the added benefit of setting relatively predictable carbon prices and may be easier to administer.[60] In practice, however, both types of pricing have numerous administrative and enforcement challenges and political economy barriers to their implementation. Some developing countries are concerned they may act as de facto trade barriers. In addition, in the absence of compensatory measures, higher prices passed on to households may create more opposition from the public compared to regulations, which can be perceived to have a much smaller impact on energy prices.[61] There is a widespread, although sometimes incorrect, perception that carbon pricing and fuel taxes are regressive. Pricing can have positive or negative socio-economic impacts, as distributional effects are highly country-specific due to differences

Figure III.A.14
Global fossil fuel subsidies, by fuel and subsidy type, 2017-2025
(Percentage of GDP)

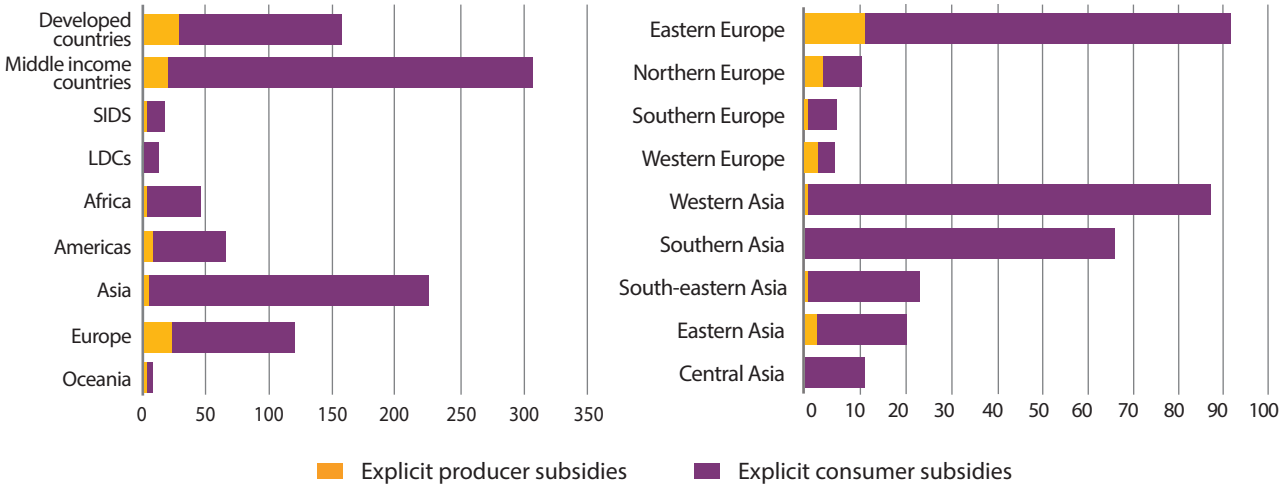


Source: Parry, Ian et al. 2021.

in existing subsidy levels, fuel usage, economic structures and levels of inequality.[62] For example, in developing regions, the largest share of the benefits of fossil fuel subsidies are captured by the highest-income section of the population (see figure III.A.16).[63] A thorough understanding of all the effects of a reform should inform the design and implementation of complementary policies that can mitigate unintended consequences and protect vulnerable groups.[64]

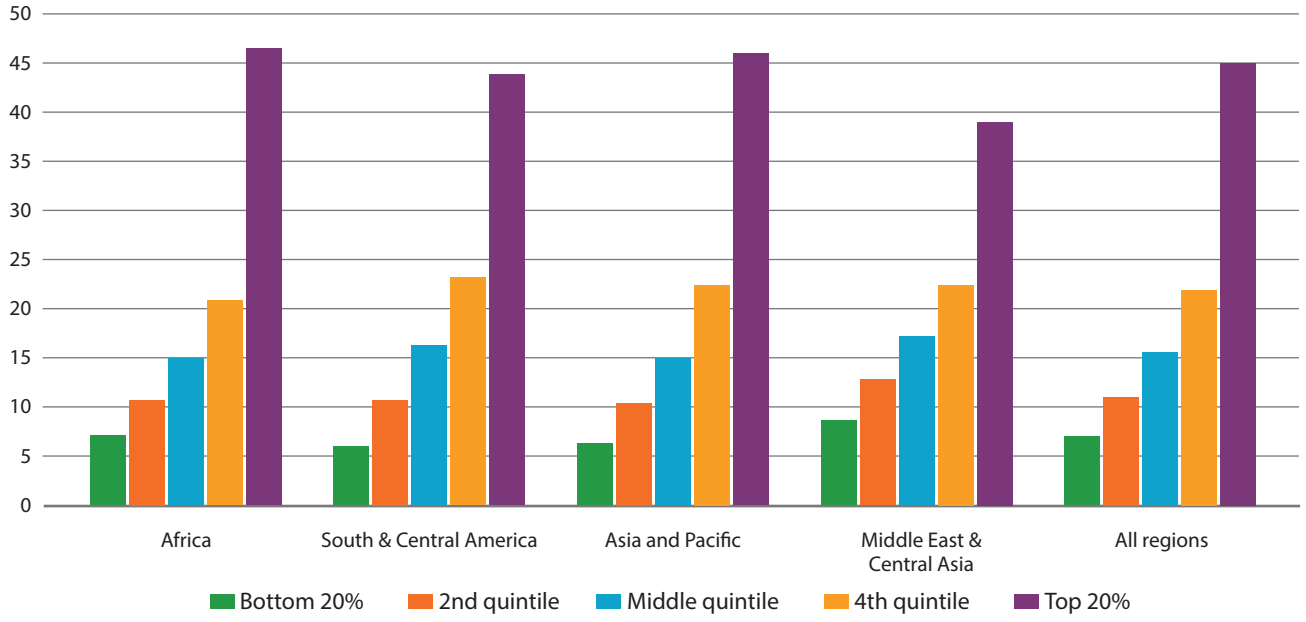
Carbon pricing has been increasing but falls far short of what is necessary to meet climate targets. Carbon pricing programmes are increasingly common: as of April 2021, 27 countries applied a carbon tax at some level; 10 countries had an emissions trading system at the national or subnational level; and the European Union had a regional emissions trading system covering all its members.[65] However, as of 2018, more than 50 per cent of energy emissions were unpriced, with 35 per cent subject to a fuel excise tax, 6 per cent to a carbon tax and 12 per cent covered by an emissions trading scheme.[66] The price range needed in 2030 to keep global temperature increases to 2°C has been estimated at $50 to $100 per tonne,[67] although recent analyses focus on the top of the range or even higher, up to €120 per tonne.[68] However, only 3.76 per cent of global emissions were covered by a carbon price above $40 per tonne as of April 2021, and a large number of carbon prices remain in the single digits. There are some exceptions; for example, the price on the European emissions trading system has mostly varied between €40 and €90 per tonne in the last year, peaking at over €96 per tonne in early February 2022.[69] Nonetheless, there are questions as to whether high prices in the EU will be sustained given the volatility and whether there is enough political will to raise carbon prices to a level necessary to have a significant impact. The relatively slow progress in setting up pricing systems reflects not only domestic economic and social concerns, but also political resistance to unilateral increases in carbon prices above levels in trading-partners.[70]

Figure III.A.15
Explicit fossil fuel subsidies, by country group, 2020
(Billions of United States dollars)



Source: UN/DESA calculations based on Parry et al. 2021.
Note: M49 geographic groups, with subregional breakdown provided for two largest regions.

Figure III.A.16
Distribution of fossil fuel subsidy benefits in developing regions, by income quintile
(Percentage)



Source: Coady, David, Valentina Flamini, and Louis Sears. 2015.

Agreement on a carbon price floor among large emitting countries may be an effective way to scale up climate pricing among committed countries. Large and growing disparities in carbon pricing has heightened interest in border carbon adjustments, a tax-like tool that could raise revenue but have detrimental effects on some countries (see chapter III.D). Alternatively, an agreed carbon price floor could largely avoid competitiveness and carbon leakage concerns, but there are practical and political challenges to securing agreement. Global carbon pricing has been discussed under the United Nations Framework Convention on Climate Change (UNFCCC), but there has not yet been agreement beyond the Clean Development Mechanism, defined in the 1997 Kyoto Protocol. Ratcheting up ambition among a smaller group of countries such as the large emitters would be more straightforward than a global agreement, and a price floor could provide more flexibility for addressing equity considerations and adapting national schemes to country-specific circumstances.[71]

Implementation of green fiscal policies needs careful design and sequencing to ensure that they are fair, effective and feasible. A just transition will be essential if climate action is to be aligned with the 2030 Agenda and support achievement of the other SDGs. An important element of successful reform strategies is measuring fiscal effects, a crucial first step towards a more comprehensive assessment of the economic, social and environmental effects. To effectively meet commitments to combat climate change while addressing equity and political economy considerations, countries will likely need to use a combination of tools, including appropriate regulations. Supporting policies will also be needed, for example, public investments in clean technology infrastructure networks, livelihoods support, policies to ensure energy affordability, and other universal social protection schemes to prevent increases in poverty due to climate change mitigation policies. At the international level, climate finance should support the energy transition (see chapters III.C and III.G).

4.2 Environmental taxation and other green fiscal policies

Countries can adapt PFM practices to support environment-sensitive policies, so-called green PFM.[72] This includes adding green components to more standard PFM elements such as fiscal transparency, external oversight and coordination with state-owned enterprises and subnational governments. Examples include incorporating fiscal risks related to climate change into strategy and planning, making climate change and other environmental factors major criteria for sectoral budget allocation, adopting sustainable procurement and tagging environment-related expenditure in the budget preparation phase. Green PFM reforms should be situated within wider planning processes such as MTRS and INFFs.

Countries can use several financial tools to incorporate biodiversity aims into public finance. While an increasing number of countries are implementing elements of green budgeting, few countries have assessed the potential positive and negative impacts of their domestic and international spending or public development bank lending, on biodiversity. Existing budgetary and fiscal transfers often encourage unsustainable production practices, and countries can undertake systemic assessments to identify these. For biodiversity impacts, special attention is needed on subsidies to the agriculture sector. Similar to climate action, taxes, fees, tradeable permits, offsets and subsidies can be used to incentivize actors to preserve or expand biodiversity and habitats.[73] Payments for

ecosystem services are a type of subsidy offered, usually to farmers or landowners, in exchange for managing land in a way that provides some sort of ecological benefit. Depending on the choice of instrument, revenue might also be generated. Public finance should be aligned with new measurement frameworks that go beyond GDP (see chapter IV) because preserving biodiversity and natural assets is not valued in GDP figures.

Instruments for greening public finance need to match the characteristic of the public good or service being provided at the local, national and international levels. Many environmental challenges can be addressed with public policies and financing instruments at the local or subnational level. For example, local air pollution might be ameliorated by prioritizing public investments in no- and low-carbon sustainable transportation options complemented by local regulatory and tax policies to provide incentives against polluting transportation choices.[74] The benefits of such investment will be primarily captured at the urban level, although there will be positive spillovers on national and even international levels. Other public goods such as clean oceans and a stable climate are global, and domestic policies need to be coherent with international cooperation (see chapter III.C).

5. International tax cooperation

Adapting tax rules to changes to the global environment and addressing tax avoidance and evasion will require further concerted efforts on international tax cooperation and strengthening of tax policy and administrations. Ongoing changes to the global economy are creating pressures on tax systems amid a rise in expectations for provision of public goods and services to deliver the SDGs. Concerns have been growing for many years that the globalization of economic activity has opened up ample opportunities for aggressive tax avoidance and evasion, especially by large multinational enterprises (MNEs) and the wealthy, leading to an unfair distribution of tax burdens. Since the 2008 world financial and economic crisis, aspects of international tax cooperation have seen dramatic reforms, for example, on tax transparency. In the context of growing digitalization and globalization, countries need to further step up international cooperation to raise sufficient public resources for financing the SDGs. At the same time, many countries need to continue strengthening their tax administrations' core systems and processes to be able to take full advantage of the benefits of international tax cooperation.

5.1 Responses to digitalization and globalization

The increasing digitalization and globalization of the economy is impacting both tax policy and administration, raising questions as to how to adjust the tax architecture to new digital business models. COVID-19 and the associated lockdowns accelerated the digital transformation. It is possible for an enterprise resident in one country to be profiting from activity in another country's economy without a substantial physical presence in that so-called market jurisdiction.[75] Yet, most tax treaties require a physical presence before the market country can tax the profits made there. The current system of arm's length pricing and the growing importance of near impossible-to-value intangibles—including user data—have allowed opportunities for corporate income tax evasion and avoidance to proliferate.[76] Responding requires policy changes, as well as data and analytical resources that are not readily available to many countries.

Discussions on reforming tax norms continue at different international forums, while some countries have adopted unilateral measures. The OECD-housed Inclusive Framework on Base Erosion and Profit Shifting (Inclusive Framework) is seeking to build a consensus on taxation of the digital economy through a two-pillar approach that will include binding commitments. The United Nations Committee of Experts on International Cooperation in Tax Matters (UN Tax Committee) agreed on a provision on taxation of automated digital services as part of the 2021 UN Model Double Tax Convention, which can be incorporated into bilateral tax treaties. At least 35 countries have proposed or implemented a tax specifically on digital economic activity, frequently a digital services tax (DST),[77] and while some countries are already collecting revenue through these taxes, others are holding their digital taxes in abeyance pending the results of the Inclusive Framework negotiations.

The Inclusive Framework's two-pillar solution aims to redistribute taxing rights related to some of the profit of the largest MNEs; discussions are ongoing to finalize the rules. Table III.A.2 provides a description of the key provisions of both pillars, which achieved political-level agreement in October 2021.[78] Pillar 1 addresses digitalization and globalization and marks a limited departure from the arm's length principle for allocating corporate profits for the purposes of taxing rights on a share of profits of the largest and most profitable MNEs globally. The proposal includes a mandatory and binding dispute resolution process, although some developing countries will not be covered by this provision. Pillar 2 would allow countries to put in place minimum tax rules which aim to protect tax bases and limit tax competition. As of end 2021, 137 jurisdictions had joined the statement outlining the plan; work on technical rules, a multilateral convention, and other instruments for implementation is ongoing. No binding commitments have yet been made, and there remain questions about whether countries, especially those that require legislative approval of tax conventions, will be able to generate sufficient domestic political consensus.

Uncertainties remain over the exact impact of the reallocation of taxing rights under Pillar 1. In Financing for Development Forum outcomes from 2019 to 2021, Member States acknowledged "that any consideration of tax measures in response to the digitalization of the economy should include a thorough analysis of the implications for developing countries".[79] A global impact analysis of Pillar 1 is expected to be published in spring 2022, with country-specific impact estimates provided to Inclusive Framework members at the same time. As the impact assessment relies upon country-owned data, the availability of country-level estimates will be dependent on the decisions of country authorities about publishing any estimates prepared for them by the OECD Secretariat. The OECD has projected that $125 billion of residual profits will be reallocated to market jurisdictions under Pillar 1,[80] but the global aggregate revenue gains are expected to be minimal. Independent research has suggested that between 70 and 80 MNEs will be subject to the new rules,[81] with traditional treaty rules still applying for other companies. In some countries, the tax on reallocated profits may not be enough to replace revenue lost from the removal of DSTs that is required by the deal.[82] For example, estimates for Asia showed that revenue effects, whether increases or declines, were generally less than 0.02 per cent of GDP, although implications for a few jurisdictions are more significant.[83]

Table III.A.2
Key elements and timeline for the Inclusive Framework two-pillar solution

	Pillar One	*Pillar Two*
Key elements	▪ Taxing rights over 25% of the residual profit of the largest and most profitable MNEs would be re-allocated to the jurisdictions where the customers and users of those MNEs are located; ▪ Mandatory and binding dispute resolution, with an elective regime in certain circumstances to accommodate developing countries; ▪ Provision for a simplified and streamlined approach to the application of the arm's length principle to in-country baseline marketing and distribution activities, with a particular focus on the needs of low capacity countries; ▪ Removal/prohibition of digital services taxes and other relevant similar measures for all companies, not just those in-scope.	▪ Global anti-Base Erosion (GloBE) rules allow jurisdictions to set a global minimum income tax of 15% on all MNEs headquartered in their jurisdiction and with annual revenue above €750 million; ▪ Requirement for all jurisdictions that apply a nominal corporate income tax rate below 9% on interest, royalties and a still to-be-defined set of other payments to implement the "Subject to Tax Rule" into their bilateral treaties with developing countries that are members of the Inclusive Framework when requested to, so that their tax treaties cannot be abused; ▪ Carve-out to accommodate tax incentives for substantive business activities (i.e., those which involve tangible assets and/or labour).
Timeline	▪ A multilateral convention being developed by the OECD Secretariat is planned to come into effect in 2023.	▪ The Secretariat aims to develop a multilateral instrument for implementation by mid-2022 and an implementation framework for the GloBE rules by the end of 2022.

Source: OECD.

The final rules will be challenging to implement in practice. The reforms are novel and complex, and the Inclusive Framework has set an ambitious timetable for implementation, which may not allow sufficient time to assess the implications and conclude informed national debates on the value of joining the final agreements. Developing countries with lower capacity tax administrations that choose to participate will need additional technical assistance and capacity building, while businesses have also recognized the challenge to successfully implement any final rules, particularly in the targeted timeframes.

Taxation of automated digital services, most frequently a DST, allows an administratively simple alternative to raising revenue related to digitalized economic activity, and domestic use of this can be protected by application of new provisions in the UN Model Tax Convention. The UN Tax Committee agreed on the inclusion of a new Article 12B on taxation of automated digital services in the 2021 UN Model Double Tax Convention.[84] Article 12B provides a treaty level allowance for countries' domestic laws that tax digital services, regardless of the service provider's physical presence in-country, helping to level business playing fields. Countries' domestic laws would need to address administration challenges such as definitions of the tax base, access to data and reporting regimes. Article 12B addresses a narrower range of taxing rights than Pillar 1 in a simplified way, allowing the use of withholding taxes and avoiding mandatory binding dispute settlement unless otherwise agreed between two countries. To be put into effect, the provision needs to be negotiated into bilateral tax agreements. In practice, if both countries have ratified a forthcoming Pillar 1 convention, the convention is likely to override adoption of Article 12B in a bilateral treaty between those two countries. Countries evaluating their options may want to assess potential revenue gains, administrative challenges, the likelihood of successful treaty negotiations and the likely response of treaty partners to proposed provisions. Unless they have treaty level protection for DST use, countries that choose to apply such taxes risk being unilaterally targeted with trade sanctions, which could ultimately cost more than DST revenues. Estimates of the impact of DSTs and related types of taxation for Asia show that revenue potential is in the order of 0.02 per cent of GDP,[85] similar to expected gains under Pillar 1. Proposals have been made to create a multilateral instrument to facilitate incorporation of Article 12B into existing bilateral tax treaties.[86]

Pillar 2 global minimum corporate tax rules are expected to have a broad impact on both aggressive tax avoidance and tax competition. Tax competition has intensified in the past decades despite international efforts to contain it, with average statutory corporate tax rates falling from 40-45 per cent at the beginning of the 1980s to around 25 per cent near the end of the 2010s.[87] Pillar 2 allows countries to top up the tax paid by an MNE to 15 per cent, either at source through a minimum tax or in the enterprise's headquarters jurisdiction. Moreover, it would allow countries hosting that MNE's subsidiaries to tax some base-eroding payments (like interest and royalties) that are made from their jurisdiction if they are not taxed at least 9 per cent in the recipient country. Under the proposed Pillar 2 rules, jurisdictions could implement a "qualified domestic minimum top-up tax", a special tax on MNE subsidiaries in the event that another jurisdiction would have a right to top up the tax on an MNE group.

The impact of Pillar 2 on tax base erosion and profit-shifting is uncertain because of the wide-ranging implications and potential behavioural responses by countries and MNEs. The exact revenue implications will be determined by multiple factors, including: final carve-outs and exemptions; when and how widely the final agreement is implemented; the extent of changes to tax rates and policies expected in many countries; and how businesses and their professional advisors respond to the changes. The OECD projected that Pillar 2 would result in around $150 billion of additional tax revenue,[88] and independent researchers estimated expected additional tax revenue of over $200 billion.[89] For income that is taxed at less than 15 per cent at source, the agreement gives priority to the home countries of MNEs to tax the undertaxed income, so the largest absolute static gains from the agreement will accrue to developed countries, which are the home countries of the biggest number of large MNEs. Significant gains may also be seen in low- and no-tax investment hubs where profits are currently reported, especially if these jurisdictions reform their corporate tax regimes to ensure that large MNEs are taxed at 15 per cent. Academic research indicates that such a dynamic response of currently low-tax countries may reduce the gains to the home countries of MNEs by as much as 50 per cent.[90]

Pillar 2 can help to relieve tax competition pressure on some developing countries; carve-outs will still allow tax incentives to be used. A reduced incentive to shift profits out of source countries

will still exist, especially where effective tax rates are already above 15 per cent. Many developing countries, particularly those in Africa, have statutory and effective corporate income tax rates well above 20 per cent (see figure III.A.17). In other cases, for example, where effective tax rates currently fall below 15 per cent because of tax incentives, countries may feel empowered to reduce wasteful or excessive incentives, although other political economy factors that contribute to the granting of such incentives still exist. Widespread adoption of qualified domestic minimum top-up taxes may actually help to retain incentives to engage in tax competition on tax rates.[91] The Pillar 2 draft rules include carve-outs, for example, excluding income that is less than 5 per cent of the value of the local assets plus payroll. Real foreign investment can thus benefit from tax incentives without triggering minimum tax rules, implying that countries may still feel pressured to use tax incentives to attract jobs and substantive investment. Stronger anti-abuse rules may be needed to prevent MNEs from designing new tax minimization strategies to misuse exemptions. Countries should also reconsider existing wasteful tax incentives, and any new incentives should be well-designed and clearly linked to sustainable development outcomes.

The growth of digital assets provides opportunities and risks for countries' tax systems, although more research and analysis are needed. Digitalization of currency and money will have implications for both tax policy and tax administration. Cryptoassets, such as Bitcoin are already altering the structures of the financial system (see Chapter III.F) and countries need to consider how to ensure appropriate taxation of both cryptoasset creation and capital gains. Recent findings show that 2020 revenues from taxing the capital gains on Bitcoin in the European Union amounted to about €900 million.[92] The effective taxation of cryptoassets is technically challenging as these assets could touch upon capital gains taxes, income taxes, wealth and inheritance taxes and indirect taxes. Cryptoasset wallets also remain outside the scope of existing rules for the exchange of information on financial accounts. The introduction of stablecoins and central bank digital currencies (CBDCs) create different tax challenges and opportunities, but like for cryptoassets, questions about capital gains, defining taxable events and valuation will still need to be answered. For countries planning CBDCs, the needs of the revenue administration may be factored into design decisions, while the CBDC could also be used to incentivize enterprise formalization.

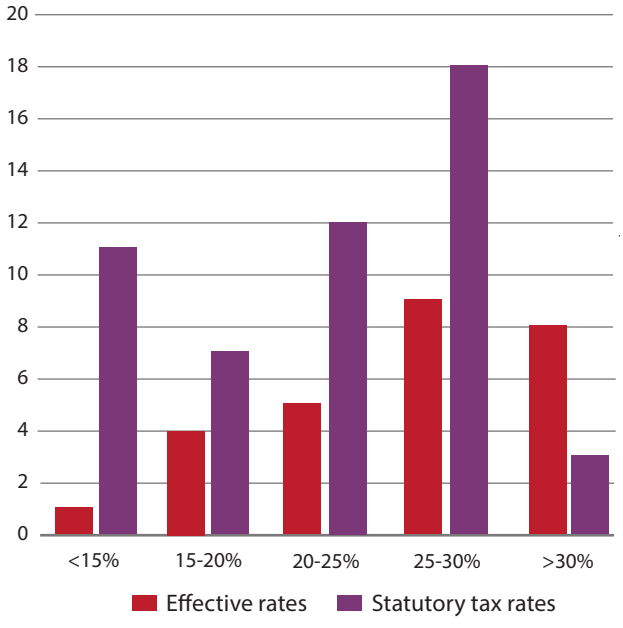
As digitalization and globalization advance, countries may need to contemplate far-reaching proposals for modernizing international tax cooperation. World Bank staff recently argued that for the international tax system to be relevant to the digitalized economy and consistent with tax theory, the world needs global taxing mechanisms and institutions; they propose creating a new digital data tax and a new global internet tax agency under the United Nations.[93] A paper from the South Centre calls for streamlining the architecture of international tax cooperation through an inclusive multilateral convention.[94] In February 2021, the High Level Panel on International Financial Accountability Transparency and Integrity for Achieving the 2030 Agenda, also emphasized the importance of dynamism, responsiveness and coordination, as well as the possibility of enhancing these through multilateral tax conventions and inclusive mechanisms at the United Nations.[95] In his recent "Our Common Agenda" report, the United Nations Secretary-General noted the potential for asymmetrical impacts on countries at different stages of development and called for intensified efforts to ensure that the perspectives of all countries are heeded as countries decide on how to tax an increasingly digitalized and globalized world.[96]

5.2 Progress on tax transparency and the exchange of information for tax purposes

Progress continues to be made on the implementation of tax transparency standards. The OECD-housed Global Forum on Transparency and Exchange of Information for Tax Purposes, which serves as the main venue for discussion of tax transparency standards, has seen increasing participation in its tax transparency instruments, such as the Convention on Mutual Administrative Assistance in Tax Matters and the Multilateral Competent Authority Agreement on Automatic Exchange of Financial Account Information (see table III.A.3). As of October 2021, there were over 7,500 bilateral exchange relationships for automatic exchange of information (AEOI). In 2020, information on more than 75 million financial accounts covering total assets of around €9 trillion was exchanged automatically. Many countries opened voluntary disclosure programmes and similar compliance initiatives alongside the beginning of AEOI; these and offshore investigations enabled by exchange of information on request helped to generate €112 billion of additional revenues (tax, interest, penalties), €30 billion of which was in developing countries.[97]

The poorest countries are still not benefiting from tax transparency. Developing countries lag behind in receipt of information from the

Figure III.A.17
Statutory and effective corporate income tax rates, developing countries, 2020-2021
(Number of countries)



Source: UN/DESA calculations based on OECD Corporate Tax Statistics (2021).
Note: Chart shows forward-looking effective tax rates for 2020 (a synthetic indica based on a hypothetical investment) and statutory rates (central government) for 2021, for United Nations Member States that are considered developing countries. Data available for 27 and 51 countries, respectively.

AEOI system and the exchange of country-by-country reports covering the activities of MNEs. While 46 developing jurisdictions are carrying out AEOI or are committed to doing so in the near future, no LDCs are currently receiving information via this initiative. As of October 2021, there were 3,000 exchange relationships for country-by-country reporting information provided by MNEs, but only 12 non-OECD/G20 developing countries or jurisdictions and no LDCs are currently receiving country-by-country reports.[98] Where the exchange of reports has not yet been enabled under international agreements, creating requirements for MNEs operating locally to file country-by-country reports with the local tax administration is considered acceptable under international standards, giving the authorities access to useful information for enforcement purposes. Countries may also need to enhance their domestic capacity to effectively use such information as part of their enforcement regimes.

Jurisdictions are largely abiding by commitments made to exchange information and being rated as satisfactory in peer reviews conducted by the Global Forum. The Global Forum adjusted the peer review process during the pandemic so that reviews could continue even without on-site visits. Of the 81 jurisdictions fully reviewed in the second round, 85 per cent received a satisfactory rating (compliant or largely compliant). Five jurisdictions that had previously been issued unsatisfactory ratings reported progress and will be subject to supplementary reviews. In reviews of the implementation of AEOI, 98 per cent of reviewed jurisdictions had an international legal framework determined to be "in place" and 89 per cent had a domestic legal framework determined to be largely consistent with the requirements. The Global Forum is also reviewing the effectiveness in practice of the implementation of AEOI and later in 2022 will publish the results of the review of the 100 jurisdictions that exchanged information in 2017 and 2018.

5.3 UN Tax Committee

In 2021, the UN Tax Committee completed a range of practical guidance on tax policy and implementation aimed at helping countries to improve their tax capacities and cooperation frameworks. The 25 members of the UN Tax Committee selected in 2017 finished their four-year term in June 2021. This marked the completion of the first full term of the Committee under the enhancements agreed upon in the Addis Agenda. The more frequent meetings, combined with enhanced capacities due to an increase in voluntary contributions, enabled the UN Tax Committee to publish more guidance than previously. Its products included: the *United Nations Model Double Taxation Convention between Developed and Developing Countries 2021* (including provisions on taxing the digitalized economy and addressing offshore indirect sales of assets); *United Nations Practical Manual on Transfer Pricing for Developing Countries (2021)*; *UN Handbook on Selected Issues for the Taxation of the Extractive Industries (2021)*; *United Nations Manual for the Negotiation of Bilateral Tax Treaties between Developed and Developing Countries 2019*; *United Nations Handbook on Avoidance and Resolution of Tax Disputes* (2021); *United Nations Handbook on Carbon Taxation for Developing Countries* (2021); and the *Revised Guidelines on the Tax Treatment of Government-to-Government Aid Projects* (2020).

The new membership of the UN Tax Committee set out a wide-ranging work programme for its term, addressing tax with a sustainable development perspective and focused on practical solutions. Topics to be addressed include inequalities, taxation in an increasingly digitalized and globalized world, tax-related IFFs and the impact of COVID19 on taxation. The Tax Committee will for the first time examine the relationship between tax, trade and investment agreements; and will also explore increasing tax transparency, solidarity and wealth taxes, and health taxes, among other topics. It will also continue previous work on extractive industries, carbon taxation and existing guidance products.

6. Illicit financial flows

IFFs continue to reduce the availability of resources for investment in the 2030 Agenda while also undermining the social compact. IFFs can lower tax receipts, erode public trust, drain foreign reserves, discourage foreign direct investment, worsen inequality and fuel instability and conflict. They negatively impact the well-being of people and societies as they reduce financial resources available for SDG investment. Despite the progress made on transparency, IFFs are now a global, multidimensional problem that feeds off low regulation, secrecy, anonymity, complicit local and international actors, weak institutions and inadequate global taxation and regulatory systems that lack transparency and accountability.

6.1 Estimation of IFFs

Trials of the statistical framework for measuring IFFs are continuing. The United Nations Office on Drugs and Crime (UNODC) and UNCTAD are joint custodians of the SDG indicator on IFFs. Since the publication of their *Conceptual Framework for Statistical Measurement of Illicit Financial Flows* in 2020, four country pilots on measuring IFFs related to selected illegal activities in Latin America have concluded[101] and 11 African pilots, which are focused on tax-related IFFs, are under way[102] and expected to finish in June 2022. The United Nations Economic Commission for Africa

Box III.A.2
Platform for Collaboration on Tax (PCT)

The PCT, a joint initiative of the IMF, OECD, the United Nations and the World Bank Group, was established in 2016 to strengthen collaboration on domestic resource mobilization and support countries through the production of joint knowledge products, policy dialogue, technical assistance and capacity building, and input into the design and implementation of international tax norms.

One key initiative has been developing the concept of the medium-term revenue strategy (MTRS), a comprehensive framework for tax system reform and means of coordinating support for country-led tax reform. The PCT holds regional workshops on MTRS for country authorities and capacity development partners (bilateral donors, regional tax organizations and PCT partners). It also raises awareness on the interlinkages between taxation and the SDGs, such as regarding how tax policy and tax and customs administrations affect gender equality, especially in the context of the COVID-19 pandemic. The PCT has released five technical toolkits, the most recent on tax treaty negotiations, and established an online integrated platform of major capacity development projects.

Table III.A.3
Participation in international tax cooperation instruments, 2021
(Number of jurisdictions)

Legal instrument/ Intergovernmental body	*Background*	*Purpose*	*Total membership/ parties*	*Middle-income countries*	*Least developed countries*[99]	*Small island developing States*[100]	*Africa*
Multilateral Convention on Mutual Administrative Assistance in Tax Matters (MAC)	Developed jointly by OECD and Council of Europe in 1988 and amended in 2010	Multilateral instrument for administrative cooperation	144 (+3)	65 (+6)	8	32 (+5)	22 (+1)
MCAA Common Reporting Standard	Agreement requested by G20 and approved by OECD in 2014	Specifies details of exchange of financial account information for tax purposes	112 (+2)	37 (+6)	1 (-1)	29 (+4)	8 (+1)
Global Forum on Transparency and Exchange of Information for Tax Purposes (Global Forum)	OECD-housed intergovernmental body restructured by G20 in 2009	Reviews implementation of transparency and exchange of information standards, both on request and automatic	163 (+1)	77 (+6)	18 (-1)	36 (+3)	33 (+1)
Automatic Exchange of Information Standard (AEOI)	Standard developed in 2014 under Global Forum	Automated exchange of financial account information for tax purposes	120 (+5)	44 (+7)	2	29 (+3)	9 (+1)
Inclusive Framework on BEPS (IF)	OECD-housed intergovernmental body originating from the 2013 OECD/G20 BEPS Project	Implementation of the 2015 BEPS Action Plan and the follow-up work to combat tax avoidance by MNEs	141 (+2)	65 (+4)	12 (+2)	29 (+3)	27 (+2)
Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS (MLI)	Negotiated within the framework of the OECD/ G20 BEPS Project, adopted in 2016	Implements the minimum standards of 2015 BEPS Action Plan on tax treaty abuse, dispute resolution, hybrid mismatch arrangements and permanent establishment status	96 (+1)	40 (+4)	2	10 (+1)	14
MCAA on the exchange of country-by-country (CbC) reports	Agreement based on BEPS Action Plan 13, first exchanges began in 2018	Sets out the terms for the exchange among jurisdictions of CbC reports prepared by MNEs to facilitate transfer pricing risk assessments and audits	92 (+3)	29 (+6)	2 (+1)	14 (+4)	8

Source: OECD.
Note: Figures as of 31 December 2021. Parenthesis denotes change in the number of countries or jurisdictions in 2021 compared to the 2020 Financing for Sustainable Development Report, which may reflect some-thing other than participation in the instrument, i.e., movement of countries into or out of designated status, changes in data availability, or changes in classification criteria. MCAA: Multilateral Competent Authority Agreement. MNEs: multinational enterprises.

(UNECA) estimates that between 2000 and 2016 Africa had, on average, $83 billion a year in net outflows through trade mis-invoicing.[103] Cumulatively between 2000 and 2016, the mis-invoicing was estimated at $1.4 trillion, equivalent to 11.4 per cent of the value of Africa's trade.

6.2 Tackling IFFs in national policy

The multidimensional nature of IFFs requires a coordinated, whole-of-government approach. Efforts to eliminate IFFs need to span a range of institutions and government functions across the tax system, law enforcement and financial regulatory mechanisms. Institutional mechanisms to ensure whole-of-government coordination are essential and need to be driven by high-level political commitment. Table III.A.4 shows possible components of a national institutional architecture for combatting IFFs. Governments need to create legal frameworks and operational/administrative systems for enforcement, and they should coordinate nationally and cooperate internationally.

Combating tax crimes, including addressing the professionals that enable IFFs, should be a core part of strategies to tackle IFFs. International efforts on tax transparency and reducing aggressive tax avoidance and evasion were discussed in section 5. Tax Inspectors without Borders, a joint initiative of the United Nations Development Programme (UNDP) and the OECD, recently expanded beyond tax audits to launch a criminal investigation pilot programme to help build country capacity to conduct tax crime investigations. While the majority of professionals are law-abiding, some professional enablers—lawyers, accountants, bankers and investment advisors—play an integral role in making it easier for perpetrators to defraud governments, evade tax obligations and hide the proceeds of corruption and other crimes.[104] Governments need a coherent and robust approach to preventing, identifying, disrupting and criminally prosecuting professional enablers. Mechanisms should be in place to encourage whistle-blowing and information-sharing between relevant agencies. This should be complemented by private sector self-regulatory frameworks, which can be guided by the recently launched Unifying Framework that emphasizes the principles of integrity, transparency and accountability.[105]

6.3 Changes to anti-money-laundering and beneficial ownership information requirements

Beneficial ownership information is essential for tackling IFFs; public collection of this information, usually through a registry, will likely become the global standard. The beneficial owner is the natural person who ultimately owns, controls or benefits from legal

vehicles such as companies, partnerships and trusts. Collection of this information is a way to pierce the veil of secrecy that perpetrators of IFFs use to conceal their activities. The Financial Action Task Force (FATF) recommendations and the Global Forum standards both require that competent authorities have timely access to accurate and up-to-date beneficial ownership information. In March 2022, the FATF Plenary is likely to amend its recommendation on beneficial ownership information of legal persons to require a public authority to hold this information (usually through a registry). This will apply to the more than 200 countries and jurisdictions committed to FATF standards. In December 2021, the Conference of the State Parties to the United Nations Convention Against Corruption (UNCAC) *"encourage[d]* States parties to collect and maintain beneficial ownership information for legal persons and legal arrangements" and "also encourage[d] States parties to consider developing effective mechanisms for relevant domestic authorities or entities to verify or check beneficial ownership information provided by legal persons and legal arrangements".[106]

Developing countries will need technical assistance to meet the new requirements and address loopholes. To reduce abuse, beneficial ownership regimes on legal entities should be as consistent as possible across countries. A growing number of countries are creating systems to publish their beneficial ownership registries for public access. Such enhanced transparency is beneficial to speeding up international information-sharing and can assist due diligence by the private sector, allowing more effective accountability.

The updated standards still leave secrecy options by not addressing trusts. Many IFF schemes make use of trusts and other types of legal arrangements to disguise beneficial ownership. The FATF standards do not yet mandate registries for this information, providing scope for continued abuse.

Tighter rules to prevent IFFs may have unintended consequences, and Governments should effectively address any such effects. Concerns remain about the impact of money-laundering rules on access to financial services (see chapter III.B), and Governments are adapting customer due diligence and other onboarding rules to the digital environment and financial technology providers (see chapter III.G). This Task Force has also previously reported on how the costs of implementing money-laundering rules may contribute to the reduction in correspondent banking relationships.[107] Rules to prevent money laundering are intended to be risk-based so as to minimize the costs and burdens for low-risk activity such as migrant remittances. An October 2021 stocktaking of potential unintended consequences of money-laundering standards identified four areas for further investigation by FATF: de-risking, financial exclusion, undue targeting of non-profit organizations, and curtailment of due process and other procedural rights.[108]

6.4 Combating corruption

Amidst a surge in fraud related to COVID-19 emergency measures, Member States recognized that further progress is needed on combating corruption. COVID-19 spawned a growth in corruption around relief funds and procurement, some of it due to the suspension of financial controls to ensure emergency spending was disbursed quickly.[109] In June 2021, Member States convened a special session of

Table III.A.4
Possible components of national institutional architecture for combating illicit financial flows

Component	*Possible elements/architectures*
National strategy	▪ Medium- to long-term vision in a strategy on combating IFFs ▪ Links between executive and legislative body (parliament) ▪ Allocation of resources to enforcement capacity (Ministry of Finance) ▪ Inter-ministerial/agency coordination mechanism ▪ Policy-setting and coordination ▪ Operational procedures and information-sharing ▪ Oversight and reporting

Legal framework	▪ Criminalization of tax evasion, transfer mispricing, corruption, bribery, bribe solicitation, money-laundering, terrorist financing and other relevant offences
	▪ Adoption of a general anti-avoidance rule
	▪ Rules, laws and regulations to oversee and regulate legal entities and public officials, for example:
	  ▪ Transfer pricing rules
	  ▪ Beneficial ownership registry
	  ▪ Customer due diligence requirements for financial and relevant non-financial institutions
	  ▪ Electronic asset disclosure requirements for public officials
	  ▪ Asset freezing/seizure frameworks, including non-conviction based
	  ▪ Deferred prosecution agreement regime for non-trial resolution of bribery offences
	  ▪ Whistleblower protection and media freedom legislation
	▪ Protection of suspects' rights
	▪ International cooperation instruments and mechanisms, including for legal and administrative assistance
	▪ Creation of dedicated and/or legally empowered entities with defined responsibilities (see below)

Operational mechanisms	▪ Tax administration equipped with sufficient investigative, audit and analysis capacities ▪ Office of large taxpayers ▪ Tax arbitration unit ▪ Independent anti-corruption campaigns or agencies ▪ Supreme audit institutions ▪ Automated risk analysis of public officials' asset declarations ▪ Asset recovery/return unit ▪ Financial intelligence unit ▪ Special prosecutor's office ▪ Dedicated courts for financial crimes ▪ Anti-smuggling units ▪ Corporate registries / beneficial ownership registry
Special operational arrangements	▪ Inter-ministerial/agency coordination mechanism ▪ International liaisons/networks/forums on tax, AML-CFT, asset recovery, corruption, etc.

Source: IATF on FFD.
Note: Builds on Oslo dialogue on tax and crime and ECA research on economic governance in Africa.[110]

the General Assembly on challenges and measures to prevent and combat corruption and strengthen international cooperation. Member States reaffirmed their readiness to address corruption and IFFs more effectively across the areas of the UNCAC. The political declaration also addressed emerging topics such as safe space for civil society and journalists, the gendered impact of corruption, the linkages between corruption and organized crime and corruption in sport, as well as the need for education, awareness-raising, research and better measurement of corruption and its impact. The declaration encourages UNODC, in coordination with the Statistical Commission, to develop a "comprehensive, scientifically sound and objective statistical framework . . . to support States in their efforts to measure corruption, its impact, and all relevant aspects of preventing and combating it".[111]

A new network for strengthening the coordination of corruption enforcement agencies was established. A Global Operational Network of Anti-Corruption Law Enforcement Authorities (GlobE Network) was established in June 2021 under the auspices of UNODC. It aims to provide a quick, agile and efficient tool for facilitating informal transnational cooperation and strengthening communication exchange and peer learning for its 52 country members.

6.5 Progress on asset recovery and return

Recovery of stolen assets can increase domestic resources available for sustainable development, however, there is room for Member States to improve practices and implementation of the UNCAC. The UNCAC chapter V on asset recovery targets the proceeds of corruption and is a focus of the second round of UNCAC peer reviews. Of the 59 completed reviews to date, 54 countries received recommendations for improvement on the prevention and detection of transfers of proceeds of crime, while 44 received recommendations on the return and disposal of assets, showing the trends of weak implementation.[112] Very few countries received recognition for adopting good practices: only two countries had good practices on measures for direct recovery of property and on the return and disposal of assets; only three countries had good practices on financial intelligence units and on bilateral and multilateral agreements for asset recovery.[113]

Over the past 10 years, cross-border efforts to trace and restrain stolen assets have become significantly more widespread. The joint UNODC-World Bank Stolen Asset Recovery (StAR) initiative conducted the largest-ever survey of country experiences with asset recovery. The survey found that 61 States were involved in asset recovery cases, close to $10 billion in foreign corruption proceeds had been frozen, restrained or confiscated since 2010 and over $4.1 billion had been returned internationally. There was a marked increase in completed returns between 2017 and 2021; however, much of the activity (54 per cent of confiscations and 41 per cent of returns) was initiated by domestic authorities in the destination state, independent of a foreign request. Among the respondents, the average time period between an asset freezing order and the start of the return of funds was less than four years.[114]

Most asset recovery frameworks and initiatives focus only on the proceeds of corruption, in line with the framework in the UNCAC, leaving gaps that may need to be addressed. The proceeds of corruption are only one type of IFF, and asset recovery frameworks are not applicable to tax crimes or other economic and financial crimes. At the regional level, the Common African Position on Asset Recovery of 2020 takes a broader approach, including the resources lost through any type of IFF. Member States may wish to consider the need for repatriation of assets based on a broader scope of predicate offences, although there will be challenges in terms of defining the rightful beneficiary of such assets and the scope of compensation for victims of the crimes.

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Domestic and international private business and finance



Chapter III.B

Domestic and international private business and finance

1. Key messages and recommendations

To meet developmental goals, a country needs a private sector that invests in the future, notably in productive capacity and infrastructure development. Investment by private companies significantly rebounded in 2021 but not everywhere with the same intensity, while future investment trends are uncertain. The pandemic has changed the investment landscape, putting heightened focus on the resilience of global value chains, the consideration of a broader range of risks in private sector decision-making and the increased use of digital technologies. Climate change is also transforming many sectors, such as energy and agriculture.

- *Policymakers need to review priorities for investment promotion in light of structural changes in international productions systems, the digitalization of the economy and climate change impacts.*

Long-term, affordable finance is a prerequisite for the private sector to scale up long-term investment. Access to long-term finance is lacking in many developing countries where capital markets and the local banking sector remain underdeveloped, while the cost of external borrowing is high (see chapter II).

- *Developing local financial systems should remain a focus of the international community, which should also analyse ways to further encourage lending with positive impacts on sustainable development;*
- *Governments and development partners could also seek to better tap private markets, such as private equity and venture capital funds, which now account for trillions of dollars, as a greater source of long-term finance for developing countries.*

While private investment cannot replace public investment in infrastructure, there are opportunities for scaling up its role in certain areas. This requires addressing obstacles preventing greater private investment and moving away from a project-by-project approach to a more systemic one.

- *Governments need to develop strategies for sustainable, inclusive and resilient infrastructure, which identify where public and private investments are appropriate and what policy and institutional reforms are needed to implement these strategies;*
- *Development partners could explore ways to improve the effectiveness of technical support for infrastructure development, for example, by creating a marketplace for technical assistance and further leveraging technology in this area.*

Countries would also benefit from having a more inclusive private sector. If the private sector fails to provide economic opportunities to all population segments, the economy will not only be less productive, but exclusions will create instability in the long run.

- *Governments can foster inclusion by removing obstacles that generate economic exclusions, such as laws discriminating against women, and by creating incentives and policies targeting excluded groups.*

A more inclusive private sector also necessitates improving financial services to those underserved. Financial constraints hinder the development and resilience of small companies, reducing their job creation potential. At the same time, the excessive costs of some financial services create a burden for those in need.

- *Policymakers rightfully put in place measures to avoid a credit crunch for private companies following the COVID-19 crisis and should continue to assess whether these measures are reaching small and micro businesses or whether additional actions are needed;*
- *International cooperation could help countries to learn from each other on how to better address structural issues limiting access to finance, for instance by combining traditional measures (e.g., credit infrastructure) with support for innovative solutions (e.g., technologies for credit assessment);*

- *Attention should also be devoted to regulatory barriers that can unintentionally hold back financial inclusion for the poor, including migrants, and increase costs, such as those for transferring remittances.*

The private sector not only needs to be more inclusive but also more sustainable; capital markets must be an engine for a sustainable shift. Investors are increasingly incorporating sustainability issues in their investment decisions, particularly through risk management. However, this is not likely to create enough change in companies' sustainability behaviour without further actions by policymakers, including:

- *Adopting policy measures that make unsustainable businesses less profitable, such as carbon pricing, while also encouraging businesses with positive sustainability impacts;*
- *Improving the quality and comparability of companies' sustainability reports to provide investors and other stakeholders with the information they need to assess companies on sustainability matters;*
- *Strengthening market integrity by establishing common norms and criteria for investment products to be marketed/labelled as sustainable;*
- *Increasing demand for sustainable investments by requiring pension funds and financial advisors to ask their beneficiaries and clients about their sustainability preferences (the Inter-agency Task Force on Financing for Development could reflect on the questions that should be put to these beneficiaries/clients);*
- *Requesting institutional investors to disclose the environmental and social footprint of their portfolios; and*
- *Designing standards and norms for sustainable finance approaches in capital markets to incentivize financing flows towards developing countries with large SDG gaps.*

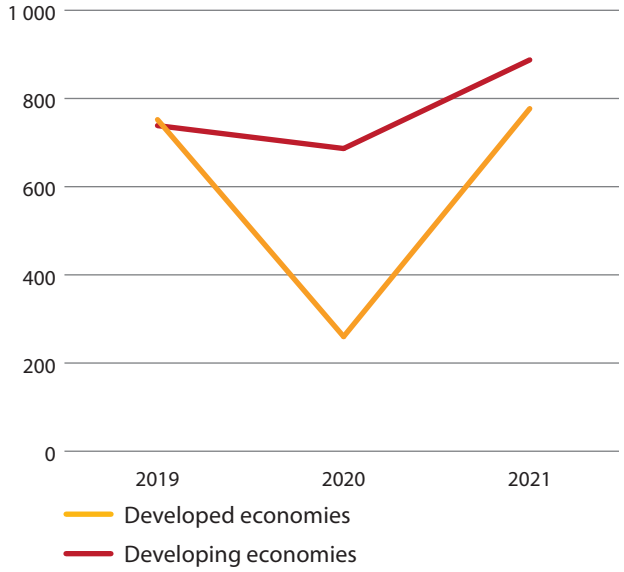
2. Corporate investment trends

Companies relaunched capital expenditure in 2021 after pausing it at the outset of the pandemic. Capital spending recorded double-digit yearly growth in 2021 for the first time in over a decade, according to some estimates.[1] This growth embraced both tangible assets (e.g., machines and factories) and intangibles (e.g., software) and was widespread across regions and sectors. The surge in corporate investment resulted from short-term factors such as a catch-up effect from the previous year and low borrowing costs. But companies must also invest to adapt to structural trends, such as digitalization and the energy transition.

Foreign direct investment (FDI) mirrored domestic trends and rebounded by 77 per cent in 2021 after decreasing by 35 per cent in 2020, but the rebound was uneven across regions and sectors. Most of the rebound was concentrated in developed economies. However, FDI growth was also significant in developing economies at 30 per cent (see figure III.B.1), albeit more modest in least developed countries (LDCs) at 19 per cent.[2] Yet, prospects in industry remain weak, with companies making 30 per cent fewer announcements of new production facilities abroad than prior to the pandemic.[3] In contrast, private investment in renewable energy and utilities has fared better on the back of large stimulus packages.

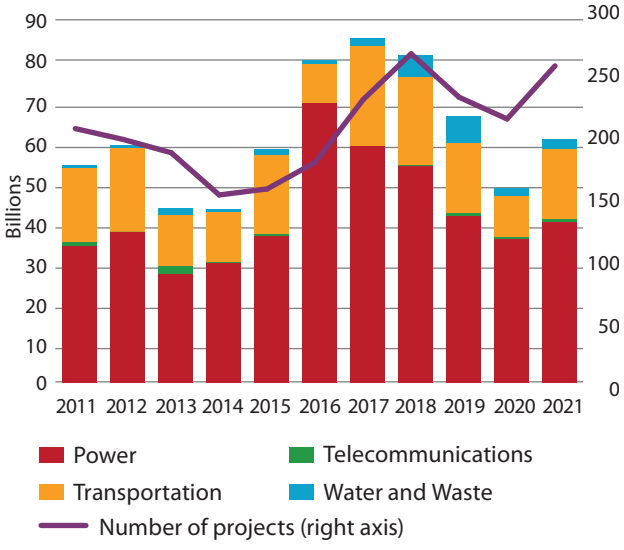
Despite a rebound, private investment in infrastructure in developing countries remains low relative to historical averages. Financed infrastructure deals in developing countries increased by 25 per cent in 2021, exceeding $60 billion but remaining 9 per cent lower than prior to the pandemic (see figure III.B.2). Meanwhile, investments are already above pre-pandemic levels in developed countries. The upward trend in infrastructure investment could continue in the future if the pipeline of projects announced in developing countries—now over 30 per cent higher compared to 2019 –materializes.[4]

Figure III.B.1
FDI inflows
(Billions of United States dollars)



Source: UNCTAD – Global Investment Trends Monitor, Issue 40.

Figure III.B.2
International project finance: financed infrastructure deals in developing countries
(Billions of United States dollars, number of projects)



Source: Refinitiv – Infrastructure 360 database.

Looking forward, future corporate investment will depend on the robustness of the recovery as well as financial conditions and geopolitical stability. Uncertainty about future demand continues to be a drag on companies' investment plans. In a recent survey, 72 per cent of multinationals indicated that they do not plan to change investment plans in their host country over the next one to three years.[5] COVID-19 variants are a contributor to uncertainty, which is expected to continue in the coming months. Meanwhile, rising interest rates in major economies could increase the cost of future investments while growing geopolitical tensions could lead companies to delay investments.

High corporate debt burdens could deter new lenders and stifle investment. Corporate debt in emerging market and developing economies has, on average, risen from about 60 per cent of GDP in 2006 to about 80 per cent of GDP in 2019; [6] and the pandemic may have further increased this level as companies have sought debt deferrals. A negative effect of debt on future investment is expected to be more pronounced for large and highly leveraged firms.

3. Increasing investment in future growth

Long-term investment is crucial to foster productivity growth, transform economies and achieve sustainable development. It differs from short-term investment in working capital, which has a more limited impact on development. Long-term investment includes investment in productive capacity, such as equipment and factories, but also investment in infrastructure projects with long-term social and environmental benefits.

3.1 Private investment in infrastructure

Investment is urgently needed to build sustainable and resilient infrastructure. At the current pace, 660 million people will be without electricity in 2030 and about 2 billion people still lack access to safely managed drinking water. Transport infrastructure also needs to be reshaped to allow for more sustainable and inclusive options. About 1 billion of the rural population remain unconnected to a good quality road network and only 50 per cent of urban residents worldwide have convenient access to public transport.[7] Countries also need to prepare infrastructure to be resilient to a drastically different climate and environment in the future.

While private investment in infrastructure is no silver bullet, it must play a greater role in some areas.[8] Private investment can lead infrastructure development in market-ready sectors, such as telecommunications, where the public sector's role may be limited to protecting consumers and fostering universal access. Private finance also has great potential for adding power generation capacity and realizing energy efficient improvements. It is estimated that about 70 per cent of clean energy investment globally could come from the private sector (see chapter III.G).[9] Governments can also mobilize private investment in other sectors, including transport and water services, but this entails complex contractual arrangements and often significant fiscal risks. The result can be costly for the public purse and could lead to exclusions of some populations from basic services due to unaffordable tariffs.

To assess the suitability of the private sector's involvement in infrastructure, Governments need to consider the following:

- **Revenue streams:** Does the project have the capacity to generate sufficient cash flows to compensate the investors for the risks they bear? If not, should the Government guarantee/provide a stable revenue stream for a private investor to make the project financially viable or should the Government realize the project itself through public funding?
- **Risk premium:** Do the risks (and risk perceptions) associated with the project lead to excessive risk premia making the project unaffordable? Can legal and regulatory reforms mitigate investment risks without creating fiscal liabilities or compromising national objectives? Are there public investments in related areas that would reduce risks and broaden the scope for private investment?
- **Efficiency gains:** Can the private sector bring efficiency improvements to the way infrastructure services are delivered? Can it be easily held accountable through well-defined output requirements? Does it help to bundle construction with operation and/or maintenance into a single 10- to 20-year contract or does it create unmanageable complexities?
- **Public and private sector capacity:** Do local officials have the required skills for developing, negotiating and monitoring complex Public-Private Partnership (PPP) agreements? Similarly, do local construction companies have the capacity to embark on long-term projects? Is the investor appetite confirmed?

Decisions made on infrastructure investment today will lay the foundations for countries' development paths for decades ahead and should be aligned with the SDGs, climate goals and disaster risk reduction priorities. To improve the sustainability and resilience of infrastructure services delivery, Governments can build on the many initiatives launched in this area, such as: (i) the G20's Principles for Quality Infrastructure Investment;[10] (ii) UNEP's Ten Principles for Sustainable Infrastructure;[11] (iii) UNECE's People-first Public-Private Partnerships;[12] (iv) Inter-American Development Bank's Framework for Sustainable Infrastructure;[13] (v) United Nations Office for Disaster Risk Reduction's upcoming Principles for Resilient Infrastructure; (vi) UN/DESA-UNCDF's Handbook on Infrastructure Asset Management;[14] and (vii) the FAST-Infra public-private initiative.

Policymakers should respond to infrastructure needs with a systemic approach. Infrastructure gaps should not be approached on a project-by-project basis. Instead, Governments need to define a strategy for each infrastructure sector, such as a long-term plan for transitioning energy to be compatible with climate goals. The plan should aim to quantify needs in terms of both supply (e.g., power generation capacity by technologies) and demand (e.g., increase in electric vehicles and energy- efficient buildings). The plan could then identify necessary reforms (e.g., feed-in tariffs) and the possible source of financing for each component (e.g., private investment may be suited for increasing power generation while public investment is likely to be the preferred option for power transmission). Yet, Governments still struggle with the lack of institutional capacity to implement good practices at both national and sub-national levels.

As concessional resources are limited, it is important to consider how to improve the effectiveness of current technical support for infrastructure development. There has been a proliferation of technical assistance facilities. For Africa alone, there are at least 15 different facilities available to countries for infrastructure project development.[15] At the same time, there has been limited support for early-stage/upstream activities. One way to address this issue might be to consider developing a marketplace for technical assistance support on infrastructure, which could provide a single-entry point for Governments to request assistance. However, strong political will is required to bring all development partners to this idea. Leveraging technology is another avenue for enhancing the impact of international support. For example, technology can be used to: (i) guide government officials through every step of an infrastructure project using standardized project preparation templates;[16] or (ii) facilitate access to infrastructure knowledge via online training platforms. Governments could consider asking development partners, including multilateral development banks, to collaborate on improving the effectiveness of technical support for infrastructure development and present progress at the next edition of the Global Infrastructure Forum, which was established by the Addis Abba Action Agenda.

3.2 FDI and productive capacity

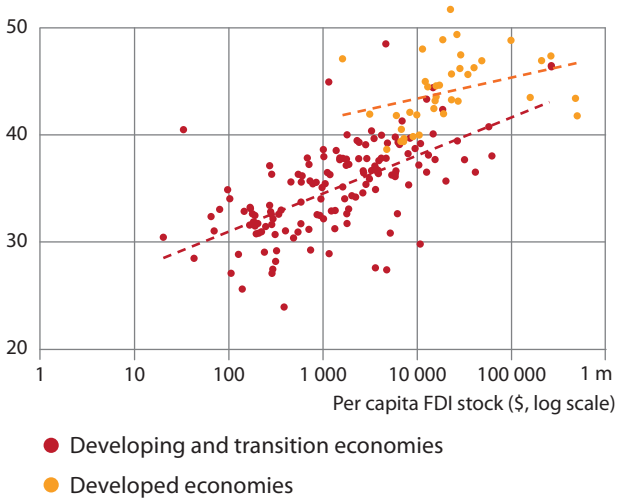
Investment in both manufacturing and services is necessary to expand a country's productive capacity; mobilizing FDI can help achieve this goal. FDI, a source of long-term finance, naturally embodies a transfer of capital, which can be helpful in countries with limited domestic private savings. Furthermore, in many cases FDI embodies the creation of productive assets (e.g., a new factory) and may ideally support the transfer of know-how and technology. Figure III.B.3 shows that the stock of FDI is positively correlated with productive capacity, particularly in developing countries. While it is reasonable to assume that FDI increases the productive capacity of a country, it also possible that more productive countries attract more FDI.

Governments can tailor policies to attract and retain FDI in strategic growth industries while fostering spillovers across local firms. Policymakers have long paid attention to investment from multinational companies for its potential for industrialization, export promotion and structural change. For example, FDI can help commodity-dependent countries transition to manufacturing activities and other higher-value-added activities. FDI can also contribute to job creation, human capital development and the transition to a low-carbon economy.[17] Yet, FDI-related benefits are not automatic and often require appropriate investment policies tailored to the local circumstances. Integrated national financing frameworks (INFFs) may provide a useful tool for Governments to prioritize actions and assess investment policy options through a holistic approach. This, in turn, could allow Governments to align strategic objectives in different policy areas which are sometimes considered separately (e.g., investment promotion, innovation, and entrepreneurship development).

When reassessing their approach to investment, Governments need to consider issues highlighted by the pandemic, including:

- **First, the rebalancing of international production networks.** The pandemic is shifting the way companies look at international production networks. Companies are placing greater emphasis on supply chain resilience and sustainability considerations. A survey of 1,300 supply chain professionals found that 87 per cent of them plan to invest in resilience within the next two years.[18] In another large survey, 59 per cent of respondents declared investing in supply chain sustainability.[19] Governments thus need to review whether sectors targeted for FDI remain a priority and whether other opportunities may have emerged, for example, due to the shortening of value chains;
- **Second, unequal access to vaccines and medical products.** The pandemic has highlighted the benefits of hosting health manufacturing activities. However, less advanced economies face a range of challenges to attracting investment in this sector. The required capital, technology and skills are not readily available in many countries. At the same time, low regulatory capacity and weaknesses in the healthcare system can discourage global investors concerned by compliance issues. Nevertheless, addressing these challenges is possible as evidenced by the number of developing countries that have successfully created a thriving health industry.[20]

Figure III.B.3
Positive correlation between productive capacities index (PCI) and per capita FDI stock
(PCI)



Source: UNCTAD. *World Investment Report 2021*.
Note: The PCI index has eight components, i.e., human capital, natural capital, ICTs, structural change, transport, institutions, and the private sector.

3.3 Access to long-term private finance

To invest in their own development and/or embark on capital-intensive projects, companies need long-term sources of finance. For example, R&D investments can take years to generate profits and cannot be financed with short-term loans. Similarly, companies and households should be able to secure long-term loans to invest in assets that will last for decades (e.g., heavy equipment or real estate). Financing long-term investment with short-term debts exposes borrowers to significant refinancing risks. As both financial institutions and capital markets fail to provide long-term financing in many developing countries, companies and households may either be reluctant to make investments or be forced to self-finance them.

Banks in developing countries, particularly LDCs, continue to provide less credit to the private sector than those in developed economies (see figure III.B.4). Banks in developed markets also provide a much higher percentage of loans with maturities longer than five years.[21] This lack of financial depth makes it difficult for companies to finance long-term investment. Only 18 per cent of companies in LDCs use banks to finance investments compared to 28 per cent in middle-income countries (MICs) and developed countries.[22]

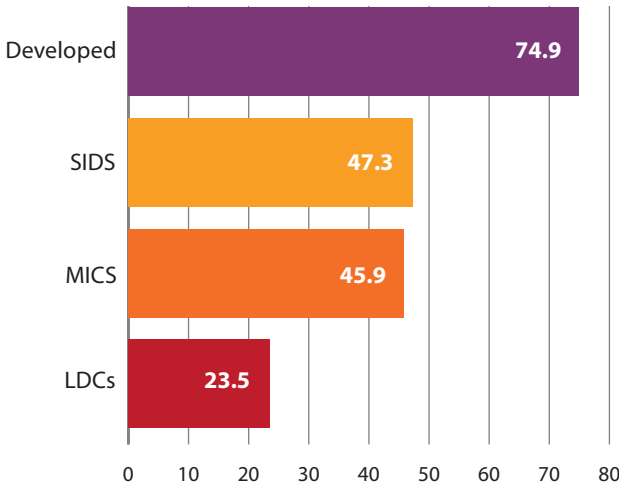
Policymakers need to address the fundamental issues behind the limited supply of long-term credit in many developing countries. These include: (i) limited information about clients' creditworthiness; (ii) underdeveloped financial systems; and (iii) inadequate legal infrastructure such as poor contract enforcement diminishing the value of collateral. Macroeconomic instability is also detrimental to long-term lending, in part because it makes it difficult to forecast inflation over a long time horizon. Governments and development partners could explore ways to further grow the local banking sector, for instance, by shifting the focus of international finance institutions from direct private sector financing to de-risking.

Not all long-term lending will have the same impact on development. For example, loans used to acquire a company and pay back initial shareholders do not have the same development impact as loans used to invest in more environment-friendly equipment and other productive capacities. Policymakers could thus reflect on how to incentivize loans with a positive contribution to productivity and the SDGs, while disincentivizing those with a limited or negative impact, for instance, because they create heightened financial stability risks or are socially harmful. They could also consider supporting initiatives designed to better align the banking industry with the SDGs, such as the Principles for Responsible Banking.[23]

Developing capital markets, another source of long-term financing, has proven challenging in many countries. Capital markets offer an avenue, mostly for large companies, to access long-term debt and equity financing from a wider pool of investors. However, many developing countries have shallow capital markets, if any at all. Several challenges explain difficulties in developing capital markets, including a narrow investor base, limited supply of issuers and inadequate legal and market infrastructure. Nonetheless, some developing countries have been successful in establishing stock markets and growing them over time (e.g., large economies such as Brazil, China and South Africa - see figure III.B.5). Similarly, corporate bond markets have so far played a limited role in mobilizing financing in most developing countries and these markets remain small in terms of GDP, with some notable exceptions (e.g., Malaysia).[24]

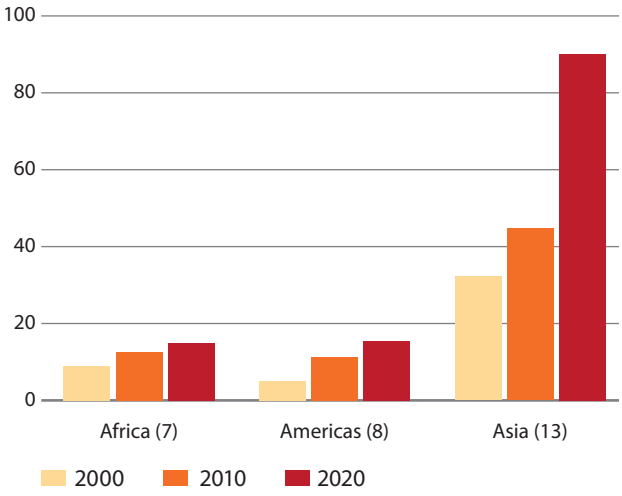
Private markets, such as private equity/debt funds, have become mainstream and may offer an alternative to listed equities and bonds for long-term private financing. Pension funds and other institutional investors have invested heavily in unlisted and privately owned companies as they seek higher returns in a low interest rate environment. Venture capital, a subset of private markets targeting startups, has grown by a factor of 20 since 2002.[25] The largest institutional investors now hold 9 per cent of their assets in private markets, twice as much as in 2011.[26] This surge in private market investment creates considerable competition for deals as well as a record level—at $3 trillion—of funds committed but not yet invested (so-called dry powder).[27]

Figure III.B.4
Private credit by deposit money banks to GDP (average 2019 – 2020)
(Percentage of GDP)



Source: International Financial Statistics (IFS), International Monetary Fund (IMF).

Figure III.B.5
Stocks traded (total value) in selected developing countries
(Percentage of GDP)



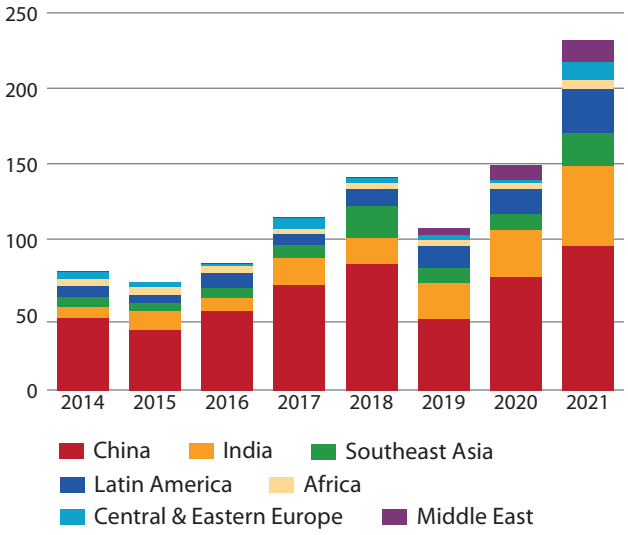
Source: World Federation of Exchanges database.
Note: The number of countries covered by region (i.e., with data available) is indicated in parenthesis.

The rise of private markets could create opportunities for developing countries. Unlike stock exchanges, private markets can operate with less sophisticated market infrastructure. They can also more easily support smaller companies prevalent in developing countries. Private markets are less volatile as investors cannot easily exit illiquid equity investments in downturn periods. Private capital investments in emerging markets have grown rapidly, reaching their highest levels on record in

2021 at about $230 billion (figure III.B.6). Nonetheless, they still represent a small share of the market as a whole (figure III.B.7). Facing heightened competition for deals in mature markets, investors could be tempted to enter more frontier markets with higher economic growth prospects.

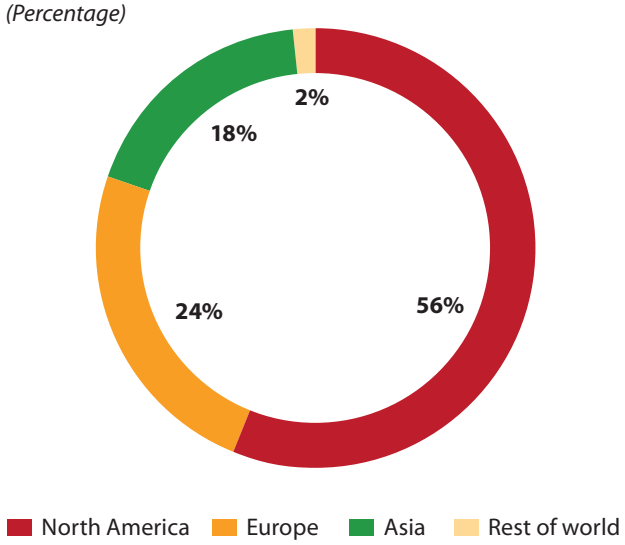
However, investment in these countries is perceived as riskier by investors. International investors cite macroeconomic conditions (including exchanges rates) and political and regulatory uncertainty as some of the greatest obstacles to increasing fund allocations to emerging markets.[28] Unless these risks are mitigated, private equity investments need to compensate investors for these risks in order to be attractive (or competitive with other investment opportunities). Generally, returns will need to exceed sovereign bonds yields, which are already high in many developing countries (see chapter II). Only a limited number of deals might be able to produce high enough returns. Increasing private capital investment in these countries thus requires mitigating country risks. In the medium term, this means strengthening the enabling environment, including macroeconomic policies. It can also include using risk-sharing mechanisms, including from public development banks (see chapter III.C). Investors' risk perceptions are also determined by the trustworthiness of information available to them, which in turn depends on the existence of an ecosystem of ancillary legal and accounting services (see chapter II). The INFF binding constraint methodology can further help countries to think through and prioritize how to address impediments to attracting greater private capital investment. An INFF assessment would also aim to better understand why some domestic investors have been reluctant to invest in local private markets. For example, private equity investments represent less than 1 per cent of local pension funds in several large sub-Saharan African economies.[29]

Figure III.B.6
Private capital investment in developing regions
(Billions of United States dollars)



Source: Global Private Capital Association (GPCA)—see GPCA's methodology for regional groupings

Figure III.B.7
Geographical distribution of assets under management in private markets
(Percentage)



Source: BIS calculations based on Pitchbook Data.
Note: Data as of October 2021.

For private equity investment to be supportive of growth, it should result in an injection of fresh capital in businesses and avoid the pitfalls seen in developed markets. These pitfalls include funds that have loaded businesses with debts to extract value, sometimes leading previously profitable businesses into bankruptcy. A study estimates that companies acquired through leveraged buyouts have a probability of bankruptcy within 10 years that is 18 per cent higher than other firms.[30] The risk of overleveraging is, however, more limited in countries with less developed financial markets.

4. Fostering an inclusive recovery

For economies to be stable and thrive in the long run, they need to work for all segments of the population. This can only be achieved with a more inclusive private sector where economic opportunities are more widely accessible to all social groups. Access to financial resources should also be enhanced for those currently underserved so they can invest in their future. This includes facilitating access to loans for entrepreneurs and small businesses as well as reducing the cost of financial services for the poor.

4.1 Inclusive growth

An inclusive private sector is good for the economy and businesses. Higher participation of women in the workforce increases the pool of talent for employers and can add 35 per cent to GDP in countries with the largest gender gaps.[31] Studies have also shown that diverse companies (in terms of gender and ethnicity) are more likely to financially outperform their peers.[32] Inclusive growth also requires bringing a greater share of the world's 2 billion informal workers into the formal economy. This is necessary not only to improve social outcomes but also to boost growth.

Informal firms tend to remain small, with a labour productivity approximately one quarter of that of formal firms.[33]

The pandemic poses additional challenges in terms of economic exclusion. The pandemic has disproportionally hit populations at the bottom of the income pyramid, including informal workers, as well as other groups already underrepresented in the economy such as youth and women, thereby exacerbating pre-existing economic disparities. [34]

Government actions need to both remove obstacles and create incentives for further inclusion. In the case of gender, laws and regulations continue to discriminate against women in many countries. In 108 countries, women cannot run a business in the same way as men due to obstacles in opening a bank account or registering a business.[35] Fiscal policy is another lever to promote inclusion, for example, by: (i) setting relatively high tax-exempt thresholds to encourage greater formalization of small firms; or (ii) using tax incentives to promote the recruitment of underemployed populations such as youth. Governments can also provide targeted training programmes for low-skilled workers; use public procurement to support organizations with a diverse workforce (see chapter III.A); and promote a new form of business that better integrates economically vulnerable people (see box III.B.1).

Box III.B.1
Promoting inclusive business in South-East Asia

Inclusive businesses provide goods, services and livelihoods—on a commercially viable basis—to the populations at the base of the economic pyramid, making them part of the core value chain as suppliers, distributors, retailers and/or customers. Member States of the Association of Southeast Asian Nations (ASEAN) have developed various strategies to promote inclusive business, including:

- The integration of inclusive business in national development or industry development plans: For example, inclusive business is an investment priority of the Government of the Philippines, with corresponding incentives and dedicated legislative bills;
- The institutionalization of inclusive business promotion: Governments have identified agency leads and, in the cases of Cambodia, Myanmar and the Philippines, have established a steering committee for promoting inclusive business;
- Promoting inclusive business at the regional level: for example, the Ministers of ASEAN have endorsed the "Guidelines for the Promotion of Inclusive Business in ASEAN", the first region in the world to adopt guidelines of this kind.

The development of enabling environments for inclusive businesses in South-East Asia is still in its early stages. To magnify inclusive growth, it will be critical to establish formal and funded support structures to: (i) promote inclusive business; (ii) articulate these efforts with other development plans; (iii) move into the implementation stage; and (iv) monitor and evaluate the impact of these measures.

Source: United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). 2021. *Frontiers of Inclusive Innovation—Formulating Technology and Innovation Policies that Leave No One Behind.*

4.2 Access to finance

Smaller companies continue to face significant financial constraints as commercial banks have failed to increase lending. Outstanding loans to small- and medium-sized enterprises (SMEs) from commercial banks are below 5 per cent of GDP in LDCs, while they account for over 15 per cent in developed countries (see figure III.B.8). SMEs in developing countries also provide on average 30 per cent more collateral to secure a loan than those in developed countries.[36] Nonetheless, there are positive signs. While close to one third of SMEs surveyed in developing countries identified access to finance as a significant constraint to growth a decade ago, this share has declined to about one quarter in recent years.[37] In contrast, only 7 per cent of SMEs in the euro area report concerns regarding access to finance.[38]

Policymakers have a range of options to address SME financial constraints, including:

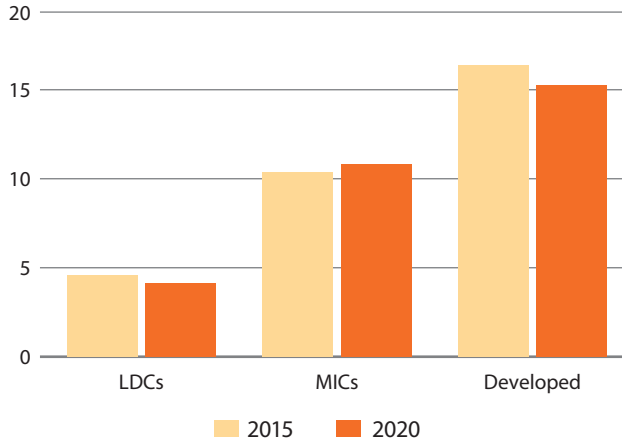
- **Reducing information asymmetries** through enhanced credit reporting systems[39] and technology to provide better information for credit decisions (e.g., open banking technology may allow SMEs to use their bank account data for seeking loans from third-party institutions);
- **Mitigating risks** through (i) partial credit guarantee schemes for SME lending institutions (65 countries have launched or expanded existing guarantee schemes since the COVID-19 outbreak); [40] and (ii) more efficient collateral systems (e.g., making it possible to use moveable assets such as equipment as collateral);
- **Providing liquidity** through credit lines to local financial intermediaries for on-lending to SME clients as many multilateral development banks have been doing for many years (e.g., credit lines have represented up to 20 per cent of the European Bank for Reconstruction and Development's total annual business volume).[41] However, there is a risk that banks use these funds to lend to clients that would have received loans even without these credit lines;
- **Creating incentives** through performance-based incentives that reward financial institutions targeting underserved segments, for example, those earmarking at least 20 per cent of loans to women customers and women-led enterprises.[42]

For Governments to select the optimal tools, they first need to assess the obstacles to SME finance in their country, for instance, through INFFs. Governments and development partners should also continue examining the impact of these mechanisms and how to improve policy design and avoid unintended side effects (e.g., credit schemes that generate excessive losses or incentives for SMEs that lead to loans only for the largest firms among these enterprises).

Enhancing SME access to finance could lead to significant benefits in terms of job creation. These enterprises account for more than half of all formal employment in developing countries. Alleviating SMEs' financial constraints could help to meet the employment challenge facing these countries. A recent study estimated that every $1 million loaned to SMEs in developing countries is associated with the creation of an average of 16.3 direct jobs over two years.[43]

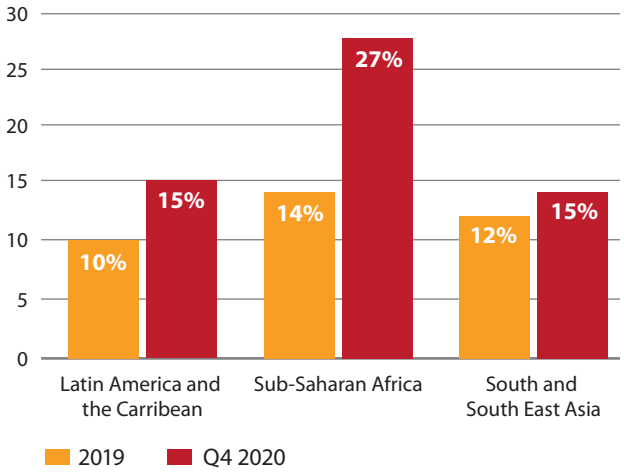
In addition to solving structural issues, policymakers must prevent small and micro companies from facing a credit crunch at the very moment revenues are negatively affected by the COVID-19 crisis.

Figure III.B.8
Outstanding SME loans from commercial banks
(Percentage of GDP)



Source: UN/DESA calculation based on 8 LDCs, 32 MICs and 16 developed countries for which data were available both in 2015 and 2020 in the IMF Financial Access Survey 2021 database.

Figure III.B.9
Microfinance institution loans at risk
(Percentage of outstanding portfolio)



Source: CGAP, "Microfinance Solvency and COVID-19: A Call for Coordination", September 2021.
Note: Credit risk is calculated as an average of loans in arrears for over 30 days, restructured and written off.

A survey of francophone Africa in 2021 showed that smaller enterprises' revenues had not recovered from the pandemic to the same degree as large companies. [44] Meanwhile, figure III.B.8 shows that the crisis led to a decrease in lending to SMEs in developed countries and LDCs. Similarly, microfinance institutions (MFIs) cut lending dramatically at the peak of the crisis, with almost 69 per cent reducing lending (often by more than half) due to liquidity and solvency concerns.[45] By one measure, the share of microloans at risk in sub-Saharan Africa almost doubled from 2019 to 2020 (see figure III.B.9), jeopardizing the future solvency of many MFIs, especially the smaller ones.[46] Equity support, not debt, is needed to ensure that institutions that provide considerable social benefits outlive the crisis. Development finance institutions and donors need to invest and play a catalytic role, while limiting the disruption of services for the poor.[47]

The COVID-19 crisis has also re-emphasized the need to accelerate financial inclusion. Greater access to financial services allows those typically excluded, such as the self-employed and informal workers, to better weather the crisis and invest in their own recovery. Many public support programmes have been channelled through the financial sector in the form of debt moratoria and loan guarantees, de facto excluding those not served by financial institutions. While digital financial services have enabled a remarkable growth in access to financial services[48] (see chapter III.G), many segments of the population remain unserved or underserved with inadequate or expensive solutions. For example, women and rural workers are overrepresented in the unbanked population (e.g., women in developing countries are 9 percentage points less likely than men to have a bank account).[49]

4.3 Cost of remittance transfers

Addressing the high cost of remittances is another way to enhance financial services to those most in need. The high cost of remittances is a toll on the poor. About 50 per cent of global remittances are directed to rural areas, where poverty is concentrated. [50] Every dollar saved on remittances increases the income of migrant families and other recipients and thus their capacity to invest in their future, for instance, via spending on education. This source of funds is also countercyclical as demonstrated by the resilience of remittances during the COVID-19 crisis. Defying initial forecasts, remittances registered just a 1.7 per cent drop in 2020 and are projected to increase by 7.3 per cent in 2021.[51]

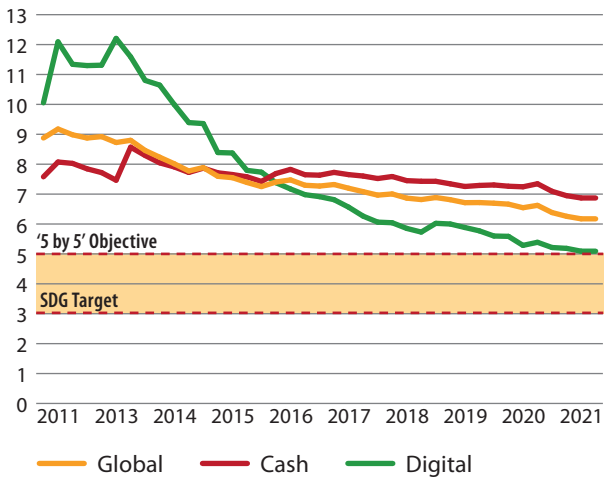
Yet, remittance costs remain far above the SDG target of 3 per cent or lower despite improvements in many corridors. In the second quarter of 2021, the global average cost of sending $200 across international borders was 6.3 per cent of the amount transferred. The difference among receiving regions remains large. On average, it is twice as expensive to send money to sub-Saharan Africa than to South Asia (average cost of 8.7 vs. 4.3 per cent as of second quarter 2021). Globally, 24 per cent of corridors still have costs higher than 5 per cent, while the SDG target is also to eliminate remittance corridors with costs above 5 per cent by 2030.[52]

Moving remittances to digital channels could help to reduce transfer costs while increasing access and transparency. The COVID-19 crisis has already led to a shift from cash-based to digital channels. International remittances processed via mobile money increased by 65 per cent in 2020.[53] Pursuing this shift will be critical to achieving international goals as digital channels are far cheaper than cash remittances (see figure III.B.10).[54] Remittance service providers are taking actions in this direction: about two thirds of remittance service providers surveyed planned to strengthen their digital channels.[55]

Further adoption of digital solutions will require accelerating access to transaction accounts for the migrant population. There are several reasons why accessing these accounts is currently hindered, including: (i) stringent anti-money laundering and countering the financing of terrorism (AML/CFT) regulations; (ii) lack of financial and

digital literacy; and (iii) inadequate access of non-bank payment service providers to payment infrastructures needed for remittance transfers. Know Your Customer (KYC) requirements included in AML/CFT make onboarding by banks of migrants who may lack the required identification documents more challenging. Policymakers could build flexibility into existing regulations while still ensuring a high degree of financial integrity through, for example, digital identification and verification systems.[56] In addition to regulatory interventions, policymakers could promote cheaper options via price comparison websites and support digital and financial literacy of migrants and their families. [57]

Figure III.B.10
Trends in global cost of sending $200 in cash or digitally
(Percentage)



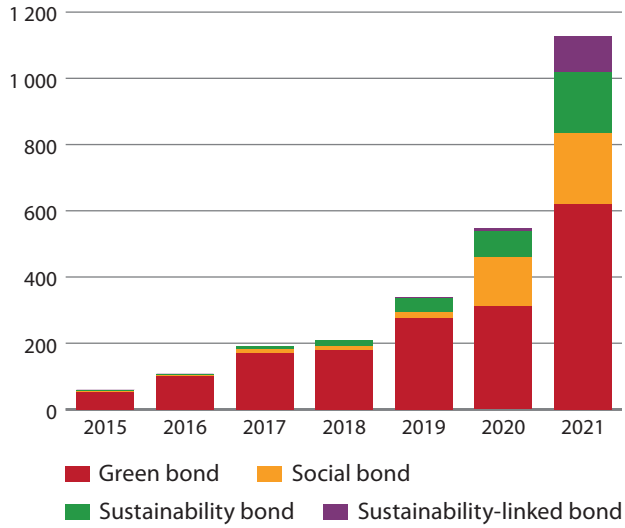
Source: World Bank, Remittance Prices Worldwide, No. 38, June 2021.

5. Leveraging capital markets for sustainable development

The private sector not only needs to be more inclusive but also more sustainable; capital markets need to play a greater role in incentivizing the private sector towards more sustainability. Incorporating sustainability issues into investment decisions has become mainstream, starting with climate change. Investors realize that some sustainability issues impact the financial performance of companies they invest in. This recognition is also reflected by the large number of Principles for Responsible Investment (PRI) signatories, which represent more than $120 trillion of assets under management (that is, roughly 50 per cent of the value of the global equity and bond markets).[58] Climate change has been the driving force behind sustainable investment. In the lead up to the 2021 United Nations Climate Change Conference (COP26), the Glasgow Financial Alliance for Net Zero (GFANZ) managed to gather members with $130 trillion in assets around the goal of accelerating the decarbonization of the economy through the financial sector.

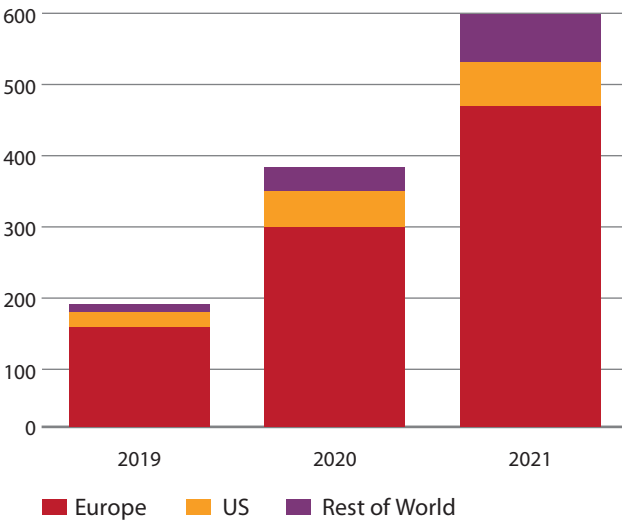
Sustainable investment attracted record-level flows in 2021. In the debt market, sustainable bond issuance doubled in 2021, with green bonds

Figure III.B.11
Sustainable bond market issuance
(Billions of United States dollars)



Source: BloombergNEF, Bloomberg LP.

Figure III.B.12
Global sustainable fund flows
(Billions of United States dollars)



Source: Morningstar.

exceeding $600 billion and social bonds gaining importance (see figure III.B.11). The global outstanding amount of sustainability-labelled bonds is now over $2.5 trillion.[59] Developing countries accounted for 22 per cent of green bond issuance in 2021 versus 16 per cent the previous year,[60] but issuance remains limited in lower-income countries.[61] Meanwhile, sustainability-themed funds have continued their exponential growth, with a net inflow of about $600 billion in 2021 (a 62 per cent increase compared to 2020—see figure III.B.12). Total assets in these funds exceeded

$2.7 trillion at the end of 2021. This trend is expected to continue. A survey indicates that investors want to double the share of their assets invested sustainably between 2020 and 2025—from 18 to 36 per cent.[62]

While these developments represent major breakthroughs and could give the impression that the market has found the solution to combine profit with positive impact, the reality is more complex. Most investors that have invested in products marketed as sustainable have done so because they believe integrating environmental, social and governance (ESG) issues into their investments could lead to greater financial returns or will not affect returns while providing a feel-good sentiment. In other words, ESG investment strategies were not designed to go beyond financial returns. In the European Union, the legislator has created a distinction between funds that explicitly integrate sustainability into the investment process (the so-called Article 8 funds) from those that have sustainable investment as an objective (the so-called Article 9 funds). The latter represent only around 4 per cent of total European Union investment funds, while Article 8 funds account for about 30 per cent.[63] The Global Investors for Sustainable Development (GISD) Alliance has also introduced a definition of sustainable development investing (SDI). The SDI definition outlines criteria that investment should meet to qualify as making a positive contribution to sustainable development, de facto creating a norm against which sustainable investments can be assessed.

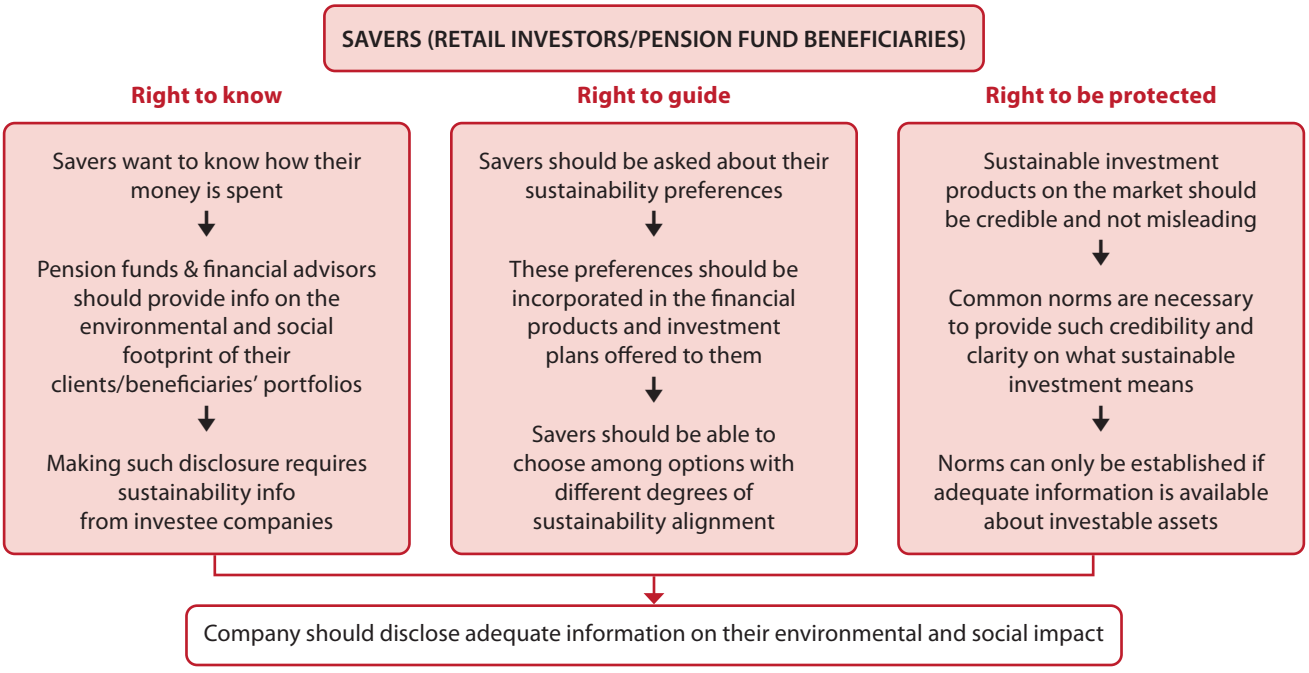
Policymakers can explore several avenues to increase the impact of sustainable investment practices (see figure III.B.13). First, they can act to improve companies' transparency about their impact on sustainability issues. Second, they can intervene to protect the rights of retail investors and pension fund beneficiaries to know how their money is being spent by those managing funds on their behalf (e.g., pension fund managers), including whether funds are invested in companies with positive or negative impacts on social and environmental issues. Third, they can ensure that savers are offered financial products and strategies that match their true preferences. Fourth, they can take measures to prevent investment products (e.g., exchange-traded funds) from being marketed as sustainable if they are misleading investors about their stated impact.

5.1 Investor regulations

There is evidence that individual investors' interest goes beyond financial performance. A 2020 survey in the United Kingdom found that 80 per cent of pension fund members wished for their pension to do some good (up from 69 per cent in 2018).[64] A survey in the Netherlands found that two thirds of pension fund participants were willing to expand the fund's engagement with companies based on selected SDGs, even when they expected engagement to hurt financial performance.[65] Four out of five Australians wished for their super fund and their bank(s) to communicate the impacts—positive and negative—that their money is having on people and the planet.[66] These surveys demonstrate that investors are not only interested in sustainability issues to enhance their financial performance, but also as goals in and of themselves.

Yet, savers and pension fund beneficiaries are not systematically asked about their sustainability preferences. In the United States, a small majority of investors (56 per cent) have been asked by financial advisors about their goals beyond financial performance, and 59 per cent have knowledge of sustainable investment options offered in employer-sponsored retirement saving plans.[67] The picture is similar in other markets. In a survey

Figure III.B.13
Sustainable investment from a saver perspective



Source: UN/DESA.

across 24 countries, only 59 per cent of surveyed individual investors said their financial advisors had spoken to them about ESG investments.[68]

Several reasons might explain financial advisors' lack of engagement. First, advisors generally have no legal obligation to ask these types of questions as part of their requirements to understand clients' investment risk preferences and profiles. Second, unsupported fears that sustainability preferences could impair financial performance could result in hesitancy to proactively ask clients about their sustainability preferences, especially if advisors' fees are linked to financial returns. A recent survey showed that 43 per cent of advisors who did not currently invest in ESG believed that ESG-branded products perform worse.[69] Third, the absence of standards to define what constitutes a sustainable investment creates confusion for financial advisors. About 80 per cent of financial advisors find it challenging to explain ESG concepts to their clients;[70] the lack of familiarity with ESG is holding back advisors' engagement.

Legislators can amend rules to permit or require institutional investors and advisors to adjust their investment practices to their clients' sustainability preferences. Some jurisdictions are ahead of others in this regard. For example, in the European Union, regulations have been updated to ensure that wealth and portfolio managers incorporate clients' sustainability preferences in the recommendations they provide.[71]

Fiduciary or related investor duties can no longer be used as an excuse for disregarding sustainability issues. The guiding principle for the investment industry is that pension funds and other institutional investors have the duty to act in the best interests of their clients who entrust them with their savings. This has been interpreted as a responsibility to only focus on financial risk/return, but regulators need to clarify the interpretation of this responsibility in today's context:

- First, regulators should make it unequivocally clear that this duty encompasses the need to consider sustainability considerations as some of these considerations will impact financial performance, especially in the long term (see *Financing for Sustainable Development Report 2019*, pp. 54-55);
- Second, regulators should introduce discretions that allow investors to pursue sustainability goals that reflect beneficiary preferences. For example, if they have enough evidence, regulators could introduce a presumption that each investor wishes for their money to be managed in ways that achieve certain sustainability goals.[72]

Concretely, regulatory changes can target:

- **Transparency in terms of asset allocation and investment decision—**Institutions managing funds on behalf of others currently disclose information on how their funds have been invested. Yet, the way they disclose sustainability-related information about their funds is largely left up to the discretion of the institutional fund managers, although this is rapidly evolving with emerging regulation and industry-led guidance, such as the European Union Sustainable Finance Disclosure Regulation (SFDR) and the CFA Institute's Global ESG Disclosure Standards for Investment Products. Concretely, policymakers could require fund managers to consistently disclose the environmental and social footprint of their clients' portfolios, including both the disaster risk to which they are financially exposed and those that they are creating, and the ways they have taken sustainability issues into account in their investment decisions;
- **Consistency in engagement practices—**Institutional investors could be required to report on how they engage with current or potential investees and use their influence, including with policymakers, to encourage positive changes on environmental and social issues. Stewardship codes have been introduced in 22 jurisdictions to formalize expectations concerning investors and encourage greater transparency on investors' stewardship activities (e.g., voting at shareholder meetings and filing of shareholder resolutions/proposals).[73] These codes can ensure that activities by investment managers reflect asset owners' sustainability concerns. Despite these codes, actions by asset managers often diverge from what one would expect. A recent analysis of the voting records of three major asset managers shows that they more often oppose rather than support shareholder resolutions aimed at improving environmental governance of major polluting companies.[74] The GISD Alliance is trying to address this issue by developing a model mandate that asset owners can use as the basis for negotiating mandates with their asset managers and ensuring that their expectations in relation to sustainability and stewardship are well reflected in investment management agreements;
- **Provision of sustainability-aligned investment alternatives—**In the United States, the Department of Labor, which oversees retirement plans, is proposing to make it easier for employers to offer options in those plans that incorporate ESG factors in investment decisions.[75] Policymakers could consider going a step further and making it mandatory for employer retirement plans to always include, among the possible investment alternatives, one focused on achieving positive impacts on sustainable development.

5.2 Sustainable investment products

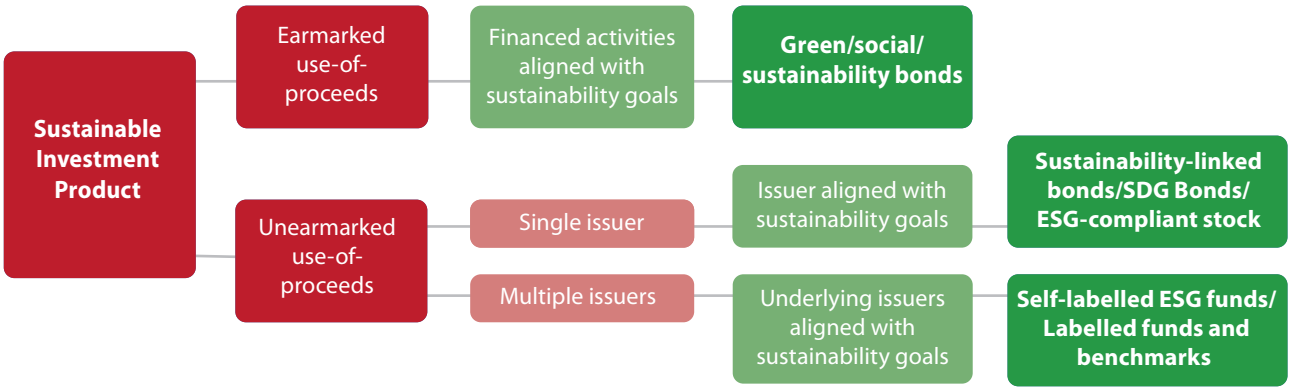
Once sustainability preferences are established, the challenge is to put them into practice in a credible way. To meet the demand for sustainable investment, capital market participants have created a range of investment products with sustainability features. Figure III.B.14 outlines the main categories. For policymakers and savers, it is important to understand whether these products are based on sound methodologies and are likely to achieve a positive impact on sustainability issues.

5.2.1 Use-of-proceeds bonds

Green, social and sustainability bonds are debt securities that aim to finance earmarked green or sustainable activities. Over $1 trillion of these bonds were issued in 2021 by corporates, development banks, government-backed entities and sovereigns, among others. In 2014, the International Capital Market Association (ICMA) created the Green Bond Principles (GBP) to recommend a clear process and disclosure for issuers that ensures transparency, tracking and reporting on the use of green bond proceeds. ICMA principles and guidelines were subsequently extended to cover social and sustainability bonds. Specific thematic guidance has also been developed to assist issuers in incorporating gender-equality considerations into social and sustainability bonds in a credible and measurable way.[76] In parallel, regulators and market-led approaches have emerged to create taxonomies that identify eligible activities for these instruments.

Despite existing principles and taxonomies, the credibility of some green and other sustainability bonds could be enhanced by requesting a certain level of sustainability alignment from

Figure III.B.14
Capital market and sustainable investment products



Source: UN/DESA.

the issuer. Companies issuing green bonds may not be aligned with climate goals nor improve their sustainability performance over time. A green bond label certifies that the activities financed are green but does not guarantee the greenness of the firm issuing the bond. Research has shown mixed results on whether green bond issuers reduce their carbon emissions over time faster than other companies.[77] Nonetheless, guidance is evolving. The 2021 edition of GBP recommends heightened transparency for issuer-level sustainability strategies and commitments, although it falls short of requesting company alignment with sustainability goals as a condition for green bond issuance. This alignment could be verified by requesting a minimum rating based on the issuer's carbon emissions or limiting the issuance of green bonds only to companies on a sustainability-aligned trajectory.

Green and other bonds also suffer from some structural weaknesses due to the way they are constructed. First, green bonds are difficult to scale. Companies may only have a limited number of activities or initiatives that meet the screening criteria of a green bond taxonomy. Also, as alluded to above, green bonds only consider the projects for which the proceeds are used and overlook other, possibly dirty, projects of the issuing firm. Second, they create additional reporting burdens and transaction costs. Companies must track and report on the use of these funds. Certification schemes and Second Party Opinion have also been introduced to ensure a level of independent review. This is positive, but adds costs. Third, they reduce market liquidity for an issuer that also issues regular bonds - even if both green and conventional bonds carry the same credit risk (i.e., the issuer's credit risk). The reduced liquidity can affect the price of both types of bonds. Fourth, issuances of sustainability bonds and regular bonds are not aligned (they are not released at the same times, in the same currency or in the same volumes). It is therefore difficult to develop comparable yield curves and prove the existence of a green or social premium, which can encourage further issuances.

5.2.2 General corporate purpose bonds

A second category of sustainable investment are bonds issued for general corporate purpose that have sustainability characteristics. These bonds take a holistic approach vis-à-vis an entity's impact on sustainability goals. They are not earmarked to specific activities in the same way as conventional green and social bonds. Therefore, they are more easily scalable and do not require separate reporting from a company's overall sustainability reporting.

Sustainability-linked bonds are the most prominent example, with issuance at about $130 million in 2021. The issuer of these bonds commits to improvements in overall firm performance against environmental or social key performance indicators (KPIs). The indicators could be linked to a company's transition to net-zero emissions or a specified increase in the number of women in management. The accountability mechanism is clear as the coupon could increase if the company fails to meet its targets. However, KPIs chosen by companies may still only reflect a limited sustainability issue or may lack ambition. These KPIs vary from company to company, which make them difficult to interpret for investors. Standardizing the KPIs used for these bonds could help to address these challenges, an idea that is currently being pursued by the Chief Financial Officer (CFO) Taskforce convened by the United Nations Global Compact.

Market participants could also consider creating a new type of bond based on the issuer's overall sustainability performance. For example, one could consider labelling SDG bonds as those issued by companies aligned with the SDGs to differentiate them from those issued by other companies. Similarly, transition bonds could be bonds issued by companies on a credible decarbonization pathway. However, this necessitates having robust methodologies for assessing corporate alignment with the SDG and climate goals (see section 5.3 and box III.B.2).

5.2.3 Self-labelled and labelled funds

A third category of sustainable investment are funds branded as sustainable. ESG funds fall into this category and have proliferated over the last few years. These funds tend to be self-designated labels with little transparency or consistency in the approach they use to decide which securities are selected and how ESG issues affect the fund's composition. This raises an elevated risk of green/SDG-washing. Regulators are taking note. For example, the U.S. Securities and Exchange Commission (SEC) and German regulator BaFin opened an investigation to check whether an

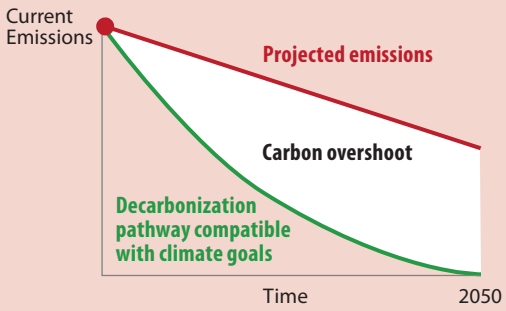
Box III.B.2
Transition finance and decarbonization pathways

Assessing the alignment of a company with climate goals is complex and the results may differ widely depending on the assumptions made. Yet, this assessment is necessary to understand if companies are making the necessary shifts towards a low-carbon economy and to allow investors to direct resources to companies with credible decarbonization plans.

The idea behind transition finance is that it is not enough for financiers to fund companies that are already "green". They also need to help "brown" companies to realize a low-carbon transition, especially those active in sectors key to the reduction of global emissions. To help investors identify companies that are making the necessary efforts, data providers have developed "implied temperature rise" methodologies, which complement carbon footprint and other more static indicators of carbon performance.

Figure III.B.15
Steps for computing an implied temperature rise score

Step 1	What are the company's current emissions?
Step 2	What are the company's future emissions?
Step 3	What should be the company's decarbonization pathway to meet climate goals?
Step 4	What is the gap between the projected emissions and decarbonization pathway?



Source: UN/DESA.

Figure III.B.15 highlights the different steps for assessing a company's temperature alignment, with Step 4 being conversion of the company's carbon overshoot into a single temperature metric, which indicates the global warming a company is aligned with (e.g., 2 or 4 degrees Celsius).

At each step, decisions need to be made that can influence the outcome. This explains the discrepancy in the methodologies' results.[78] For example:

- Step 1 involves deciding whether to include only emissions from a company's operations (referred to as Scope 1 and 2) or to also include emissions from its value chain (Scope 3) (see *Financing for Sustainable Development Report 2021* box III.B.2 for analysis on this issue). The targets should also be decided in Step 1: i.e., reduction in absolute emissions or in carbon intensity per product output/value added;
- Step 2 requires making forecasts, which could be based on past emissions or company targets;
- Step 3 necessitates choosing among different climate scenarios and decarbonization rates. Decarbonization could, for instance, be sector-specific or sector-agnostic. The latter implies that all companies should reduce their emissions at the same pace regardless of their sector of activity.

Methodologies may need to become more consistent and transparent to be useful for investors. As of now, the implied temperature metrics resulting from different methodologies are not comparable. The ICMA's Climate Transition Finance Handbook sets minimal disclosure requirements to ensure transparency but does not advise on a specific methodology. The Inter-agency Task Force on Financing for Development could explore how to define minimum technical criteria these methodologies should fulfil in order to advise regulators in this area.

asset manager was overstating its sustainability claims.[79] Similarly, Morningstar, a data provider, has decided to remove 1,200 funds worth $1.4 trillion from its "sustainable" list after reviewing disclosures provided by these funds.[80]

There are two ways to reinforce this market's credibility:

- **The first is to promote robust practices by investors marketing sustainable investment.** Principles and standards have emerged for this reason. For example, the Operating Principles for Impact Management provide a framework for the design and implementation of investors' impact management systems. Organizations can also use the United Nations Development Programme's SDG Impact Standards to design their internal processes, practices and decision-making to make positive contributions to sustainable development;
- **The second is to define criteria for the type of underlying assets included in the funds.** These criteria can include a series of screenings (absence of controversies, best-in-class ESG practices, compliance with the United Nations Global Compact principles, etc.), such as those recommended in the GISD SDI definition. These criteria can also be more prescriptive, as seen with the French GreenFin label, which requires funds invested in unlisted securities to have at

least 75 per cent of assets under management invested in "GreenFin companies" (i.e., companies for which eco-activities represent at least 50 per cent of turnover—a taxonomy is used to define what these eco-activities are).

International collaboration is key to avoid a multiplication of labels and conflicting regulatory burdens for investment managers. If regulators opt for a siloed approach, financial markets will become more fragmented. For example, it would be useful to find ways to globally harmonize how investment managers should disclose information about how they incorporate sustainability issues in their products. Similarly, it would be good to agree on common global principles for funds marketed as sustainable. These principles could build, for example, on the high-level, voluntary principles put forward by the G20 Sustainable Finance Working Group for approaches to align investment with sustainability goals. Some jurisdictions may opt to go further than others, or adapt to regional circumstances, but the establishment of a global baseline will at least ensure a minimum level of convergence and interoperability amenable to investors.

5.3 Principles, norms, ratings and taxonomies for sustainable business

A major challenge with sustainable investment products is to ensure that the underlying assets they finance are compatible with the sustainable objective pursued. This means determining what assets can be considered as sustainable. The success of green bonds is due to the relative simplicity of this determination. But assessing the "sustainability" of a company with multiple activities in different sectors is more complex. Nonetheless, this is necessary to provide credibility for sustainable investment products that are not linked to specific use-of-proceeds. This assessment can also provide investors with information on the sustainability footprint of their portfolios. Table III.B.1 outlines different approaches, which are sometimes combined, to assess the sustainability of a company.

These approaches check whether a company:

- **Complies with high-level, sustainable business principles.** For example, does a company comply with the 10 principles of the United Nations Global Compact, United Nations Guiding Principles on Business and Human Rights, and OECD Guidelines for Multinational Enterprises? These principles provide a reference to check whether companies, at a minimum, meet fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption. Data vendors provide information on whether companies comply with these principles so they can be relatively easily integrated into investment practices. The main issue is that business principles often focus on limiting harmful practices and do not provide information on the positive contribution of these companies to sustainable development. As such, they are more a necessary than a sufficient condition for a company to be considered as contributing to sustainable development;
- **Does business in sustainable activities.** This can be assessed by checking whether a company has revenues, capital expenditures (Capex) or operational expenses (Opex) in activities included in a sustainable taxonomy. For example, large companies in the European Union are requested to disclose the extent to which their activities are environmentally sustainable according to the European Union Taxonomy, while also assessing whether their activities "do no significant harm" to other environmental objectives. This approach allows for rigorous assessment, but it creates challenges, for example, for companies with multiple activities and a global presence, and for sectors falling outside the scope of a taxonomy. This methodology also requires significant data that might not be available in many markets;
- **Achieves a minimum rate of improvement on KPIs.** Instead of specifying criteria by sector, this approach selects an indicator for a defined sustainability matter that can be applied to all companies. A representation of this is the European Union benchmark regulation that requires companies to be on a decarbonization trajectory in order to be included in the benchmarks (for equity securities, the trajectory is set at a minimum 7 per cent reduction of greenhouse gas intensity on average per annum). Similarly, one could consider that companies need to demonstrate a minimum yearly progress rate on the gender balance in their enterprise in order to be compatible with SDG 5 on "Gender Equality".[81] However, finding suitable KPIs for all sustainability matters might be challenging, and so is finding an agreement on the appropriate improvement rate;
- **Exceeds a minimum sustainability rating/score.** One could assume that funds with sustainability objectives should only include companies above a predefined sustainability rating/score. The challenge is that raters do not agree in their assessment of sustainability. One company could be ranked high by one provider and low by another. The correlation among six major providers of ESG ratings is low (54 per cent on average) at the level of aggregated ESG scores (i.e., the scores combining several indicators into a single rating).[82] There is also confusion as to what these ratings are measuring. Most ESG/SDG ratings and scores initially started by assessing ESG risks that companies face in their day-to-day operations, but this does not provide the information needed in order to ascertain if a company contributes positively to sustainable development. This assessment is difficult given the trade-offs that there may be between different goals. More recently, several tools have been developed to measure the impact of companies in relation to the SDGs as well as the alignment of companies with climate goals (see box III.B.2). Greater transparency, comparability and reliability of data and methodologies are necessary to transform ratings of corporate ESG/SDG performance into an objective practice that can be used as a reference for market norms for sustainable investment products.

5.4 Corporate sustainability disclosure

The cornerstone of sustainable investing is corporate sustainability disclosure, which is currently inadequate. If companies do not provide meaningful information on their environmental and social impact, nor details on the sector(s) and geographic locations of their activities, investors do not have the information they need to realize sustainable investment. Similarly, data vendors cannot produce sustainability ratings if they do not have access to robust data. Sustainability surveys, which are often used by vendors to collect specific data outside of reporting cycles, are also limited in their coverage and isolate data behind paywalls. The issues with corporate sustainability reporting are well known: (i) lack of comparability across companies; (ii) voluntary and selective disclosure by companies; (iii) outdated and backward-looking data; and (iv) multiplication of competing reporting frameworks (see *Financing for Sustainable Development Report 2021*, pp. 70–71).

Table III.B.1
Approaches to assess company alignment with sustainability goals

	Principles	Activity-based taxonomies	KPIs	Rating/Score
Approach	Complies with sustainable business principles	Has a business in sustainable activities	Achieves a minimum rate of improvement	Exceeds a minimum sustainability rating/score
Benefits	▪ Safeguards against harmful practices ▪ Data availability ▪ Well-known by the market	▪ Credibility/Rigor ▪ Tailored to sector specificities ▪ Required for green/social bond market	▪ Simplicity ▪ Applicable to all sectors ▪ Adapted for companies in transition	▪ Combined different factors ▪ Already used by financial actors ▪ Flexibility to adjust to new data
Challenges	▪ No assessment of positive impact ▪ No capacity from those issuing the principles to verify compliance	▪ Companies have multiple activities ▪ Limited to some sectors ▪ Binary assessment	▪ Not easily applicable to all SDG-related matters ▪ Consensus on the rate of improvement	▪ No consistency in assessment ▪ Proprietary methodologies ▪ Possible conflict of interest

Source: UN/DESA.

Major developments in this area could address these long-standing issues. The most striking initiative that seeks to achieve convergence among existing reporting frameworks is the launch of the International Sustainability Standard Board (ISSB) in 2021. Created by the IFRS Foundation, the ISSB seeks to achieve the same level of global standardization as the Foundation achieved with its widely accepted financial accounting standards. This Board could help consolidate the existing fragmented reporting frameworks and facilitate companies' adoption of harmonized metrics. Its impact will depend on how policymakers use the standards developed by the ISSB and whether they will require the ISSB to cover a broad set of sustainability matters with a more impact-oriented lens than its current focus on enterprise value creation. More specifically, policymakers must take a stand on three main questions:

- **Mandatory vs. voluntary**—Voluntary reporting has shown its limitations with many companies selectively choosing the issues they want to report on. Comparability across companies can only be achieved if sustainability reporting becomes mandatory. Although several jurisdictions are moving from voluntary to mandatory corporate sustainability reporting, many are limiting such mandatory reporting to climate-related issues, leaving other sustainability matters unaddressed;
- **Public vs private markets**—Sustainability disclosure regulations often apply only to listed companies, although certain jurisdictions require disclosure from all companies above a certain size. This is problematic since privately held companies represent the largest chunk of the economy, especially with the growing role of private equity funds. There could be a risk that public companies sell their carbon intensive assets to private equity and sovereign funds or state-owned companies that do not have the same transparency requirements. In the past two years, private equity funds acquired $60 billion worth of oil, gas and coal assets, more than they invested in renewables.[83] Pressure from investors committed to sustainability objectives may be able to partially address this issue. Recently, some of the world's largest investors and fund managers, representing more than $4 trillion in assets under management, came together to agree on six key sustainability issues that they will request all the companies they invest in to report on in a harmonized manner.[84] Private equity fund managers will be responsible for collecting this information;
- **Single vs. double materiality**—Some argue that a company should only report sustainability information that affects its financial performance (i.e., financial materiality); while others believe that companies should also disclose information on their impacts on society and the planet even if these may not have a direct financial impact on the company (i.e., environmental and social materiality). For example, in the case of water, a financial materiality lens would mean assessing whether the local community can provide enough water to a company to operate; while a broader materiality lens will assess whether a company is putting the local water supply under stress. In reality, it is difficult to draw a line between these two concepts as it might not be easy to demonstrate the financial or non-financial materiality of a sustainability matter in the absence of adequate data. Even when data exists, it might be difficult to define the difference with certainty, since some issues might not be financially material today but could become material in the future due to changes in regulations, long-term impacts or consumer preferences (i.e., dynamic materiality). A practical approach would be for policymakers to decide what issues are important to them (in line with country SDG needs and priorities) and require corporate disclosure on those issues, leaving the market to decide which ones they consider material for investment purposes.

5.5 Policy incentives

Financial markets can accelerate a sustainable transformation of the private sector, but only if the rules of the game also change (see *Financing for Sustainable Development Report 2021*, pp. 60-62). If it is profitable to run an unsustainable business, companies are less likely to change their practices. Policymakers have several levers with which to align sustainability and profitability. They can prohibit activities with negative impacts (e.g., single-use plastics), price negative externalities (e.g., carbon pricing mechanisms—see chapter III.A) or subsidize activities with positive impacts (e.g., energy-efficient buildings, clean vehicles or investment in low-income neighbourhoods).[85] They can also promote business models and opportunities with a positive impact on sustainable development.[86] While doing so, Governments should assess how the proposed regulations for sustainability will affect smaller firms.

Policymakers can also support the demand for sustainable investment products through tax incentives and other regulatory measures. If one can assure that sustainable investment products have a credible, positive impact on development, then Governments could consider providing tax incentives for these investments, for example, by linking the tax deduction rate for pension plan contributions to the plan's sustainability performance. Central banks also have the means to support demand for sustainable investment products. The People's Bank of China decided in 2018 to include green financial bonds as eligible collateral assets for its Medium-Term Lending Facility. The policy is estimated to have created a spread of 46 basis points between green and non-green bonds.[87] The design of the sustainable finance approaches and tools should be considered to ensure that they incentivize investment in developing countries, which is the focus of the next section.

5.6 Implications for developing countries

Developed country approaches to sustainable investment may have unintended consequences if not enough attention is paid to developing country constraints. Channelling institutional capital to developing countries can significantly fill the sustainable development financing gap. Research from Morgan Stanley shows that global investors allocate just 6 to 8 per cent of their portfolios to emerging markets. However, fundamental analysis suggests that an ideal equity portfolio would include from 13 to 39 per cent of emerging markets exposure.[88] The current limited allocation may be due to home bias or risk misperception. While sustainable finance holds some promise for increasing alignment, it also presents constraints for developing countries, although the degree to which constraints occur varies based on factors such as domestic capital market depth.

These constraints include:

- **Absence of data.** Taxonomies, labels and other tools ostensibly apply to investors domiciled and regulated in developed country jurisdictions, but many of these investors have global investment mandates that cover developing countries. The lack of verifiable data could mean that investors are unable to account for the sustainability of investments in developing countries with the same degree of certainty as investments made in developed countries. For example, investors could struggle to determine the level of taxonomy alignment for investments located in developing countries, which could de facto be considered as non-aligned. One way to address this issue is to allow investors to use estimates for assessing the taxonomy-alignment of their exposures to undertakings established in a third country or allow references to local taxonomies designed with similar principles and objectives;
- **Relative lack of capital market development.** While different avenues exist through which developing countries can attract investments, developed capital markets offer the liquidity, scale and diversification expected by institutional investors. For instance, institutional investors look to allocate at least $150 million per debt investment and $50 million per equity investment—thresholds not easily exceeded outside of capital markets.[89] As long as some developing countries have undeveloped or underdeveloped capital markets, large institutional investors will struggle to direct funds to investments located in these countries. Sustainable finance policies applied to institutional investors in developed countries will therefore not affect these countries to the same degree as developing countries with greater capital market development. Nonetheless, investors can rely on other vehicles—such as impact-driven private equity funds that invest directly in private companies—even if those funds do not offer the liquidity benefit of capital markets;
- **Current focus of ESG on risk management.** Is sustainable investing about managing risks or creating positive impacts? The difference in these two approaches cannot be more striking than in the case of developing countries. If the focus is on managing risks, taking ESG issues into account is likely to disincentivize some investments in developing countries. Indeed, developing countries face a range of climate-related and other transition risks that leave them more exposed than developed countries. These risks are already incorporated into risk assessment. According to Moody's, 60 per cent of its sovereign credit ratings of developing countries are currently negatively affected by ESG considerations.[90] In the short term, this narrow focus on risk is more likely to increase the cost of financing for developing countries. On the other hand, if ESG/SDG investing is about creating a positive impact, then investors should target investments in countries with higher needs where their impact will be greater. This is not yet happening. Moreover, it seems that sustainable funds actually have less exposure to emerging markets then non-sustainable funds.[91] Asset managers may be incentivized to increase exposure to developing countries if they receive an impact mandate from their clients or if the expected financial returns are commensurate with the risks.

Donors and international organizations should raise awareness regarding the actions that developing countries can take to benefit from the sustainability shift in developed capital markets. While China holds 15 per cent of global financial assets, other developing countries hold only 4 per cent of them.[92] Therefore, they largely depend on actions taken in more advanced economies. At the same time, developing countries with more developed capital markets may wish to deploy their own sustainable finance policies and approaches. Capacity-building assistance from donors can also focus on integrating sustainable investment approaches in capital market development plans, while working at the regional/global level to avoid market fragmentation.

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International development cooperation



Chapter III.C

International development cooperation

1. Key messages and recommendations

Development providers increased official development assistance (ODA) to a record level in 2020 despite the economic recession, demonstrating the role of ODA as a countercyclical resource in times of crisis. Nonetheless, ODA volumes are currently insufficient to meet rising needs to address the impact of the COVID-19 pandemic. Collectively, donors continue to fail to meet ODA commitments to provide 0.7 per cent of ODA per gross national income (GNI) and allocate 0.15-0.20 per cent of GNI to least developed countries (LDCs). Furthermore, concessional finance terms have worsened, with LDCs receiving fewer grants. In addition, distribution of COVID-19 vaccines, especially to the poorest countries, has been grossly inequitable. Responding to the military conflict in the Ukraine could also divert ODA from support to other countries and/or other areas if additional resources are not raised.

- *ODA providers must scale up and meet their ODA commitments with new and additional resources, including for LDCs. Grant finance rather than loans should be prioritized for vulnerable countries, such as LDCs and small island developing States (SIDS);*
- *As an immediate priority, ODA providers should meet the financing gap of the Access to COVID-19 Tools Accelerator (ACT-Accelerator) and rally behind the efficient and equitable distribution of vaccines for all countries;*
- *Donors should use vulnerability criteria as a complement to gross domestic product (GDP) for access to ODA in a consistent and systematic way;*
- *Countries should aim to better connect financing and related policies with longer-term objectives expressed in their national plans, strategies and resources, while development partners should make more effort to align their interventions to country priorities. Integrated national financing frameworks (INFFs) can be a useful tool to improve the effectiveness of development cooperation by matching plans, strategies and resources.*

Development of an initial conceptual framework for South-South cooperation marks a breakthrough in its measurement. South-South cooperation initiatives have helped to combat the pandemic, complementing North-South efforts. South-South cooperation also continues to expand in scope, volume and geographical reach.

- *Southern providers should continue further work on the measurement of South-South cooperation.*

A revitalized and more effective form of international cooperation is needed. The United Nations Secretary-General in Our Common Agenda has called for a new global deal to deliver on a more networked, inclusive and effective form of multilateralism with a focus on strategic foresight to address major global risks.

- *Developed countries urgently need to fulfil their commitment to mobilize $100 billion per year for climate action in developing countries;*
- *All providers should meet the new commitment to double adaptation finance by 2025, as well as prioritize grant finance for LDCs and SIDS;*
- *Development partners should integrate disaster risk reduction measures into development cooperation across all sectors to build resilience against current and future shocks and hazards;*
- *Development partners should also translate aid and climate commitments/pledges towards gains for LDCs and SIDS, including considering the use of multidimensional vulnerability as criteria to access ODA.*

Scaling up the resources of multilateral development banks (MDBs) can help to meet elevated demands. Lending by MDBs increased significantly in 2020, with further growth expected for 2021. While LDCs benefit from concessional MDB resources, the non-concessional windows of MDBs provide a vital channel for middle-income countries (MICs) to access long-term finance at rates that are more attractive than their own market borrowings.

- *Donors should provide MDBs with additional capital funding, particularly for the African Development Bank (AfDB) and African Development Fund (ADF); and consider channelling Special Drawing Rights (SDRs) through MDBs;*
- *Capital adequacy requirements should be reformed, and balance sheet optimization approaches advanced.*

Blended finance, which uses public funds to crowd in private finance, can be an option to support national development priorities, especially in areas with the potential to provide positive financial returns to repay the private partners, but this must be done with minimum concessionality or subsidy. Mobilizing private finance may be more challenging amid the ongoing COVID-19 crisis but can be an option for post-COVID-19 recovery efforts.

- *A differentiated approach based on need and impact could increase the scale and effectiveness of blended finance given limited concessional resources;*
- *Different instruments could be considered to scale up blended finance, such as guarantees and risk transfer mechanisms;*
- *INFFs can help policymakers consider blended finance for investments in projects with high sustainable development impact.*

This chapter highlights the impact of COVID-19 on ODA, MDB lending and blended finance, and discusses the latest developments in South-South cooperation. Section 6 examines financing for climate change and biodiversity and the importance of international cooperation to address global public goods. The chapter concludes with an examination of the quality, effectiveness and impact of development cooperation.

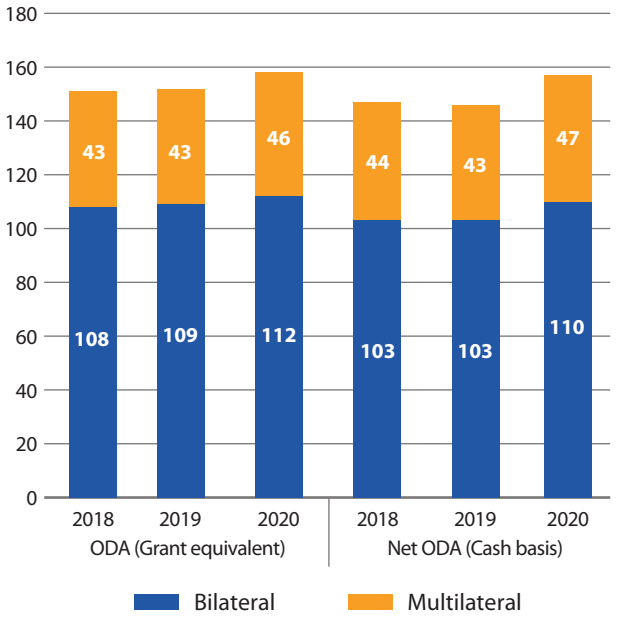
2. Official development assistance

2.1 Impact of COVID-19

ODA increased to its highest level in 2020; however, the increase failed to keep pace with rising needs and demands from the COVID-19 crisis. In 2020, ODA increased to a record level, rising by 3.5 per cent in real terms to $161.2 billion,[1] as calculated by the new grant-equivalent measure.[2] Net ODA totalled $161.0 billion according to the previous cash flow methodology, an increase of 7.1 per cent in real terms (figure III.C.1). The increase in ODA was underpinned by an increase in COVID-19-related activities by bilateral and multilateral providers (figure III.C.2). Nonetheless, ODA represented only a small portion of donors' pandemic response, at around 1.37 per cent of their domestic fiscal response.[3] Overall, while 16 donor countries increased expenditure on ODA, 13 countries reduced it. ODA was higher as a share of donor country GNI on average—0.32 per cent compared to 0.30 per cent in 2019. The increase was in part due to a fall in GNI in most donor countries.

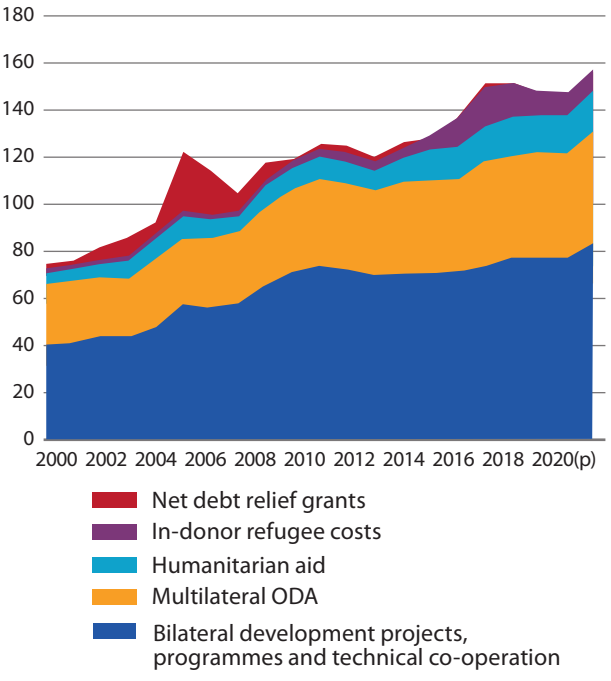
Bilateral ODA by Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) members to LDCs and Africa also increased in real terms. Bilateral ODA by OECD DAC members grew by 1.8 per cent to $34 billion to LDCs and by 4.1 per cent to $39 billion to African countries. However, ODA needs to be further scaled up as the financing gap to achieve the Sustainable Development Goals (SDGs) has also increased due to the impacts of the pandemic.[4]

Figure III.C.1
Official development assistance, 2018-2020
(Billions of United States dollars, 2019 constant prices)



Source: OECD Creditor Reporting System database.

Figure III.C.2
Official development assistance by component on a cash basis, 2000–2020
(Billions of United States dollars, 2019 constant prices)



Source: Ahmad and Carey, 2021.

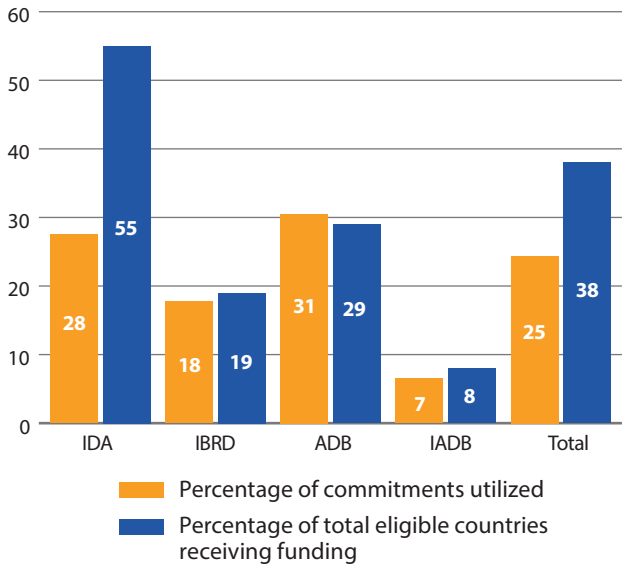
The COVID-19 pandemic and challenges to sustained financing for gender equality (SDG 5) continue to acutely affect women and girls. By 2019, the share of ODA that integrated gender equality objectives had reached 45 per cent on average between 2018 and 2019.[5] However, many advancements towards gender equality have been stymied or reversed by the pandemic.

New debt rules resulted in a higher increase in debt relief compared to the old measure. In July 2020, the DAC agreed to count rescheduled or forgiven debt towards ODA,[6] despite their acknowledgement in 2014 that the grant-equivalent system "would value upfront the risk of default on ODA loans, [thus] the eventual forgiveness of these loans would no longer be reportable as a new aid effort".[7] While the change is meant to incentivize the forgiveness and rescheduling of debt in developing countries amid the COVID-19 crisis, it may risk double counting ODA.[8] The method includes a ceiling to avoid a loan and subsequent debt relief generating greater ODA than a standard grant, but this does not apply to non-ODA loans where most debt relief occurs.[9] Preliminary 2020 figures under the grant-equivalent measure indicate that debt relief remained relatively low, at $541 million (compared to $439 million under the old methodology). While debt service suspension provided under the Debt Service Suspension Initiative (DSSI) does not meet the criteria to be counted as ODA, activities under the Common Framework which may include debt write-downs (see chapter III.E) could contribute to ODA, so that the debt relief component of ODA may increase in 2022.

As global inequities rise, ODA providers should urgently meet the funding gap for the ACT-Accelerator. Almost two years on, the ACT-Accelerator, a key mechanism in the global COVID-19 response, continues to be hampered by a large funding gap as vast global disparities in access to COVID-19 tools persist. In addition, at the onset of the crisis, there was less coordination on vaccine finance, with MDBs establishing their own vaccine facilities that were underutilized (figure III.C.3), while COVAX was underfunded.[10] This was rectified through a new financing arrangement set up by the World Bank and COVAX in July 2021. Of the 4.7 billion COVID-19 tests administered globally as at 5 March 2022, only 0.4 per cent have been administered in low-income countries (LICs), with only 12 per cent of people in these countries having received at least one vaccine dose.[11] In February 2022, the ACT-Accelerator partnership called on donor countries to provide grant funding of $16.8 billion of the $23.4 billion needed for its response activities through September 2022.[12] The remaining $6.5 billion is expected to be self-financed by MICs, using domestic resources supported by MDBs. Separate to the ACT-Accelerator, $6.8 billion is needed for in-country delivery of vaccines and diagnostics from a combination of domestic resources, MDB support and further international grant financing.[13]

OECD DAC members are not meeting most of their international commitments. Despite increasing in 2020, ODA was below the United Nations target of 0.7 per cent of GNI (table III.C.1). Only six donors met or exceeded the target: Denmark, Germany, Luxembourg, Norway, Sweden and the United Kingdom. France has pledged to increase ODA to 0.7 per cent of GNI by 2025,[14] while the United Kingdom cut ODA to 0.5 per cent of GNI in 2021, resulting in a decline of £7.1 billion compared to the previous year.[15] On other commitments, total ODA to LDCs as a share of GNI remains below target. DAC members are also off track on their commitments on untying ODA, with concerns that a higher share of contracts

Figure III.C.3
Utilisation rates of MDB vaccine facilities
(Percentage)



Source: Miller et al., 2021.

by value are awarded to suppliers in the donor country.[16] Donors have, however, exceeded their target of achieving more than 86 per cent of the grant element of total ODA, although not for LDCs (see table III.C.1).

DAC donors should protect ODA budgets and expand ODA with new and additional resources. If ODA/GNI ratios were to decrease to 2019 levels, and accounting for the cut by the United Kingdom, ODA could fall up to $14 billion in 2021. Once ODA/GNI ratios fall, they can take a long time to recover, even as economic growth picks up.[17] In addition, there are questions about whether some donors may count the redistribution of their SDRs (see chapter III.F) towards their ODA budgets, in place of providing additional resources.[18] Also of concern is counting the donations of surplus vaccines to COVAX, including vaccines nearing expiry, for ODA, as they are provided at minimal cost to donors.[19] In addition, DAC donors have agreed to align ODA with the Paris Agreement (see section 6.1), which may place higher demands on ODA.[20] The military conflict in the Ukraine could also impact ODA budgets. Many donor countries are supporting

Table III.C.1
OECD DAC donor performance against international commitments
(Percentage)

	Target	2018	2019	2020[2]
ODA as a share of GNI	0.70	0.31	0.30	0.32
Total ODA to LDCs as a share of GNI	0.15-0.20	0.09	0.08	
Share of untied ODA covered by the DAC Recommendation[1]	100	85.7	87.1	
Grant element of total ODA	>86	91.8	93.4	

Source: Wilcks, Jonas, Néstor Pelechà Aigües, and Emily Bosch. 2021. "Development Co-Operation Funding: Highlights from the Complete and Final 2019 ODA Statistics". Development Co-operation Profiles. OECD.
Note: [1]The target applies to LDCs, highly indebted poor countries (HIPC), other LICs not included in the LDC or HIPC categories and IDA-only countries. [2]Preliminary figures.

Ukraine with military, as well as humanitarian aid. International financial institutions have also announced special support to Ukraine (see chapter I). This may affect support to other countries and/or in other areas if additional resources are not raised. With escalating needs from the ongoing pandemic and climate crisis, as well as ramifications from the military conflict in Ukraine, DAC donors should protect ODA volumes and ODA/GNI ratios moving forward, providing new and additional funds to support the most vulnerable countries. Some mechanisms that DAC members have put in place to protect their budgets include multi-annual allocations and budget-balancing mechanisms (averaging ODA/GNI over time).[21]

Support for LDCs should be reassessed—grants rather than loans and longer maturities are needed. Although the grant-equivalent system was expected to incentivize lending on highly concessional terms to LDCs,[22] it has not had the desired effect as the average grant element has declined and interest rates on ODA loans have increased (table III.C.2). As LDCs have limited fiscal capacity to respond to the COVID-19 crisis (see chapter III.A) and are facing growing risks of debt distress (see chapter III.E), more grant financing is needed.[23] It is also striking that the maturity of loans has been steadily falling. When loans are made (e.g., in support of productive investment), longer maturities are often needed. Support for LDCs should be scaled up, including in accordance with commitments made to facilitate access to sustainable and innovative financing under the Doha Programme of Action for LDCs.[24]

Table III.C.2
Characteristics of bilateral ODA loans to LDCs

	2015	2016	2017	2018	2019
Average grant element—new (%)	78	75	75	73	70
Average grant element—old (%)	81	78	78	77	73
Maturity period (years)	35.7	33.4	32.6	32.0	28.3
Interest rate (%)	0.34	0.49	0.59	0.67	0.80

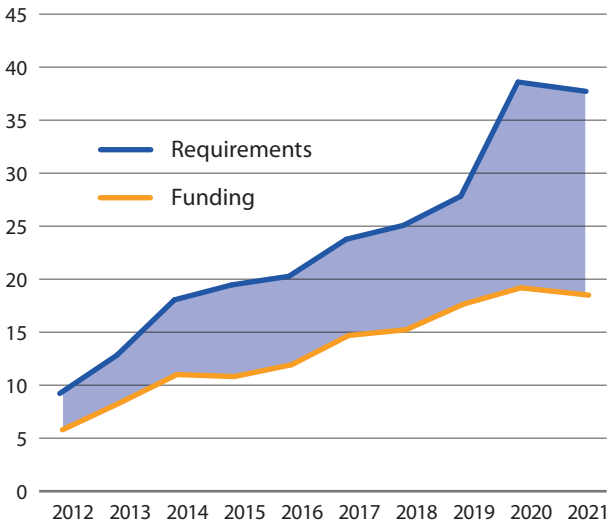
Source: Ahmad and Carey, 2021.
Note: Calculated using a 10 per cent discount rate ("old" cash-flow method) and discount rates differentiated by income group (9, 7 and 6 per cent—"new" grant-equivalent method).

2.2 Humanitarian finance

The COVID-19 and climate crises coupled with increased and protracted conflicts and displacement continue to add pressure on humanitarian finance. In two thirds of countries with a United Nations-coordinated humanitarian response plan, by the end of 2021 an additional 20 million people had been pushed into extreme poverty because of the pandemic, while humanitarian needs, including hunger and malnutrition, gender inequalities and gender-based violence, are rising in tandem with climate-related disasters and increased conflict and displacement.[25] This is expected to be exacerbated by the military conflict in Ukraine. The funding requirements for the United Nations-coordinated humanitarian response plans included in the Global Humanitarian Overview fell slightly for 2021 but remained elevated, while funding declined for the first time since 2012, maintaining a large financing gap (figure III.C.4).

Grand Bargain 2.0 is an opportunity to improve the humanitarian financing model as part of its broader objective to enhance its efficiency, effectiveness and accountability. Five years on, there

Figure III.C.4
Humanitarian response plans: funding gap, 2012–2021
(Billions of United States dollars)



Source: United Nations Office for the Coordination of Humanitarian Affairs (OCHA). 2021. "Appeals and Response Plans 2021". Financial Tracking Service, accessed 16 February 2022.

is mixed progress on the implementation of the Grand Bargain made between donor countries and aid organizations to improve the efficiency and effectiveness of humanitarian aid. While progress was made on cash assistance, localization, and joint needs analysis and harmonized reporting, there were challenges on enhancing transparency, predictability and accountability of funding; reducing duplication and management costs; and country ownership.[26] Several recommendations have been made to advance implementation of Grand Bargain 2.0 (2021-2023), including enabling better quality funding through the use of core funding and programme-based approaches, expanded use of pooled funds, and improving the quality and transparency of financial data.[27] Improvements to funding modalities could include area-based, multisector allocation as well as flexible, multi-year grants, while a predictable core funding model will require a common definition to distinguish between core and delivery activities.[28] Collective will and action over the next phase of the Grand Bargain is required to successfully improve the humanitarian financing system as part of wider objectives to improve humanitarian outcomes for affected populations.

2.3 COVID-19 implications on access criteria

The COVID-19 crisis has changed the context of graduation due to its impact on income per capita and other criteria and highlighted the need for access criteria that incorporate vulnerabilities. The COVID-19 crisis has resulted in significant output contractions, deteriorating social conditions (see chapter I) and worsened debt sustainability (see chapter III.E). It has also affected the ability of the most vulnerable countries to borrow from capital markets (see chapter II). These altered conditions can affect graduation timelines as well as the efficacy of access criteria. In the context of international development cooperation, "graduation" refers to three separate events: (graduation) from multilateral

concessional assistance, from LDC status, and from ODA eligibility. A key determining factor of all three contexts is a country's per capita income, although other factors are also considered. Graduation from multilateral concessional assistance, particularly the concessional windows at MDBs, is based primarily on per capita income along with creditworthiness. Graduation from LDC status is based on income per capita, vulnerability and the level of human assets. Graduation from ODA eligibility is based on income per capita alone.

Eligibility to MDB concessional windows is primarily based on income per capita, but MDBs have increasingly incorporated elements of vulnerability into access criteria. Funding allocations in concessional windows of MDBs are determined both by need (with poorer countries receiving more based on lower per capita income) and policy performance and institutional capacity that reflect absorptive capacity based on the World Bank's Country Policy and Institutional Assessment (CPIA) (with countries with higher CPIAs and stronger institutions, receiving more).[29] The International Development Association (IDA) graduation process starts when per capita income exceeds an operational cut-off, currently $1,205 for 2020. The graduating country is no longer eligible for IDA grants, but continues to receive ODA well after graduation, albeit with more expensive terms of finance (see *Financing for Sustainable Development Report 2020).* However, several exceptions exist. The small island exception, which has been in place since 1985, allows small island economies (populations less than 1.5 million) continued access to IDA. In 2017, this was extended to IDA-eligible small States, which benefited Bhutan, Djibouti, Guyana and Timor-Leste. In 2019, this was further extended to small island economies[30] based on income, vulnerability and creditworthiness criteria, which benefited Fiji. An exceptional allowance was also made to Jordan and Lebanon in response to the Syrian refugee crisis. The IDA Crisis Response Window (CRW) and regional programme during the 19th replenishment (IDA19) provide additional resources to help eligible countries to respond to severe economic crises as well as major humanitarian and climatic disasters. Several regional development banks' concessional facilities (e.g., Asian Development Bank (ADB) and Caribbean Development Bank) also include exceptions that allow SIDS to access concessional funding even if they exceed income thresholds.

COVID-19 has influenced the graduation and country classification decisions of the OECD DAC and major MDBs. While the World Bank did not make proposals for graduation of IDA-eligible countries in 2022,[31] COVID-19 is expected to impact long-term graduation prospects, with countries representing 16 per cent of today's IDA population likely to graduate by 2032—lower than pre-COVID estimates.[32] The ADB also reclassified Fiji due to the impact of COVID-19 to benefit from a blend of concessional and non-concessional finance.[33] The 2020 OECD triennial review of the DAC list of ODA-eligible countries, solely based on income per capita, exceptionally agreed to delay the graduation of Antigua and Barbuda, Palau and Panama from the DAC List of ODA Recipients for one year.[34] Only Antigua and Barbuda and Palau graduated on 1 January 2022.[35] In accordance with OECD DAC rules, Panama was reinstated for ODA eligibility as its per capita income fell back below the World Bank's high-income threshold.[36] When a country graduates from the DAC ODA list, the aid it receives is not reported in official ODA statistics. However, ODA graduates can and do receive concessional support, albeit to varying degrees. For example, despite graduating from the DAC ODA list, Palau still has access to a blend of concessional and regular loans from the ADB.[37] Countries that have graduated from ODA also continue to access the European Development Fund, which uses an economic vulnerability index in its country allocations formula. The OECD DAC also has in place a process of reverse graduation.

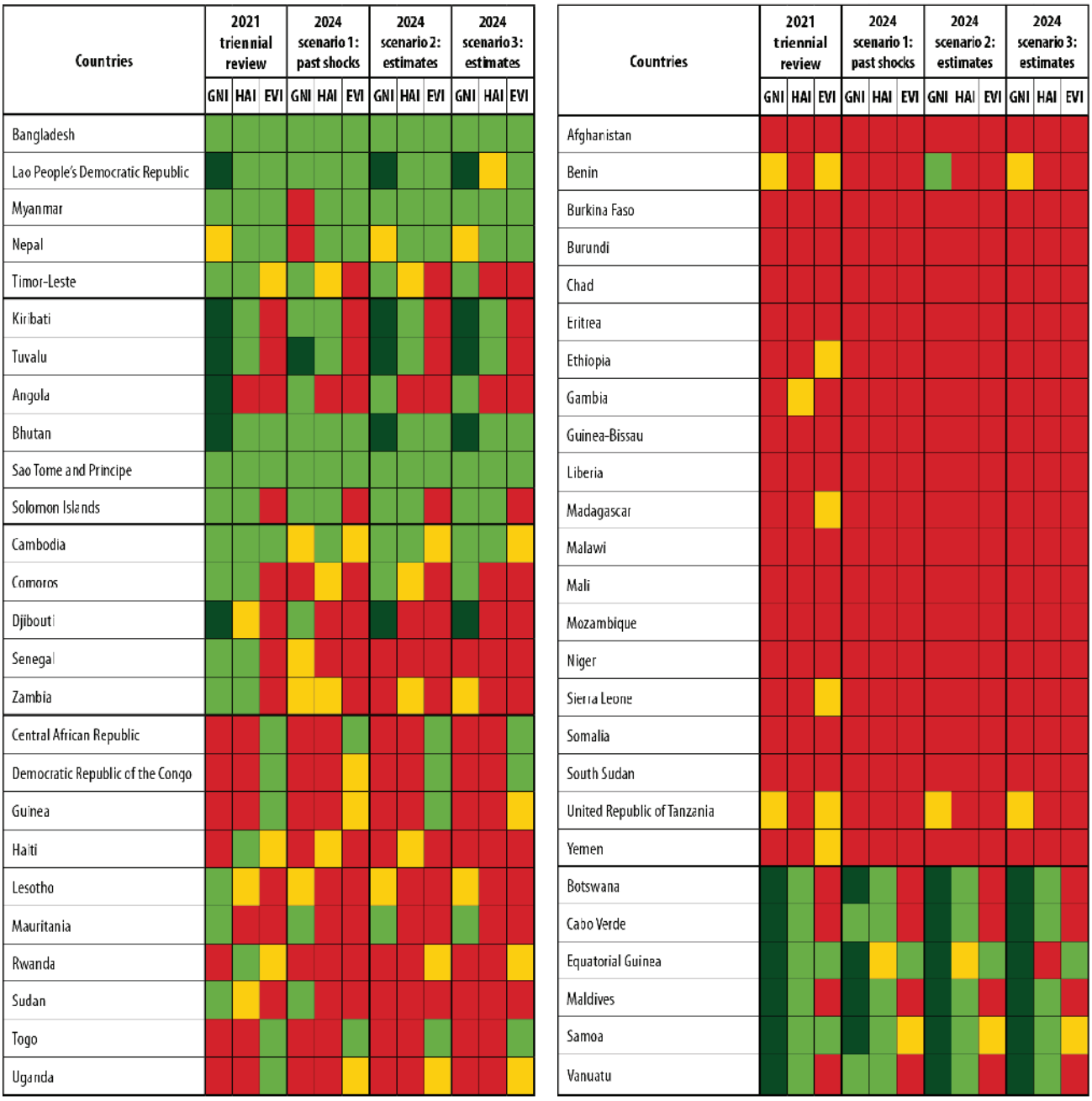
Thus far, the pandemic has had a muted impact on LDC graduation. LDC graduation can be triggered if any two of the three criteria (income per capita, human assets and vulnerability) are met or solely the income-only criterion, which requires a GNI per capita of at least twice the normal graduation threshold. In most cases, the vulnerability threshold is unmet. While the pandemic affected some criteria elements, a majority of LDCs that were headed for graduation appeared on track to maintain graduation eligibility (figure III.C.5).[38] Vanuatu graduated in 2020[39] and in November 2021, the United Nations General Assembly endorsed the graduation of Bangladesh, Lao People's Democratic Republic and Nepal in 2026, after an exceptional extended preparatory period of five years (the standard period is three years) to allow for post-COVID-19 recovery.[40] LDC graduation is not expected to have a significant direct impact on concessional financing flows. However, as countries that graduated in the past increased their non-concessional borrowing, the overall terms of finance became more expensive. Some estimates indicate that the exports of 12 countries currently in the graduation process might decline by over 6 per cent.[41]

SIDS have reiterated calls for the use of multidimensional vulnerability as criteria to access concessional finance amid the COVID-19 crisis. SIDS are considered to be some of the most vulnerable countries, particularly to natural hazards and climate change, and have been severely affected by the COVID-19 crisis.[42] They are also sensitive to the impacts of graduation in all contexts: from multilateral concessional assistance, LDC categorization and ODA eligibility, as well as graduation from global health funds (see *Financing for Sustainable Development Report 2020*). Efforts are under way to develop a more systematic approach to monitor multidimensional vulnerability (see also chapter III.E). The recent agreement by the United Nations General Assembly to develop a multidimensional vulnerability index (MVI) (see chapter IV) provides an opportunity for countries to better communicate vulnerabilities through a straightforward indicator. Global acceptance of the MVI as the pre-eminent measure of assessing vulnerability could lead to application of the MVI by donors as a complementary criterion to income per capita. However, as with the experience of current vulnerability indices, some SIDS may not be classified as highly vulnerable, while others may qualify, which could impact current access to concessional finance.

3. Lending by multilateral development banks

MDBs and the network of public development banks (PDBs) are important sources of countercyclical support in times of crisis and for long-term finance to achieve sustainable development. By providing countercyclical responses, MDBs can reduce the impact of crises on sustainable development. MDBs can also provide finance at longer maturities (see chapter II). The important role of MDBs and PDBs has been clear in the COVID-19 response (see *Financing for Sustainable Development Report 2021*) and will be central for recovery efforts.

Figure III.C.5
Impact of COVID-19 on LDC graduation eligibility

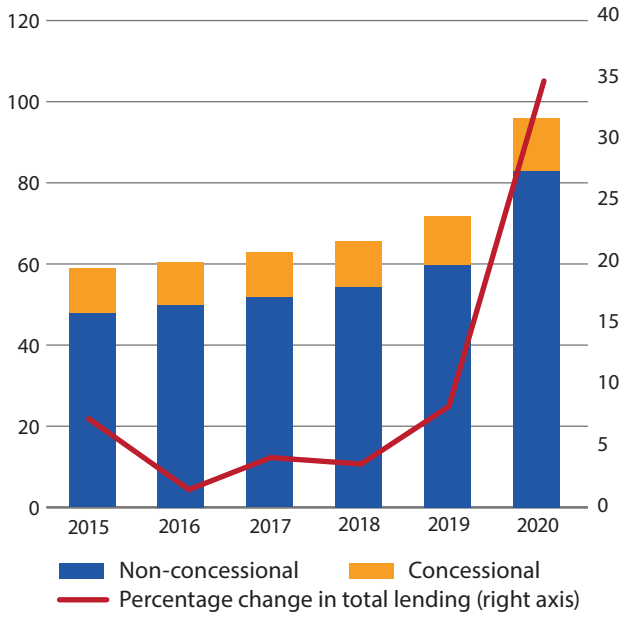


Source: Committee for Development Policy, 2021.
Note: i) *Scenario 1* is based on reviewing past changes in the LDC criteria over three-year intervals. For *Scenarios 2 and 3*, Scenario 1 is extended to account for different estimat of: GNI per capita, export instability, under-5 mortality rates and maternal mortality ratios. ii) Countries become eligible if they meet two out of the three criteria (GNI per capita, human assets index (HAI) and environmental vulnerability index (EVI)) or the income-only criterion, which requires a GNI per capita of at least twice the normal graduation threshold. iii) *Green* – countries meeting the graduation threshold (*Dark Green* – countries meeting the income-only threshold); *Orange* – countries failing to meet the graduation threshold but passing the inclusion threshold; *Red* – countries failing to meet any threshold. iv) Countries are ordered in accordance with their status in the graduation process at the time of the 2021 triennial review of the list of LDCs. v) Countries already graduated from the list are at the bottom.

Lending by MDBs increased significantly in 2020 in response to COVID-19, with further growth anticipated for 2021. Total MDB lending grew by 34 per cent to $96 billion (figure III.C.6), including: $42.2 billion by the World Bank Group; $20.4 billion by the ADB; $11.1 billion by the Inter-American Development Bank (IADB); $4.8 billion by the AfDB; $4.7 billion by the Asian Infrastructure and Investment Bank (AIIB); $3.1 billion by the African Export-Import Bank (Afreximbank); and $1.6 billion by the European Bank for Reconstruction and Development (EBRD). MDBs continued their countercyclical support in 2021, with the World Bank Group deploying a total of $157 billion between April 2020 and June 2021, its largest crisis response ever over a 15-month period.[43] The International Monetary Fund (IMF) also increased its emergency lending to LICs, with $14 billion disbursed as zero per cent interest rate loans from the Poverty Reduction and Growth Trust.[44]

Both LDCs and MICs benefited from MDB countercyclical support. Concessional loans by MDBs rose by 7 per cent to $13 billion in 2020 (figure III.C.6), underpinned by increased lending by the ADB, AIIB (see section 5) and the World Bank's IDA. The IDA accounted for 70 per cent of all MDB concessional lending, amounting to $9 billion. Non-concessional loans made up the bulk of MDB lending, expanding by 40 per cent to $83 billion in 2020 (figure III.C.6), led by the World Bank, ADB and South-led banks AIIB and Afreximbank (see section 5). MICs were the major recipients of MDB non-concessional loans (figure III.C.7). While some MICs can access private debt markets, others have difficulty accessing affordable, long-term finance, so the non-concessional lending windows provide an important avenue to access finance at below-market terms. In 2020, the median interest rate and median maturity on new external debt to MICs was 1.4 per cent and 23 years, respectively, compared to 1.0 per cent and 30 years for LDCs. By sector, lending increased significantly for the public sector (including budget support), social protection, the financial sector and health.[45]

Figure III.C.6
Loan disbursements by multilateral development banks, 2015–2020
(Billions of United States dollars, current)



Source: World Bank, International Debt Statistics.

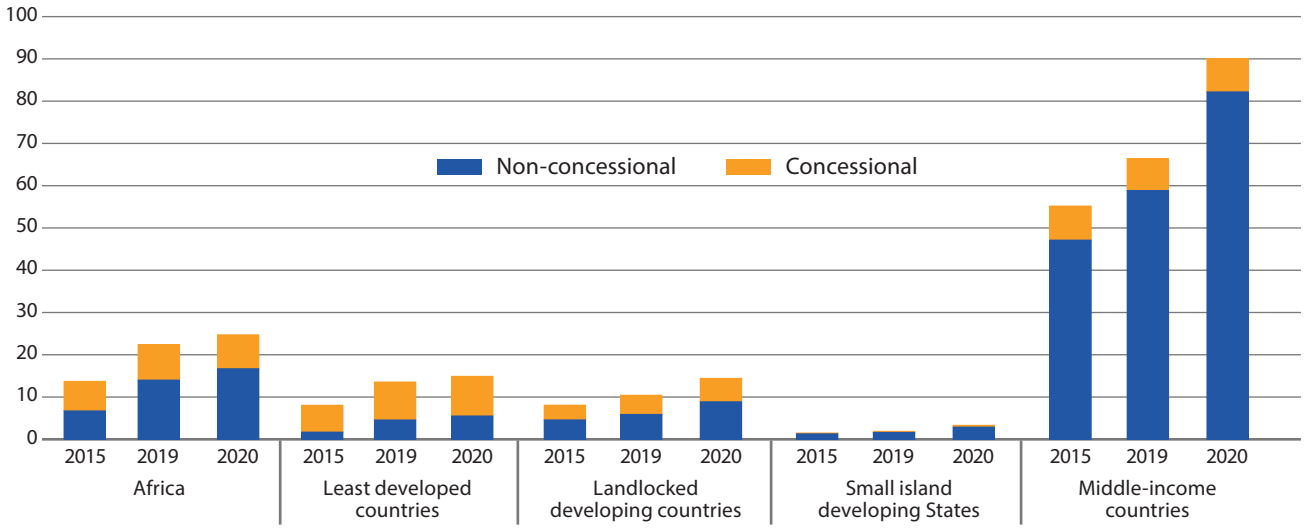
There was a greater uptake of unconditional loans, compared to those with conditions. MDBs were not consistent in adapting instruments to the crisis.[46] For example, World Bank budget support contained significant conditionality, with some reform conditions not directly relevant to the crisis, which may have limited the speed of disbursement.[47] The ADB provided unrestricted budget support through its COVID-19 Pandemic Response Option, which saw robust uptake.[48] Of the $171 billion disbursed by the IMF, almost two thirds were flexible credit/precautionary and liquidity lines.

The IDA, the largest source of concessional financing, was successfully replenished, although the envelope still falls short of demand. While the IDA19 $82 billion was meant to last for three years,[49] the World Bank front-loaded financing for the COVID-19 response and truncated the IDA19 cycle to two years (2021-2022) instead of three (2021-2023). Between April 2020 and June 2021, over $50 billion of IDA resources were deployed. In December 2021, the IDA received a new replenishment toward a $93 billion financing envelope for the fiscal years 2022 to 2025 (IDA20).[50] Although higher than the previous capitalization, many stakeholders had called for a greater replenishment to meet the challenges due to the pandemic. For example, 23 African Heads of State and Government issued the Abidjan Declaration, calling for an IDA20 replenishment of at least $100 billion.[51] IDA20 will support countries to prioritize investments in human capital, covering issues such as education, health and nutrition, vaccines, safety nets and support for people with disabilities, as well as to scale up efforts to address gender inequality, unemployment and conflict-affected countries.[52]

Scaling up MDB resources through capital infusion is critical to meeting heightened demands amid the pandemic and climate crises. Although MDB lending increased significantly, the MDB response has been smaller than during the 2008 world financial and economic crisis (figure III.C.8).[53] Some MDBs have been constrained by their capital limitations. For example, although the AfDB received a capital injection and its concessional arm, the ADF, was replenished in 2019, shareholders are providing the additional capital over an extended period ($7.6 billion over 2020 to 2022) and the lending capacity of the ADF remains relatively small at $2.5 billion.[54] Hence, the AfDB was not able to approve a greater volume of projects (concessional and non-concessional) for the COVID-19 response in 2020 compared to 2019.[55] A successful replenishment of the AfDB and ADF will be critical to supporting African economies respond and recover from the COVID-19 crisis. Similarly, without a capital increase, IADB lending is anticipated to fall from its record of $21.6 billion in 2020. The last increase was in 2010 and a proposed $80 billion capital increase is under discussion.[56] Some PDBs (e.g., the Africa Trade and Development Bank and Afreximbank) have sought non-traditional ways to raise MDB capital, such as by offering non-voting shares to institutional investors.[57] Capital injections can help to provide ultra-long-term (e.g., 50 years), fixed-rate financing for post-COVID-19 recovery (see *Financing for Sustainable Development Report 2021*).

Channelling SDRs through MDBs is an option to strengthen MDB capital and increase lending. Some MDBs and other regional financial institutions are prescribed holders of SDRs (see chapter III.F). SDRs could be channelled to MDBs through either on-lending schemes or capital

Figure III.C.7
Loan disbursements by multilateral development banks by type and country group, 2015, 2019 and 2020
(Billions of United States dollars, current)

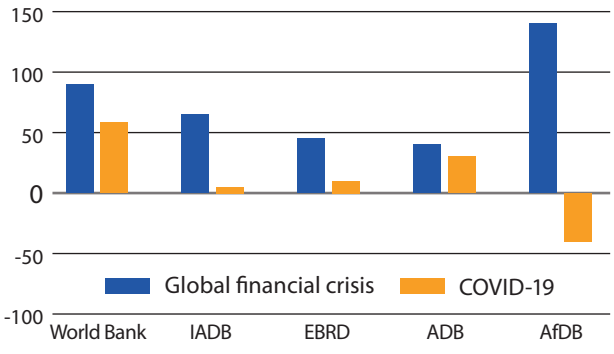


Source: World Bank, International Debt Statistics.

injections. However, this would need to overcome several challenges linked to the national regulatory, policy and institutional arrangements that guide the level of flexibility donors have outside the established IMF options, in particular whether the reserve asset status of SDRs is maintained; whether legal constraints need to be from the perspectives of the IMF, contributing countries and MDBs; and ensuring the transparency of the use of funds.[58]

Capital adequacy reform could also expand MDB capacity. The Addis Agenda calls on MDBs to make "optimal use of their resources and balance sheets, consistent with maintaining their financial integrity" as well as to make "use of all risk management tools, including through diversification". The G20 agreed to an action plan on balance sheet optimization in 2015 to increase MDB lending (see table III.C.3). Adopting more flexible criteria, such as lower equity-to-loan ratios,[59] including the callable capital of shareholders in capital adequacy calculations[60] or possibly managing diversification across the entire balance sheet as called for in the Addis Agenda, could expand lending. Indeed, MDBs hold $2-$6 in equity for every $10 in outstanding loans, whereas commercial banks hold only $1-$1.50 per $10 in outstanding loans. In recognition of these issues, the G20 International Financial Architecture Group has commissioned an independent review of the capital adequacy frameworks of MDBs, which is due to be completed in 2022.[61] This could be the basis for broader reform to significantly scale up MDB finance.

Figure III.C.8
Commitments by multilateral development banks by crisis period
(Percentage change)



Source: Lee and Aboneaaj, 2021.

Improved cooperation between PDBs can benefit multilateral, regional and national banks. Cooperation between PDBs can help banks to build capacities while also leveraging local knowledge. Such cooperation can overcome some of the barriers for smaller banks, such as lack of access to affordable, long-term capital and equipment, and capacity constraints. Cooperation can include loans between institutions, co-financing, and training and technical assistance.[62] It can also include portfolio exchanges between MDBs and guarantees between banks (such as the Swedish International Development Agency's guarantees to the IADB and ADB). Such transactions can better allocate risk across the PDB system to those banks best positioned to manage different risks, and reduce risk on individual MDB balance sheets, potentially enabling higher lending.

4. Blended finance

The main objective of blended finance, which uses public funds to crowd in private finance, is to unlock investment that the private sector would not have done on its own in support of national development priorities—and to do this with minimum concessionality or subsidy. Blended finance is most relevant for investments necessary for sustainable development, which are not attracting private investment but still have a business rationale and potential cash flows to repay the private partner. The Addis Agenda sets several guiding principles for blended

Table III.C.3
G20 action plan on balance sheet optimization approaches

	Capital Efficiency	Exposure Exchanges	Concessional Windows	Risk Transfer and Mobilization	Net Income Measures
Objective	Operate with higher leverage, while still maintaining the AAA rating.	Reduce concentration penalties in sovereign guaranteed exposures.	Leverage the equity accumulated in concessional windows; improve use of liquidity.	Range of instruments that share risk with private investors.	Improve internal equity accumulation and capital position.
Instruments	Sustainability and capital adequacy frameworks, including buffers for stress-testing and countercyclical lending in downturns.	Synthetic reciprocal reinsurance between MDBs for prolonged sovereign arrears in their largest exposures.	Transfer of concessional equity and assets onto ordinary balance sheets; bond issuance by concessional entities.	Syndications, structured finance, mezzanine financing, credit guarantee programmes, hedging structures, equity exposure.	Optimize the trade-off in net income transfers to concessional windows and implement revenue and expenditure actions.
Examples	MDBs have reviewed and updated risk assessment frameworks.	In 2015, AfDB, IADB and IBRD approved the first three bilateral exposure exchange agreements totalling $6.5 billion. In 2020, ADB approved a sovereign exposure exchange with IADB of $1 billion.	In 2017, ADB combined its concessional arm, the Asian Development Fund, with its ordinary capital resources, tripling its capital base. In 2018, IDA began issuing market bonds to supplement its sources of finance.	In 2018, AfDB synthetic security increased lending capacity by $650 million. The AfDB and African Trade Insurance completed a credit insurance deal which made space for $400 million.	Since 2017, under its organizational effectiveness and efficiency programme, EBRD has streamlined and strengthened processes delivering medium-term budget savings of £14.4 million per annum.

Source: Galizia et al., 2021; UN/DESA.

finance (see *Financing for Sustainable Development Report 2021 and 2020*). In line with these principles, different groups of actors have defined principles for blending for their own activities, including the 2017 OECD/DAC Blended Finance Principles for Unlocking Commercial Finance for the SDGs, and the 2017 DFI Working Group Enhanced Blended Concessional Finance Principles.

Improvements were noted in blended finance activities despite challenges from the pandemic. The amounts mobilized from the private sector by official development finance interventions increased by 16 per cent in 2020, underpinned by a small number of large-scale projects in LDCs in Africa and SIDS (figure III.C.9). For example, the top three projects in LDCs accounted for 80 per cent of the total amounts mobilized from the private sector in LDCs; for SIDS it was 97 per cent. Convergence, a global network for blended finance, also reported that the value of blended finance transactions that it tracks, halved in 2020 compared to 2019 as ODA providers concentrated on the COVID-19 response (see section 2.1) and private investment fell (see chapter III.B).[63]

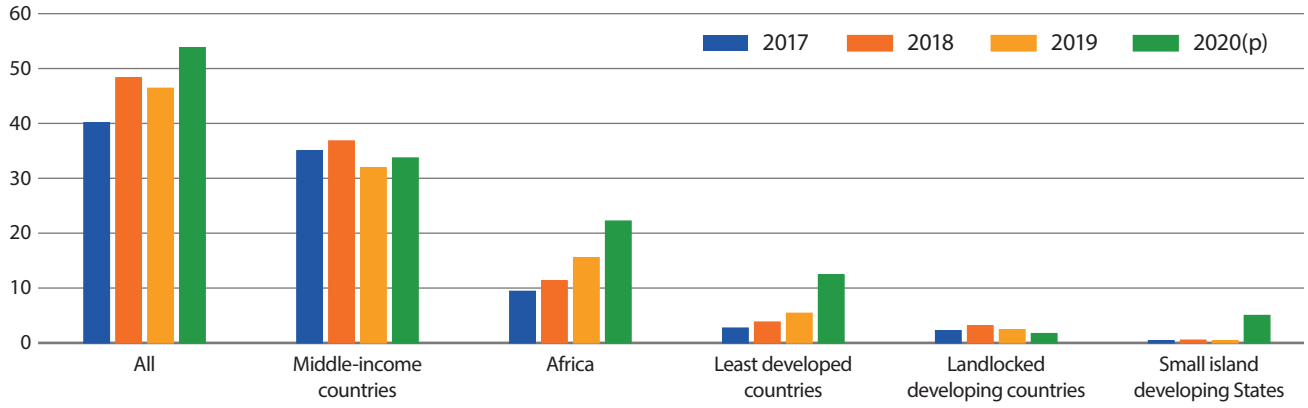
Mobilizing private finance for investment in the SDGs may be difficult amid the ongoing COVID-19 crisis but can be an option for post-COVID-19 recovery efforts. Heightened risk aversion and uncertainty due to the pandemic constrains private risk-taking in the short term, and coupled with absorptive capacity issues in countries, may continue to dampen blended finance deals. However, as developing countries recover from the crisis, blended finance can be an option in the medium term to spur private investment that otherwise would not occur on its own, in support of national development priorities. This includes the potential to mobilize support for gender equality through blended finance vehicles as national Governments look to build back better. A study on the OECD survey results of 198 blended finance funds and facilities found that two thirds of the assets under management were reported as either integrating or dedicated to gender equality but only 1 per cent of assets under management were specifically dedicated to gender equality, indicating considerable potential to scale up blended finance for gender equality.[64]

INFFs can help policymakers consider blended finance for investments in projects with the potential to create high sustainable development impact. A core principle of blended finance is country ownership. The challenge is how to ensure that blended finance projects—which are often done as deals with the private sector but using public money—are in line with government sustainable development priorities. An INFF lays out the full range of financing sources and allows countries to develop a strategy to increase investment, manage risks and achieve a national sustainable development strategy. Countries can consider the appropriateness, impact and risks of blended finance within an INFF context, ensuring that it is channelled to investments that meet long-term, national sustainable development objectives.

In the context of limited official resources, a differentiated approach based on need and potential for development impact could increase the scale and effectiveness of blended finance. Most blended finance deals occur in MICs (figure III.C.9), motivated by the size and ease of transactions. As MICs lose access to concessional resources (see section 2.3), blended finance can be an option to mobilize resources for their development needs, including through non-concessional loans (see section 3). LDCs receive a smaller but growing share of blended finance—around 23 per cent of private finance mobilized in 2020 (figure III.C.9), albeit due to a small number of large-scale projects. A focus on development impact rather than bankability, including through the context of an INFF, may help to increase the size and effectiveness of blended finance for LDCs. It may also be more cost-effective to first use ODA to support Governments with their private sector development strategies and strengthening the enabling environment before investing in blended deals. This could also include support for strengthening capacities within national development banks. Guiding principles for blended finance and other relevant principles of effective development cooperation (see section 7) should remain central to scaling up blended finance.

There are several options for scaling up blended finance. These include stronger equity roles for the public partners, pooling resources in a blended finance fund, prioritizing the use of non-concessional loans to mobilize private finance and using the network of PDBs (see *Financing for Sustainable Development Report 2021*). Blended finance mechanisms, such as political insurance and other guarantees, can also be an option to mobilize institutional investors[65] when the potential social benefits outweigh the costs. Such instruments can also be structured so that the public sector can share in any potential upside.

Figure III.C.9
Amounts mobilized from the private sector by official development finance interventions, 2017–2020
(Billions of United States dollars, current)



Source: OECD.
Note: 2020 figures are preliminary.

As donor Governments have constrained public budgets due to the pandemic, there may be scope for guarantees as blended finance instruments.[66] Guarantees may be appropriate, for example, when used to address: i) idiosyncratic risks when there is high risk aversion by private investors or when financial systems are underdeveloped such as in LDCs; and ii) in times of high uncertainty such as during the COVID-19 crisis.[67] Public insurance-like products can also be appropriate when risks can be pooled and diversified (such as currency risks). However, several challenges restrict their use, including that they are not ODA eligible,[68] and require financial and risk-management expertise not readily available within aid agencies, while measuring the development impact of guarantees can be difficult.[69] More research could help to improve knowledge and better guide the use of guarantees.

Development finance providers could also consider using more risk transfer mechanisms to mobilize private capital. This could be done by: (i) offsetting or sharing credit risk, such as the Managed Co-lending Portfolio Program by the International Finance Corporation (IFC), a pooled syndication that also benefits from public guarantees and allows institutional investors to invest alongside the IFC in emerging markets, for example in infrastructure projects; (ii) enabling commercial financial institutions to do more by sharing risks, e.g., AIIB set up a platform with Clifford Capital that transfers risks from infrastructure project finance loans disbursed by commercial banks, such as Standard Chartered or HSBC, to capital market investors; and (iii) providing grants and technical assistance to develop risk transfer mechanisms with the private sector.[70] Development finance providers should seek ways to promote transparency as a principle rather than restrict transparency as a response to external challenges. Transparency is fundamental for building trust and accountability vis-à-vis provider countries' Governments and taxpayers, as well as for recipient countries.

5. South-South cooperation

Development of an initial conceptual framework for South-South cooperation marks a breakthrough in the measurement of South-South cooperation. Despite growing significantly in the past two decades, defining and quantifying South-South cooperation efforts have been hampered by the lack of a common conceptual framework, shared standards and consistent recording by different national agencies and ministries, including reservations about monetizing South-South cooperation due to difficulties in quantifying components such as knowledge exchange and in-kind contributions. This has been compounded by political issues around the purpose, benefits and incentives of South-South cooperation.[71] This impasse has been overcome by a recent proposal by a sub-group on South-South cooperation[72] as part of the Working Group on Measurement of Development Support (see box III.C.2). Consistent with the 2019 outcomes of the second High-level United Nations Conference on South-South Cooperation (BAPA+40), the proposed framework presents three groups of quantifiable items to be independently measured and reported: group A covers financial modalities of South-South cooperation (reported directly through monetization); group B covers non-financial modalities suitable for monetization; and Group C covers non-financial modalities quantified through non-monetized methods. The conceptual framework is anticipated to undergo pilot testing from 2022 to inform further technical refinement.

South-South cooperation and triangular cooperation help to combat the COVID-19 pandemic, complementing North-South efforts. Developing countries continue to support each other through a range of cooperation activities in response to COVID-19, engaging increasingly on a multilateral basis. South-led development banks scaled up finance for recovery efforts. By the end of 2021, the AIIB had approved 31 projects in co-financed initiatives with other MDBs, totalling $8.2 billion under its $13 billion Crisis Recovery Facility, which included large-scale assistance to bigger members as well as small but targeted financing for some SIDS and LLDCs.[73] In addition, to support developing countries' response to the pandemic, China expanded its vaccine assistance by joining other developing countries in multilateral global inoculation efforts through the Gavi COVAX Advance Market Commitment (AMC).[74] COVID-19 also accelerated the digital transition from on-site knowledge exchanges to online collaborative platforms, increasing the reach of South-South and triangular cooperation.[75]

The scope of South-South cooperation on climate action has also expanded. These activities occur through a wide range of modalities (bilateral, trilateral, triangular, regional, multilateral) to tackle mitigation and adaptation.[76] Some examples include: BioInnovate Africa, which is supporting countries to develop and commercialize biofuel as an affordable and low-carbon emission alternative for rural households;[77] and the international Zero Emission Bus Rapid-Deployment Accelerator (ZEBRA) initiative, which is supporting major Latin American cities to accelerate the implementation of zero-emission buses.[78] United Nations organizations also continue to facilitate South-South responses to climate change. For example, the United Nations Environment Programme facilitated and supported knowledge exchange and collaboration among Mauritania, Nepal and Seychelles to develop ecosystem-based adaptation proposals to build climate resilience.[79] Similarly, with support from the India United Nations Development Partnership Fund, the United Nations Capital Development Fund assisted the Government of Fiji to develop climate-responsive financial tools.

6. Finance for climate change and biodiversity

Tackling climate change and addressing biodiversity loss are interconnected, requiring an integrated approach to their financing challenges. Climate change is one of the main drivers of biodiversity loss, while ecosystem degradation also undermines nature's ability to regulate greenhouse gas emissions and protect against extreme weather.[80] Zoonotic disease outbreaks, linked to biodiversity loss and ecosystem health, have also intensified from climate change, as exemplified by COVID-19.[81] Addressing the financing challenges for both in an integrated manner can thus help to generate co-benefits.

6.1 Climate finance

The $100 billion climate finance target is unlikely to have been met in 2020; it may be met in 2023. Under the climate agreements, developed countries agreed to jointly mobilize $100 billion a year by 2020 from public and private sources to support climate action in developing countries. The latest OECD assessment of progress showed that climate finance increased further to $79.6 billion in 2019.[82] Out of bilateral allocable ODA for climate change, 53 per cent (or $18.1 billion) integrated gender equality objectives.[83] The $100 billion goal is very unlikely to have been met in 2020, even less so given the adverse impact of the COVID-19 crisis on both the demand and delivery of climate finance.[84] Given time lags in official reporting, this is not expected to be confirmed until later in 2022.[85] OECD forward scenarios of climate finance, based on information from bilateral and multilateral providers, indicate that the $100 billion target could be met from 2023 onwards although there is inherent uncertainty around such projections.[86] In the Glasgow Climate Pact, the agreement reached at the 2021 United Nations Climate Change Conference (COP26) held in Scotland, developed countries were urged to "urgently and through to 2025" deliver on the goal.[87]

A post-2025 climate finance goal is to be established amid rising costs and unmet demand. COP26 agreed on the process to set a new, collective, quantified goal on climate finance by 2025, starting from a floor of $100 billion and taking into account the needs and priorities of developing countries.[88] The new goal should be ambitious as climate finance needs—from all sources—in nationally determined contributions (NDCs) are estimated at around $5.9 trillion.[89] Furthermore, around 60 per cent of identified needs in NDCs have not been costed,[90] indicating that finance needs are higher than currently estimated. Even if the $100 billion climate finance target is met in the coming years, it will still fall short of the climate investment needs of developing countries, strongly indicating a need to attract more commercial finance. Commercial finance is moving toward climate-smart investments to both avoid the downside of climate risks and capture the upside of growth in clean technology sectors. At COP26, as part of the Glasgow Financial Alliance for Net Zero, more than 450 investment firms with over $130 trillion of private capital under management committed to transforming the global economy to net zero.

There is still no clarity on what is "new and additional". The 1992 Rio Convention established as a principle that all climate finance to developing countries should be "new and additional", which has been reflected in other climate agreements. However, the understanding of what is "new" and "additional" varies widely across parties. In the latest Standing Committee on Finance biennial assessment, of the 23 Parties that reported on new and additional financial resources, 13 indicated that these resources consisted of newly disbursed or committed funds in the reporting year, seven Parties used ODA benchmarks from either 2009 as a baseline or increases over previous ODA commitments, two Parties described their climate finance as that which exceeded the ODA target of 0.7 per cent of GNI, while one Party identified a separate environmental fund as the source of climate finance from traditional ODA channels.[91] Providing clarity on what is "new and additional" can help to improve consistency in the reporting and monitoring of climate finance, building on the Enhanced Transparency Framework of the Paris Agreement.

A new commitment has been made to double adaptation finance by 2025. Climate finance remains skewed towards mitigation compared to adaptation activities. The latest OECD figures indicate that adaptation finance increased to $20.1 billion and mitigation finance fell slightly to $50.8 billion in 2019. At the same time, estimates of total adaptation costs are rising, widening the funding gap.[92] COP26 urged developed nations to at least double their collective provision of adaptation finance from 2019 levels by 2025.[93] OECD DAC members also committed to seeking a balance between adaptation and mitigation.[94] The World Bank, for instance, has pledged that half of all its climate finance will support adaptation.[95] Better use of local actors, such as the United Nations Capital Development Fund's Local Climate Adaptive Living Facility,[96] and nature-based solutions (NbS—see section 6.2) can also help with adaptation activities.[97] At the same time, more work is needed to catalyse private investment in adaptation and resilience, starting with a better understanding of current barriers to getting private capital flowing and then addressing these and creating the enabling environment for these investments.[98]

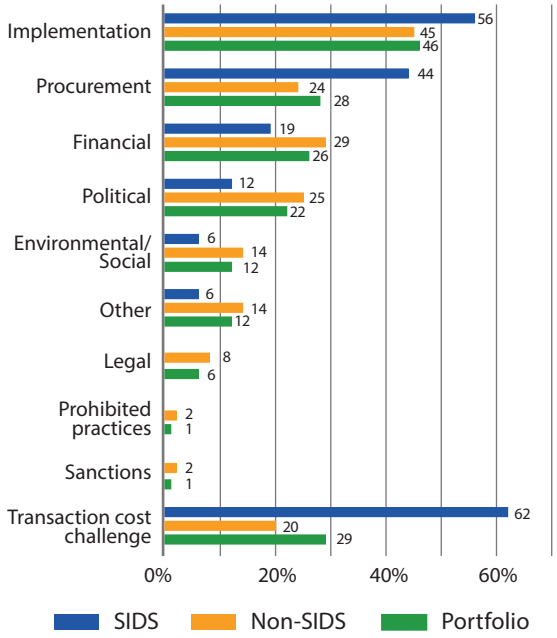
Progress is too slow in addressing the challenges of the most climate-vulnerable countries, such as LDCs and SIDS. Although climate-related development finance to LDCs has increased steadily to $15 billion,[99] less than 20 per cent of adaptation finance received is invested in projects where adaptation is the primary objective.[100] For SIDS, climate-related development finance flows peaked in 2018 before falling to $1.5 billion in 2019.[101] Flows fall short of the identified needs that

have been costed in their NDCs, estimated at around $515 billion for LDCs and $92 billion for SIDS.[102] These amounts could be larger as a significant portion of identified needs are not yet costed—around 41 per cent for LDCs and 58 per cent for SIDS.[103] Progress has been made in simplifying access and improving the effectiveness of climate finance to LDCs and SIDS, but more could be achieved. For example, the Green Climate Fund (GCF) has put in place a roster of international firms to assist national authorities and project development partners to support the proposal development process. Earlier evaluations of the investments by the GCF in LDCs and SIDS found that access to the Fund's support remained cumbersome, proposal development processes remained challenging and disbursements slow and low.[104] Efforts to simplify project funding proposal processes and shorten access timeframes have only recently shown results, with the average time taken from the start of the review of a project proposal to first disbursement decreasing from 26-28 months in 2018 to 12-17 months in 2021.[105] SIDS also face significantly greater challenges when they do receive funding for climate activities due to high transaction costs and capacity constraints (figure III.C.10). Access by SIDS to accredited intermediaries (national direct access entities or DAEs) to the GCF is extremely limited, while regional DAEs are overwhelmed with requests due to limited staff. Furthermore, internationally accredited entities are disincentivized by the high transaction costs to work with the GCF to pursue small SIDS projects.[106] The GCF has introduced a pilot programme—the enhancing direct access (EDA) approach—to address these challenges. The objective of the EDA is to enhance access by subnational, national, regional, public and private entities to the Fund. The EDA has a $200 million envelope that aims to invest in 10 pilot programmes, including at least four in SIDS, LDCs and African states.[107]

Greater efforts should be made to translate commitments and pledges towards gains for LDCs and SIDS. Ahead of COP26, OECD DAC members committed to prioritize the adaptation needs of developing countries, especially LDCs and SIDS, and to increase finance for adaptation and reduce barriers to accessing finance, particularly for SIDS.[108] At COP26, new financial pledges were made to the LDC Fund (over $600 million), as well as the grant-based Adaptation Fund (over $350 million),[109] where LDCs and SIDS account for around half of the total projects.[110] There was also agreement at COP26 that the Adaptation Fund would receive a 5 per cent levy of proceeds made under market mechanisms to reduce emissions.[111] In addition, financial pledges for loss and damage, which affect the fiscal sustainability of SIDS and LDCs,[112] were made for the first time, by subnational governments and philanthropists.[113] Commitments and initiatives to scale up finance and improve access are positive developments but will only be effective if existing challenges are urgently addressed. This includes accelerating efforts to simplify processes and increasing grant finance and the overall volume of climate finance to help meet NDCs and support recovery from COVID-19.

Scaling up MDB finance is critical. MDBs are an important channel for climate finance, accounting for just over one third of climate finance to developing countries. In 2020, climate finance flows by MDBs to developing countries declined by 2.2 per cent to $45 billion due to COVID-19; as a consequence, all MDBs except the World Bank Group failed to meet their 2020 climate finance targets. [114] Almost all major MDBs have set post-2020 climate finance targets, with the AIIB and Islamic Development Bank adopting climate finance targets for the first time (table III.C.4).[115]

Figure III.C.10
Green Climate Fund implementation challenges reported by SIDS and non-SIDS
(Per cent of annual performance reports)



Source: Green Climate Fund Independent Evaluation Unit, October 2020.

For the IDA20 replenishment (see sectiion 3), climate is one of the five priority areas, with 35 per cent of resources targeted for climate activities, half of which are to be directed to adaptation.[116] In addition to increasing MDB climate finance flows, there is also an opportunity to improve how these funds, the majority of which are disbursed through loans,[117] are programmed and disbursed. Analyses from the World Bank[118] and others[119] indicate that project-based approaches can help to support the macro-policy and enabling environments, including for greater use of non-debt instruments and concessionality. MDBs can also help to facilitate finance from other sources, including the private sector.

More needs to be done to align all development finance flows with the Paris Agreement. In October 2021, OECD DAC members agreed to align ODA with the Paris climate goals,[120] and the Group of Seven (G7) countries announced the end of their international support for coal power.[121] MDBs have also made progress but it is uneven. For example, the European Investment Bank (EIB) and IADB have formalized criteria to exclude the funding of coal, oil and gas projects, while the AfDB and ADB are working to do the same; the AIIB and World Bank Group still lack formal criteria to exclude fossil fuels. However, work is under way at the World Bank to develop and pilot sector-specific guidance to meet the institutional commitment to align all new IBRD/IDA operations by July 2023. MDBs should aim to accelerate and standardize fossil fuel exclusion policies, while all MDBs should also follow the EBRD, EIB and IADB in publicly reporting portfolio-wide emissions. A holistic approach is needed, which should include aligning all instruments with the climate goals. While MDBs have made progress on direct investments, indirect investments channelled through financial intermediaries and counterparties as well as policy-based financing need to be aligned with the Paris Agreement.[122]

Table III.C.4
MDB climate finance targets

MDB	Pre-2020 target	Post-2020 target
African Development Bank	40% of approved finance per year by 2020.	At least $25 billion for 2020-2025.
Asian Development Bank	$6 billion by 2020; $4 billion for mitigation and $2 billion for adaptation.	$80 billion for 2019-2030, and 75% of projects (by number of projects rather than amount of financing) by 2030.
Asia Infrastructure Investment Bank	None.	50% of annual loan volume by 2025 (aiming to reach $10 billion in total annual loan volume by 2025).
European Bank for Reconstruction and Development	40% of annual commitments support environment/climate financing by 2020, providing $20 billion for 2016-2020.	More than 50% of commitments support green finance by 2025.
European Investment Bank	Global: $20 billion per year for 2016-2020, equal to at least 25% of overall lending.	Global: 50% of operations support climate action and environmental sustainability by 2025; €1 trillion (around $1.18 trillion) of investments in climate action and sustainability from 2021-2030.
	Developing countries: 35% of total lending in those countries by 2020.	No developing country specific target yet.
Islamic Development Bank	None.	35% of overall annual lending by 2025.
Inter-American Development Bank	25-30% of commitments by 2020.	At least 30% of finance from IDB, IDB Invest and IDB Lab (the three components of the IDB Group) for 2021-2024.
New Development Bank	None.	None.
World Bank Group	28% of annual commitments by 2020.	35% of overall financing from 2021-2025; at least 50% of IDA and IBRD climate finance to support adaptation and resilience.

Source: Neunuebel, Sidner and Thwaites, 2021.

6.2 Biodiversity finance

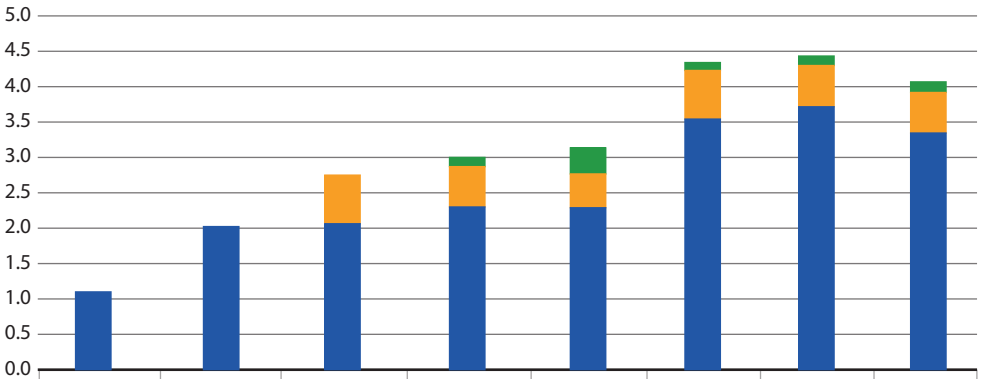
Addressing biodiversity loss is key for the well-functioning of our economies and for human health and well-being. It is also key for climate action and sustainable development more broadly. Over half of the world's GDP is either moderately or highly dependent on nature and thus at risk because of biodiversity loss and ecosystem degradation.[123] There is growing evidence that, like climate change, the risks associated with biodiversity and ecosystem services loss are systemic. The collapse of these services, such as wild pollination, provision of food from marine fisheries and timber from native forests, could cost 2.3 per cent of global GDP or around $2.7 trillion annually by 2030, with the poorest countries hit the hardest.[124] Yet only 0.2 per cent of GDP is channelled into maintaining and preserving ecosystems.[125]

Over the last decade, ODA for biodiversity-related finance doubled but remains a fraction of the global financing gap. The Addis Agenda contains a range of commitments to protect ecosystems, including one that encourages "the mobilization of financial resources from all sources and all levels to conserve and sustainably use biodiversity and ecosystems". This is consistent with the Strategic Plan for Biodiversity 2011-2020 and its Aichi Targets of the Convention on Biological Diversity (CBD). In 2014, the CBD adopted several targets for resource mobilization, including the doubling of total biodiversity-related international financial flows to developing countries by 2020.[126] This target has been partially achieved as bilateral ODA to projects with biodiversity as the principal component increased by almost 76 per cent between 2006-2010 and 2015-2018, and including projects that had biodiversity as a significant component, ODA rose by over 100 per cent.[127] However, with the global financing gap estimated at $824 billion,[128] all sources of finance need to be scaled up. Negotiations are under way to set a new post-2020 target to increase new and additional resources from all sources to at least $200 billion per year, including by at least $10 billion per year of international financial flows to developing countries.[129] Achieving effective implementation of a post-2020 global biodiversity framework will require aligning incentives for the conservation and sustainable use of biodiversity, including from both the public and private sectors.

The decline in funding to the Global Environment Facility (GEF) must be reversed. The GEF is the main financial mechanism of the Convention on Biological Diversity. It has provided a total of $2.8 billion in finance thus far in this replenishment period (2018 to 2022) and has generated co-financing of around $22.6 billion.[130] LDCs and SIDS are key beneficiaries of the GEF. Although GEF replenishments have successively increased since its establishment, reaching a peak in the sixth replenishment round, funding fell in the seventh round (figure III.C.11). Increasing GEF resources in the eighth round is critical for achieving the proposed goals and targets in the first draft of the post-2020 global biodiversity framework.

More attention is needed to support marine biodiversity and sustainable ocean economy activities. Developing countries, particularly some LDCs and most SIDS, rely more on ocean-based sectors such as coastal tourism for income and jobs compared to developed countries. For example, two out of three SIDS rely on coastal and marine tourism for 20 per cent or more of their GDP, compared to 2 per cent for OECD countries.[131] Mounting pressures on oceans and their ecosystem services—from overfishing, pollution and climate change—mean that LDCs and SIDS are likely to face greater risks from rapidly deteriorating marine ecosystems. However, international support is currently low as most biodiversity-related ODA is focused on terrestrial and freshwater biodiversity, with only about 4 per cent addressing marine biodiversity.[132] ODA for the sustainable ocean economy has also fallen from its peak in 2017-2018 (figure III.C.12).

Figure III.C.11
Global Environment Facility replenishments
(Billions of United States dollars, current)



	Pilot Phase (1991-94)	GEF-1 (1994-1998)	GEF-2 (1998-2002)	GEF-3 (2002-2006)	GEF-4 (2006-2010)	GEF-5 (2010-2014)	GEF-6 (2014-2018)	GEF-7 (2018-2022)
Projected investment income				0.13	0.368	0.112	0.134	0.15
Carryover from previous replenishment period			0.687	0.57	0.478	0.687	0.583	0.573
New pledged amount	1.1	2.023	2.063	2.3	2.289	3.542	3.716	3.345

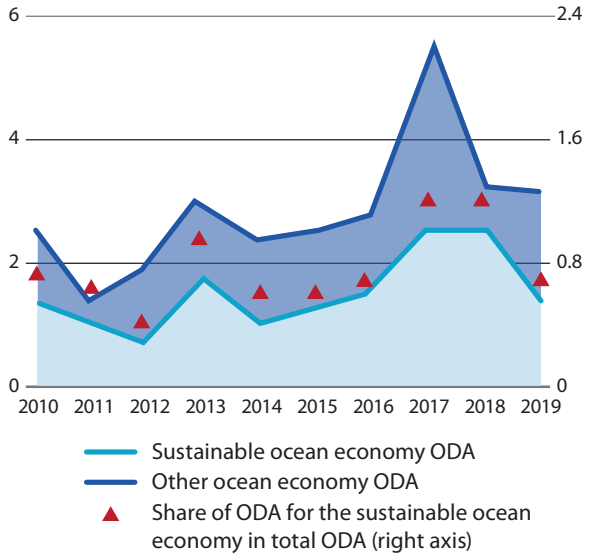
Source: World Bank. 2021. "Eighth GEF Replenishment: Overview of Financial Structure (Prepared by the Trustee)". Background Document for the First Meeting for the Eighth Replenishment of the GEF Trust Fund, April 22-23, 2021, Virtual Meeting". 1 April 2021.

Green and sustainability-linked bonds provide an opportunity to raise resources for biodiversity conservation efforts. Green bonds and similar instruments, such as SDGs-linked bonds, have grown significantly since their first issuance in 2007-2008.[133] However, green bonds have not targeted biodiversity directly. In 2019, of the $271 billion green bond issuances, less than 0.7 per cent were allocated towards biodiversity conservation.[134] PDBs can help developing countries issue bonds to support sustainable marine and fisheries projects (e.g., the Seychelle's "blue bond"), as well as target biodiversity conservation as a co-benefit on other government issuances (e.g., debt for nature swaps).[135] However, these debt instruments should be considered in the context of broader debt sustainability issues (see chapter III.E).

Financing NbS can support biodiversity and climate goals. According to the International Union for the Conservation of Nature, NbS are actions that protect, sustainably manage, restore or modify ecosystems to address societal challenges, such as climate change, while also safeguarding biodiversity and human well-being (figure III.C.13).[136] Around $2.4 billion of ODA is channelled towards NbS, a large proportion of which is climate finance.[137] As donors increase their commitments on climate-related ODA, scaling up support for NbS can provide climate and biodiversity co-benefits. For example, biodiversity is the top sector benefiting from ODA for NbS for adaptation.[138] However, a consistent methodology is needed to track financing for NbS and to avoid double counting.[139]

Increasing attention is being paid to international cooperation in support of global public goods. The COVID-19 and climate crises have exposed gaps in international cooperation, with global inoculation efforts

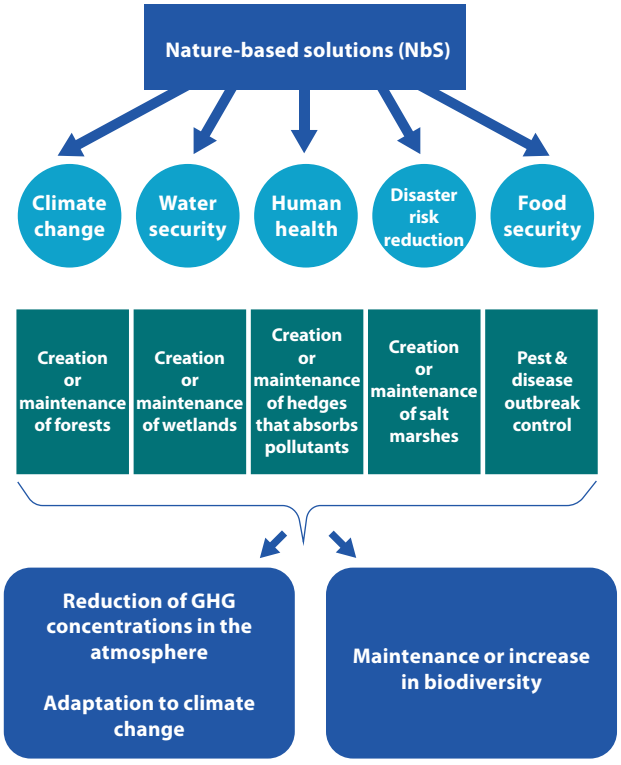
Figure III.C.12
Official development assistance for the ocean economy
(Billions of United States dollars, 2018 constant prices and percentage)



Source: OECD. "Data Platform on Development Finance for the Sustainable Ocean Economy". https://oecd-main.shinyapps.io/ocean/. Last accessed 10 February 2022.
Note: ODA for the ocean economy consists of all ODA that supports ocean-based industries and marine ecosystems. ODA for the sustainable ocean economy is a subset of ODA for the ocean economy. It identifies ocean conservation activities as well as support for ocean-based industries that integrates sustainability concerns.

failing to meet targets (see section 2.1) and developed countries failing to meet their $100 billion climate finance commitment (see section 6.1). This is despite a quadrupling in the volume of funding that donors have not allocated to specific recipient countries over the past two decades, which currently accounts for more than one fifth of official finance to developing countries.[140] This rising share of resources that are not assigned to specific recipients indicates a growing focus on these areas, as well as on humanitarian finance. However, analysis of the Principled Aid Index[141] indicates that the motives of donors appear to be tilting towards securing narrow benefits for their own national interests rather than maximizing efforts towards achieving development impact.[142] The United Nations Secretary-General has called for a new global deal to protect the global commons and deliver global public goods based on a more networked, inclusive and effective form of multilateralism (see box III.C.1). There are also ongoing efforts to measure the financing of these efforts. The Working Group on Measurement of Development Support (see box III.C.2) has acknowledged the importance of measuring global and regional efforts to support the SDGs, recommending a further review of these issues for the consideration of the United Nations Statistical Commission. While not universally accepted, the measure on total official support for sustainable development (TOSSD) considers international public goods, which encompasses global public goods, regional public goods and other international public goods (e.g., bilateral trade agreements).[143]

Figure III.C.13
Relationship between nature-based solutions, biodiversity and climate change



Source: Pettorelli et al., 2021.

7. The quality, impact and effectiveness of development cooperation in a COVID-19 world

International development cooperation must become more risk-informed. The COVID-19 and climate crises have demonstrated the importance of managing risks to enhance sustainability and resilience. Development cooperation should support developing countries in strengthening their capacities at the national and local levels to manage and reduce risks. All actors should ensure that risks are addressed through financial and non-financial cooperation that is aligned with country priorities and reinforces country systems.

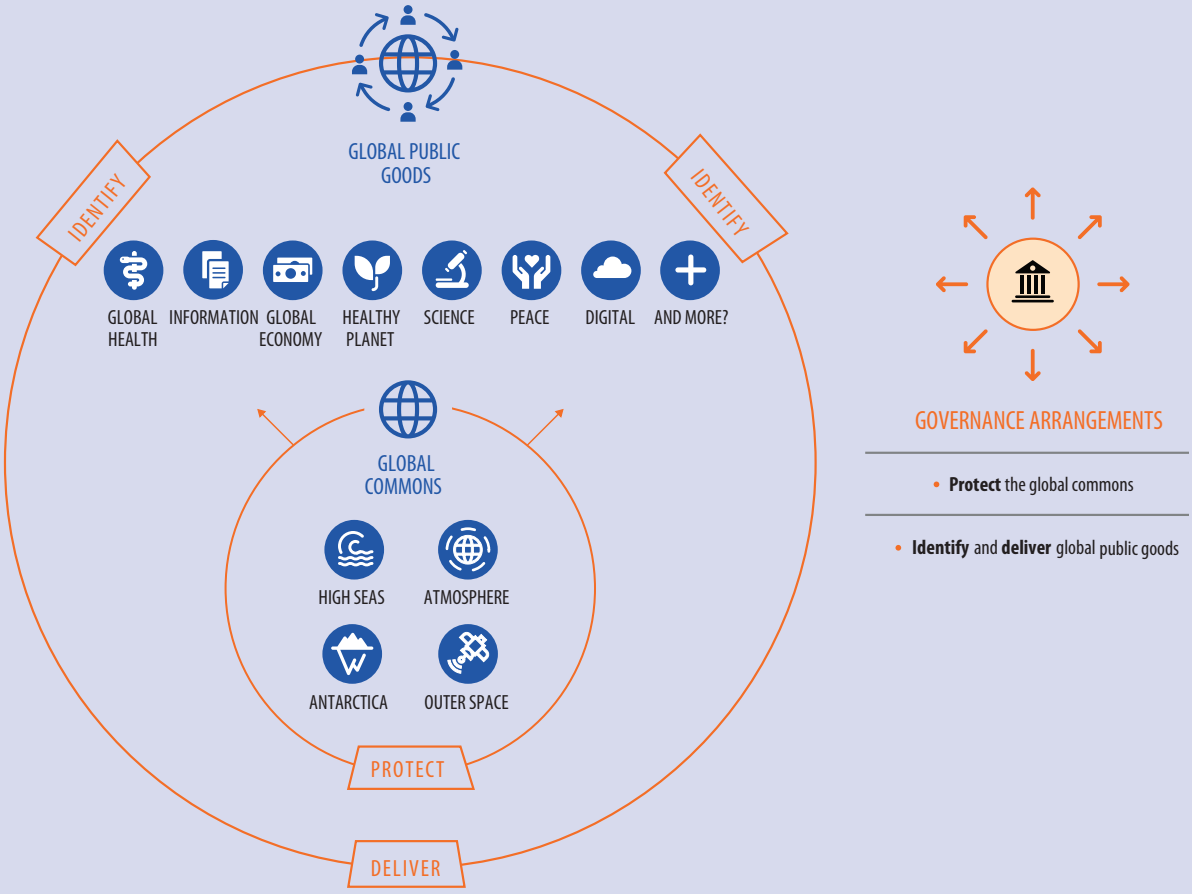
There has been slow progress on development effectiveness principles since the adoption of the Addis Agenda. The Addis Ababa Action Agenda reiterated the principles of development cooperation effectiveness, including aligning donor activities with national priorities, untying aid, promoting country ownership, strengthening partnerships and increasing transparency, predictability and mutual accountability. However, global attention and focus on these principles has waned somewhat since the adoption of the Addis Agenda. According to a 2021 survey on the quality of ODA, aid transparency has increased with more organizations reporting to the International Aid Transparency Initiative, but there has been no progress on country ownership.[144] In addition, while there has been progress in untying aid since 2015, the share of ODA reported as untied fell from its peak of 91 per cent in 2017 to 87 per cent in 2018. [145]

Lessons from COVID-19 underscore the importance and relevance of development cooperation effectiveness principles. There has been mixed observance of the principles of development effectiveness in COVID-19 response efforts. Global responses benefited from existing national-level structures and partnerships, including increased use of country systems, evident by the doubling of bilateral ODA for budget support in 2020 and localization of humanitarian aid (see section.2). Multi-stakeholder partnerships such as the ACT-Accelerator (see section 2.1), and South-South and triangular cooperation (see section 5) have been central to the global response. However, there have been concerns over the transparency (see *Financing for Sustainable Development Report 2021*)[146] and conditionality[147] of COVID-19 support. These lessons signal that adherence to development cooperation effectiveness principles must regain its centrality in building back better.[148]

Risk-informed development cooperation requires strengthening country systems to build resilience, particularly for LDCs, LLDCs and SIDS. As lessons from the pandemic have demonstrated, building resilient country systems requires prioritizing support for health and social protection systems (see section 2.1), building data and statistical capacities (see chapter IV) and investments in prevention and risk reduction (see *Financing for Sustainable Development Report 2021*).[149] While the quality of national planning has strengthened in developing countries, the monitoring of results for national plans is weaker due to data access issues.[150] For example, only 30 per cent of LDCs and 26 per cent of SIDS had timely, regular and accurate data for their results frameworks. Prior to COVID-19, development partners' use of public financial management country systems was also weak, at 48 per cent for LDCs and 28 per cent for SIDS.[151]

Box III.C.1
Protecting the global commons and delivering global public goods

The twin concepts of the global commons and global public goods, which are used in various contexts and fields such as law and economics, lack agreed definitions. The global commons usually refers to natural or cultural resources that are shared by and benefit everyone. They include the four conventionally understood commons that are beyond national jurisdiction – the high seas, the atmosphere, Antarctica and outer space. Public goods are understood as those goods and services provided to and benefiting all of society, which at the national level may include street lighting, fire departments or clean water. Certain public goods have long been acknowledged as being global in nature, in that they concern the welfare of humanity and cannot be adequately provided by any one State acting alone. These include vaccines against transmittable diseases, global peace and climate change. Despite this, the multilateral system has not yet harnessed the strategies, investments or solidarity needed to address these challenges, resulting in heightened vulnerability to crises, such as in global public health, as demonstrated by the COVID-19 pandemic; in the global economy and financial system, as exemplified by the 2008 world financial and economic crisis and current COVID-19 shock; and in the health of the planet, resulting in the triple planetary crises of climate change, biodiversity loss and pollution.



The Secretary-General aims to set up a High-Level Advisory Board of former Heads of State and/or Government to identify the global public goods where governance improvements are most needed and offer options for how this could be achieved, with a Summit of the Future organized to advance discussions in this area.

Source: United Nations. 2021. Our Common Agenda, Report of the Secretary-General.

Box III.C.2
Broader measures of development support

Working Group on Measurement of Development Support

In March 2020, the United Nations Statistical Commission expressed support for the establishment of a working group to further develop and refine the measurement of development support in line with the 2030 Agenda. To support this decision, the Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs) established the Working Group on Measurement of Development Support, including 21 Member States representing all geographic regions. The main task of the IAEG-SDGs is to further develop the measurement of development support under target 17.3: "Mobilize additional financial resources for developing countries from multiple sources". The Statistics Division of UN/DESA serves as secretariat for the Working Group.

Following a series of meetings and open consultations, the Working Group presented its indicator proposal to the IAEG-SDGs, who reviewed and approved the proposal for consideration by the Statistical Commission in March 2022. The proposed indicator 17.3.1 follows the recipient perspective and complies with the Addis Ababa Action Agenda by distinguishing flows of different types and concessionality, which have different impacts on development. It includes gross receipts from developing countries of: a) official sustainable development grants; b) official concessional sustainable development loans; c) official non-concessional sustainable development loans; d) foreign direct investment; e) mobilized private finance on an experimental basis (subject to review in the 2025 review of SDG indicators); and f) private grants.

The indicator proposal builds on existing work, in particular standard OECD and UNCTAD data collections and the work on TOSSD. It is further underpinned by an initial conceptual framework on South-South cooperation developed by a sub-group. The OECD and UNCTAD would be co-custodians of SDG indicator 17.3.

While the Working Group discussed the measurement of international public goods and acknowledged their importance, it recognized that there was no universally accepted concept or framework for their measurement and that there were challenges in reconciling the notion of global public goods, where all countries may benefit, for the focus of Target 17.3, which refers to mobilizing additional resources for developing countries. The Working Group recommended that a further review be conducted in the context of other relevant discussions in the United Nations and other fora.

Total official support for sustainable development

Initiated by the OECD and developed by an international task force of experts created in July 2017, TOSSD captures both cross-border resource flows and support to international public goods and global challenges. It includes concessional and non-concessional support from traditional and emerging bilateral and multilateral finance providers, including South-South and triangular cooperation providers. It also captures private finance mobilized by official interventions.[a]

TOSSD data on 2020 flows was published in March 2022, covering activities from 98 respondents, including 44 countries and 54 multilateral organizations, and including official statistics on the financing of international public goods.[b] Several pilot studies (e.g., Burkina Faso, Indonesia) have also been conducted and more are ongoing in 2022 and 2023.[c] TOSSD is proposed as a data source for indicator 17.3.1 on the measurement of development support of the global indicator framework for the SDGs.

Source: UN/DESA.

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Increased use of country public financial management systems can help to strengthen national systems. In addition, while 120 countries have disaster risk reduction strategies in place, only a few national development cooperation policies cover this issue; and capacity and financing gaps make it difficult to realize them.[152] For many LDCs, LLDCs and SIDS, development cooperation is a major source of financing for investment in resilience, risk reduction and climate adaptation, as market sizes are small and the private sector can be deterred by perceived and real risks to return on investment. However, disaster-related development assistance remains predominantly focused on preparedness and response. For every $100 spent on disaster-related ODA, only 50 cents are invested in protecting development from the impact of disasters.[153] INFFs can help to align development cooperation with country priorities, including disaster risk reduction strategies.

Enhancing development partner coordination is crucial to meeting the rising complexity and interconnectedness of challenges facing developing countries. Development partners have made some progress in reducing aid fragmentation, with the fragmentation ratio for LDCs with bilateral donors declining from 61 per cent in 2015 to 54 per cent in 2019.[154] However, it remains an issue, including on a sectoral basis, particularly for climate finance (see section 6.1) and health.[155] Launched in 2019, the Global Action Plan for Healthy Lives and Well-being for All, which brings together 13 multilateral health, development and humanitarian agencies, is an effort by agencies to better align their efforts to reduce inefficiencies and provide more streamlined support to countries to deliver on the health-related SDGs.

Accountability and transparency mechanisms, as well as inclusive partnerships, are key to improving the effectiveness of development cooperation. Pre-COVID-19 assessments indicated that while LDCs had regular and transparent mutual accountability mechanisms, these were weaker for SIDS.[156] Corruption, lack of transparency and misappropriation of funds have also beset COVID-19 responses.[157] Strengthening mutual and domestic accountability mechanisms, including addressing capacity gaps, should be a focus moving forward. Building on inclusive partnerships can also help to better engage a diversity of stakeholders, including the private sector and civil society. The Kampala Principles for effective private sector engagement provide practical guidance for building stronger partnerships with the private sector on development

cooperation.[158] Action dialogues for effective development cooperation, which are led by partner country governments, also help to bring stakeholders together at the country level to build a shared understanding on why effectiveness matters and how to scale up effective partnerships for COVID-19 recovery and achievement of the SDGs (see box III.C.3).

Box III.C.3
Action dialogues: country-level action to strengthen the effectiveness of development cooperation

In 2021, around two dozen developing countries either held or were planning to hold action dialogues, country-level, multi-stakeholder dialogues to strengthen partnerships for sustainable development and improve their impact. The focus and outcomes of these action dialogues were diverse. Topics included: forging effective partnerships for stronger COVID-19 recovery (Rwanda); promoting effective country level partnerships and accountability (Cameroon); ideas for making South-South cooperation more effective (Colombia); strengthening effective development cooperation (Dominican Republic); and INFFs for sustainable development (Senegal). In terms of outcomes, some countries prepared action plans following their discussions, such as Rwanda, where key activities and lead entities from the Government and development partners were identified to take forward several action areas. Colombia used the opportunity to advance a community of practice on the measurement and quantification of South-South cooperation, while Senegal aims to build on its discussions to strengthen implementation of an INFF.

Source: Global Partnership for Effective Development Co-operation. 2021. "Action Dialogues for Effective Development Cooperation".

New United Nations guidelines on the taxation of aid provide an opportunity to further align support for domestic resource mobilization efforts. Exemptions for project aid were around 3 per cent of GDP in countries where tax revenues were below 15 per cent of GDP.[159] Although discussions on the tax treatment of government-to-government aid projects started in 2005, it was not until the Addis Agenda commitment to "consider not requesting tax exemptions" did work gain traction. In April 2021, the United Nations Committee of Experts on International Cooperation in Tax published revised guidelines for the tax treatment of government-to-government aid projects[160] in order to facilitate the consideration of whether or not tax exemptions should be requested with respect to international aid projects and, if tax exemptions are requested, how they should be negotiated and implemented. The guidelines, which are non-binding, recognize that tax exemptions create significant difficulties for developing countries and run counter to the objective of strengthening domestic resource mobilization. The guidelines also address issues of transparency and accountability (see box III.C.4). They aim to assist donors and recipient countries in determining the appropriate tax treatment of government-to-government aid projects by facilitating their discussion of this issue. A new OECD hub[161] for the transparency of taxation of aid provides a platform for tracking donor approaches to claiming tax exemptions and to follow up and monitor the Addis Agenda commitment.[162]

Box III.C.4
A synopsis of the Revised Guidelines on the Tax treatment of Government-to-Government Aid Projects

The first two Guidelines—there are a total of 13 Guidelines—address whether tax exemptions should be granted with respect to government-to-government aid projects.

Guideline 1 encourages donors to refrain from requiring exemptions from taxes levied in recipient countries with respect to transactions relating to government-to-government aid projects, except in a few circumstances, such as when tax rules in the recipient country are not consistent with internationally agreed tax principles.

Guideline 2 encourages recipient countries to ensure that their tax treatment of transactions relating to government-to-government aid projects is consistent with internationally agreed tax principles to reduce situations in which specific tax exemptions with respect to government-to-government aid projects might be requested.

The subsequent revised Guidelines address cases where specific exemptions are requested. The Guidelines suggest that the tax authorities should be involved in the negotiation and drafting of the exemptions, and that their scope be restricted to donors (so that they do not apply to other parties such as subcontractors and consultants).

The revised Guidelines also deal with the transparency of country policies concerning tax payments related to government-to-government aid projects. Other Guidelines, which deal with the implementation of negotiated tax exemptions, emphasize the importance of ensuring that negotiated tax exemptions are provided for in documents with the force of law. They also point out the need for analysing the revenue impact resulting from the exemptions, and for putting in place mechanisms that minimize the administrative burden and reduce the risk for fraud related to such exemptions.

Source: Committee of Experts on International Cooperation in Tax Matters. 2020. "Revised Guidelines on the Tax Treatment of Government-to-Government Aid Projects, Note by the Subcommittee on the Tax Treatment of ODA Projects". United Nations. 5 October 2020.

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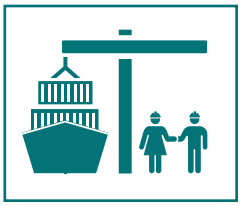


International trade as an engine for development

Chapter III.D

International trade as an engine for development

1. Key messages and recommendations

Global trade rebounded strongly from the unprecedented trade slump in 2020. Global trade in goods and services is expected to have reached an all-time high of $28 trillion in 2021, surpassing its pre-pandemic levels by 11 per cent. However, there is no room for complacency. The pace of recovery is uneven across countries, with the poorest countries faring the worst due mainly to their structural vulnerabilities and lack of productive diversification. Meanwhile, the conflict in Ukraine and the unprecedented sanctions from several countries on the Russian Federation are affecting international trade. The severity of the disruptions on trade flows will critically depend on the intensity and duration of the conflict and the related sanctions.

The disruption in trade logistics that hampered global value chains (GVCs) is being corrected, albeit slowly. The cost of international maritime trade, which covers over 80 per cent of world trade, remains significantly higher than the pre-COVID-19 level, adversely affecting GVC operations. A surge in container freight rates has also increased global import prices and could potentially fuel inflationary pressures in the coming years. This has imposed an extra financial burden on countries that rely on imports of essential goods, including medicines and foodstuffs. The global trade disruption during the pandemic constrained the fiscal capacity of developing countries with a high dependency on tariff revenues as a source of public revenue. *The implementation of trade facilitation reforms as well as the World Trade Organization (WTO) Trade Facilitation Agreement (TFA) is important to enhance the movement of goods, including medicines and foodstuffs, and reduce trade costs.*

During the pandemic, the trade finance gap widened from $1.5 trillion to $1.7 trillion. As private financial institutions became more risk-averse during the COVID-19 crisis, they were more inclined to reject the demand from micro-, small- and medium-sized enterprises (MSMEs), with a bigger impact on women-owned businesses, inhibiting them from participating in international trade. *Streamlining company risk assessments and anti-money laundering regulations at the global level can help reduce trade finance costs and narrow the trade finance gap.*

The multilateral trading system played an instrumental role in encouraging restraint in the use of trade-restrictive measures but progress in multilateral trade negotiations remains insufficient. WTO members have demonstrated restraint in the imposition of new trade-restrictive measures related to the pandemic. They have supported the recovery by continuing to roll back restrictions adopted earlier in the crisis. *Further efforts are needed to advance multilateral policy coordination on issues such as disciplining harmful fisheries subsidies, addressing food security through continuous agricultural market reforms, re-energizing discussion on special and differential treatment and addressing the digital divide in view of opportunities provided by electronic commerce.*

Trade and investment policy actions are needed to address vaccine inequality and improve access for all countries to medical products and other technologies vital for combating the pandemic. Policy actions can help address supply chain barriers and enable the trade of much-needed medical supplies. They are also central to increasing the manufacturing capacity of countries and the transfer of technology and know-how. *WTO members are encouraged to agree on ways to improve the WTO response to COVID-19, including trade policy-related aspects of the pandemic response.*

Trade and investment policy actions are intricately connected to climate action as well. In addition to income gains, trade and investment support a transfer of critical technology in climate adaptation infrastructure. Carbon border price adjustments can disincentivize shifting production to countries with more carbon intensive production methods but can penalize producers from developing economies with

limited green technology. The majority of the international investment agreements currently in force fail to address environmental concerns that may arise from increased investment flows. Multilateral discussions remain best placed to coherently address the transfer of green technology to developing countries and a framework that enhances trade in environmental goods and services in a manner beneficial to developing countries. *The international community should continue to support developing countries' capacity building in reducing the carbon contents of their exports.*

2. Developments in international trade

2.1 Trends in world trade

World merchandise trade rebounded strongly in 2021.[1] Global trade (in goods and services) is expected to have reached an all-time high of $28 trillion in 2021, surpassing its pre-pandemic levels by 11 per cent. The significant merchandise trade growth in 2021 stemmed from a strong recovery in consumer demand and rising commodity prices. Among product sectors, commodities (energy products, metals and minerals) showed the highest growth, in the range of 40 to 60 per cent from January to September 2021 compared to the same period the previous year. However, the recovery in services trade remained muted, with important differences across service subsectors (figure III.D.1).

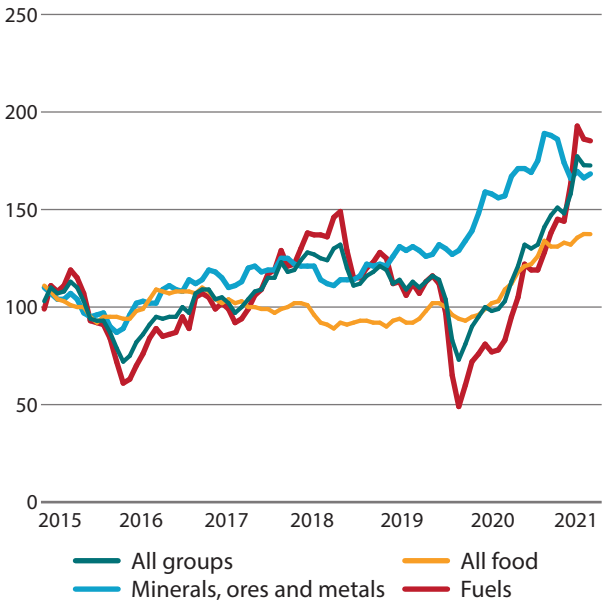
Commodity prices shot up as of mid-2020. Fuel, minerals, metals and food prices have increased considerably since the second quarter of 2020, reflecting rising demand. As of December 2021, fuel and food prices were 60 and 35 per cent higher than the level in December 2019, respectively (figure III.D.2). This surge poses challenges for the poorest segments of societies worldwide as they tend to allocate a significant portion of their disposable income to food and energy. Commodity price volatility and shocks expose commodity-dependent economies, many of them in Africa, to fiscal instability, pointing to the importance of diversification efforts. The conflict in Ukraine has also affected commodity markets and triggered an upsurge in the prices for fuel, food, fertilizer and selected metals/minerals of which the Russian Federation and Ukraine are major exporters. The two countries together supply 27 per cent of global wheat exports, 14 per cent of corn exports and 53 per cent of sunflower oil exports. The conflict could impact food security for countries dependent on these imports (for example, 48 per cent of wheat imported by Africa comes from the Russian Federation and Ukraine).[2]

The pandemic also boosted trade in information and communication technology (ICT) goods and digitally delivered services. COVID-19 provided a strong impetus for businesses and individuals to adopt digital tools. The share of ICT goods in merchandise trade surged from around 13 per cent in 2019 to nearly 16 per cent in 2020—the most significant annual increase since 2000.[3] The value of ICT services exports worldwide also increased by 6 per cent in 2020. Digitally delivered services, including insurance, business processes and finance, accounted for nearly 64 per cent of total services exports in 2020 as lockdown restrictions intensified the usage of online services in many economies.[4]

Figure III.D.1
World trade in goods and services, 2018–2021
(Percentages; Billions of United States dollars)

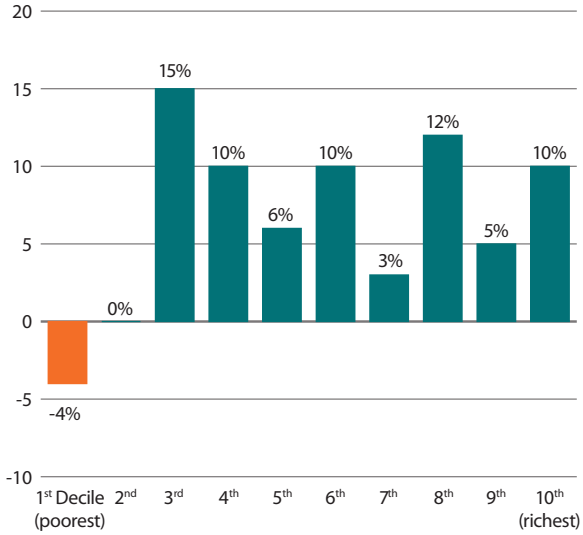
Source: GTU November 2021 issue.
Note: Fourth quarter 2021 is a nowcast.

Figure III.D.2
Commodity Price Index
(2015=100)



Source: UNCTADstat.

Figure III.D.3
Trade growth in the first half of 2021 compared to 2019, by GDP per capita
(Percentages)



Source: United Nations Conference on Trade and Development (UNCTAD). 2021. "International trade is back, but not for all". 6 October

However, other sectors remained weak in the recovery phase, such as tourism-related services. In 2021, there were 1 billion fewer international tourist arrivals than during pre-pandemic levels, a 72 per cent fall from 2019. The decline compared to 2019 was significant in least developed countries (LDCs) (88 per cent decrease), landlocked developing countries (LLDCs) (79 per cent decrease) and small island developing states (SIDS) (67 per cent decrease).[5] Overall, export revenues from international tourism are expected to total between $700 and $800 billion in 2021, slightly higher than for 2020 but still less than half the 2019 figure.[6]

Services sectors were also subject to many trade measures, with 138 (90 per cent) of the 153 reported COVID-19 related measures affecting trade in services still in force as of October 2021. Most of these measures appear to be trade-facilitating, including measures providing (or reintroducing) flexibility for transport services suppliers to ensure that supply chains are not disrupted. With respect to non-COVID-19 related services developments, restrictive policies mainly concerned foreign investment screening, communication services and Internet and other network-enabled services.

Recovery in merchandise trade has been uneven across countries, with the poorest countries faring the worst. In the first half of 2021, the exports of LDCs were 4 per cent below pre-pandemic levels, contrary to the trade recovery experienced by higher-income countries (figure III.D.3). Smaller economies have also been lagging in export recovery. The merchandise exports of the world's smallest economies in the first half of 2021 were 26 per cent below pre-pandemic levels. The positive relationship between export recovery and economic size is not driven by geography. Whether in Africa, Asia or Latin America, smaller economies' exports have recovered to a lesser extent than their larger neighbouring economies.[7]

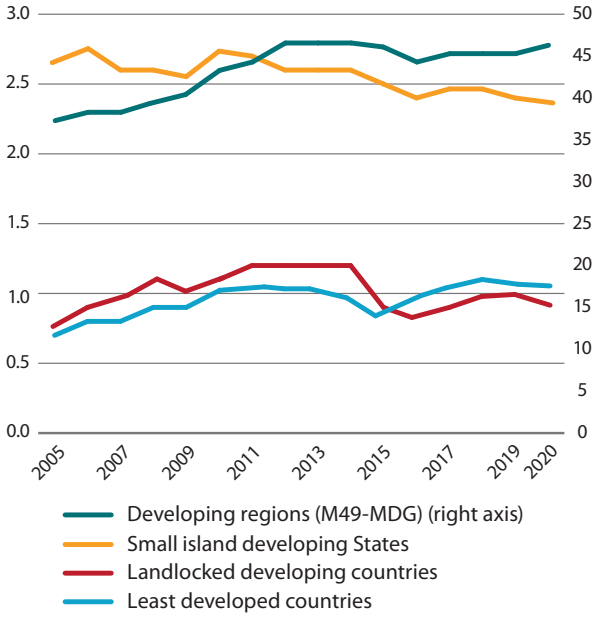
Prior to the COVID-19 crisis, vulnerable country participation in global trade was already limited. Sustainable Development Goal (SDG) target 17.11 (doubling LDCs' share of global exports by 2020) could not be met. While the share of developing regions' merchandise exports increased to 46 per cent of world trade in 2020 from 42 per cent in 2015, the share of LDCs' exports remained at just over 1 per cent, roughly the same level as in 2011. The stagnation of LDCs' exports in the past decade is significant compared to the 2001-2010 period, when their share almost doubled. The export shares of vulnerable groups such as LLDCs and SIDS also declined during this period (figure III.D.4).

The global trade downturn during the pandemic and uneven recovery penalizing structurally weak and vulnerable economies have also negatively impacted the public finances of developing countries with a high dependency on tariff revenues. On average, between 2015 and 2019, revenue from customs duties accounted for 16.2 per cent of the public revenue of LDCs, and 13.3 per cent and 15.6 per cent of LLDCs and SIDS, respectively, compared to the global average of 8.3 per cent.[8]

2.2 Trade logistics and global supply chains

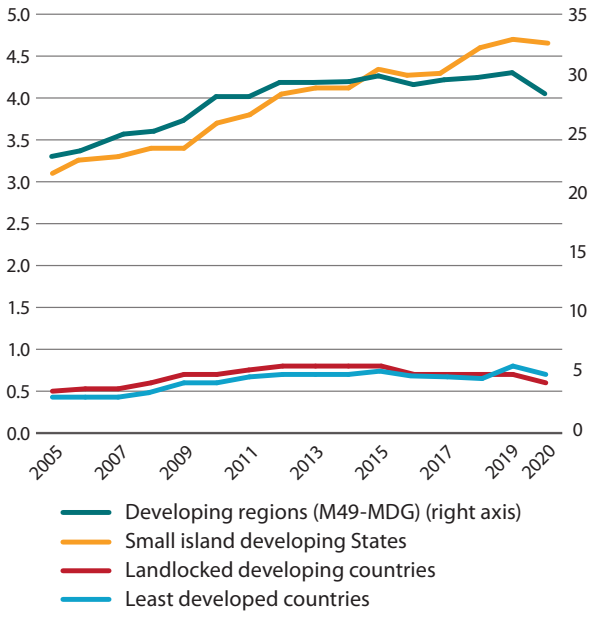
Disruption in trade logistics at the beginning of the pandemic hampered the operation of GVCs. According to a survey conducted by the ITC, around 40 per cent of firms interviewed experienced reduced logistics services due to the COVID-19 crisis. The agricultural sector was particularly affected, making it difficult for businesses in this sector to reach international markets.[9] International maritime trade volume, accounting for over 80 per cent of world trade, fell by 3.8 per cent in 2020, following weak pre-pandemic growth of 0.5 per cent in 2019.[10] This already critical situation is being made worse by the war in Ukraine which has closed some of the major land routes linking Asia to Europe, putting more pressure on already congested ports and driving prices upwards while affecting trade globally.

Figure III.D.4a
Share of exports of LDCs, SIDS, LLDCs and developing regions in world merchandise exports (2005-2020)
(Percentages)



Source: International Trade Centre (ITC)/UNCTAD/WTO.

Figure III.D.4b
Share of exports of LDCs, SIDS, LLDCs and developing regions in world services exports (2005-2020)
(Percentages)



Source: International Trade Centre (ITC)/UNCTAD/WTO.

The current surge in freight rates will increase the cost of GVCs' operations and consumer prices. The recovery of shipping services capacity and port operations was too slow to meet the significant increase in demand for container shipping in 2021. Excess demand has pushed up freight rates worldwide. Container shipping rates, as reflected in the China Containerized Freight Index, increased by a factor of 2.5 between 2020 and 2021 and trebled compared to 2019 levels.[11] The Baltic Dry Index hit a decade-high level in early October 2021, increasing more than 13-fold from mid-February of that year.[12] Lingering high container freight rates in the short to medium term threaten to undermine GVC operations and generate inflationary pressures. UNCTAD predicts that the current freight rate surge can raise consumer prices by 10.2 per cent for products such as furniture, textiles, clothing and leather products, whose production is often fragmented across low-wage economies away from major consumer markets.[13] The consumer price of products that are manufactured through integrated supply chains such as computers and electronic and optical products could increase by 11 per cent.

The surge in transport costs is devastating for the development financing capacity of import-dependent developing countries such as LDCs, LLDCs, SIDS and net food importing developing countries. Investment in supply chain resilience, particularly through trade facilitation, accelerating automation and digitalization and liberalizing trade in transport and logistics services, will help address high shipping rates.[14]

2.3 Trade policy responses to COVID-19

Countries have shown restraint in the imposition of new trade-restrictive measures and continue to slowly roll back restrictions adopted earlier in the pandemic. The multilateral trading system has shown resilience and played an instrumental role in encouraging restraint in the implementation of traderestrictive measures. It will continue to underpin the foundation upon which a global economic recovery will be based.

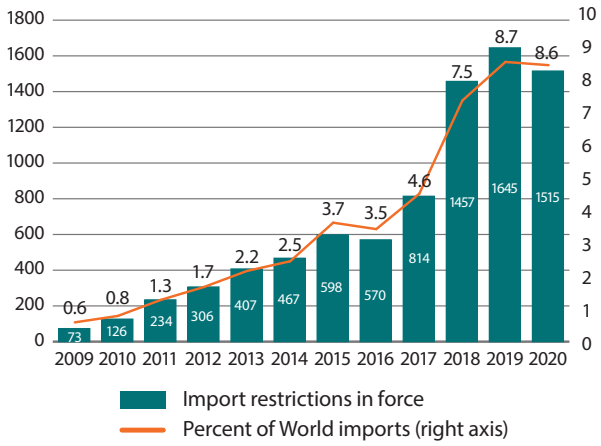
The number of COVID-19-related trade facilitating measures has outnumbered trade-restrictive measures by nearly two to one. Since the outbreak of the pandemic, 399 COVID-19 trade and trade-related measures in goods have been implemented by WTO members and observers but many of them have already been phased out. As at mid-October 2021, 205 COVID-19 related trade-facilitating measures (e.g., reduction in import tariffs and import taxes) with an estimated trade coverage of $112 billion and 56 trade-restrictive measures (e.g., export restrictions on medical supplies) with an estimated trade coverage of $92 billion were still in force (figure III.D.5).

Figure III.D.5
COVID-19 trade and trade-related measures on goods, as at mid-October 2021
(Number)

Source: WTO Secretariat.

Monitoring of non-COVID-19 trade measures reveals that while fewer restrictions were put in place between October 2020 and 2021, the stockpile of previous trade restrictions remains large. Only a limited number of new COVID-19 trade and trade-related measures were recorded for WTO members on goods, mainly consisting of extensions of existing measures originally implemented in the early stages of the pandemic or the termination of some of these. Although the trade coverage of new import restrictions is relatively low, the stockpile of import restrictions implemented since 2009 which are still in force is estimated at $1.5 trillion, representing 8.7 per cent of world imports as at mid-October 2021 (figure III.D.6).

Figure III.D.6
Cumulative Trade Coverage of import-restrictive measures on goods from 2009 to 2020
(Billions of United States dollars; Percentage)



Source: WTO Secretariat.
Note: The cumulative trade coverage estimated by the Secretariat is based on information available in the Trade Monitoring Database on import measures recorded since 2009 and considered to have a trade-restrictive effect. The estimates include import measures for which Harmonized System codes were available. The figures do not include trade remedy measures. The import values were sourced by the United Nations Comtrade database.

Initiations of trade remedy investigations have declined after reaching a peak in 2020. Trade remedy actions remain an important trade policy tool, accounting for 66 per cent of all non-COVID-19 related trade measures on goods.

Countries continued to use the sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) Committees' transparency mechanisms to notify trading partners about their new SPS and TBT measures or changes to existing measures, and to discuss and often resolve specific trade concerns non-litigiously. Food safety was the most frequent objective identified in the 1,146 regular and the 284 emergency SPS notifications submitted between October 2020 and 2021. Most of the 2,378 new regular TBT notifications submitted indicated the protection of human health or safety as their main objective.

Since the outbreak of the pandemic, 76 intellectual property-related measures were implemented and many of them were extended. These measures included administrative and substantive measures. Members continued to fine-tune their domestic intellectual property frameworks and to implement specific intellectual property measures to facilitate the development and dissemination of COVID-19-related health technologies.

3. Progress on multilateral trade negotiations and cross-border e-commerce

The COVID-19 Omicron variant and the evolving sanitary situation put brakes on the momentum in the lead up to the WTO's 12th Ministerial Conference (MC12) that was planned for late 2021. Nonetheless, members have continued to show commitment to ongoing discussions to close remaining gaps in multilateral negotiations, including the WTO's response to the pandemic, fisheries subsidies, agriculture and other topics. On 23 February 2022, WTO members agreed to hold the MC12 during the week of 13 June 2022 in Geneva.

3.1 WTO response to the COVID-19 pandemic

At the end of December 2021, WTO members were nearing consensus on a multilateral response that will include a framework on how to tackle the current and any future pandemics from a trade perspective. The multilateral response covers six broad themes: (i) transparency and monitoring; (ii) export restrictions and prohibition; (iii) trade facilitation, regulatory coherence and cooperation, and tariffs; (iv) the role of services trade; (v) collaboration with other international organizations and engagement with other key stakeholders; and (vi) a framework for future pandemics and crises. The multilateral response, when agreed, is expected to take into account the outcome of discussions in the WTO's Trade-Related Aspects of International Property Rights (TRIPS) Council without increasing or diminishing the obligations of members under WTO agreements. The multilateral response should emphasize the central role of the multilateral trading system in promoting availability and ensuring equitable access of essential goods and services, particularly in developing countries and LDCs through the diversification of production and supply of such goods and services.[15]

3.2 TRIPS Council

Unfortunately, discussions in the TRIPS Council on the intellectual property aspects of the COVID-19 response have not produced convergence despite an intensified level of engagement. Two proposals promoting different tools to increase availability of COVID-19 treatments and vaccines are at the heart of the debate: (i) the waiver of intellectual property rights from certain provisions of the TRIPS agreement for the prevention, containment and treatment of COVID-19, led by India and South Africa; and (ii) a communication from the European Union, which seeks to clarify existing rules to enhance the effectiveness of the system and provide more legal certainty. While members seem united on the importance of the intellectual property system for innovation and for promoting research and development, political engagement is necessary to change the existing dynamic and achieve convergence.

3.3 Fisheries subsidies negotiations

Prior to the postponement of MC12, the fisheries negotiations experienced unprecedented momentum. A revised text was presented on 24 November 2021 in the form of a draft standalone agreement.[16] However, it is important to note that the legal form of the outcome of the negotiations has not yet been agreed upon. Some sections of the draft still require political direction to reach consensus. Ministers have once again been asked to empower their respective delegations in Geneva to carry on negotiations to reach an agreement as, according to the Marrakesh Agreement establishing the WTO, the General Council can function as the Ministerial Conference when the latter is not in session to take decisions.

3.4 Negotiations on agriculture

Members have recently put forward a realistic starting point for negotiations on agriculture that covers issues including domestic support, public stockholding and market access.[17] Export competition and restriction, cotton, the special safeguard mechanism, and cross-cutting issues of transparency are also expected to be covered in any negotiation. Despite broad agreement on the need to address trade-distorting domestic support and market access, WTO members remain intransigent on these issues. Moreover, export competition is hinged on enhanced transparency while numerous countries remain concerned that existing capacity constraints hinder their ability to meet WTO transparency obligations. Notably, a proposal has been tabled to exempt the World Food Programme's food purchases from export restrictions.

3.5 Discussions on special and differential treatment

Unfortunately, discussions among members on special and differential treatment (SDT) continue to be fundamentally divergent. Members, however, appear committed to continuous engagement, as signalled by paragraph 7 of the draft outcome document for MC12, in which members reaffirm the provisions of SDT for developing country members and LDCs as an integral part of the WTO and its agreements.

3.6 Cross-border e-commerce

Cross-border e-commerce continues to rise, increasing at double the rate of domestic e-commerce.[18] The pandemic has had a positive impact on global retail e-commerce sales, which are estimated to have reached $4.9 trillion in 2021, up 16.3 per cent from 2020.[19] Cross-border e-commerce accounts for about 20 per cent of global e-commerce.[20] In 2021, 52 per cent of online shoppers purchased from both global and domestic websites and 69 per cent of online sellers said cross-border sales helped their business to grow.[21] China dominates the cross-border e-commerce trade, with a predicted share of 41 per cent of the total in 2021.[22]

Discussions in the WTO on its Work Programme on Electronic Commerce, including the issue of the moratorium on duties on electronic transmissions, continue to take place under the General Council. Some members argue that their capacity to finance development and industrial policies could be affected by the revenue loss due to the moratorium on electronic transmissions. As such, some delegations are seeking further clarity on the scope and impact of the moratorium, including its revenue implications, before considering its extension. Other delegations, who are of the view that the moratorium brings economic benefits in digital trade to developing countries that may exceed the lost revenue,[23] support a permanent moratorium but can accept an extension until MC13. Given these differences, two separate draft Ministerial decisions were to be forwarded to Ministers for their consideration. One calls for the continuation of the Work Programme and the extension of the moratorium until MC13. The other contains language recognizing the development challenges and calling for the reinvigoration and continuation of the Work Programme until MC13. The draft decisions will therefore be considered when Ministers meet in June 2022 for MC12.

E-commerce discussions are also progressing among 86 WTO members negotiating trade-related e-commerce rules under the Joint Statement Initiative on E-commerce (JSI) launched at MC11 in 2017. Negotiations are progressing under six broad themes: (i) enabling e-commerce; (ii) openness and e-commerce; (iii) trust and e-commerce; (iv) cross-cutting issues, such as transparency, domestic regulation, and cooperation; (v) telecommunications; and (vi) market access. In September 2021, the co-convenors (Australia, Japan and Singapore) circulated an updated consolidated negotiating text capturing progress made. Subsequently, in December 2021, the co-convenors issued a Ministerial Statement noting the convergence achieved on eight articles: (i) online consumer protection; (ii) electronic signatures and authentication; (iii) unsolicited commercial electronic messages (spam); (iv) open government data; (v) electronic contracts; (vi) transparency; (vii) paperless trading; and (viii) open internet access. The Statement recognizes the importance of supporting the engagement of developing and LDC members in the initiative and that the discussion on capacity building options and support for implementation will continue to deepen in 2022. JSI participants hope to secure convergence on the majority of issues by the end of 2022.

4. Regional trade and investment agreements

4.1 Regional trade agreements

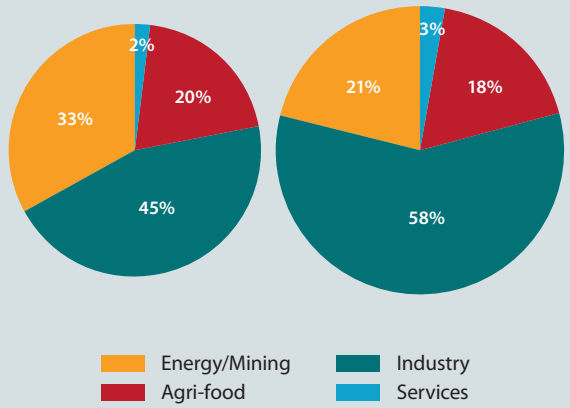
Mega-regional trade agreements (RTAs) may change global trade flows. Starting with the entry into force of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) on 30 December 2018, the trend of the mega-RTA, that is, an RTA of significant economic size, continues. On 30 May 2019, the Agreement establishing the African Continental Free Trade Area (AfCFTA) entered into force and trading under the Agreement officially started on 1 January 2021. As of 31 January 2022, 54 out of 55 African Union member States have signed and 41 member States have deposited their ratification instruments to the African Union (see box III.D.1). As of 12 January 2022, however, the Agreement had not been notified to the WTO. On 1 January 2022, the Regional Comprehensive Economic Partnership (RCEP) among 15 Asia-Pacific countries, including China, the Republic of Korea and Japan, entered into force. It also has not been notified to the WTO. The RCEP, covering one third of global GDP, is expected to increase intra-RCEP trade by $40 billion or 2 per cent.[24]

Box III.D.1
Economic implications of AfCFTA for Africa

The United Nations Economic Commission for Africa (ECA) and the Centre for International Research and Economic Modelling (CIREM) of the *Centre d'Etudes Prospectives et d'Information Internationales* (CEPII) released a comprehensive assessment of the economic implications of the AfCFTA for Africa.[a] The study estimated that intra-African trade in 2045 under the AfCFTA would be about 35 per cent higher than in the absence of AfCFTA. The largest increase in intra-African trade is expected in the agri-food, manufacturing and services sectors at around 40 per cent each. The effective implementation of the AfCFTA is foreseen to help Africa industrialize and diversify away from energy and mining (see figure III.D.7), contributing to increases in GDP and welfare.

To achieve the benefits from the AfCFTA reforms, all African Union member States must sign and ratify the AfCFTA Agreement and rapidly develop national AfCFTA implementation strategies with clear action plans and roadmaps. In addition, all actors, particularly the private sector, must be fully engaged in the implementation of the AfCFTA reforms, with the support of Governments, so that the AfCFTA can effectively deliver on its promises.

Figure III.D.7
Intra-African trade composition in 2020 vs. 2045 after AfCFTA's implementation
(Percentage)



Source: ECA and CIREM-CEPII's calculations based on MIRAGE-e CGE model.

a Assessment relying on computable general equilibrium modelling. For further details, see: https://uneca.org/sites/default/files/keymessageanddocuments/en_afcfta-infographics-11.pdf.

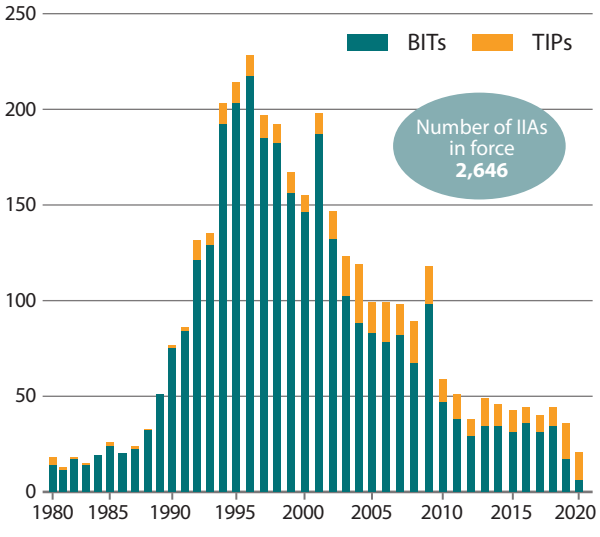
4.2 International investment agreements

The number of new international investment agreements (IIAs) continued to fall in 2020, recording a record low. In 2020, the number of terminations of existing IIAs far exceeded the number of new IIAs, as has been the case in the preceding three years. A total of 21 new IIAs were signed in 2020, of which six were bilateral investment treaties (BITs) and 15 were treaties with investment provisions (TIPs). Twelve of the 21 new IIAs were rollover agreements concluded by the United Kingdom to maintain existing trade and investment relationships with third countries following its withdrawal from the European Union. At least 42 IIAs were terminated in 2020 of which 10 were unilateral terminations, 24 were terminated by consent, seven were replacements and one expired. With 18 IIAs entering into force in 2020, there were a total of 2,646 IIAs in force at year-end 2020 (figure III.D.8).

All IIAs concluded in 2020 contain reform-oriented provisions to preserve regulatory space and promote sustainable investment.[25] Such provisions contain refined language that clarifies States' obligations and safeguards States' policy space. For example, these include general exceptions for protecting human health or the environment as well as provisions to promote gender equality (e.g., including gender equality in the objectives of international trade and investment agreements).[26] Investor-State dispute settlement procedures in these new-generation IIAs are often reformed or entirely omitted, by specifying prescription periods for bringing claims or containing fork-in-the-road provisions.[27] In keeping with recent trends, IIAs concluded in 2020 continued to include specific proactive provisions on investment promotion and/or facilitation, such as enhancing the exchange of information on investment opportunities and facilitating the entry and sojourn of personnel.

IIA reform remains the priority for a sustainable development-oriented investment regime.[28] This is particularly so for the reform of the existing stock of 2,500 old-generation IIAs currently in force. The vast majority of IIAs may no longer be fit for purpose. The challenges of the 21st century require reform of the stock of outdated IIAs, which fail to ensure an appropriate balance between investment protection and regulatory freedom. For example, old-generation IIAs fail to explicitly make room for regulatory action in the interest of public policy objectives, such as the protection of public health.[29] Similarly, as the climate crisis intensifies, outdated IIAs may prove to be ineffective in facilitating and promoting types of investments that could mitigate global

Figure III.D.8
Number of IIAs signed, 1980–2020
(Annual number of IIAs)

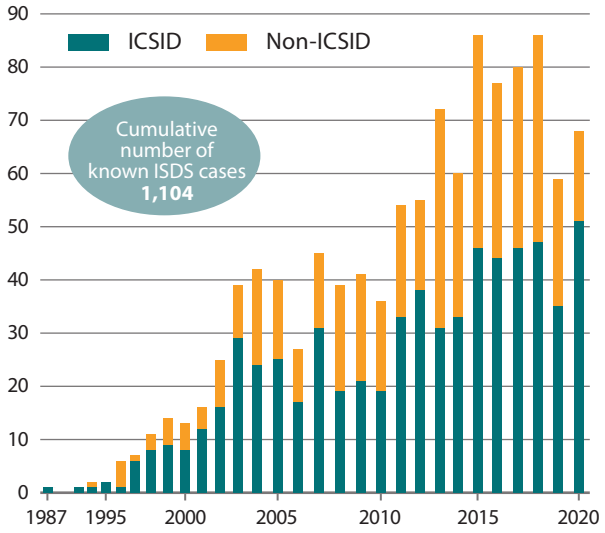


Source: UNCTAD, IIA Navigator.
Note: This includes treaties (i) unilaterally denounced, (ii) terminated by consent, (iii) replaced by a new treaty, and (iv) expired automatically.

warming. The same old-generation IIAs allow investors to challenge State measures to combat environmental degradation and climate change.

The number of new investor-State dispute settlement (ISDS) cases remained high. In 2020, investors initiated 68 publicly known ISDS cases pursuant to IIAs and marked the largest number of International Centre for Settlement of Investment Disputes (ICSID) cases ever registered (figure III.D.9). This number exceeded that in 2019 but was below the five-year average. As some arbitrations can be kept confidential, the actual number of disputes filed in 2020 and previous years is likely higher. Investor-State arbitration remains at the core of broader IIA reform actions, and countries continued to implement many ISDS reform elements in IIAs signed in 2020. To date, 124 countries and one economic grouping are known to have been respondents to one or more ISDS claims. The cumulative number of known ISDS cases reached 1,104 treaty-based ISDS cases by the end of 2020.

Figure III.D.9
Trends in known ISDS cases, 1987-2020
(Annual number of cases)



Source: UNCTAD, ISDS Navigator.
Note: Information was compiled from public sources, including specialized reporting services. UNCTAD's statistics do not cover investor-State cases based exclusively on investment contracts (State contracts) or national investment laws, or cases in which a party has signalled its intention to submit a claim to ISDS but has not commenced the arbitration. Annual and cumulative case numbers are continually adjusted due to verification processes and may not match exactly the case numbers reported in previous years.

5. Facilitating international trade

5.1 Trade facilitation

Despite the disruption in global trade, significant progress has been achieved in implementing trade facilitation measures. According to the 2021 United Nations Global Survey on Digital and Sustainable Trade Facilitation, which reviews the progress of trade facilitation reforms across 144 countries, the global average implementation rate of 31 trade facilitation measures stood at 65 per cent in 2021.[30] The acceleration of digital transformation during the pandemic has contributed to increasing "paperless trade" and resulted in the increase in the overall implementation rate by more than 5 percentage points between 2019 and 2021. Implementation still varies significantly around the world. Developed economies achieved the highest implementation rate at 82 per cent, while the Pacific Islands and sub-Saharan Africa recorded the lowest rates, at 40 per cent and 49 per cent, respectively. In terms of progress, South Asia achieved the highest increase, of more than 10 percentage points over the 2019 level, to reach a 58.5 per cent implementation rate in 2021.

Ratification and implementation of the TFA continues to progress, underlining the WTO membership's commitment to the Agreement. Ninety-four per cent of all members have already concluded their domestic ratification process while the current rate of implementation commitments stands at over 70 per cent.[31] This rate is, however, much lower for LDCs (41 per cent) and LLDCs (55 per cent). Meanwhile, initiatives were launched to further accelerate TFA implementation. A group of almost 50 WTO members tabled a proposal supporting the timely and efficient release of global goods through accelerated implementation of the Agreement.[32]

Implementation of trade facilitation measures was found to be a useful tool to fight against negative implications of the COVID-19 pandemic. In practically all countries, customs procedures had to be adjusted to ensure the smooth flow of goods. The TFA helped maintain transparency on trade measures taken during the crisis. Several WTO members also reported that COVID-19 had led to accelerated implementation of trade facilitation measures and the advancing of reforms, for example, in the area of digitization of documents required for customs.[33] They also stressed the importance of TFA measures such as the reduction of fees and charges, e-payment, facilitated clearance procedures, risk management and ease of transit.[34] Reference was further made to the importance of cooperation among border agencies and between members' customs agencies.[35]

Simplifying customs procedures also reduces customs clearance trade costs. The UNCTAD Automated System for Customs Data (ASYCUDA) continues to improve customs clearance processes for trade facilitation.[36] In Jamaica, the overall customs clearance time in 2020 was reduced to 32 hours. In Rwanda, the system led to over $9 million of savings on the cost of purchasing forms and paying clearing agents to manually fill in forms and follow up on approvals in ministries.

5.2 Trade finance gaps and instruments

The deterioration in sovereign credit ratings during the COVID-19 pandemic (see chapter II) has discouraged local and international finance institutions from providing trade finance to developing-country clients. The Asian Development Bank (ADB)'s 2021 survey reported a widening of the global trade finance gap—the difference in the demand for and the supply of trade finance—from $1.5 trillion in 2018 to $1.7 trillion in 2020.[37] The increase in the trade finance gap has affected mainly—although not exclusively—developing countries.

The increased rejection of trade finance applications was also linked to the higher risk and uncertainty prevailing during the pandemic. The perception of risk and expectations of losses by lenders vis-à-vis borrowers is typically higher during periods of uncertainty. Local banks received fewer confirmation lines for letters of credit (or less funding in foreign exchange) from international banks for trade transactions and rejected more applications from local borrowers.

At the peak of the pandemic, MSMEs and women entrepreneurs suffered a persistent shortage in trade finance. According to the ADB, 40 per cent of SMEs' applications for trade finance were rejected, against 38 per cent for mid-size companies and 10 per cent for large companies. Women-owned MSMEs faced even greater difficulties in accessing trade finance: 70 per cent of trade finance applications of surveyed women were totally or partially rejected in 2020.[38] The cost of trade finance (e.g., confirmed letters of credit) was six to seven times more expensive in African than in Organisation for Economic Co-operation and Development (OECD) countries—a much large difference than pre-pandemic.[39]

Multilateral development banks increased their support to finance imports and exports during the pandemic. The International Finance Corporation (IFC) supported over $20 billion in trade transactions, mainly in LDCs and other vulnerable countries. The ADB also processed larger amounts of transactions than prior to the pandemic—close to $6 billion in 2020 and estimated to have increased in 2021. Other multilateral development institutions operating trade finance programmes recorded similar trends during the pandemic and upgraded their programmes accordingly (such as the European Bank for Reconstruction and Development, the African Development Bank, African Export Import Bank, the International Islamic Trade Finance Corporation and the Inter-American Development Bank). According to the IFC Bank Survey, many banks and companies in low-income countries continue to experience liquidity and correspondent banking stress.[40]

National Governments, export credit agencies and development banks have also geared up their support to fill the trade financing gaps. For example, the Export-Import Bank of India started the "Ubharte Sitaare Programme" mainly focusing on MSMEs. The programme supports enterprises through a mix of debt, equity and technical assistance for capacity development. The Export-Import Bank of India also launched a new Trade Assistance Programme to bridge the trade finance gap through collaboration with other developing countries, and assists in capacity building, particularly for SMEs. In Kenya, for instance, the Export-Import Bank of India helped textile firms shift their production to pandemic-related goods as part of regional collaboration in Africa.[41] The Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC), within the Islamic Development Bank (IsDB) Group, provided guarantees to health, agriculture and energy sectors through its export credit insurance and reinsurance solutions to facilitate imports and mitigate risks.

International cooperation is needed to help address the widening finance gap for the most vulnerable countries. Even though trade finance is not very risky, current bank regulations require high capital allocation for these loans. Moreover, anti-money laundering regulations are excessively constraining the sector by raising compliance costs. International cooperation in data collection and analysis on the trade finance gap, sharing of good practices and training on rules and regulations can help build domestic capacities for the private sector to access trade finance and for local banks to overcome regulatory compliance challenges.

The recovery of global merchandise trade in many countries has increased global demand for import and export finance. While risk appetite for trade transactions increased during the first half of 2021,[42] the increased supply of trade finance has not caught up with the rising demand. According to the Berne Union, the association of export credit agencies, the broader trend in global trade finance markets suggests that global liquidity has returned to the main routes of trade, along with increased demand and reduced risk perception. However, monetary tightening by central banks as well as geopolitical tensions may change risk perceptions in 2022. High global liquidity may also lead to a greater divergence in trade finance between developed and developing countries.

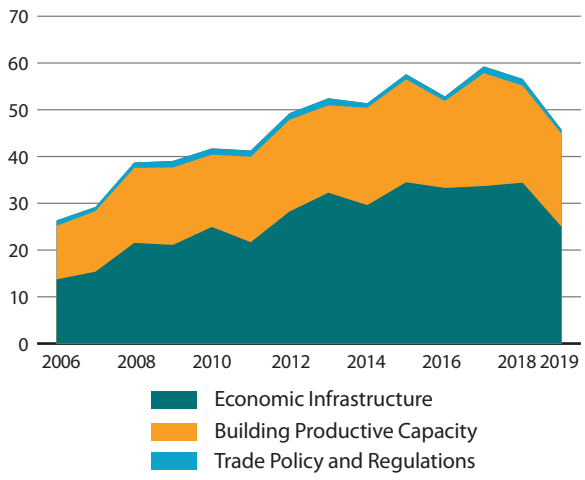
5.3 Aid for Trade

SDG target 8.a calls for increased Aid for Trade support for developing countries, particularly LDCs. The objective of the Aid for Trade initiative is to help these countries build their supply-side capacity and the trade-related infrastructure they need to implement and benefit from WTO agreements and to expand their trade.

In 2019, the most recent year for which data are available, global disbursements of Aid for Trade reached $45.8 billion. This represents a yearly increase of $0.5 billion (1 per cent) from 2017, and $25.6 billion (127 per cent) compared to the 2006 baseline recorded following the launch of the Aid for Trade initiative. Commitments have also been steadily increasing for all Aid for Trade components except for support to trade policy and regulations, which has been relatively stable at about $1.2 billion on average (see figure III.D.10). Overall, global Aid for Trade disbursed from 2006 to 2019 has amounted to $493 billion, with 27 per cent of the total going to LDCs ($122 billion).

Preparations are under way for the 2022 Global Review of Aid for Trade. In March 2021, a stocktaking event was held to inform the 2020-2022 Aid for Trade Work Programme, the culmination of which is the 8th Global Review of Aid for Trade planned for early July 2022 under the theme "Empowering Connected Sustainable Trade".[43] The Global Review is underpinned by a monitoring and evaluation exercise which seeks to survey (i) aid for trade priorities, (ii) policies for sustainable development, and (iii) policies for women's economic empowerment. In particular, the review will focus on understanding the potential of green growth and digital connectivity to achieve the multiple goals of the 2030 Agenda for Sustainable Development while promoting economic and export diversification.

Figure III.D.10
Aid for Trade commitments
(Billions of United States dollars, 2019 constant prices)



Source: OECD-DAC, aid activities database (CRS).

6. Mainstreaming international trade in the Sustainable Development Goals

6.1 The trade- and investment-related response to the COVID-19 pandemic

Trade and investment policies, including intellectual property rights regimes, have a major role to play in addressing the vastly unequal access to vaccines. Vaccination rates in high-income countries are seven times higher than in Africa. As underscored by the United Nations Secretary-General, there is a need to create the conditions for the local production of tests, vaccines and treatments in many more countries around the world.[44]

Access to a full range of essential health products and services requires coordinated policy responses from trade, investment and intellectual property. Combating the COVID-19 pandemic calls for timely and equitable access to safe, effective and affordable tools such as vaccines, therapeutics, medicines, contact tracing software, diagnostics and personal protective equipment.[45] Failure to ensure access to COVID-19 vaccines in developing countries could cost the global economy around $9.2 trillion.[46]

Investment promotion in the health sector can help improve healthcare provision in developing countries. As a direct response to the pandemic, an increasing number of investment promotion agencies are targeting health services providers. In 2021, 48 per cent of national investment promotion agencies worldwide—32 per cent in LDCs—were promoting investment opportunities in the health sector on their websites and through social media.[47] Relevant examples are found in Africa through the Partnership for African Vaccine Manufacturing, Costa Rica and Uganda.[48]

A full response to the COVID-19 crisis requires wide access to an extensive array of medical products and other technologies. These range from protective equipment to contact tracing software, medicines and diagnostics, as well as vaccines and treatments. The way in which the intellectual property system, framed in part by the TRIPS Agreement, is designed—and how effectively it is put to work, including through the full use of flexibilities in the WTO system—is a significant factor in facilitating equitable access to existing technologies and supporting the creation, manufacturing and dissemination of new COVID-19 technologies.

National and regional Intellectual Property Rights (IPR) offices can play a part. Irrespective of the outcome of the negotiation for a TRIPS waiver, countries may also review their domestic IPR laws to ensure the full utilization of existing flexibilities and to develop a well-functioning IPR system, including patent examination capacity. Some national and regional IPR offices have taken initiatives to expedite or simplify their administration of the IPR system, especially concerning patents and trademarks. These initiatives have provided practical support for firms seeking to develop products of potential benefit in combating the pandemic. Transparency of legal and policy measures taken by countries is critical for information-sharing and policy responsiveness in a globally turbulent situation.[49]

Many IPR holders have also undertaken voluntary initiatives to share and pool these rights to collaborate in tackling COVID-19. Open licensing models have been used collaboratively to develop and manufacture hardware to resolve supply chain weaknesses. Some firms have committed to non-exclusive and royalty-free licensing or have issued non-enforcement declarations of patent rights. There are also examples of free access to and reuse of COVID-19-related scientific literature protected by copyright and of shared knowledge to enable others to manufacture and use technologies. These voluntary initiatives have also included firms and universities, under the Open COVID-Pledge, granting free access to patented technologies and protected designs related to diagnosing, preventing, containing and treating COVID-19.

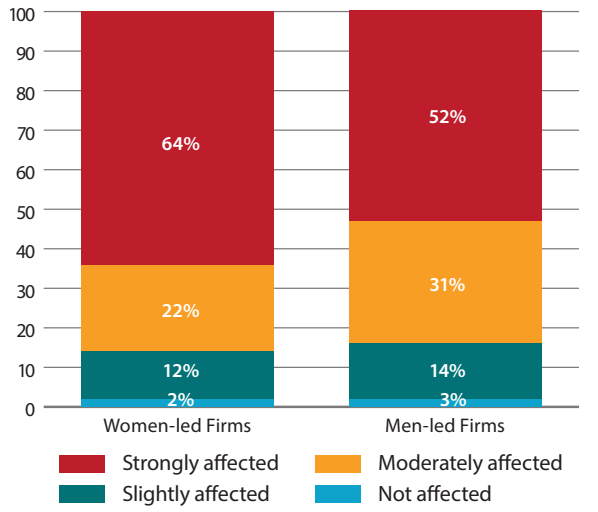
International health cooperation is necessary for controlling the pandemic in all countries. International cooperation contributes to the sharing of information and technology for the detection, prevention, treatment and control of COVID-19. This includes initiatives such as the Access to COVID-19 Tools (ACT) Accelerator, the Friends of the COVID-19 Vaccine Global Access (COVAX) Facility, Africa Vaccine Acquisition Taskforce Team (AVATT) and relevant pledging appeals. The World Health Organization (WHO) COVID-19 Technology Access Pool (C-TAP) allows developers of COVID-19 therapeutics, diagnostics, vaccines and other health products to license their intellectual property, knowledge and data with quality-assured manufacturers. Through voluntary, non-exclusive and transparent licenses, C-TAP can facilitate the scale-up of production through multiple manufacturers with currently untapped capacity. Other initiatives focus on providing access to information from the patent system. This includes the COVID-19 Search Facility in the World Intellectual Property (WIPO) PATENTSCOPE portal and the Medicines Patent Pool (MPP) with information on medicines in trials and vaccines for COVID-19. To facilitate access to medical treatments and health technologies for low- and middle-income countries, the MPP concluded licensing agreements for two experimental oral antiviral treatments for COVID-19 and a COVID-19 serological antibody diagnostic test, which can be non-exclusive and royalty-free depending on the terms of the agreements.[50]

6.2 Women in trade in times of crisis

The COVID-19 crisis has had severe and damaging impacts on women's employment.[51] With 740 million women globally in informal employment and in face-to-face services, women have been particularly hard hit by the crisis. In all regions and income groups, women have suffered greater employment losses than men. The disproportionate impact of the pandemic on women's employment is projected to narrow at the global level over the coming years, but a sizeable gap is nevertheless projected to remain.[52] This is because the worst-affected sectors happen to be those that disproportionally hire women. For example, the apparel factory shutdowns during the COVID-19 crisis have inordinately adversely affected women.

Women-led businesses have been more affected by the COVID-19 crisis than those headed by men. COVID-19 adversely affected 64 per cent of women-led businesses, compared to 52 per cent of their men-led counterparts (figure III.D.11). About 42 per cent of women-led companies are micro-enterprises, compared to 22 per cent of men-led companies. Their small size may increase the difficulties women-led businesses face in complying with trade regulations. For example, in Pakistan, 66 per cent of

Figure III.D.11
Women-led firms more exposed to and affected by the COVID-19 crisis
(Percentage)



Source: ITC calculations based on the ITC COVID-19 Business Impact Survey.

women-owned exporting companies faced difficulties with trade regulations, compared to 51 per cent of men-owned firms.[53] Lack of business skills training, insufficient market information and social constraints are additional major factors hindering women from achieving export success.

Integrating gender considerations into COVID-19 rescue measures and beyond is crucial. Almost all countries have made efforts to provide measures to mitigate the social and economic impacts of the pandemic. According to the COVID-19 Global Gender Response Tracker, among 3,112 measures that have been put in place so far, 1,299 measures have been classified as gender-sensitive as they address unpaid care (180 measures), violence against women (832) and women's economic security (287). Without directly targeting women, other measures can benefit women, including support to MSMEs, informal workers or specific economic sectors that intensively hire women, such as the tourism, and textiles and garment sectors. To create a better post-pandemic environment for women, a Joint Ministerial Declaration has also been adopted on the Advancement of Gender Equality and Women's Economic Empowerment within Trade, with the objective of launching it officially at the WTO's MC12. This declaration could be transformative as it could mainstream the analysis of trade and gender throughout the WTO's work rather than having it clustered in a specific working group or in specific meetings.

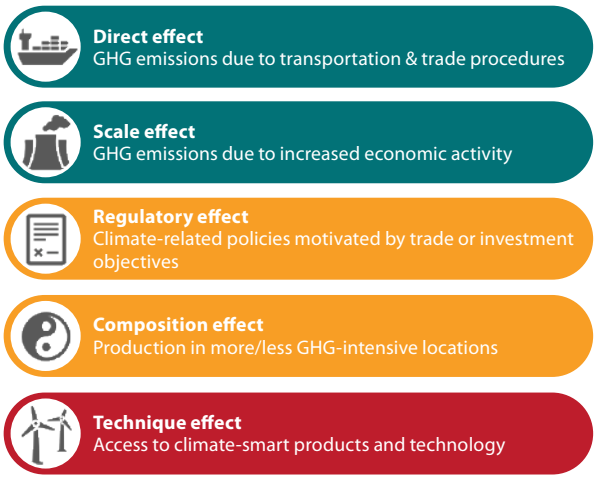
The COVID-19 pandemic has taken a toll on female migrant workers who form an essential part of services exports in the poorest countries. Female migrants from developing countries tend to be concentrated in the domestic work and health sectors where working conditions have been adversely affected by the pandemic.[54] Bilateral labour agreements between Governments in Africa and the Middle East (for example, between Ethiopia and Saudi Arabia) have made a concrete step towards protecting domestic migrant workers. These bilateral agreements could be spread wider and strengthened to follow international labour standards more closely. As regards trade agreements, a significant number of bilateral and regional trade agreements now include gender-related provisions.[55] By contrast, only four bilateral investment agreements to date include gender provisions.[56] Much work remains to be done on including gender as a meaningful provision in international agreements, including by empowering cooperation between the public and private sectors.

6.3 Trade and climate change

Trade and climate change are intricately connected. Figure III.D.12 shows that the effects of trade on greenhouse gas emissions can be broken down into five components. The first two components negatively impact greenhouse gas emissions. Indeed, trade directly contributes to emissions due to transportation and trade procedures. Trade also leads to greater economic activity, further increasing emissions. The third and fourth components have mixed impact. Trade-related regulations can be favourable to climate action. For example, climate-related provisions are now increasingly used in trade agreements. At the same time, some countries have reduced their environmental regulations to try to attract foreign direct investment. Depending on country specific production processes, trade can also lead to either decreased or increased emissions. For example, some countries may have weather conditions that allow them to produce food with a lower carbon footprint even after accounting for transport-related emissions. Finally, and perhaps most importantly, the fifth component has a positive impact as trade is crucial for spreading technologies to attain "green" economies and reduce emissions.[57]

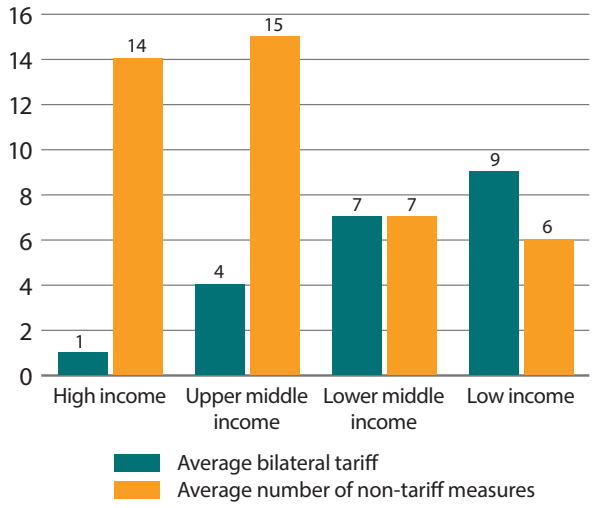
Climate change poses a competitiveness risk to MSMEs' participation in international trade. Around 68 per cent of the companies interviewed for the ITC's SME Competitiveness Surveys in sub-Saharan Africa said that environmental risks were significant for their businesses, with the share rising to 93 per cent among firms in the primary sector.[58] Despite these concerns, only 38 per cent of MSMEs interviewed have invested in climate change adaptation measures, while 60 per cent of large firms had invested in at least one measure to reduce exposure to environmental risks.

Figure III.D.12
Effects of trade on greenhouse gas emissions



Source: : ESCAP, UNEP (United Nations Environment Programme) and UNCTAD. 2021. Asia-Pacific Trade and Investment Report 2021: Accelerating Climate-smart Trade.

Figure III.D.13
Tariffs and non-tariff measures on environmental goods by income group, 2019
(Percentage and number)



Source: World Bank and WTO. 2021. The Role of Trade in Developing Countries' Road to Recovery. Based on ITC, UNCTAD and WTO data.
Note: Environmental goods are those that help decarbonize the economy, mainly clean and renewable energy and energy-efficient goods.

Reducing trade barriers can support adaptation to climate change in several ways. For example, trade policy can contribute to enlarging global markets for renewable energy. This can be achieved via reduced tariff rates on the components of the solar photovoltaic system or wind turbines.[59] Reducing tariff and non-tariff barriers on environmental goods and services can contribute to a cross-border spread of cleaner production technologies. While higher-income countries tend to impose fewer tariffs on environmental goods, they impose more non-tariff measures such as technical standards (figure III.D.13) than lower-income countries. Trade policies to improve access to environmental services are also relevant as these services are increasingly important for the installation, maintenance, optimization, upgrading, marketing and distribution of green technologies (see box III.D.2).

Changing trade patterns can contribute to a greener export structure. Diversifying export markets can help countries to reduce dependency on carbon-intensive production and exports. Because intra-African exports are less concentrated in fuel-related commodities than Africa's exports to the rest of the world, the increase in intra-African exports has reduced the carbon dioxide equivalent (CO2e) in African exports from 8.52 kg per US dollar in 1990 to 4.61 kg per US dollar in 2017.[60] Furthermore, Africa's international trade is intensive in shipping, which accounts for 2 to 3 per cent of greenhouse gas emissions globally.[61] Although energy efficiency in shipping has improved, more is needed to reduce annual emissions from ships by at least 50 per cent by 2050 compared to 2008 as suggested by the International Maritime Organization (IMO). In June 2021, the IMO approved a new measure to reduce greenhouse gas emissions, which would reduce the average ship speed by 2.8 per cent and increase average maritime shipping costs by 1.5 per cent. While the costs of this measure are still considered smaller than typical variations in freight rates,[62] countries such as LDCs and SIDS would need financing and other support to address these costs and the effects in trade flows.[63]

If unilaterally applied, carbon price adjustments may have a limited impact on mitigating climate change globally. In July 2021, the European Commission adopted a proposal that will require importers of certain carbon-intensive products (initially aluminium, cement, iron and steel, electricity and fertilizer) to buy certificates to account

Box III.D.2
Trade and climate action in Asia and the Pacific

In the Asia-Pacific region, greenhouse gas emissions more than doubled between 1990 and 2018. Exploring the synergies between trade and climate change-related initiatives has thus become more important than ever.

Several economies in the region have set mandatory emissions standards on imports of vehicles, required labels for energy ratings and banned trade in chlorofluorocarbons, which are a significant source of greenhouse gas emissions. Other trade and investment policies can help the region to improve the environmental performance. In 16 out of 26 economies examined in Asia and the Pacific, the average applied tariffs on carbon-intensive fossil fuels were lower than those on environmental goods.

Also, 21 out of these 26 economies applied more non-tariff measures on imports of environmental goods than on imports of carbon-intensive fossil fuels. In addition, economies in Asia and the Pacific have increased the share of carbon-intensive fossil fuels in their trade since 2015 and spent around $175 billion per year to subsidize fossil fuels. Abolishing these subsidies may not always be immediately politically feasible, but such resources can be transferred over time to finance climate-smart measures and other policies for sustainable development, including more targeted policies (such as direct cash transfers) to help the most vulnerable.

Trade policy in the region can also play an important part in helping to address climate change. Eighty-five per cent of the RTAs signed after 2005 by at least one Asia-Pacific economy contain one or more climate-related provisions. Trade facilitation can also make the trade transaction process less carbon-intensive. This includes digital trade facilitation such as automated customs and paperless trade systems. The transparency and efficiency of trade procedures has improved since 2015, continuing to advance between 2019 and 2021.

Trade and the environmental policies of trading partners can also generate development effects. The carbon border taxes being considered by the region's trade partners may push several Asia-Pacific economies out of key markets. This points to the need for more robust social safety nets and multilateral cooperation so that the climate policies of all countries would "leave no one behind".

Source: ESCAP, UNEP, UNCTAD, Asia-Pacific Trade and Investment Report 2021: Accelerating Climate-smart Trade and Investment for Sustainable Development, 2021.

for the embedded emissions through a new Carbon Border Adjustment Mechanism (CBAM).[64] The CBAM is intended to complement the European Union Emissions Trading System (EU ETS) and address carbon leakage, that is, shifting production of carbon-intensive goods from the European Union to third countries that have more carbon-intensive production methods.[65] Such mechanisms remain controversial as it would also increase the price of goods from countries without carbon pricing, which include the poorest, most vulnerable and least technologically advanced countries, and could act as a trade barrier. According to an UNCTAD study, at the price of $44 per tonne of embedded CO2 emissions, the CBAM would reduce developing countries' exports across the targeted sectors to the European Union by 1.4 per cent.[66] Finding appropriate tools to redress the trade effects and facilitate the technology transfer of green technologies may be a prerequisite for political acceptance of carbon pricing.

Reducing emissions worldwide would require a speedier transition to more efficient production and transport processes in developing countries. ESCAP, UNEP and UNCTAD have estimated that eliminating fossil fuel subsides would reduce global emissions by 3.2 per cent, a much more significant impact than all existing carbon price schemes globally.[67] Achieving transition to sustainable energy would also require a speedier transfer of finance, knowledge and environmental technology to developing countries.

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Debt and debt sustainability



Chapter III.E

Debt and debt sustainability

1. Key messages and recommendations

Global public debt surged further in 2021, from already elevated levels. Global public debt reached around 99 per cent of gross domestic product (GDP) in 2021. The scale and dynamics of the rise in public debt varied across country groups, depending on initial conditions and fiscal space. Developed economies financed massive fiscal interventions at historically low rates, many middle-income countries (MICs) and small island developing States (SIDS) saw a significant increase in debt, while least developed countries (LDCs) and other low-income countries (LICs)[1] were constrained in their fiscal response, including by limited market access. Debt levels are expected to remain elevated in many countries, sustained by high gross and external financing needs and the lingering impact of the pandemic on growth and revenues.

This recent surge in debt compounds debt vulnerabilities that predated the pandemic. Debt vulnerabilities, which had risen over the past decade, driven by widening fiscal deficits and lagging growth, increased sharply under the impact of the pandemic. About 60 per cent of LDCs and other LICs are now assessed to be at high risk of debt distress or in debt distress by the IMF/World Bank Debt Sustainability Framework, a substantial increase from about 30 per cent in 2015. While short-term risks of fiscal crises moderated in most MICs in 2021, around a quarter of MICs remain at high risk. The development of domestic bond markets should contribute to fiscal and financial resilience, but excessive sovereign borrowing from the domestic banking system can also exacerbate vulnerabilities through the sovereign-bank nexus.

Interest costs are rising in the poorest countries and remain elevated in SIDS, as they grapple with higher interest rates, slower recoveries and persistent revenue shortfalls. Gross external financing needs are also rising in many LDCs and other LICs, driven by higher external debt service—including deferred payments from the Debt Service Suspension Initiative (DSSI)—and widening current account deficits, although some oil exporters are benefiting from rising global oil prices. Their greater reliance on debt on commercial terms or near-commercial terms was associated with higher interest costs. As global uncertainty and inflationary pressures increase and financial conditions tighten, including due to the war in Ukraine, the ability of some countries to refinance outstanding debt is being called into question.

A combination of monetary policy support, pre-existing buffers in some countries and concerted support provided a liquidity cushion to combat the pandemic. Monetary policy support in developed economies enhanced global liquidity, which also benefited some MICs, LDCs and other LICs in the form of continued fund flows and bond purchases. Official lending, the G20/Paris Club-led DSSI and the more recent IMF allocation of Special Drawing Rights (SDRs) have helped to provide liquidity support. Some countries were able to tap pre-existing buffers and domestic financing sources, including central bank financing. Nonetheless, most LDCs and LICs were forced to curtail other Sustainable Development Goal (SDG) spending and investment. Domestic buffers and financing options may be running low, while external financing conditions are tightening.

- *Against this backdrop of high debt and debt vulnerabilities, with the expiry of the DSSI and limited availability of affordable financing for most LDCs and other LICs, improvements in debt crisis prevention and resolution have acquired added urgency.*

Supporting the recovery and investing in sustainable development, while managing debt vulnerabilities, will require comprehensive actions. Countries face a compound challenge of maintaining spending to cope with the immediate consequences of the pandemic, sustaining the recovery, restoring buffers and expanding investment in the SDGs. This will require national actions and international support across

the action areas of the Addis Ababa Action Agenda, including addressing debt challenges.

With debt challenges likely to increase further with the tightening of global financing conditions, the debt resolution architecture needs to be further improved. Seeking early debt resolution when this is needed can help countries to avoid doing "too little too late". This includes stepped-up implementation of the Common Framework and further progress on contractual approaches.

Stepping up implementation of the Common Framework is essential to allow for fast action when countries are under financial stress.

- *This will require greater clarity on the processes and timelines, early engagement with all stakeholders, more clarity on how comparability of treatment of private sector creditors will be implemented, and expanding the Common Framework to other non-DSSI-eligible heavily indebted vulnerable countries;*
- *A standstill on debt service payments during the negotiation under the Common Framework can help to provide relief to the debtor at a time when it is under stress, as well as incentivize faster procedures to realize actual debt restructuring.*

Private creditor participation in debt restructuring can be further improved:

- *Through continued strengthening of collective action clauses in bond contracts;*
- *Model majority restructuring clauses for payment terms in syndicated loans, which official and private sector creditors are currently developing under facilitation by the G7, could also close an important gap in private sector debt resolution;*
- *In case of a systemic crisis and where the existing contractual resolution toolkit is unable to address such a crisis effectively, legislative solutions may be considered as a last resort.*

Debt swap initiatives are advancing in several regions. Debt swaps can free up resources for investments in key priorities, although they are not a means to restore debt sustainability in countries with solvency challenges.

- *More standardization and country ownership could help to increase the uptake of debt swaps.*

At the domestic level, the following elements are critical:

- *Credible medium-term fiscal frameworks, which balance the needs for short-term support with medium- term fiscal sustainability. Fiscal policies should aim to boost revenues and improve expenditure transparency and efficiency;*
- *Financing should be calibrated to reduce costs and roll-over risks, including through the development of domestic debt markets;*
- *Debt management policies should enhance transparency and proactively address deeper vulnerabilities.*

Debt management and debt transparency must be strengthened to prevent debt crises. Even prior to the pandemic, debt management capacities had not kept up with the increasing complexity of the debt landscape despite progress made by countries. The pandemic, associated revenue losses and greater financing needs have further increased these pressures.

- *Strengthening respective capacities should remain a key focus of the international community.*

Effective debt management depends on comprehensive data on debt.

- *The international community should continue to coordinate data collection processes, while working to close data gaps. The continued implementation of the World Bank Sustainable Financing Policy, the new IMF Debt Limits Policy, the G20 Operational Guidelines for Sustainable Financing and the OECD Debt Transparency Initiative, should enhance debt transparency and encourage improvements in debt management capacity.*

Vulnerability to climate shocks has exacerbated debt challenges, particularly in SIDS. The United Nations is developing a Multidimensional Vulnerability Index (MVI). Vulnerability informs allocation of concessional finance to an extent (for example, through small State exceptions and small economy terms in concessional windows of development banks) and is taken into account in debt sustainability assessments (through reflecting environmental risks).

- *An MVI could contribute to a holistic assessment of vulnerabilities and complement existing tools.*

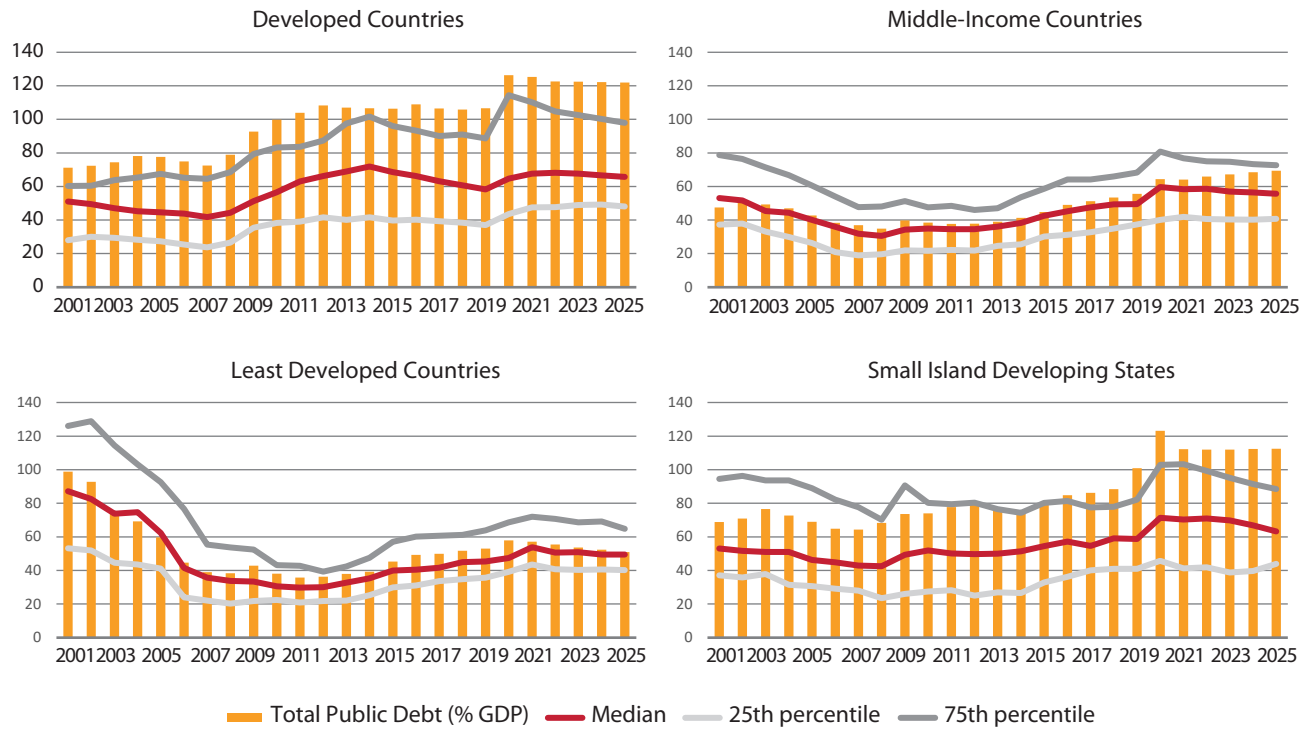
2. Debt trends: the impact of the pandemic

2.1 Public and external debt levels across income groups

Debt levels have increased across the board, but trajectories differ across income groups. Developed countries' gross public debt, which was stable between 2012 and 2019, jumped 18 percentage points during the pandemic, to an estimated weighted average of 122 per cent of GDP by the end of 2021. In many developing countries, the COVID-19 shock and related debt increases have compounded debt vulnerabilities that arose prior to the pandemic, driven by slowing growth, large and sustained primary deficits and rising interest costs. The COVID-19 shock exacerbated all three drivers. SIDS saw an increase in public debt of around 11 percentage points of GDP. MICs, which had seen debt levels rise by around 15 percentage points between 2012 and 2019, added another 9 percentage points. LDCs and other LICs, which experienced a similar increase in debt to MICs between 2012 and 2019, added another 6 percentage points.

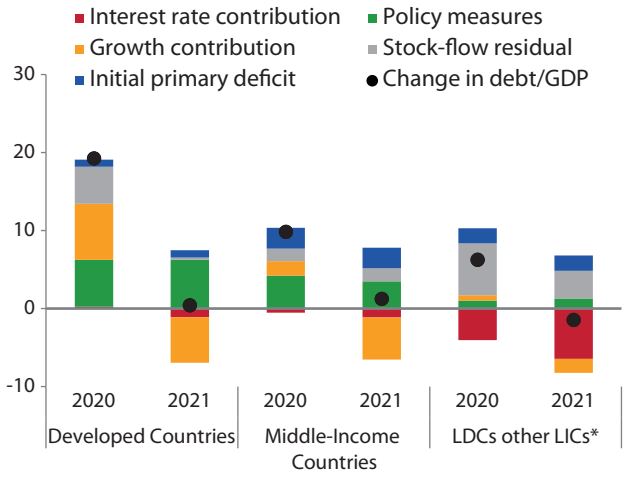
Debt expansion amid the pandemic was driven by the need to finance policy responses to the pandemic against a backdrop of contracting or slowing economic activity. Debt dynamics and scale differ across countries and country groups, reflecting differences in initial conditions, fiscal space and access to affordable finance. Developed countries borrowed at historically low rates to finance massive fiscal interventions, while LDCs and other LICs were constrained in their fiscal response, in part due to limited access to market finance. As a result, financing of policy measures was a significantly smaller driver of public debt in the poorest countries. Pre-pandemic fiscal deficits, exchange rate depreciation and stock-flow adjustments, including from the realization of contingent liabilities and bailouts, were the main debt drivers (figure III.E.2).

Figure III.E.1
Public debt evolution in developed and developing countries, 2001–2025
(Percentage of GDP)



Source: IMF WEO database with UN/DESA staff calculations.

Figure III.E.2
Drivers of change in public debt, 2019–2021
(Percentage of GDP)



Source: IMF Fiscal Monitor, October 2021 with IMF staff calculations.
Note: The stock-flow residual is the change in the debt ratio resulting from factors such as bailouts or changes in exchange rates.
* This group includes Eritrea, Sudan and Zambia.

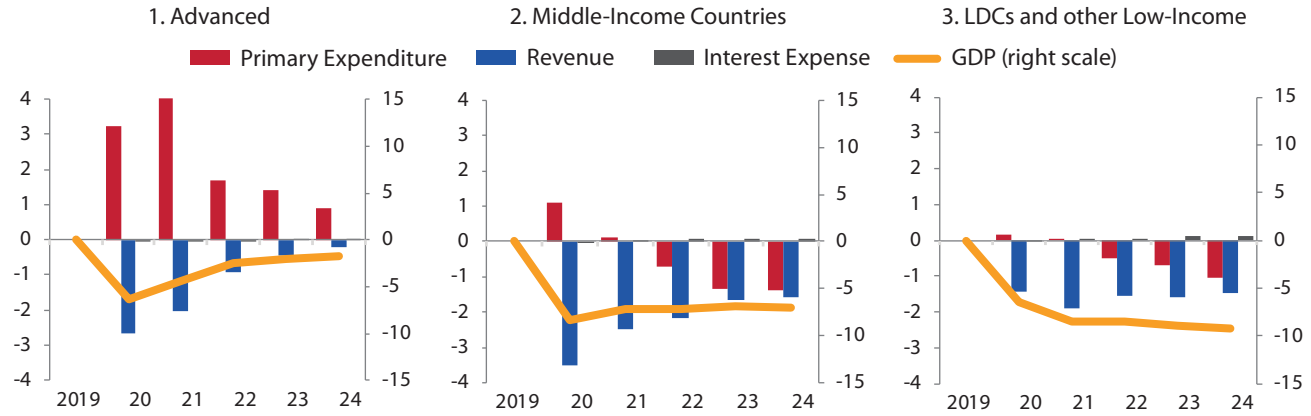
Debt levels are expected to remain elevated in developing countries, sustained by high gross and external financing needs and the lingering impact of the pandemic on growth and revenues. Low vaccination rates and pandemic-related scarring are expected to have a long-lasting negative impact on growth and revenues in LDCs and other LICs. Over the next three years, economic output is expected to remain 8.8 per cent below projections made in 2019 for the median country, while developed countries are projected to mount a full recovery (see chapter I). Revenue shortfalls are expected to be 1.6 percentage points of GDP over this period for the median LDC/LIC (figure III.E.3). The situation is more mixed in MICs, where the rebound in growth improved primary balances in 2021. However, rising borrowing costs, concerns over inflation, depreciations and further deterioration of financing conditions are leading to retrenchment in some countries (see also chapter II).

2.2 Changing composition of debt

Rising debt compounds pre-pandemic challenges related to changes in the creditor base. LDCs and other LICs have increasingly resorted to commercial borrowing to finance development needs, with tradeable debt securities (or bonds) the fastest growing commercial borrowing source. This contributed to the growth in interest costs (figure III.E.4). Non-Paris Club creditors led the increase in bilateral official lending.

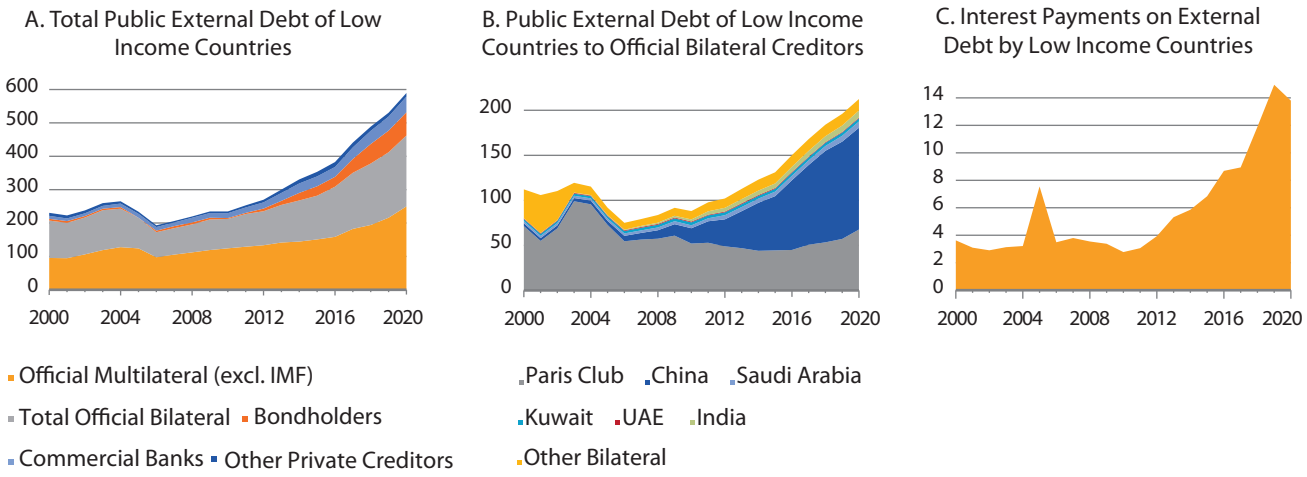
While some LDCs and other LICs are becoming increasingly reliant on commercial borrowing, most still lack access to international

Figure III.E.3
COVID-19 impacts on growth, fiscal and debt prospects, 2019–2024
(Deviation from pre-pandemic projections, percentage of 2019 GDP, median by group of countries)



Source: IMF Fiscal Monitor, October 2019, using WEO database and IMF staff estimates.
Note: All quantities are converted into 2019 prices using the projected evolution of the GDP deflator.
* This group includes Eritrea, Sudan and Zambia.

Figure III.E.4
Evolving external public and publicly guaranteed debt composition in least developed and low-income countries, 2000–2020
(Public and publicly guranteed, billions of United States dollars)

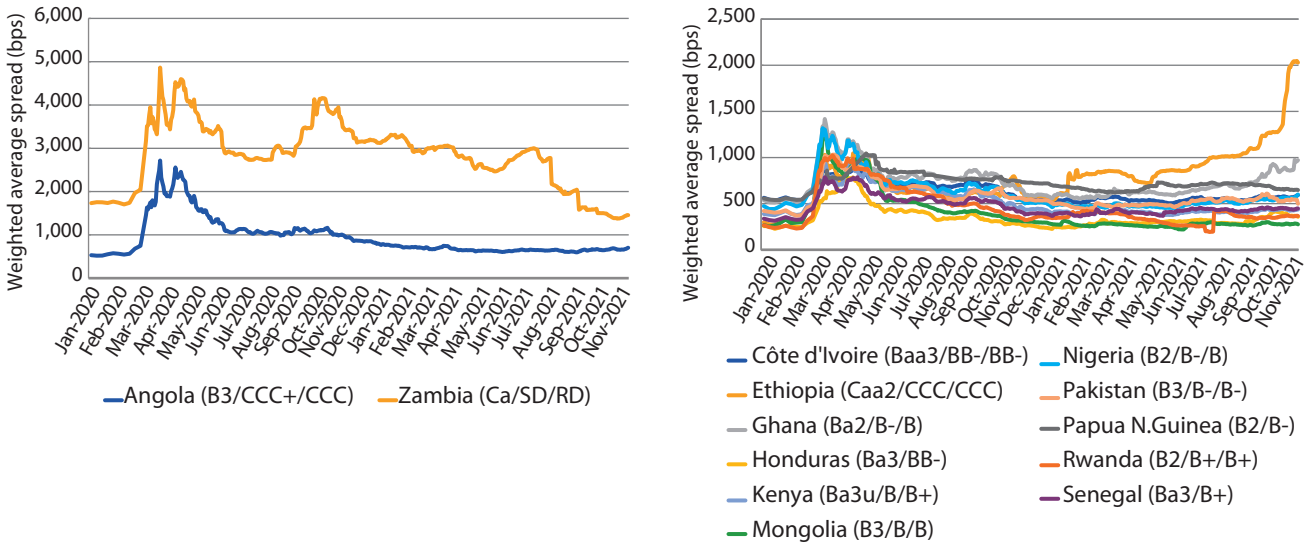


Source: World Bank International Debt Statistics Database.
Note: DSSI-eligible countries plus Eritrea, Sudan, and Zimbabwe. In 2005, Nigeria reported interest payments for USD 4.9 billion.

debt markets. One in three LDCs and other LICs have issued bonds over the past decade, with outstanding Eurobonds totalling $52 billion. For these countries, international bondholders constitute a large share of the creditor base. This stock of Eurobonds is concentrated in a few countries, with Nigeria, Ghana, Angola, Côte d'Ivoire, Kenya and Pakistan accounting for over 70 per cent of the total amount. As a percentage of GDP, borrowing on international bond markets is the highest for Mongolia (27 per cent of 2019 GDP), Senegal (18 per cent of GDP) and Ghana (15 per cent of GDP).[2]

After the initial sharp widening of interest rate spreads at the outset of the pandemic, some LDCs and other LICs returned to the market in late 2020 and 2021. But financing conditions have since started to tighten, particularly for the most vulnerable. Ghana, Pakistan and Côte d'Ivoire were able to issue debt as financial markets recovered from the initial pandemic shock. The recent tightening of market conditions amid uncertainty over the future course of the pandemic and rising inflation has led to renewed widening of interest rate spreads, particularly for countries with fiscal and debt vulnerabilities. Countries with significant fiscal and debt vulnerabilities have been virtually cut off from capital markets. For others, bond spreads remain above pre-crisis levels (see figure III.E.5).

Figure III.E.5
Foreign currency bond spreads, select LDCs and other LICs
(Basis points)



Source: IMF staff calculations using data from Bloomberg LLC.

Developing countries have also increased their domestic borrowing over the last decade. The development of domestic bond markets can increase financial resilience and mitigate exchange rate risks. In the context of the pandemic, the combination of high gross financing needs and widening spreads contributed to a greater reliance on domestic borrowing. However, excessive domestic sovereign borrowing could intensify the sovereign-bank nexus in the event of a crisis.[3]

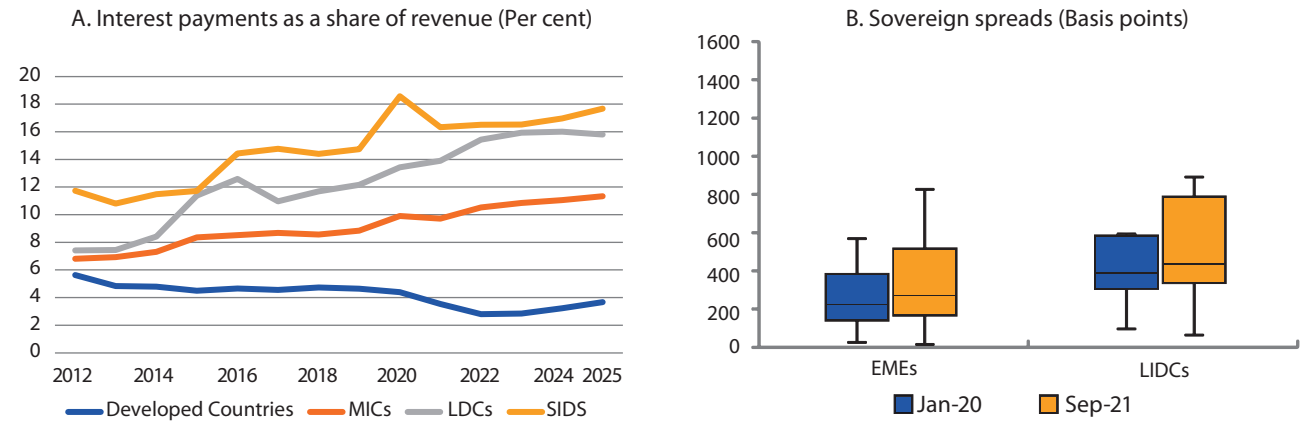
2.3 Indicators of debt vulnerability

A range of debt indicators, such as interest burdens, external financing needs and fiscal adjustment requirements (as described in sections 2.1 and 3), all point to rising debt vulnerabilities.

Interest to revenue ratios and sovereign spreads are rising. The share of revenue dedicated to interest payments has fallen in developed countries in recent years, despite growing debt levels. A growing share of revenue is dedicated to interest payments in MICs, while LDCs and SIDS have witnessed sharp increases, reflecting diverging borrowing costs. Widening credit spreads (the difference between the sovereign's borrowing cost and "risk-free" bonds, e.g., US Treasuries) on bonded debt signal rising re-financing/liquidity risks for those LDCs and LICs with access to debt markets (figure III.E.6).

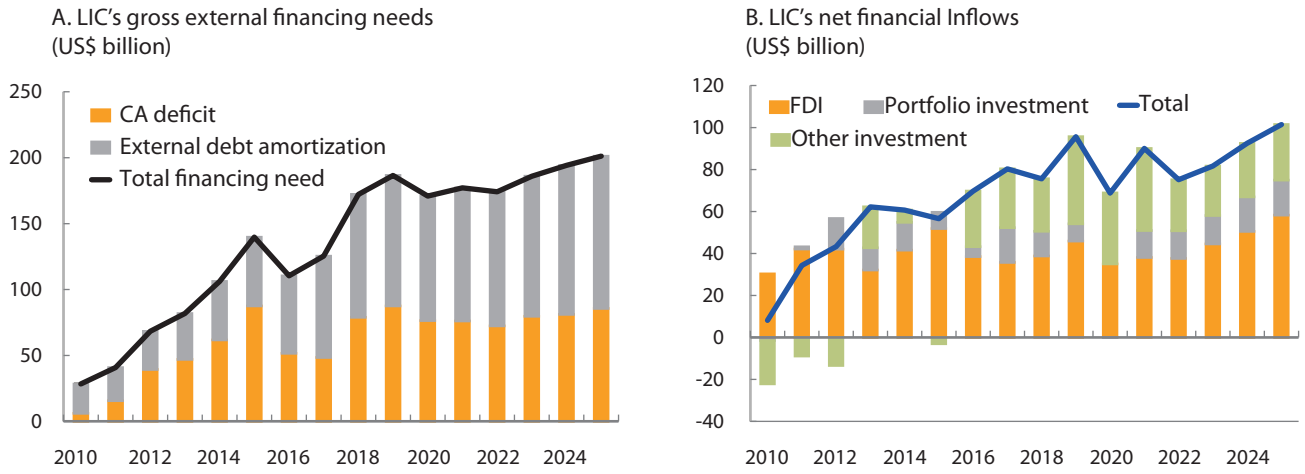
External financing needs (EFNs) in LDCs and other LICs are also projected to increase, driven mainly by higher external debt service and widening current account deficits, with the exception of some oil exporters. The availability of financing to meet those needs is

Figure III.E.6
Interest payments as a share of revenue and sovereign spreads



Source: Panel A: IMF WEO data, DESA Staff calculations; Panel B: JPMorgan Emerging Market Bond Index (EMBI) spreads, collected from Refinivit Datastream, IMF Staff calculations.

Figure III.E.7
External financing needs and financial flows of LDCs and other LICs



Source: IMF. 2021. World Economic Outlook.
Note: DSSI-eligible countries plus Eritrea, Sudan, and Zimbabwe.

uncertain. External financing needs are expected to increase from $101 billion in 2019 to over $166 billion in 2025 in LDCs and other LICs, on the back of higher current account deficits and higher external debt amortization (see figure III.E.7). The average EFN-to-GDP ratio is expected to narrow in 2022 as economies recover, but to remain above the historical average. The average annual amount of external debt service falling due in 2021-2025 is more than twice as much as the pre-crisis average (2010-2019).[4] With the expiry of the DSSI, deferred debt service will add to debt service needs for the 43 countries that participated in the initiative over this period. At the same time, at the end of 2020, about half of LDCs and other LICs had reserve cover for less than two years of EFNs, up from 30 per cent in 2018. The availability of external financing to meet rising needs may be undermined by the tightening of international financing conditions as monetary policy support measures in some advanced economies are unwound.

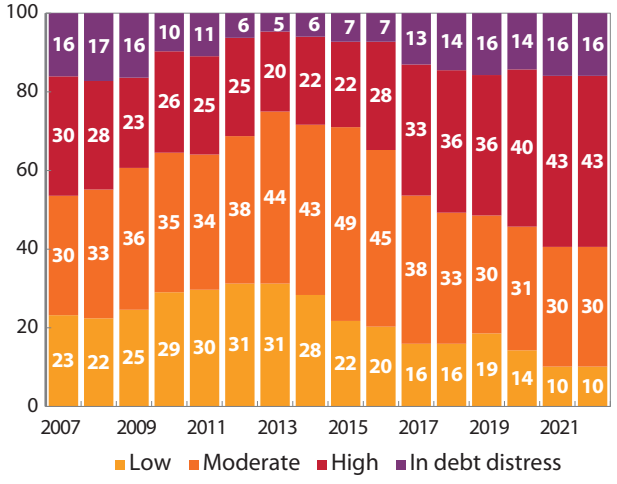
2.4 Debt sustainability risks in developing countries

Debt vulnerability indicators worsened for LDCs and other LICs in 2021 and remained elevated for some MICs. The short-term risk of a fiscal crisis moderated for developed countries and most MICs in 2021, according to an IMF methodology for assessing the risk of a fiscal crisis using machine learning. Nonetheless, around a quarter of MICs remain at high risk.[5] But debt risk ratings for LDCs and other LICs worsened during this period. Around 60 per cent of countries that use the IMF/World Bank Debt Sustainability Framework (LIC DSF) are now assessed at a high risk of debt distress or in debt distress, a large increase from around 30 per cent in 2015 (figure III.E.8). Twelve countries' debt risk ratings have been downgraded since the beginning of the pandemic (figure III.E.9).

3. Response to the pandemic

A combination of monetary policy support, pre-existing buffers in some countries and concerted multilateral and bilateral support provided a liquidity cushion. Monetary policy support in developed countries enhanced global liquidity, which also benefited some MICs and LDCs and other LICs in the form of continued fund flows and bond purchases. Official lending, including IMF Rapid Financing Instrument loans (RFIs) and Rapid Credit Facility loans (RCFs), the DSSI and the more recent IMF allocation of SDRs, have helped to provide liquidity support to many LICs. In addition, some countries were able to tap pre-existing buffers and domestic financing sources, including central bank financing. However, domestic buffers and financing options may be running low, while external financing conditions are tightening. With the expiry of the DSSI at the end of 2021,

Figure III.E.8
External debt distress ratings for LICs using IMF/World Bank LIC DSF, 2007–2022
(Percentage of PRGT-eligible countries)



Source: IMF/World Bank Debt Sustainability Framework. Data as of 15 December 2021 to 22 February 2022.

Figure III.E.9

Upgrades and downgrades in the LIC DSF, 2018–2022

	2018	2019	2020	2021	2022*	Main reasons for a change in risk of debt distress		
Downgrade								
Kenya	M		H			May	2020	A worsening in economic outlook due to the pandemic.
Zambia		H	D			May	2020	Entered into restructuring negotiations.
Rwanda	L	L	M			June	2020	A worsening in economic outlook due to the pandemic and updates on investment program.
Papua New Guinea	M		H			June	2020	A worsening in economic outlook due to the pandemic.
Madagascar	M	L	M			July	2020	A worsening in economic outlook due to the pandemic.
Guinea Bissau	M			H		January	2021	A worsening in economic outlook due to the pandemic and higher fiscal deficits in 2018–19.
Tanzania	L			M		September	2021	Pandemic's adverse effect on the country's exports.
Timor-Leste	L			M		July	2021	Projected increase in debt service payments as existing loan grace periods come to an end.
Uganda	L		L	M		June	2021	Downgrade reflects risks such as delays in oil exports and a shift in financing composition towards non-concessional loans.
Comoros	M	M	M	H		October	2021	Mainly due to higher debt service obligations.
Chad	H	H	H	D		December	2021	Uncertainties around the pandemic and oil price volatility.
Malawo	M	M	M	H		December	2021	Large financing needs in the coming years and low level of international reserves.
Upgrades								
Gambia	D	D	H			March	2020	Reflect debt restructuring agreed before the pandemic.
South Sudan		D	H			November	2020	Reflect debt restructuring agreed in July 2020.

Source: IMF/WB LIC DSAs.
Notes: D: in debt distress (grey), H: high (red), M: moderate (orange), L: low (green). Blank years reflect the rating assigned in the latest DSA available at that time.
* As of 22 February 2022.

participating countries need to resume servicing their official bilateral debts in 2022, raising debt service due to above 2019 levels (figure III.E.11).

International support to ease fiscal pressures from debt burdens during the pandemic focused on providing LDCs and other LICs "breathing space" to respond to the pandemic. Seventy-three least developed, low- and lower-middle-income countries were eligible to participate in the DSSI, which aimed to temporarily ease pandemic-induced financing constraints by suspending debt service payments to bilateral official creditors. The goal was to free up resources to mitigate the human and economic impacts of the pandemic. Adopted in April 2020, the DSSI was extended twice for six-month periods through to end-2021. Preliminary G20 estimates point to $12.9 billion of total debt service deferred under the initiative.

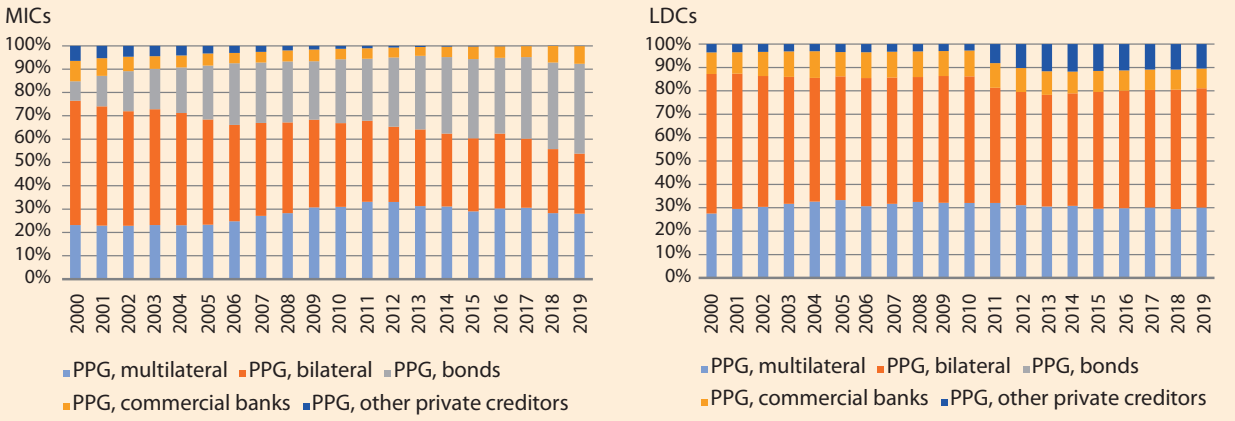
Recognizing that the DSSI provided only a temporary respite, the G20 and Paris Club endorsed the Common Framework for debt treatment in November 2020. Under the Common Framework, G20 and Paris Club creditors agreed to coordinate and cooperate on debt treatments for DSSI eligible countries that need debt relief in the context of and consistent with the parameters of an Upper Credit Tranche (UCT) quality IMF programme. The Common Framework requires that participating debtor countries seek debt treatment on terms at least as favourable from other creditors, including the private sector, thereby enabling comprehensive debt resolutions.

As of December 2021, three countries had requested debt treatments under the Common Framework (Chad, Ethiopia and Zambia). First steps in these cases have been taken, with the formation of creditor committees for two cases, and the provision of official financing assurances, which are needed to access fresh IMF financing, in one case. Chad, whose request for an IMF-supported programme was approved by the IMF's Executive Board in December 2021, has also entered discussions with its main commercial creditor, who holds the majority of its commercial debt. The next step will be for Chad to finalize the debt restructuring agreement with its Common Framework official creditors and to seek comparable efforts from its private and other official creditors. Notwithstanding these important milestones under the Common Framework, implementation has faced challenges and no debt treatment has been completed one year after the initial requests. Progress in these initial cases has been slower than anticipated. Along with the challenges to be expected in the initial phases of a new framework, these delays also reflect coordination issues among official creditors as well as within creditor

Box III.E.1
Pandemic and debt challenges in the Arab region: a regional perspective

The pandemic has exacerbated debt vulnerabilities for LDCs and MICs in the Arab region.[6] Public debt in the region reached 60 per cent of GDP in 2020, with MICs facing the highest debt burden relative to their output level. Several LDCs in the region are at high risk of debt distress (including Djibouti, Comoros and Mauritania) or in debt distress (Somalia), in some cases owing in part to the adverse impacts of the pandemic. Growing reliance on private creditors over the past decade (figure III.E.10) has increased borrowing costs and refinancing and roll-over risks, while the share of concessional borrowing from official creditors (both bilateral and multilateral) has declined.

Figure III.E.10
Composition of external public debt in Arab region MICs and LDCs, 2000–2018



Source: IMF/WB data, ESCWA calculations.

The Arab region has faced rising public and external debt burdens over the last decade due to low growth and persistent fiscal and trade deficits. In MICs in the region, external public debt service consumes nearly 11 per cent of their export earnings, which is much higher than the global average for MICs at 6.4 per cent. LDCs in the region have followed a similar trajectory. This increasing debt service burden poses liquidity challenges and strains fiscal space, which could have otherwise been used for investment in financing the COVID-19 recovery and the SDGs.

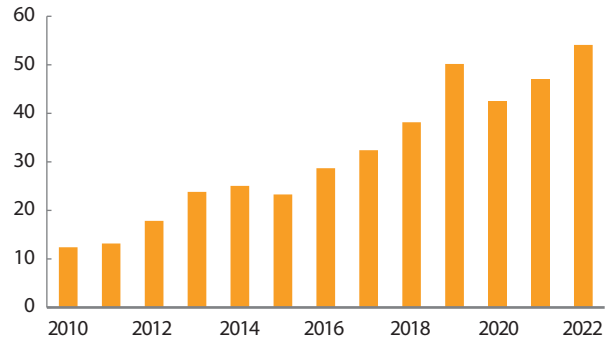
A number of factors have driven debt accumulation in MICs. The economic shock induced by COVID-19 has pressured public finances through reduced revenues, higher spending needs (on health and social safety nets), a reduction in growth and a rise in contingent liabilities. In many countries, these COVID-induced pressures exacerbated pre-existing vulnerabilities, including slow growth, large public sectors and an inability to bring down deficits in the face of adverse regional and security shocks over the last decade (for example, in Jordan, Lebanon, Morocco and Tunisia). Commodity price volatility has also affected debt accumulation for oil exporters during the pandemic.

In some countries in the region, constrained fiscal space and liquidity challenges have led to inadequate fiscal support to mitigate the adverse effects of the pandemic and progress towards a resilient recovery. Of the total global fiscal support of $18.7 trillion, Arab countries allocated $94.8 billion, or around 4 per cent of their GDP in 2020, far below global averages.[7] In some cases, international support (including an SDR allocation of around $37 billion to the region) was not sufficient to mitigate the adverse effects of the pandemic, putting the region at risk of suffering from deep and long-lasting adverse effects.

Countries in the Arab region need both international support and national actions to build back better. An important priority for the region is to strengthen international support to MICS—including eligibility for the Common Framework, the provision of concessional financing and rechannelling of SDRs. National policy measures include development of medium-term debt stabilization scenarios that take into account SDG financing needs, domestic revenue mobilization, prioritization of investments in inclusive growth and productivity, and operationalization of innovative debt instruments such as debt swaps, for example, in the context of the Climate/SDGs Debt Swap and Donor Nexus Initiative, launched by ESCWA (see also below). ESCWA has also proposed the establishment of a debt management support group at the regional level, i.e. an Arab Debt Management Group (ADMG), to promote peer learning and to share lessons on improved debt management practices toward improving macroeconomic stability and fiscal space for financing the SDGs.

Source: ESCWA.

Figure III.E.11
External public and publicly guaranteed debt service for DSSI participating countries
(Billions of United States dollars)



Source: World Bank IDS and creditors' data.
Notes: (i) Debt service for 2020 to 2022 is based on debt contracted through the end of 2020; (ii) debt service in 2020 and 2021 is adjusted down by the DSSI relief reported by G20 and policy bank creditors; and (iii) debt service in 2022 reflects the first DSSI repayment.

countries, where multiple institutions and agencies can be involved, and call for improvements in processes and decision-making (see also below).[8]

New financing from the IMF, the World Bank and other multilateral development banks helped countries to meet increasing needs, complementing the liquidity support provided by the DSSI (see chapter III.C). From the start of the pandemic to end-2021, the IMF approved approximately US$170 billion in new financing, covering 90 countries. IMF assistance to LICs totalled approximately US$23.9 billion, covering 55 countries. The World Bank provided US$33 billion in 2020, including US$5.5 billion in grants. The IMF has also provided debt service relief through grants to the 31 poorest and most vulnerable countries under the Catastrophe Containment and Relief Trust (CCRT), covering debt service to the IMF falling due between April 2020 and April 2022 of about US$1 billion.

In August 2021, the IMF implemented the largest allocation of SDRs in history for a total amount of US$650 billion, $21 billion of which went to LICs (see chapter III.F). To magnify the impact of the SDR allocation, IMF member countries with strong external positions can voluntarily channel their allocations to help vulnerable countries. G20 countries have committed to channel US$100 billion in this context (see chapter III.F).

Concerted international efforts to support developing countries helped to free up resources to counter the pandemic and forestall a widespread debt crisis but could not prevent a reduction in other SDG-relevant expenditures. The 43 countries covered by the IMF and World Bank fiscal monitoring under the DSSI increased COVID-related spending by 1.6 per cent of GDP on average in 2020, despite average revenue losses of 2.4 per cent of GDP. The pandemic response, combined with the decline in revenues, contributed to a widening of the overall fiscal deficit by 1.8 per cent of GDP. Limited access to financing implied a need for spending prioritization, leading to significant reductions in other spending, particularly public investment, which fell by 1.1 per cent of GDP on average[9] (see chapter II). This could have implications for these countries' long-term growth and development.

4. Advancing the debt policy agenda

Supporting the recovery and investing in sustainable development, while managing debt vulnerabilities, will require national actions and international support across the action areas of the Addis Agenda. Debt vulnerabilities need to be addressed in a holistic manner, with actions necessary across the Addis Agenda. A key domestic policy priority in this context is creating fiscal space through revenue mobilization, expenditure efficiency and better debt management. Authorities should build credible medium-term policy frameworks which balance the needs for short-term support and investments in recovery with medium-term fiscal sustainability, for example, through integrated national financing frameworks (INFFs). On the revenue side, there is a need to improve progressivity of income taxes, reduce distortions arising from tax exemptions, broaden VAT bases and use technology to improve tax administration. On the expenditure side, authorities should re-prioritize spending, protecting investments in the SDGs, and improve spending efficiency and the quality of public procurement (see chapter III.A). Transparency and good governance are key to ensure that funds are used where they are most needed (see chapter II). Debt management should carefully calibrate the financing mix, develop domestic debt markets (see also chapters II and III.B) and act early to address deeper vulnerabilities.

Against the backdrop of high debt and debt vulnerabilities and with the expiry of the DSSI, limited availability of affordable financing for most LDCs and other LICs and deteriorating financing conditions, international support and efforts to improve debt crisis prevention and resolution are more urgently required. In the wake of a global shock and in light of large unmet financing needs for global priorities such as climate action and the SDGs, national actions must be complemented by an international response. The international community has taken significant steps to address the socioeconomic fallout from the COVID-19 pandemic, but additional efforts will be needed to close the recovery gap.

4.1 Debt crisis prevention—transparency, debt management and responsible borrowing and lending

Debt transparency by debtors and creditors is a necessary component of debt crisis prevention and a key aspect of responsible borrowing and lending; it has received heightened attention in the context of the current crisis. Transparency enables more effective debt management by debtors and better risk management by creditors—both of which are important tenets of responsible borrowing and lending. Data gaps make it harder for countries to manage debt and for borrowers and creditors to assess debt sustainability. This can increase uncertainty in markets and raise the cost of borrowing not only for individual borrowers but for developing country sovereign borrowers as an asset class (see chapter II). Lack of reliable data also makes it more challenging for over-indebted countries to restructure debt promptly when necessary and generate a durable economic recovery.

Debt transparency and debt management

Enhancing debt transparency has been a key priority for the international community and efforts have accelerated since the onset of the pandemic. Transparency is one of four pillars in the

IMF-World Bank Multipronged Agenda (MPA) (see box III.E.2). The implementation of the World Bank's Sustainable Development Finance Policy (SDFP) in July 2020 was instrumental in increasing the number of countries publishing debt reports (see box III.E.3). The June 2021 IMF Debt Limits Policy (DLP) enhances transparency by requiring a debt holder profile table in all IMF programme reports. The OECD launched the Debt Transparency Initiative in March 2021 to enhance disclosure of private creditor lending to developing countries (see box III.E.4).

Box III.E.2
The IMF-World Bank Multipronged Agenda

The IMF-World Bank MPA is being adapted to address increasing debt risks from the pandemic and to support post-pandemic recovery. The MPA, an ongoing effort by the IMF and World Bank to address debt vulnerabilities in developing countries, has four pillars: (i) strengthening debt transparency; (ii) strengthening countries' capacity to manage debt; (iii) applying accurate debt analysis tools; and (iv) strengthening international financial institution (IFI) policies. Recent modifications have focused on developing customized advice to address pandemic-related debt and fiscal risks and adapting the modalities of capacity development delivery to the pandemic environment; supporting more comprehensive borrower reporting to international statistical databases; strengthening IFI policies on debt reporting and data dissemination; enhancing outreach to creditors, including IMF and World Bank support to Common Framework implementation in the first three cases; and the release of new analytical tools, most notably the IMF's sovereign risk debt sustainability framework for market access countries, which provides a clearer signal on sovereign debt risks.

Box III.E.3
World Bank's Sustainable Development Finance Policy

The SDFP incentivizes countries to move towards transparent and sustainable financing and to further enhance coordination between the International Development Association (IDA) and other creditors. Under the first of its two pillars, the Debt Sustainability Enhancement Program (DSEP), the IDA's annual allocations are tied to performance and policy actions (PPAs) in (i) debt transparency; (ii) fiscal sustainability; and (iii) debt management, informed by World Bank diagnostics and supported by World Bank financing operations and technical assistance. Countries that do not satisfactorily implement their PPAs will have 10 or 20 per cent of their annual Country Allocations set aside depending on their debt risk, and face restrictions in their access to frontloading and reallocations.

Since the SDFP became effective in July 2020, 33 IDA countries that prepared PPAs published annual debt reports or/and quarterly debt bulletins as a result of the SDFP implementation. Similarly, six countries strengthened their Public Investment Management (PIM) regulations and ten countries started conducting annual fiscal risk assessments to inform fiscal policy decisions.

The second pillar, the Program of Creditor Outreach, aims at stronger collective action and closer coordination among borrowers and creditors to mitigate debt-related risks. The Program of Creditor Outreach has focused on SDFP implementation updates, targeted outreach to development partners, expanding collaboration and exchange of information with multilateral development banks and bilateral partners, and supporting IDA countries to sustainably finance their development.

Box III.E.4
The OECD Debt Transparency Initiative

The OECD launched the Debt Transparency Initiative (DTI) in response to widespread calls to improve the consistency, comparability, scope and frequency of debt statistics. The DTI aims to collect, analyse and report on private sector lending to vulnerable LICs.[10] The DTI operationalizes the Voluntary Principles for Debt Transparency developed by the Institute of International Finance, which provide guidelines for the public disclosure of private creditors' lending to sovereigns.

The OECD Secretariat has formed two groups to help support the Initiative: the Debt Data Users Group, and the Advisory Board on Debt Transparency. The former, composed of the Institute of International Finance (IIF) and debt analysts from central banks, finance ministries, IFIs, private lenders and asset managers, provides feedback on debt data collection, refinement of the Reporting Template and support for analytical content. The latter, which also includes civil society organizations and academia, provides a broad range of perspectives on the scope of the initiative and a preliminary assessment of the data collection and gaps.

Following the launch of the test portal, the OECD has begun to receive sample data for in-scope financial transactions from international banks. The OECD Secretariat, with the support of the Advisory Board, will seek to assess the robustness of the data and, with the Committee's approval, will make transaction-specific data available through a progress report. Furthermore, it will begin to make transaction-specific data periodically available on its portal beginning in early 2022. To supplement debt data collection from lenders and other investors, the OECD will also provide aggregated and country-specific trends and descriptive statistics from commercial data providers, as this information is not readily available to the public.

Despite recent improvements, debt data coverage and transparency remain a challenge. Public disclosure of sovereign debt data is still limited for many countries, in particular LDCs and other LICs. 23 per cent of LICs have not published any data about their sovereign debt for more than two years.[11] Instrument and sectoral coverage differ, as debt management offices typically do not have the legal mandate, incentives

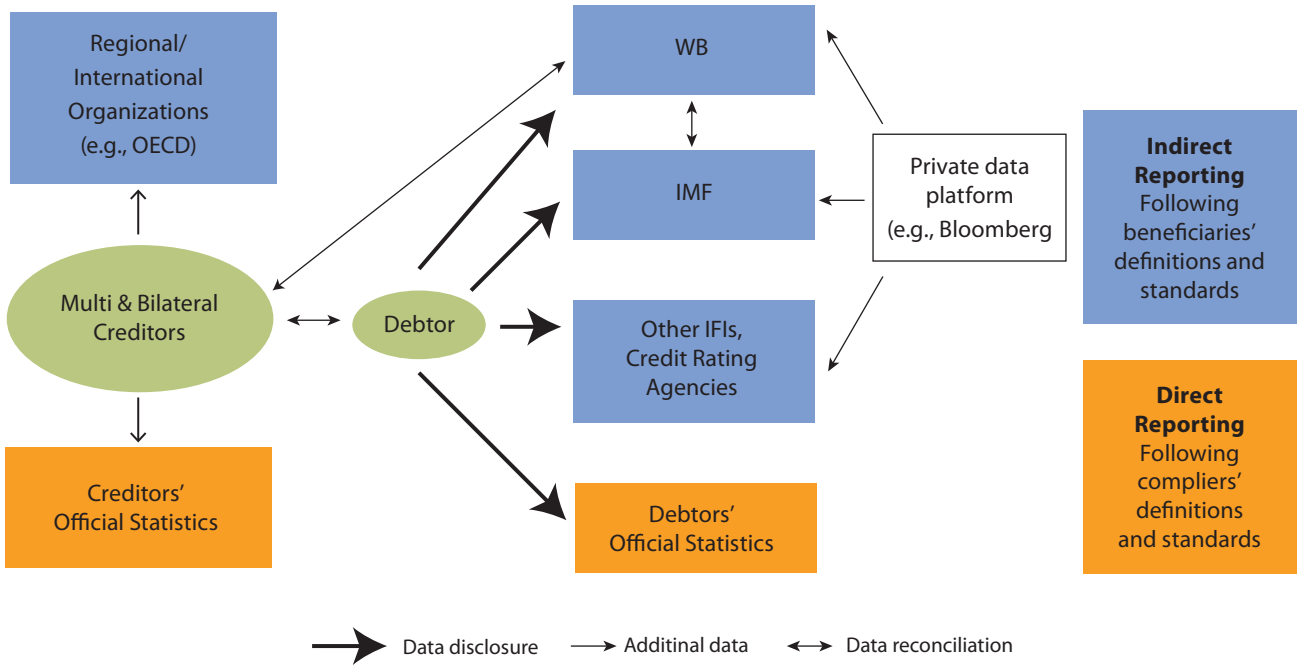
or capacity to collect data or report them beyond the central government level. Commercial loans contracted with private external creditors are also prone to misreporting or non-disclosure. Statistics on guarantees are not disclosed in 30 per cent of LICs, while estimates of contingent liabilities from public-private partnerships are available in official debt statistics in less than 10 per cent of cases. Expenditure arrears, typically converted to debt through securitization, are also hard to quantify given the absence of well-performing accounting systems. Resource-backed loans, accounting for around 8 per cent of total new borrowing in Sub-Saharan Africa, pose special challenges. There are also considerable data gaps regarding public sector domestic debt.

More coordinated data collection and reporting would contribute to improved debt transparency. Multiple direct and indirect sources of public debt data co-exist. Most efforts to advance debt transparency fall primarily on the shoulders of borrowers through their (indirect) debt data reporting via the World Bank and IMF. Debtor countries also publish official statistics—limited in the case of many LDCs and other LICs—and report to credit rating agencies in addition to the IFIs. Official creditors also publish data in their own official statistics and report to regional and international organizations. Private sector index and data providers collate statistics from different sources, but these are usually not publicly accessible (figure III.E.12). Commercial creditor disclosures, which can be key drivers of transparency, are scarce. This complex ecosystem can create discrepancies and leaves gaps.[12] Differences in debt definitions, some of which may not follow statistical and accounting reporting standards, and errors can lead to discrepancies of up to 30 per cent of GDP across sources with the same expected coverage. Uncoordinated data requests by external actors overburden often short-staffed debt management offices.

Greater efforts are needed to enhance transparency by creditors. As noted, both lenders and borrowers stand to benefit from debt transparency. Data collection from private creditors, for example, in the context of the OECD DTI (see box III.E.4), complements data collection by borrowers and IFIs. However, some reporting is restricted due to confidentiality clauses in loan contracts. The 2019 IMF and World Bank "G20 Operational Guidelines for Sustainable Financing–Diagnostic Tool" highlights that a good practice would suggest use of publicly available templates for financing agreements and refraining from including confidentiality clauses in loan agreements, as well as information-sharing on new and existing lending, including on the volume, terms and other conditions. To enhance transparency, creditors will need to refrain from using these clauses.

On the national level, strengthened legal, institutional and operational frameworks for debt management can help to improve debt transparency statistics, reduce the risk of debt crises and free up resources for investment. International support is needed to help developing countries put in place effective legal frameworks for debt management, including: clarifying the borrowing authority, the delegation of power and the debt authorization cycle; defining public debt according to international standards; and regulating debt data disclosure statistics to ensure comprehensiveness, timeliness and full accessibility.[13] Some countries, such as Barbados, Kosovo, Kyrgyz Republic, Philippines and Sierra Leone, already go beyond publishing debt statistics to require disclosure of external debt contracts as a matter of domestic law.

Figure III.E.12
Direct and indirect data reporting of government debt



Source: Rivetti, D. 2021. *Debt Transparency in Developing Economies*. World Bank.

Capacity development and improved debt management

Improving and expanding the capacities of debt management offices is critical. A more complex and diverse creditor landscape combined with fiscal pressures from the pandemic has increased the burden on debt management offices. But while many such offices are structured according to international sound practices of back, middle, and front office, less than 50 per cent meet the minimum requirements of staff capacity.[14] Enhancing information technology systems and development and implementation of modern and integrated debt recording and management systems, with definitions and calculation methods aligned with international standards, can greatly contribute to increasing transparency and better debt management.

Strengthening debt-management capacity is a key focus of international support. It is one of the four pillars in the IMF-World Bank MPA (see box III.E.2) as well as a focus of the United Nations system's support on debt sustainability. The IMF and World Bank are developing customized advice to address pandemic-related debt and fiscal risks and are adapting the modalities of capacity development delivery to the pandemic environment. Under its Debt Reduction Facility, recently extended, the World Bank is piloting the financing of legal advisory services to central governments in specific areas related to public and publicly guaranteed borrowing from external commercial creditors that are not linked to debt reduction operations. This effort is in line with a key request from Member States during the United Nation's 2020 dialogues on Financing for Development in the era of COVID-19.

The United Nations system is also supporting developing countries in "downstream solutions", including capacity for high-quality debt recording and reporting. Such "downstream" solutions complement the technical assistance in "upstream" areas (including governance, debt sustainability analysis and debt strategy) provided by the IMF, World Bank, other IFIs and regional entities. The relevance of such assistance was highlighted during the pandemic, when increasingly complex debt portfolios and weaknesses in legal and institutional frameworks, staffing, skills and systems undermined countries' capacity to ensure the availability of high-quality debt data. These challenges were compounded by the limited capacity of many debt management offices to work remotely. In this challenging context, UNCTAD's Debt Management & Financial Analysis System (DMFAS) Programme provided support to 60 mainly low-income or lower-middle-income countries, helping them to build and sustain the appropriate capacity for handling public resources and liabilities effectively. Improvements in debt transparency and debt management were achieved through strengthening debt management systems and the quality and reporting of debt data. Capacity-building activities included training on data validation, reporting standards and the production of statistical bulletins. Assistance was also provided for recording and reporting on COVID-related debt reorganization initiatives such as the DSSI. Key indicators of achievement in debt transparency included improved debt coverage, with 91 per cent of supported countries having comprehensive databases on government and government-guaranteed external debt. In addition, the number of countries using the DMFAS to record domestic debt rose to 71 per cent by the end of 2021. In relation to reporting, 85 per cent of supported countries reported effectively to the World Bank Debtor Reporting System in 2021 and 36 countries produced Debt Portfolio Reviews, a 38 per cent increase from 2019.

Additional facets of responsible lending

Debt crisis prevention is a shared responsibility. In the Addis Ababa Action Agenda, Member States reiterated that maintaining sustainable debt levels is the responsibility of borrowing countries, but that lenders also have a responsibility to lend in a way that does not undermine a country's debt sustainability. Principles for responsible borrowing and lending highlight two common areas of creditor responsibility: transparency for both debtors and creditors, as discussed above; and the responsibility of creditors for risk assessment and management. For example, the UNCTAD Principles include creditor responsibility for realistic assessment of a sovereign borrower's capacity to service a loan based on the best available information and due diligence. The G20 Operational Guidelines for Sustainable Financing also emphasize that official lending should be consistent with IMF and World Bank debt limit policies. In 2021, the IMF and World Bank supported G20 creditors to undertake a second round of self-assessment using the IMF-World Bank Operational Guidelines for Sustainable Financing–Diagnostic Tool, which revealed incremental progress and areas for further work (see box III.E.5). The principles of the Institute of International Finance include vigilance and enhanced risk management by private creditors and other market participants, along with an open dialogue between creditors and debtors and sustained surveillance efforts. Enhancing reporting and transparency along with strengthened credit analysis would reduce uncertainty and improve the efficacy of debt markets, ultimately impacting countries' borrowing costs. Credit rating agencies, which provide information and credit analysis to markets, play an important role in this area (see chapter II).

Strengthened loan contracting processes can contribute to responsible borrowing decisions; creditors share related responsibilities. Jurisdictions have, for example, enshrined lending and contracting processes in law and deemed unauthorized loans that did not follow these procedures as void; some have challenged the enforceability of foreign debt issued in violation of domestic legislation in foreign courts.[15] Specific transactions, such as external loans or guarantees, may require enhanced review. But as debt crisis prevention is also a creditor responsibility, creditors are equally obliged to determine, to the best of their ability, whether decisions have been duly authorized, for example.[16]

Box III.E.5
The Operational Guidelines for Sustainable Financing

In 2021, the IMF and World Bank supported G20 creditors to undertake a second round of self-assessment under the Operational Guidelines for Sustainable Financing, which revealed incremental progress and areas for further work. Creditors were invited to use the online diagnostic tool available on the IMF and World Bank websites to assess their lending practices. The assessment evaluates progress by participating lenders in implementing the Guidelines on the basis of standardized implementation practices. The results of the second round of self-assessment implied improvements in the implementation of good practices in some areas and identified information-sharing and transparency as areas in need of further improvement.[17]

In the context of shared global commitments to climate action and the SDGs, responsible lending should also include analysis of social and environmental impacts. This is already happening with regard to risk assessment but can also encompass assessment of the impact of lending on the SDGs (see chapter III.B).

4.2 Creating space for SDG and climate investments

Efforts to address debt challenges and avert protracted debt crises should take into account lessons from past efforts. In recent history there have been several episodes of widespread debt challenges that endangered development prospects. Responses by the international community to these crises included coordinated efforts through the Paris Club, the Brady Plan and the Heavily Indebted Poor Country and Multilateral Debt Relief initiatives. Improvements to the debt resolution architecture over the past years, particularly the widespread use of collective actions clauses and enhanced collective action clauses, have increased the speed of debt treatment, improved creditor participation and reduced holdouts.[18] However, restructuring can still be protracted with the attendant socio-economic consequences.[19] The challenge of improving speed and creditor participation is especially important given the changing creditor landscape and the greater role played by commercial and non-Paris Club creditors in LDCs and other LICs.

Linking efforts to global priorities such as climate action and the SDGs could potentially enhance (public and private) creditor interest. Private investors with sustainability commitments may be willing, in some cases, to pay a premium for sustainability considerations. This could improve the terms of private sector participation in restructurings, as recently seen in the case of Belize's restructuring.[20] Linking efforts to global priorities could also facilitate mobilization of resources from development partners who have existing commitments in these areas; and it could facilitate the use of proceeds as intended, as countries have already formulated SDG and climate investment priorities in their national strategies, nationally determined contributions and INFFs.

Several initiatives are advancing to create additional fiscal space. The *Financing for Sustainable Development Report 2021* laid out a menu of options, along with benefits and challenges, that could provide debt relief and enhance fiscal space for developing countries, ranging from debt swaps and debt buy-backs to debt relief for the most vulnerable countries. Debt treatment is taken forward in the context of the Common Framework (see next section). The IMF has provided debt service relief to 31 of the poorest countries (see above). Debt swaps—more suited to countries that are fiscally constrained but do not have unsustainable debt burdens—have also received further attention. Debt swaps can free up resources for investments in key priorities, although they are not a means to restore debt sustainability in countries with solvency challenges.[21] They have been considered in the climate context in particular (see box III.E.6).

Box III.E.6
A new generation of regional and thematic debt swap initiatives

In the Arab region, ESCWA launched the Climate/SDGs Debt Swap and Donor Nexus Initiative to assist countries in climate finance, while reducing their debt burdens. The initiative aims to create a long-term swap mechanism by considering the scalability of the swap amount, donor support and a key performance indicator (KPI) framework to maximize the impact of the swap. The initiative encourages the participation of MICs in the region that are facing high debt burdens and bilateral creditors who are serious about supplementing their commitments to overseas development assistance and climate finance pledges. Several Member States of ESCWA have shown interest in implementing the initiative. For instance, Jordan has established a national inter-agency taskforce to support implementation of the initiative through concrete proposals with linkages to climate change projects aligned with national priorities. A KPI regional framework has been developed, which will aid both the selection and the monitoring of projects and policy actions in national contexts.[22] Ultimately, the success of the initiative will depend upon the support of donor countries as well as creditor coordination.

In Latin America and the Caribbean, ECLAC is progressing on operationalizing the Debt for Climate Adaptation Swap initiative for the Caribbean. Under this initiative, some of the region's external debt is swapped in exchange for debtor-country commitments to make annual payments into the Caribbean Resilience Fund. The swap initiative is one of the three pillars of this Fund, a segregated Unit Trust mechanism designed to attract long-term, low-cost finance for development to the Caribbean. Three pilot countries, Antigua and Barbuda, Saint Lucia and Saint Vincent and the Grenadines, have initiated discussions on debt reduction. ECLAC is also preparing targeted capacity building among debt managers in the pilot countries, partnering with other United Nations agencies.

The World Food Programme (WFP) is implementing debt-for-food security swaps. WFP has implemented six debt swaps across five African countries (Egypt, Madagascar, Mozambique, Guinea-Bissau and Mauritania) with five bilateral creditors (Germany, Russia, France, Italy and Spain). These debt swaps have so far mobilized over US$87 million for WFP programmes in areas such as school feeding, nutrition, local agricultural development and community resilience to climate change. WFP works with both debtor and creditor countries to identify potential debt swap opportunities, negotiate agreements and implement programmes.

Bilateral partners have also long used debt swaps. For example, France has signed debt-for-development swaps (known as "Contrats de désendettement et de développement") with 18 countries. These debt-for-grants swaps bring progressive debt relief on top of immediate debt cancellation obtained at the time of completion. In practice, the debtor country directs the full servicing of the debt to a special fund that finances jointly selected development projects in the country. Civil society organizations are also regularly consulted to discuss progress. More than €5 billion of debt will be converted to grants at the end of the conversion process, with Côte d'Ivoire, Cameroon, the Republic of Congo and the Democratic Republic of the Congo as the four main beneficiaries. The most frequently targeted sectors were infrastructure, education and health.

These emerging experiences and experiences from an earlier generation of debt-for-development swaps provide a number of lessons for the design and implementation of debt swap programmes. The uptake of debt swaps has been limited due to high transaction costs and complex and time-consuming planning, negotiations and implementation. Additionally, in many cases, the size of the debt swaps was too small to have a real impact in providing debt relief.[23]

More standardization and country ownership could help increase uptake:

- Greater harmonization of processes should be considered, which speaks to the value of regional initiatives. For example, debt swap term-sheets could be designed.[24] This could reduce the complexity for all stakeholders involved, help speed up negotiations and reduce the likelihood of disputes. The term- sheet would also serve as a template and basis for a more detailed, legally binding document and address issues such as currency risks. Similarly, monitoring, reporting and verification requirements across debtors, creditors and implementing partners could also be harmonized to lower transaction costs.
- Building capacities of local officials and ensuring country ownership is a priority. This includes capacities of local officials to identify potential debt swap opportunities. Because debt swaps commit authorities to provide agreed-upon funding to selected projects, these projects must be aligned with local development priorities and programmes—for example, as part of national development plans, INFFs or nationally determined contributions.

4.3 Multidimensional vulnerability and debt

Climate change is exacerbating debt vulnerabilities across LDCs, LICs and particularly SIDS. Due to their structural conditions, such as remoteness, small size or reliance on tourism, SIDS are particularly vulnerable to external shocks. They often carry high debt burdens due to narrow resource and tax bases. Climate change is exacerbating these vulnerabilities and has contributed to further elevating debt burdens. Disasters alone have caused annual average damage of 2 to 3 per cent of GDP in Caribbean and Pacific SIDS, while major events can cause extremely severe damage (for example, in Dominica in 2017, amounting to 226 per cent of GDP).[25] Unsurprisingly, public debt tends to increase significantly in the aftermath of such disasters. Disaster shocks are critical in assessing risks to sovereign debt given the prominent role they have played in some default episodes in SIDS (for example, in Antigua and Barbuda in 2004 and 2009, Dominican Republic in 1998, Grenada in 2004 and Suriname in 1992).

In response, steps have been taken to account for climate-related vulnerabilities. These include adjusting primarily income-based metrics and assessments in the allocation of concessional finance. For example, IFIs and multilateral development banks provide exceptional access for SIDS to concessional windows (see chapter III.C).

Debt sustainability assessments by IFIs have been updated to take disaster impacts into account. For countries highly exposed to disasters, the IMF-World Bank LIC-DSF calls for reflecting the effects of natural disasters in baseline macro-fiscal projections along with additional stress tests. For such stress tests, the calibration of a natural disaster shock (based on past disaster events between 1980 and 2015) calls for a decrease in real GDP growth and nominal export growth of 1.5 per cent and 3.5 per cent respectively in the year of the shock, and a one-off increase in public debt (by 10 percentage points of GDP in the second year of projections). The standard 10-year projection horizon can also be extended, if warranted, to capture long-term vulnerabilities, including from natural disaster events. The IMF's new sovereign risk and debt sustainability framework for market access countries also has a natural disaster module. Assessments of countries at risk of such disasters, such as SIDS, will include specific stress tests that simulate debt paths under major disaster shocks. They will inform the medium-term risk assessment.

To support a more systematic consideration of the vulnerabilities of developing countries, including SIDS, the United Nations has initiated development of an MVI. In recognition of the specific challenges facing SIDS, the General Assembly called for an appropriate measurement of their vulnerabilities and international action to address them. To this end, it set up a high-level panel of experts to finalize an MVI by the end of 2022 (see chapter IV). The 2021 Financing for Development Forum called on the Inter-agency Task Force to explore the "potential use of the MVI for SIDS' debt restructuring with the aim of building credit worthiness and expanding access to financing, including concessional financing"[26] (see box III.E.7).

4.4 Debt crisis resolution

Rising debt vulnerabilities, tightening global financing conditions and ever-increasing climate risks have all added urgency to the quest to improve sovereign debt resolution. Seeking early debt resolutions when needed can help countries to avoid doing "too little too late". The more heterogenous creditor landscape and greater reliance by LDCs and other LICs on commercial finance has added complexity to the task. Additional actions are needed to improve the efficiency of the debt resolution architecture beyond the DSSI and the Common Framework.

Contractual approaches

Private creditor participation in debt restructuring can be further improved by continuing to strengthen the contractual approach to sovereign debt resolution. Compared with earlier periods, sovereign debt restructurings have become more pre-emptive, shorter in duration and with higher creditor participation on average due to the inclusion of collective action clauses and enhanced collective action clauses in bond contracts.[27] However, a significant share of outstanding bonds do not include such clauses. Non-bonded debt also currently requires unanimous creditor consent to change payment terms. This increases the potential for a small number of holdout lenders to hinder a restructuring supported by the majority. This issue is becoming more acute, given the increasing heterogeneity of creditors holding such instruments and the disproportionate impact it has on LDCs and other LICs.

Official and private creditors are cooperating to develop model majority voting provisions for payment terms in syndicated loans and to encourage their widespread adoption. Contractual reforms take effect only on a forward-looking basis, as new lending agreements are signed, and over time, as pre-existing debt matures. For example, despite strong uptake of enhanced collective action clauses in new bond issuances after their endorsement by the international community in 2014,

Box III.E.7
Multidimensional Vulnerability Index and debt carrying capacity

As a transparent and systematic indicator for country vulnerabilities, an MVI could over time help to inform financing needs assessments and allocations. An MVI would present a simple means to communicate countries' complex vulnerabilities through an indicator. Global acceptance of an MVI could lead to its application in donor allocation decisions as a complementary criterion to per capita income (see chapter III.C). For example, it could complement current practice, such as small State exceptions, or the use of vulnerability in formula that determine country allocations, for example, by the Caribbean Development Bank.[28] An MVI could also incentivize a scaling up and better targeting of international support to investments in risk reduction and climate resilience, including targeted instruments such as state-contingent financing by public lenders and quick-disbursing and insurance-like instruments.

High vulnerability could also imply lower capacity to carry debt. Public debt carrying capacity is primarily related to the resources available to a Government to service its debt. Countries at lower levels of GDP have less flexibility to accommodate payments and are thus at higher risk of default (see also chapter II). High vulnerability would be expected to exacerbate these risks—for example, the capacity to service debt may vary, and fall unexpectedly following shocks. In a situation of recurrent shocks, current per capita income may not sufficiently reflect the risks of future shocks and become a poor proxy for future capacity to pay.[29] When vulnerable countries are found to have lower debt tolerance, they could be eligible for a more concessional financing mix, but also be subject to more stringent borrowing limits.

An MVI could complement tools assessing debt carrying or debt absorption capacity, particularly in an age of growing systemic risks and more frequent and severe climate disasters (see the *Financing for Sustainable Development Report 2021*), as it would reflect elevated risks of future shocks and their impacts in one indicator. High vulnerabilities, as reflected in an MVI, could also contribute to the calibration of debt relief needed to restore sustainability in the context of debt restructuring.

Note: This box reflects the views of UN/DESA.

about 50 per cent of all outstanding bonds as of end-June 2020 still did not include them. Therefore, discussions should advance quickly. However, it is recognized that careful consultation in the design of these contractual reforms is needed to ensure that they are legally feasible and effective and sound from a regulatory perspective and that there is market acceptance.

Domestic debt restructurings

Rising debt vulnerabilities and the growing share of domestic debt may lead to more domestic debt restructurings. Prior to the mid-1990s, with limited financial markets and widespread capital controls, debt distress in developing countries was often dealt with via currency devaluation, inflation, financial repression and, when necessary, an external debt restructuring. Since then, the share of domestic debt has been rising. With a high number of countries at risk of debt distress, domestic restructurings may be needed more frequently to restore sustainability.

Domestic restructurings avoid some of the costs of external debt restructuring, but also pose unique challenges. Sovereigns have considerable flexibility in restructuring domestic debt, including through changes in domestic laws. Domestic restructurings can also potentially limit reputational costs, supporting efforts to retain access to external financial markets. At the same time, domestic debt is disproportionally held by banks and pension funds. Thus, sovereign stress can easily spread to other parts of the economy, with potentially serious adverse effects on financial stability and economic activity.

Sound design can help to achieve the required debt reduction while minimizing risks to the domestic financial system and broader economy. Financial stability considerations play an important role in a domestic restructuring—stress tests prior to a restructuring can provide critical information to inform the design of, and need for, policy support. Depending on the severity of spillovers to the financial system, the policy response may need to include liquidity support, regulatory measures, recapitalization and the establishment of a financial sector stability fund. Casting a wide net across claims can support participation by lowering the relief sought from each creditor group. In 2021, the IMF introduced a policy toolkit for analysing and restructuring domestic debt, including a comprehensive dataset of domestic debt restructuring events. The toolkit includes a decision framework that allows authorities to adopt a "net benefits" approach to domestic debt restructuring, whereby the benefits of a reduced sovereign debt burden are weighed against the fiscal or broader economic costs of achieving that debt relief.[30]

The global architecture

The Common Framework aims to overcome collective action challenges and ensure fair burden sharing when addressing debt sustainability and protracted liquidity problems, but uptake has been limited and progress slow. Efforts to ensure that "resolution of unsustainable debt situations is timely, orderly, effective, fair and negotiated in good faith", as called for in the Addis Agenda, have focused on finding contractual solutions to commercial creditor coordination challenges, enhancing debtor-creditor dialogue and improving coordination of official creditors. The Common Framework represents an important step in this effort as it brings together, for the first time, all major bilateral creditors.

Implementation of the Common Framework has faced challenges and several design elements need to be improved.

- **More timely and efficient processes.** Progress in the initial cases has been much slower than anticipated. Along with the challenges to be expected in the initial phases of a new framework, these delays reflect coordination issues among official creditors as well as within creditor countries, where multiple institutions and agencies can be involved.[31] In its October 2021 Declaration, the G20 committed to step up efforts to implement the Common Framework in a timely, orderly and coordinated manner, which is needed to give more certainty to debtor countries and facilitate IMF and multilateral development banks' quick provision of financial support;

- **Provision of standstills.** With expiry of the DSSI, countries are faced with the prospect of resuming debt service even when they approach the Common Framework. The G20 agreed that creditor committees may discuss relevant solutions on a case-by-case basis. A more comprehensive approach providing a standstill for the duration of negotiations should be considered;
- **Comparability of treatment of private creditors.** Further clarification on how comparability of treatment will be effectively enforced is needed, including through implementation of the IMF arrears policies, beyond the parameters already included in the Common Framework;
- **Expanding access.** Eligibility criteria to the Common Framework follow the DSSI, and thus exclude a number of highly vulnerable and indebted MICs. As the Common Framework decides debt treatments on a case-by-case basis and is primarily a platform for creditor coordination, expansion of access should be strongly considered.

The existing architecture and contractual resolution toolkit may not be able to address a systemic crisis effectively. Implementation challenges with the Common Framework suggest that it may be a stepping stone toward but is not a substitute for a more comprehensive solution to sovereign debt resolution challenges in case of widespread debt distress in a systemic crisis. In this case, financial incentives (such as sweeteners) or legislative solutions could be helpful. With respect to the latter, several countries have adopted national legislation to limit the ability of holdout creditors to recover claims in certain circumstances (through so-called vulture fund laws). There have also been proposals to adopt legislation that focuses on the timing of lawsuits (for example, giving courts discretion to impose stays on sovereign litigation) or that immunizes sovereign assets from judicial actions by creditors, either adopted in key jurisdictions or at the international level. However, these instruments raise significant legal and policy issues, would require careful consideration and would be expected to be used only as a last resort and on a time-bound basis to address the unique challenges posed by the crisis.[32]

Endnotes

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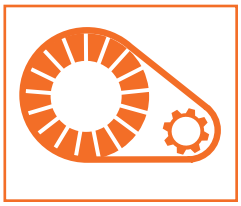


Addressing systemic issues



Chapter III.F

Addressing systemic issues

1. Key messages and recommendations

The COVID-19 pandemic has brought to the fore the strong and growing linkages between the economic, social and environmental pillars of sustainable development. Amid growing systemic and interlinked risks, improved policy coherence and consistency—as called for by the financing for development process and reiterated in the Addis Ababa Action Agenda—is more important than ever. Decisive multilateral efforts are needed to overcome the current crisis, support countries most in need and build a more sustainable, resilient and inclusive international system.

The COVID-19 crisis continues to put stress on the international financial system amid an uneven economic recovery and tightening global financial conditions. The tightening of monetary policies in major developed economies is already causing a reversal in international capital flows, posing additional challenges for national policymakers and with the potential to put the global financial safety net (GFSN) to another test.

Countries have drawn on all layers of the GFSN, but access has been uneven and gaps remain. A record new allocation of Special Drawing Rights (SDRs) and International Monetary Fund (IMF) emergency lending were the main GFSN instruments that were accessible to most countries. Bilateral currency swaps were limited to a smaller number of countries and regional financing arrangements (RFAs) have not lived up to their potential.

- *Countries with strong external positions should implement, in a timely manner, the voluntary channelling of SDRs to countries in need—considering all mechanisms under discussion;*
- *IMF members should replenish the IMF's concessional financing and debt relief instruments and use the Sixteenth General Review of Quotas to expand the lending capacity of the IMF;*
- *The role of RFAs could be strengthened by expanding their member bases and increasing their resource envelopes. Greater cooperation—including with the IMF—can help, although RFAs should maintain sufficient autonomy to best serve their member countries' needs.*

Policymakers need to have the full policy toolkit at their disposal to address the impacts of capital flow volatility. This includes monetary, exchange rate, macroprudential, capital flow management and other policies.

- *The international community can support policymakers through coherent guidance that explicitly considers the effects of leakages, spillovers and interactions of different policies. An Integrated Policy Framework could help countries determine the best policy mix that could be implemented as part of a broader Integrated National Financing Framework;*
- *Clear and transparent communication of monetary policy shifts in source countries can help to reduce negative spillovers. Source countries' efforts to strengthen domestic financial stability and enhance incentives for long-term sustainable investment could also reduce capital flow volatility.*

The pandemic has highlighted new risks to financial and macroeconomic stability, including growing non-economic risks. While the banking sector broadly withstood the March 2020 market turmoil, less regulated non-bank financial intermediaries (NBFIs) amplified market stresses and exacerbated liquidity shortages. Going forward, this risk is likely to be compounded by the growth of financial technology (fintech) intermediaries. Economic and financial stability risks associated with climate change also call for regulatory and supervisory action.

- *Policymakers should follow the principle of "same activity, same risk, same rules" for NBFIs. Specific proposals include: enhanced reporting requirements; measures to reduce leverage; and increased shock-absorption capacity;*
- *As climate-related risks increase, policymakers should consider mandatory reporting requirements for financial institutions*

on climate-risk exposures and mitigation strategies. Climate-related scenarios in stress tests could help to assess whether additional liquidity and capital buffers may be required to safeguard financial stability;

- *Central banks should continue to address climate-related risks as part of their mandates for price stability and financial stability. Some central banks could consider going further and use monetary policy to support the transition to a low-carbon economy, for example, by tilting corporate bond purchases towards less polluting companies;*
- *Greater coordination between national authorities and with international standard-setting bodies can help to improve understanding of the systemic risks and international spillovers from NBFIs and from non-economic risks such as climate change. Comparable regulatory standards could help to prevent regulatory arbitrage and ensure a level playing field.*

Rapid developments in financial technology create new opportunities and risks, including for financial stability and integrity. During the COVID-19 crisis, big tech platforms continued to expand their activities in the financial sector. The crisis also accelerated the development of a new ecosystem of digital assets, currencies and financial services, with growing linkages to traditional financial institutions, which could increase systemic risks.

- *Entity-specific regulations can complement the principle of "same activity, same risk, same rules" to address emerging risks from big tech platforms in finance, for instance, by preventing anti-competitive practices;*
- *Enhanced international cooperation is needed to create a comprehensive, coordinated regulatory framework for cryptoassets and so-called "stablecoins" that can also address spillover risks to the global financial system;*
- *Discussions on standards for central bank digital currencies should include the voice of developing countries as they may be most affected by unintended consequences such as increased capital flow volatility and currency substitution.*

A strong, inclusive and coherent multilateral system is needed to overcome the COVID-19 crisis and get back on track to achieve the sustainable development goals (SDGs). The United Nations provides a universal platform to bring together discussions on financial, economic, environmental (including climate) and social issues that are being held at different multilateral forums and institutions. Additional efforts can strengthen coherence and global governance.

- *A biennial summit between the G20, the United Nations Economic and Social Council and international financial institutions, proposed in the report of the Secretary-General on Our Common Agenda, could help to strengthen coherence and move the needle on joint policy action;*
- *The ongoing IMF Sixteenth General Review of Quotas is an opportunity to move forward on governance reform and strengthen the voice and representation of developing countries.*

The next section of this chapter analyses the crisis response and challenges in the international financial architecture; section 3 reviews the implementation of agreed regulatory reforms and maps out a way forward; section 4 discusses the role of financial regulation and monetary policy in the age of climate change; section 5 puts forward recommendations to address the growing systemic risks of digital finance, assets and currencies; and section 6 considers how to strengthen global governance and policy coherence.

2. International financial architecture

Two years into the COVID-19 pandemic, many developing countries are struggling to mobilize resources for a sustainable, resilient and inclusive recovery amid reduced policy space and an expected tightening of global financial conditions. The recent allocation of SDRs afforded some relief, but additional efforts are needed to reallocate SDRs to countries most in need. The GFSN provided much needed emergency liquidity to many developing countries, while revealing inequalities and gaps that still need to be addressed. As large developed countries are beginning to tighten monetary policies, the GFSN may be tested again by a sharp reversal of international capital flows. This also increases the urgency for national policymakers to be able to use the full policy toolkit for managing capital flow volatility.

2.1 Liquidity support from Special Drawing Rights

In August 2021, the IMF issued a historic new allocation of SDRs, equivalent to $650 billion, providing international liquidity for developing countries to address balance of payment needs and confront the monetary and fiscal challenges of the COVID-19 crisis. SDRs are an international reserve asset that can be issued by the IMF to address a long-term global need to supplement existing reserves. Once they are allocated, IMF member countries can hold them as part of their foreign exchange reserves or exchange them with other countries (or prescribed holders) for freely usable currencies. While many (but not all) countries administer their SDR holdings through their central banks, this is not required by the IMF Articles of Agreement. Rather, countries' fiscal agencies are free to decide on the use of their SDRs in accordance with national legal frameworks.[1] By the end of January 2022, 35 countries had reportedly exchanged all or part of their allocations for freely usable currencies (equivalent to $14.8 billion).[2]

There is broad consensus that channelling SDRs from countries with strong external positions to countries most in need can strengthen the impact of the original allocation. Since SDRs are distributed in proportion to countries' IMF quota shares, developing countries received only around one third of the total, with least developed countries (LDCs) receiving just over $15 billion and small island developing States (SIDS) just over $9 billion. Several countries with strong external positions have expressed interest in a voluntary channelling of their SDRs to countries most in need, with both the G7 and G20 calling for a total global reallocation of $100 billion (while preserving the reserve asset characteristics of channelled SDRs). As of mid-February 2022, countries had pledged a total of $60 billion.[3]

Three mechanisms under discussion would address immediate liquidity needs and longer-term financing requirements to invest in sustainable development. First, countries can voluntarily channel SDRs to provide resources for the IMF Poverty Reduction and Growth Trust (PRGT) that facilitates concessional lending for low-income and other vulnerable countries through IMF programmes. To meet the exceptional needs of low-income countries (LICs) as they recover from the pandemic, additional PRGT loan and subsidy resources are being mobilized just as international financial conditions are expected to tighten. Lending countries earn the SDR interest rate, thus offsetting the cost of a deficit in their SDR accounts.[4] Lenders can also seek early repayment in case they experience

a balance of payments need, allowing on-lent SDRs to retain their reserve asset characteristics. Some countries have already channelled their existing SDRs this way, providing about $15 billion of the $24 billion in new PRGT loan resources mobilized under the fast-track campaign launched in April 2020.[5] Second, countries could channel SDRs through the proposed IMF Resilience and Sustainability Trust, for affordable, long-term (up to 20 years) financing to help LICs and vulnerable middle-income countries (MICs) build economic resilience and sustainability. This is in line with calls from the Secretary-General for the establishment of a new trust fund at the IMF to address the needs of vulnerable MICs and particularly SIDS.[6]

The third option under discussion is to channel SDRs through multilateral and regional development banks that are already prescribed holders of SDRs and can support medium- to longer-term development needs based on their regional, country and sector expertise, technical knowledge and experience. There are a number of potential mechanisms for channelling SDRs via multilateral development banks (MDBs), including the possibility of drawing on the model of the PRGT to establish new trust funds at MDBs, or by using them as quasi-capital that could be leveraged further to mobilize more resources for sustainable development, including near-term needs, such as vaccine purchases, and longer-term sustainable development priorities. Yet, any proposal for channelling SDRs via MDBs needs to address national regulatory, policy and institutional arrangements that guide the level of flexibility countries have outside established IMF options.[7] Some of this new financing could be channelled through national development banks to harness their local knowledge and expertise.

These and other proposed options are complementary and should be further explored, with a focus on rapid implementation, low interest rates, wide access and parsimonious conditionality. The PRGT is a time-tested mechanism that can be readily used, although access is limited to LICs. If the RST moves forward as planned, it should be fully operational by the end of 2022. Developing specialized trust funds for channelling SDRs through development banks should also be explored, and they could become part of a broader set of financing instruments for sustainable development. There have been other calls to use SDRs for mechanisms that aim to increase global liquidity and leverage resources for sustainable development (for example, the recently launched ECA Liquidity and Sustainability Facility[8] and a Barbados proposal to use SDRs for climate finance[9]). Where they are not managed by the IMF or other prescribed holders, using SDRs to support such mechanisms would also require a change to the IMF Articles of Agreement. In general, channelling mechanisms should allow for a rapid disbursement of funds to a wide range of countries in need. They should do so at zero or minimal interest rates to minimize the additional debt burdens and avoid overly onerous conditions, such as fiscal consolidation measures, that could hamper a sustainable recovery and risk further long-term economic scarring. Channelling SDRs should also not crowd out existing resources for development cooperation.

2.2 Coverage of the global financial safety net

Countries have drawn on all layers of the GFSN during the COVID-19 crisis. Despite increases in coverage since the 2008 world financial and economic crisis, access is uneven and gaps remain. With the IMF at its centre, the GFSN also includes RFAs, bilateral swap arrangements and countries' own foreign exchange reserves, with bilateral currency swaps between central banks outweighing multilateral and regional support (see below). The SDR issuance in August 2021 helped to bridge some of the gaps by providing IMF member countries with international liquidity without creating additional debt.

In addition to the historical SDR allocation, IMF lending facilities were an important source of external liquidity for most developing countries during 2020 to 2021. Out of total IMF support of $170.6 billion, $32.9 billion was disbursed to 82 countries as emergency financing, including through the Rapid Credit Facility (RCF) and the Rapid Financing Instrument (RFI), without formal adjustment programmes, and augmentations against existing arrangements. Over half ($104.4 billion) was made available to countries with very strong fundamentals and policy frameworks, including under four new Flexible Credit Lines and one Precautionary and Liquidity Line. Lending via new disbursing arrangements with standard upper-credit tranche conditionality amounted to $33.2 billion, with demand—to some extent—coming from countries that already had been discussing conventional IMF lending before the pandemic.[10] The IMF also implemented several short-term measures, including increasing access limits to lending facilities and temporarily streamlining approval processes. While enhanced cumulative access limits for the RCF/RFI emergency facilities were recently extended, they were reduced to normal levels for all other instruments from January 2022. As the pandemic lingers on, and country needs change from emergency response to recovery mode—barring a potential renewed need for emergency support in some countries—a shift in IMF support would mean a return to more standard conditionality.[11]

To better support LICs, the IMF approved a set of reforms to the PRGT, with an associated funding strategy, and continues to seek additional funding for the Catastrophe Containment and Relief Trust (CCRT). For the PRGT, the centrepiece of the approved reforms is a 45 per cent increase in the normal limits on access to concessional financing coupled with the elimination of hard limits on access for the poorest countries. The associated funding strategy aims to secure $3.9 billion in subsidy resources (to support zero interest rates) and an additional $17.7 billion in loan resources which could be facilitated by the channelling of SDRs.[12] In addition to its lending facilities, the IMF also provided debt service relief to its poorest and most vulnerable members under the CCRT from April 2020 through April 2022, totalling $965 million for 31 countries. Additional funding is being sought to ensure that the CCRT has adequate resources to respond quickly to future shocks. A general quota increase would help to expand the overall lending capacity of the IMF. The Sixteenth General Review of Quotas, to be concluded by 15 December 2023, is also an opportunity to continue the process of governance reform (see section 6).

Bilateral and regional support

While multilateral mechanisms provided an important lifeline for many countries, bilateral currency swaps accounted for most of the liquidity support under the GFSN. A comprehensive analysis of the lending activities of all GFSN institutions shows that bilateral currency swaps between central banks accounted for the largest share of total liquidity support, at over $1.5 trillion between February 2020 and October 2021.[13] These swaps are being offered by a wide range of central banks, predominantly the United States' Federal Reserve and the People's Bank of China and, to a smaller degree, by central banks in other

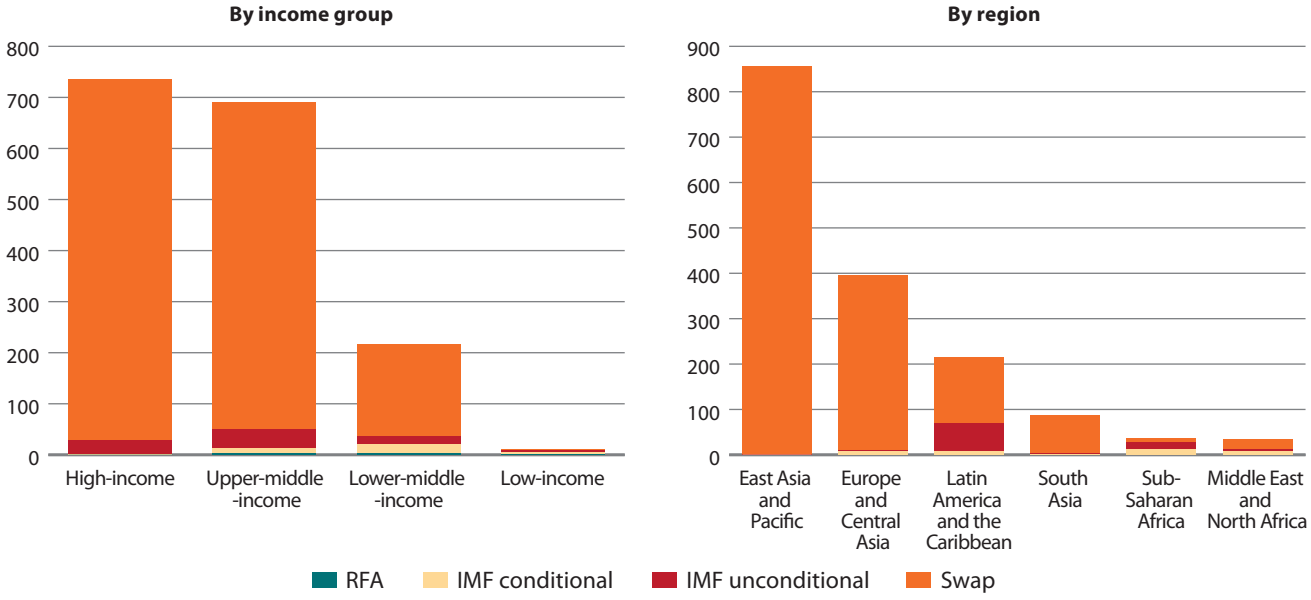
advanced economies, such as Japan, Great Britain, Australia, Sweden and Switzerland. However, while their fast and plentiful deployment provided much-needed liquidity during the early phase of the COVID-19 crisis, most developing countries lack access to such arrangements. Almost 90 per cent of total bilateral swap volumes went to high-income and upper-middle-income countries. On a regional basis, central bank currency swaps were mainly offered in East and Central Asia and Europe (figure III.F.1).

Bilateral swaps are a discretionary element of the GFSN that lack the predictability and the transparency of multilateral support. Bilateral swaps are voluntary and depend on the interests of the countries involved in the arrangement, often based on trade and financial ties and political economy considerations. Such a dynamic is opposed to the spirit of international solidarity that underpins the GFSN.

Regional liquidity sources remained almost untapped during COVID-19 but they provided a quick crisis response for those countries who accessed them. The comparative strength of RFA loans during the pandemic has been their quick disbursal, albeit with small amounts that borrowing countries had to combine with other GFSN sources. Between February 2020 and October 2021, RFAs disbursed about $5.4 billion to member countries out of their combined $1 trillion lending volume. Currently, developing countries have access to six RFAs, covering 61 countries.[14] The most voluminous regional and trans-regional funds, the Chiang Mai Initiative Multilateralization (CMIM) and BRICS Contingent Reserve Arrangement (CRA), played no part, as member countries resorted almost exclusively to bilateral central bank currency swaps. The Eurasian Fund for Stabilization and Development (EFSD) and the South Asian Association for Regional Cooperation (SAARC) were utilized several times, partly in combination with IMF programmes. Of the smaller funds, only the Arab Monetary Fund (AMF) received requests even though its overall lending volume is too small for the majority of its member countries to respond to a crisis as a stand-alone source.

RFAs could play an important role in strengthening the GFSN—which depends on the ability of all its layers to provide the necessary support for countries to overcome crises and return to stable and sustainable development. The benefits of having a diverse range of financing sources has long been recognized as important for flexibility and resilience during times of crisis.[15] RFAs also give voice and representation to their member countries, most of which are not included in other multilateral forums—for example, no members of AMF or FLAR (Latin American Reserve Fund) and only four members of CMIM are part of the G20.[16] RFAs could be strengthened by expanding their member bases and, in some cases, increasing their resource envelopes (depending on political will). For example, the creation of a more comprehensive African regional financing arrangement—possibly with the support of donor funding—could increase emergency liquidity access for many countries.[17] RFAs could also benefit from the enhanced exchange of experience and peer learning. While continuing cooperation with the IMF will be important, RFAs should maintain sufficient autonomy—including of their

Figure III.F.1
Use of the global financial safety net, February 2020–October 2021
(Billions of United States dollars)



Source: Mühlich, Laurissa, Barbara Fritz and William N. Kring. 2021 (based on data in www.gfsntracker.com).[18]
Note: Unlimited central bank currency swaps are not included. Based on an assumption of reciprocity, currency swaps between advanced economies are counted twice; and between emerging markets and developing economies once. Central bank currency swaps correspond to the sum of the maximum available central bank currency swap amount per country between March 2020 and October 2021. IMF lending corresponds to the sum of IMF loans agreed between March 2020 and October 2021. IMF conditional: Stand-by Arrangement, Catastrophe Containment and Relief Trust, Extended Fund Facility, Extended Credit Facility; IMF non-conditional: Rapid Credit Facility, Rapid Financing Instrument, Flexible Credit Line, Precautionary and Liquidity Line, Short-term Liquidity Line. RFA lending corresponds to the sum of loans by all RFAs agreed between March 2020 and October 2021.

surveillance and enforcement systems—to best serve their member countries' needs. For instance, the reluctance of member countries to access CMIM facilities during the last decade has been partially attributed to the fact that lending was linked to agreement to an IMF programme.[19]

2.3 Managing capital flow volatility

Recent changes in international financial conditions have highlighted the risks associated with capital flow volatility. Increased inflationary pressures and a return to tighter monetary policies in the United States and other developed economies have affected market sentiment, with non-resident portfolio flows to emerging economies (excluding China) turning negative during the last quarter of 2021 and outflows accelerating in January 2022 (see chapter I). While cross-border capital flows can provide important benefits, such as improving access to funding for sustainable development, volatile short-term capital flows pose significant challenges for developing economies. They can affect asset prices, exchange rates, debt sustainability and financial stability, especially in the small, open economies of many developing countries. Risks are greater in the presence of underlying macroeconomic or financial vulnerabilities, but the risks exist in all countries.

Policymakers need to have all tools at their disposal—including monetary, exchange rate, macroprudential, capital flow management and other policies—to balance the benefits of international capital flows with associated risks. Capital flows continue to be driven by global factors outside the control of recipient countries, and a sharp increase in global interest rates—as may happen in 2022—can trigger large and fast capital outflows from developing countries. Policymakers in recipient countries need to prepare for such a scenario, using the full policy toolkit as needed. Source countries, in turn, should communicate monetary policy shifts in a clear and transparent manner to help reduce negative spillovers.

The initial impact of the COVID-19 shock on capital flows and developing countries' policy responses shed light on the functioning of different policies, confirming the effectiveness of ex ante macroprudential measures (MPMs) and capital flow management measures (CFMs). Monetary policy and exchange rate adjustments typically work better in more advanced economies that have deeper financial markets.[20] New empirical studies of sudden capital flow reversals (including the COVID-19 shock) have, however, confirmed the effectiveness of ex ante CFMs and countercyclical MPMs for developing countries. In particular, the pre-emptive use of CFMs on capital inflows can limit related credit growth and currency mismatches. Countries with pre-emptive CFMs experienced relatively lower external finance premia and exchange rate volatility during global sudden stops and were, on average, more able to retain access to external financing.[21] Countries with tighter MPM—including countercyclical capital buffers, loan-to-value ratios and macroprudential measures that limit foreign currency exposures—were also, on average, better shielded from financial and economic stresses during the COVID-19 shock.[22]

Unintended consequences and interactions between different policies still need to be better understood and should inform more integrated policy frameworks. Empirical studies have often focused on the effects of a small set of policy measures, with limited attention to the impact of unintended leakages (shifts within or between sectors) and international spillovers.[23] Reviews of the implementation of different policy measures such as MPMs, CFMs, monetary, exchange rate and others, also suggest that policymakers view these measures as separate, rather than considering their interactions.[24] The Integrated Policy Framework put forward by the IMF could help countries to determine the best policy mix based on their specific situation and needs and possible interaction between different policies.[25] As part of a broader Integrated National Financing Framework it could also support greater coherence between macroeconomic, financial and trade policies and financing strategies for sustainable development.

International guidance and support for the management of capital flow volatility should explicitly consider the effects of leakages, spillovers and interactions and continue to seek greater alignment between different guidelines and agreements. While the IMF "Institutional View on the Liberalization and Management of Capital Flows" (IV) considers all policy options (although with a limited role for CFMs as a temporary instrument), the World Trade Organization's General Agreement on Trade in Services and the Organisation for Economic Co-operation and Development's (OECD) Code of Liberalisation of Capital Movements limit the policy space of its members by ruling out the use of CFMs—as do many bilateral and multilateral trade and investment agreements.[26] The upcoming review of the IV is an opportunity to strengthen the advice on leakages, spillovers and interactions (including advice for source countries on mitigating spillovers while meeting their own macroeconomic and financial stability objectives) and to continue coordination with other multilateral bodies to increase consistency. While the recent focus has mainly been on the effectiveness of ex ante policy measures, the IV review should also allow more space for ex post measures to react to financial shocks, where needed—although they should not be a substitute for necessary structural reforms.

3. Agreed regulatory reforms: implementation and way forward

The March 2020 market turmoil showcased the positive effects of regulatory reforms since 2008 while also highlighting gaps and new vulnerabilities. While the banking sector showed increased resilience, some less regulated non-bank financial intermediaries amplified market stresses and exacerbated liquidity shortages, requiring central bank intervention as liquidity providers of last resort. Risks associated with NBFIs in the financial sector, growing economic and financial stability risks associated with climate change, and rapid developments in financial technology and digital assets and currencies that may pose increasing systemic risks (see sections 4 and 5) require regulatory and supervisory action to reduce financial stability risks and spillovers.

3.1 Implementation and effects of agreed reforms

The regulatory reforms agreed by the G20 following the 2008 world financial and economic crisis helped to strengthen the regulated financial system, allowing it to broadly withstand the COVID-19 shock. Regulated financial institutions helped to cushion, rather than to amplify, the macroeconomic shock at the beginning of the pandemic—supported by unprecedented policy responses (including

government support for loan forbearance and other assistance to struggling companies). Large banks held more capital and liquidity than in 2008 and were less leveraged. Early evidence indicates that higher initial capital levels allowed banks to support lending during the pandemic.[27] Reforms of over-the-counter derivatives markets, especially the increased use of central counterparts, helped to mitigate counterparty risks, while the insurance sector benefited from enhanced supervision standards and MPMs. Financial supervisors in many countries used flexibility within global standards to sustain liquidity provision during the early phase of the pandemic, with guidance from the Financial Stability Board (FSB) and international standard-setting bodies.[28]

With the focus of authorities firmly on the immediate impact of the crisis, progress in the further implementation of agreed reforms was slow, and standard-setting bodies extended implementation deadlines for some reforms. Most progress was achieved in the Basel III standards that were still lagging behind in implementation. For example, six jurisdictions moved ahead with supervisory frameworks for measuring and controlling large exposures, raising the number of countries with full adoption to 18 and those with published draft or final rules to six (figure III.F.2). Several measures that were introduced in response to COVID-19 have also been made permanent in some jurisdictions, including changes to market and counterparty credit risk frameworks and margin practices to limit excessive procyclicality.[29]

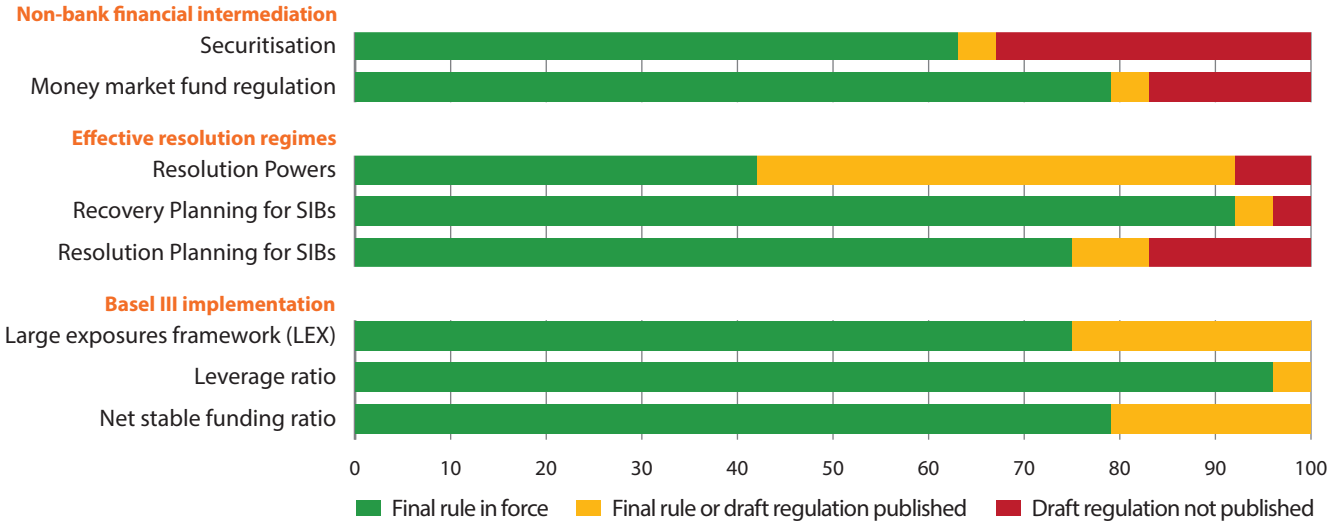
3.2 Addressing growing risks in the non-bank financial intermediation sector

The financial market turmoil at the onset of the pandemic highlighted gaps in the regulatory framework that warrant further attention from regulatory and supervisory authorities. While the share of assets held by NBFIs experienced its sharpest decline since the 2008 world financial and economic crisis, it remained high, at 48.3 per cent in 2020 (figure III.F.3). The growth in NBFI assets was outpaced by that of central bank assets and commercial bank assets, owing in part to aggressive monetary policy on the part of central banks and commercial banks' involvement in public stimulus measures (for example, direct credit programmes and public guarantee schemes). As these measures are beginning to be unwound, a return to previous trends seems likely. The growing role of fintech and large technology companies in the financial sector and the increasing uptake of digital currencies and decentralized finance (DeFi) structures, which are outside the commercial bank regulatory framework, could further accelerate the growth of NBFIs in a broader sense (see section 5).[30]

While NBFIs can contribute to a diversified financing landscape, their activities and structures can also amplify volatility and market stress. In particular, liquidity mismatches—when holdings of illiquid long-term investments are funded with short-term borrowings—can make NBFI vehicles susceptible to runs when investors need cash. They may also incentivize managers to hoard liquidity or pre-emptively liquidate assets to avoid fire-sales. While these actions may be rational from the perspective of any individual fund with short-term liabilities, they could further exacerbate system-wide liquidity shortages. Excessive leverage is an additional risk factor as it may cause downward price spirals and spillovers between asset classes if investors are forced into rapid de-leveraging, for example, to meet margin calls when market risk perceptions rise. Both of these factors played a role in the March 2020 market turmoil, when demand for US dollar liquidity increased sharply.[31]

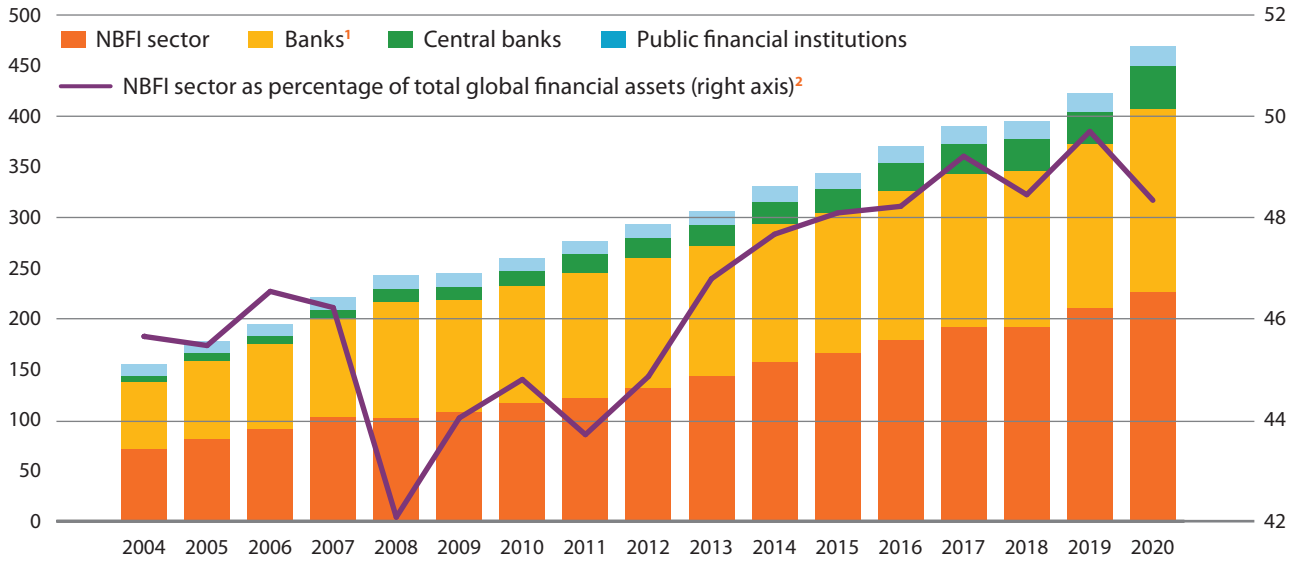
Regulatory and supervisory authorities should close policy gaps to reduce financial stability risks and avoid overreliance on central banks as liquidity providers of last resort in future crises. Beyond the full implementation of agreed G20 reforms, policy proposals include: (i) enhanced reporting requirements to facilitate the monitoring

Figure III.F.2
Progress of regulatory reform implementation, 2021
(Percentages of FSB member jurisdictions)



Source: FSB.
Note: For systemically important banks (SIBs), the five European Union members of the FSB are presented as separate jurisdictions.

Figure III.F.3
Total global financial assets, 2004–2020
(Percentages of total assets; trillions of United States dollars)



Source: FSB. 2021. Global Monitoring Report on Non-Bank Financial Intermediation.
Note: 1 All deposit-taking corporations; 2 the NBFI sector includes insurance corporations, pension funds, other financial intermediaries (particularly investment funds) and financial auxiliaries.

of vulnerabilities; (ii) measures to reduce leverage (e.g., through tax incentives or regulatory limits) and increase shock-absorption capacity, for example, through less stress-sensitive margining practices, higher usable capital and liquidity buffers, and limits to the instant convertibility to cash; and (iii) greater coordination between national authorities and with international standard-setting bodies to better understand the systemic risks of NBFIs and address international spillovers.[32]

4. Financial regulation and monetary policy in the age of climate change

In addition to the immediate losses of lives and livelihoods, increasing climate-related risks can impact asset values and threaten financial stability. While financial institutions have started to recognize the impact of climate and other non-financial risks on the value of financial assets, additional efforts are needed to fully incorporate them into decision-making and risk management frameworks. There is also room to address them through monetary policy action, including as part of central banks' mandates on price stability and financial stability.

4.1 Addressing climate risks for the financial system

Climate-related risks for financial stability

Climate-related physical and transition risks can have a material impact on financial institutions and broader implications for financial stability, requiring better tools for the assessment and mitigation of these risks. At the level of an individual institution, climate-related risks affect all traditional risk categories—credit, market, liquidity, operational and reputational. While many financial institutions have increased their efforts to identify climate-related risks and related exposures in their portfolios, there is still a lack of frameworks to translate these exposures into quantifiable financial risk. Such frameworks require highly granular data and forward-looking modelling techniques that include long time horizons, feedback loops and risk mitigation techniques by banks or their counterparties.[33] The systemic nature of climate-related hazards and the possibility of abrupt changes in risk premia and asset prices also pose a broader threat to the stability of the financial sector.

To date, efforts to assess climate-related financial risks have focused on near-term transition risks. A recent study by the Basel Committee on Banking Supervision (BCBS) found that most banks that measure climate-related risks do so by assessing the impact of near-term transition risks on their portfolio's credit risk, based mainly on the alignment of different sectors' carbon intensity with national climate targets. Some banks are integrating the results of such assessments into their risk-management practices, which typically cover two- to five-year planning horizons. The often longer-term nature of climate-related physical risks raises additional modelling problems and tends to lie outside of banks' conventional planning horizons—although the materialization of these risks is increasingly likely to occur within the maturities of longer-dated loans and other assets.[34]

Enhanced scenario analyses and stress testing, based on granular data and forward-looking modelling techniques, can support a more comprehensive assessment and management of climate-related risks. While some banks are already undertaking scenario analyses and stress testing, such exercises have so far been limited in scope. More comprehensive scenario analyses should cover the impact of climate change on all traditional financial risk categories over a range of relevant time horizons. They can build on scenarios developed

by international bodies, such as the International Energy Agency and the Network for Greening the Financial System. The outcomes of these analyses should inform banks' risk management frameworks, including risk mitigation strategies.[35]

Financial institutions should disclose their climate-related risks and mitigation strategies, in comparable terms, to help regulators and market participants to identify and address institutional and broader financial stability risks. The private-sector-led FSB Task Force on Climate-related Financial Disclosures (TCFD) has put forward recommendations on climate-related financial disclosures by publicly listed companies. Despite some improvement over time, however, only 28 per cent of banks' reports were aligned with this voluntary set of disclosures in 2020—causing some jurisdictions to take steps towards making TCFD-aligned reporting mandatory.[36]

There is also increased interest in better disclosure of the financial sector's contributions to climate goals (as opposed to the impact of climate change on financial institutions' financial profitability). For instance, the Glasgow Financial Alliance for Net Zero (GFANZ) aims to bring together financial institutions for emissions reduction and reporting on progress.[37] Integrating recent progress in disaster and climate risk data can also help to improve financial modelling to internalize negative external effects of financial and investment decisions on environmental and biological hazards.[38]

A role for financial regulation and supervision

Financial sector regulators and supervisors should take a more proactive stance to ensure the stability of the financial sector in the face of growing risks. Several jurisdictions have moved towards mandatory climate-related risk disclosures, aligned with or based on the TCFD recommendations.[39] Financial supervisors are also increasingly using scenario analyses and climate stress tests for microprudential supervision and to identify whether climate-related risks could become systemic. While such exercises are still at an exploratory stage, they could in time be used to determine the climate-resilience of banks' portfolios and inform additional liquidity and capital requirements. For countries that have implemented the Basel II or Basel III frameworks, it might be possible to incorporate such an assessment as part of the Supervisory Review Process. However, some national supervisors have called for a complete review of the Basel Framework to fully account for climate-related financial risks.[40]

Coordination between national authorities—with support from international standard-setting bodies—can further strengthen the resilience of financial markets. Increased coordination could help to establish consistent and comparable data sets and reporting standards; build frameworks for the evaluation of vulnerabilities at the national and global levels; develop effective regulatory and supervisory practices and tools; and increase capacity by sharing experiences and good practices. For example, the Network for Greening the Financial System (NGFS)—an association of 105 central banks and supervisors, including from almost all G20 countries—has developed and shared analytical work and practical tools, including on bridging data gaps, prudential supervision and climate scenario analysis.[41] The BCBS Task Force on Climate-related Financial Risks recently published a consultative document with high-level principles for the effective management and supervision of climate-related financial risks as part of a broader review of the Basel Framework.[42] The FSB *Roadmap for Addressing Climate-Related Financial Risks* aims to bring together these and other initiatives to identify gaps, limit overlap and promote synergies, and support policy discussions at the international level, including in the G20 and G7.[43]

4.2 Monetary policy considerations

Central banks are increasingly incorporating climate-risk considerations in their monetary policy decisions to protect their own balance sheets. They can set an example by publicly disclosing their approach. Physical and transition risks can affect central banks' balance sheets in the same way as banks' portfolios, by impacting counterparties and the financial assets used in monetary policy operations. In response, some central banks have begun (or declared an interest) to implement protective measures for their own balance sheets—including by reviewing the eligibility of assets for collateral and asset purchases based on climate-related risk profiles.[44] The Bank for International Settlements is continuing to provide support for central banks' sustainable reserve management by adding a new Asian Green Bond Fund, launched in February 2022 and managing around $1.5 billion, to its two existing green bond funds (launched in 2019 and 2021 and managing a total of $2 billion in green bonds).[45] Central banks can also serve as a good example for financial institutions by disclosing their own climate-related risks and mitigating strategies, in comparable terms.[46]

Climate-related risks impact key macroeconomic variables, bringing them squarely into the realm of central banks' main policy mandates. Weather-related hazards and the low-carbon transition are affecting investment choices; the volatility and potential growth of GDP; employment and productivity; and price levels at the sectoral and aggregate level. Monetary policy will need to react flexibly to these changes to keep delivering on price stability and support for economic policy goals, in line with central banks' mandates. For instance, a recent study found that monetary policies that are adjusted to public climate policies (e.g., carbon taxes vs. cap-and-trade policies) are better at targeting desired price levels and increasing social welfare than monetary policies that ignore climate policies.[47] Regarding financial stability mandates, a number of central banks are already implementing scenario analyses and stress testing, as discussed above.

Several central banks have announced more proactive policy measures to support the transition to a low-carbon economy, and there is a broad set of policy options for consideration. For example, the Bank of England announced in March 2021 that it would start explicitly considering environmental and climate goals, including as part of its quantitative easing programme.[48] In July 2021, the European Central Bank committed to supporting the climate goals of the European Union, including by tilting future corporate bond purchases towards less polluting companies.[49] In December 2021, the Bank of Japan launched a new lending scheme, at zero per cent interest, to financial institutions for investment or loans they make to address climate change.[50] Earlier in 2021, the People's Bank of China announced further plans to incorporate sustainable development measures into its financial plans over the next five years.[51] To support central banks in designing similar and other mechanisms, including for protective and more proactive monetary policies, the NGFS has developed a menu of policy options (table III.F.1),[52] many of which are in line with strategies being considered by private asset managers (chapter III.B).

Table III.F.1
Selected monetary policy options for addressing climate change and related risks

	Credit operations[1]	
1	Adjust pricing to reflect counterparties' climate-related lending	Make the interest rate for central bank lending facilities conditional on the extent to which a counterparty's lending (relative to a relevant benchmark) is contributing to climate change mitigation and/or the extent to which they are decarbonizing their business model.
2	Adjust pricing to reflect the composition of pledged collateral	Charge a lower (or higher) interest rate to counterparties that pledge a higher proportion of low-carbon (or carbon-intensive) assets as collateral or set up a credit facility (potentially at concessional rates) accessible only against low-carbon assets.
3	Adjust counterparties' eligibility	Make access to (some) lending facilities conditional on a counterparty's disclosure of climate-related information or on its carbon-intensive/low-carbon/green investments.
	Collateral[2]	
4	Adjust haircuts	Adjust haircuts to better account for climate-related risks. Haircuts could also be calibrated such that they go beyond what might be required from a purely risk mitigation perspective to incentivize the market for sustainable assets.
5	Negative screening	Exclude otherwise eligible collateral assets, based on their issuer-level climate-related risks. This could be done in different ways, including adjusting eligibility requirements, tightening risk tolerance, introducing tighter or specific mobilization rules, etc.
6	Positive screening	Accept sustainable collateral so as to incentivize banks (or capital markets) to lend (or fund) projects and assets that support environmentally friendly activities (e.g., green bonds or sustainability linked assets). This could be done in different ways, including adjusting eligibility requirements, increasing risk tolerance on a limited scale, relaxing some mobilization rules, etc.
7	Align collateral pools with a climate-related objective	Require counterparties to pledge collateral such that it complies with a climate-related metric at an aggregate pool level.
	Asset purchases[3]	
8	Tilt purchases	Skew asset purchases according to climate-related risks and/or criteria applied at the issuer or asset level.
9	Negative screening	Exclude some assets or issuers from purchases if they fail to meet climate-related criteria.

Source: NGFS.
Note: 1 Credit operations are widely used to provide aggregate liquidity and usually take the form of collateralised lending. 2 Collateral policy defines the range of assets that can be pledged to secure central bank credit operations as well as the risk control measures that apply to them. 3 Central banks may buy a variety of assets from both public and private sectors, typically in an effort to exert greater influence on longer-term interest rate levels and spreads while improving market liquidity.

5. Digital finance

Rapid developments in digital financial technology, further accelerated by the COVID-19 pandemic, have transformed the provision of financial services and created a new ecosystem of digital assets and currencies. While creating new opportunities for efficiency gains and financial inclusion, the large-scale adoption of these technologies also creates new risks, including for financial stability and integrity. Authorities should carefully monitor domestic and global developments, review and update regulatory frameworks when necessary and cooperate across sectors and borders to address new and emerging risks, while leaving room for innovation. International standard-setting bodies have been providing guidance and support for dealing with these challenges and should make further efforts to address the specific needs and challenges of developing countries.

5.1 Harnessing digital finance

The recent growth in digital financial services has been accompanied by an accelerated shift towards platform-based business models. The COVID-19 pandemic increased demand for cashless payment and other financial services. This trend benefited some financial service providers more than others. Larger digital platforms were able to capitalize on their broad range of services and wealth of data to cross-sell financial and other services to their customers, while several mobile money providers saw their revenue streams affected by government-mandated reductions in fees, and some smaller fintech companies had difficulty raising funding. At the same time, the observed increase in the non-performing assets ratio by fintech non-banks, which operate outside the regulatory umbrella, highlights the importance of regulation for all fintech companies involved in lending (see chapter III.G). Many traditional financial institutions also strengthened their digital service channels, including by adopting platform models and offering third-party services (e.g., digital payments, insurance or wealth management).[53]

Digital innovations introduced by fintech and big tech companies helped to lower the cost of formal financial services and expand access, but might lead to market dominance by a few big platforms. As highlighted in the *Financing for Sustainable Development Report 2020*, digital innovations can reduce market frictions and lower transaction costs, making it profitable to provide financial services to previously excluded or underserved individuals and micro-, small- and medium-sized enterprises (although rapid digitalization also increases the cost of exclusion—see chapter III.G).[54] The market entry of new competitors has also caused incumbent financial institutions to innovate and upgrade their customer-facing and back-end technology and provide additional services—by themselves, or by acquiring or cooperating with fintech or big tech partners. Downloads of payment apps from fintech and big tech providers (and a few incumbent banks) have increased sharply in recent years. While big tech platforms have been the main drivers in emerging and developing economies (especially where the traditional financial system was less developed and access to financial services was more limited), they have recently started to gain ground in advanced economies. Market concentration is higher in the former, but seems to be increasing in the latter as well.[55]

Addressing risks from market dominance

The expanding reach of big tech platforms can threaten the business model of regulated financial institutions and cause potential risks to financial stability. In some countries, particularly in West Africa, mobile money platforms have also become systemically important actors. Yet, regulatory frameworks for these platforms differ widely between jurisdictions. Strengthened supervision and regulatory protections may be needed to ensure the continuity of critical payment services—recognizing that regulation and supervision should be proportionate to risks.[56] As discussed in the *Financing for Sustainable Development Report 2021*, as the financial activities of digital platforms become more interconnected with the rest of the financial system and/or grow to become "too big to fail", financial regulators and supervisors need to close regulatory gaps.[57]

Beyond the activity-based approach of "same activity, same risk, same regulation", financial regulators should consider where the specific challenges of big tech companies call for complementary, entity-based regulations, including across regulatory realms. The growing role of fintech companies has in the past increased calls for activity-based regulation to better address risks from specific activities regardless of which entity performs these activities. Activity-based regulation can also help to level the playing field between different actors and avoid regulatory arbitrage between heavily regulated banks and lightly or non-regulated fintech actors.[58] So far, however, few jurisdictions have adjusted their regulatory frameworks. At the same time, specific characteristics of big tech companies that combine different financial and non-financial services may create new risks that are not covered by a purely activity-based approach (including concerns about market dominance, data governance and operational resilience) and that may require a complementary, entity-based approach for these specific actors.[59] As some of the relevant issues lie outside of their traditional remit, central banks and financial regulators should cooperate closely with other regulators to account for the financial sector implications of data protection and access rights and anti-trust regulations. The multinational nature of big tech activities and the increase in cross-border data flows also call for increased international coordination.[60]

Several jurisdictions have made progress in entity-based regulation of fintech providers and big tech platforms, although international coordination will be needed to ensure globally comparable and consistent frameworks. Most regulatory action to date has focused on strengthening competition, including through open banking requirements that ensure data portability between bank and non-bank financial service providers (e.g., in the European Union, India, South Africa and the United Kingdom) and broader regulation to prevent anti-competitive practices of digital platforms, as implemented in China in late 2020 and currently under discussion in the European Union (see chapter III.G), the United Kingdom and the United States. Some jurisdictions have also implemented or are considering data protection laws, such as the European General Data Protection Regulation.[61] Greater international coordination—including through a Global Digital Compact—will be needed to ensure comparable and consistent frameworks.

Strengthening cybersecurity

The growing digitalization of financial services and increased usage of remote access technologies during the COVID-19 pandemic has worsened cyber risks, posing a growing threat to financial stability. The number of cyberattacks has increased during the COVID-19 pandemic, as malicious actors have exploited vulnerabilities from the increased use of remote access protocols (including by the workforce of financial institutions). In 2021, cyberattacks increased by 50 per cent, with the average cost of a data breach rising to $4.24 million from $3.86 million in 2020, owing to slower response times by staff working from home.[62] The financial sector has been among the most targeted.[63] In addition to direct attacks on financial institutions, the growing reliance on a small set of third-party service providers (such as cloud computing services) has increased the exposure of the financial sector to system outages and disruptions, potentially affecting the integrity and availability of assets and services, causing financial and reputational losses and threatening the broader stability of the financial system.

Public and private stakeholders must work together to strengthen the resilience of the financial sector against cyber risks. Current responses to cyber risks are fragmented between individual financial institutions, different regulatory and supervisory authorities and Governments. Greater coordination, with clear responsibilities and reporting structures, and information-sharing across organizational and jurisdictional boundaries can help to shorten response times to cyber incidents. Capacity building and sharing of best practices can strengthen the resilience of individual institutions and the regulatory and supervisory capacities of national authorities.[64] International organizations and standard-setting bodies have been providing support by developing guidelines and toolkits on effective practices.[65] Regional efforts can be a step forward to strengthen international coherence, such as the proposed European Digital Operational Resilience Act, expected to be finalized in 2022.[66]

5.2 Digital assets and currencies

Interest in cryptoassets and digital currencies, including so-called "stablecoins" and central bank digital currencies, continues to grow. Easy global financing conditions during 2020 and most of 2021 spurred the risk appetite of global investors who took advantage of increasing trading opportunities for cryptoassets. Meanwhile, many central banks have stepped up efforts to design their own retail digital currencies to address the growing demand for a safe, universally accessible and accepted unit for financial transactions.

Cryptoassets and stablecoins

The growth in cryptoassets such as Bitcoin has been driven primarily by their use as speculative assets, and their increased adoption is raising financial stability concerns. The excessive volatility of cryptoassets has so far prevented them from fulfilling the basic functions of money as a reliable store of value, unit of account and medium of exchange. More recently, however, increased investor interest and the exploration of new trading opportunities—including by institutional investors and some banks—has meant that cryptoassets are no longer on the fringes of the financial system. This, in turn, has caused a significant increase in the correlation of cryptoasset prices with traditional equity valuations, reducing the perceived benefits of diversification and increasing the risk of spillovers between asset classes.[67]

Total market capitalization for crypto assets and stablecoins has increased around 15 times in value since January 2020, reaching $2.8 trillion in mid-November 2021. Bitcoin still accounts for over 40 per cent of the total, while the fast-growing Ether—of the Ethereum blockchain—now accounts for just under 20 per cent. Private stablecoins, such as Tether and USD Coin, which aim to peg their value to the US dollar, currently make up around 5 per cent of the total (figure III.F.4).

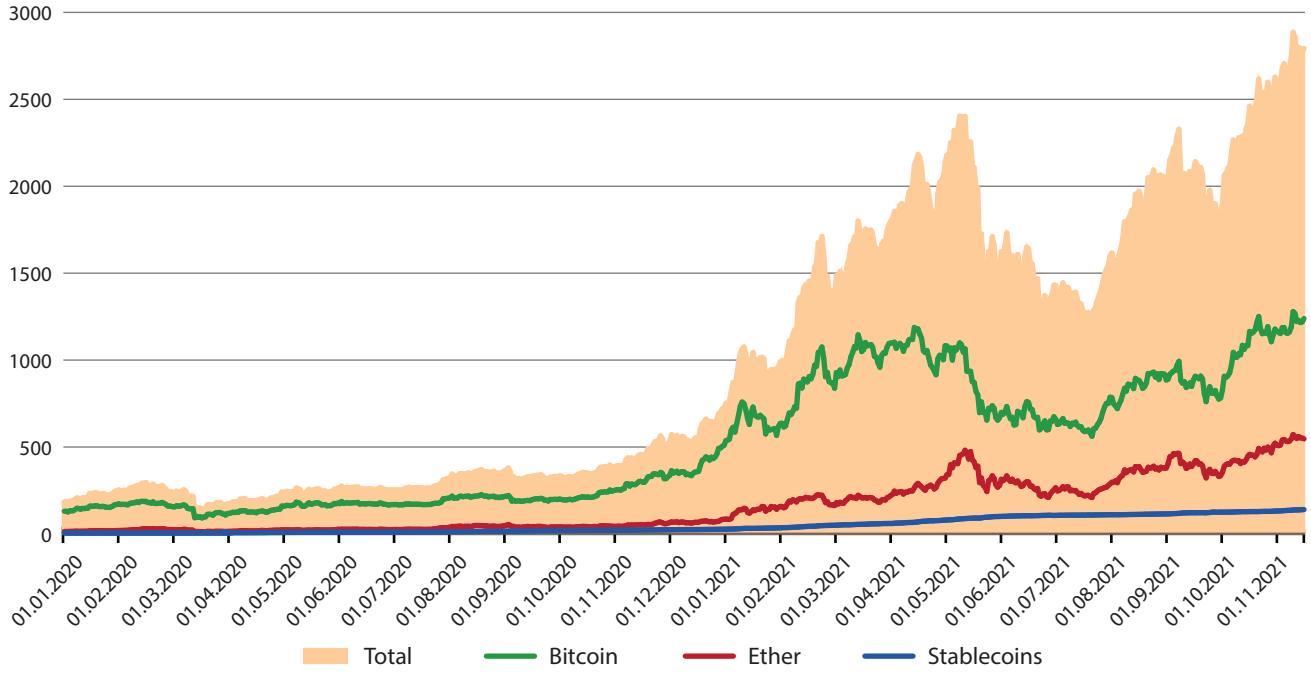
A broader adoption of cryptoassets could affect national economic policies and further heighten financial stability risks. While developing countries in general have seen a more rapid adoption of cryptoassets and stablecoins, it was a surprise to many when El Salvador adopted Bitcoin as legal tender in June 2021. Although it has been argued that Bitcoin could help to reduce remittance costs for citizens working abroad, the impact on financial inclusion may be limited as only around one third of the population are currently active Internet users. At the same time, Bitcoin's volatility against the US dollar—the country's official currency since 2001—could affect household incomes and savings, tax revenues, and domestic price stability more broadly.[68] The pseudo-anonymous nature of Bitcoin transactions also raises concerns about financial integrity and compliance with tax rules and standards on anti–money laundering and combating the financing of terrorism (AML/CFT), increasing the risk of illicit financial flows (see chapter III.A).

While stablecoins share many of the characteristics of cryptoassets (including their pseudo-anonymous nature), they have more currency-like features, as they are generally tied to a currency or a basket of currencies, which is intended to stabilize their value. Their main use is still limited to facilitating the conversion of official currencies into cryptoassets or for trading between different cryptoassets, but their supporting role for the rapidly growing DeFi market (see below) has meant a rapid increase in their use since mid-2020 (figure III.F.4). Depending on regulatory frameworks, their role could grow quickly, especially if they were to be adopted at scale by big tech companies with global reach and large network effects. Even now, with limited adoption, the lack of appropriate regulation and oversight means that they generate operational and consumer protection risks, in addition to concerns about financial integrity.

Depending on their design, stablecoins can be vulnerable to runs, with possible spillovers into the broader financial system. Different stablecoins use different types of collateral, exposing them to various degrees of risk and possible transmission channels. Some of them are fully backed by cash or assets that are considered safe and liquid (such as bank deposits and government bonds). Others are backed by assets, such as corporate bonds or commodities, in addition to cash—making them similar to money market funds prior to 2008. Yet others are backed by cryptoassets or aim to maintain their peg through algorithms that adjust the supply of tokens according to market conditions. In all cases, a sudden loss of confidence could lead to runs, when investors try to redeem their holdings, possibly triggering rapid sales and price corrections of underlying assets.[69]

Increased adoption and use of stablecoins across multiple jurisdictions—turning them into global stablecoins (GSCs)—could create both opportunities and risks. As discussed in previous *Financing for Sustainable Development Reports*, GSCs could potentially increase the

Figure III.F.4
Market capitalization for cryptoassets and stablecoins, January 2020–November 2021
(Billions of United States dollars)



Source: Bank for International Settlements.

efficiency and reduce the cost of cross-border payments (among other options for improving cross-border payments, as laid out in the FSB Roadmap developed for the G20).[70] However, GSCs also raise new risks, including (i) financial stability risks—through currency mismatches or operational failures; (ii) increased capital flow volatility—including through avoidance of capital flow management measures; and (iii) the risk of currency substitution in some developing countries—similar to cases of dollarization—which, in the extreme, could mean that countries would be subjected to monetary policy decisions made by private currency providers.[71]

As cryptoassets and stablecoins become more widely adopted, regulatory and supervisory authorities need to address the implications for financial stability and for the functioning of the international monetary and financial system. National authorities need to closely monitor the use of cryptoassets and stablecoins, linkages to the financial system and potential macroeconomic implications within their jurisdictions. They should apply existing regulations and international standards, where appropriate, following the principle of "same activity, same risk, same regulation". Where necessary, they should update their regulations in line with the recommendations of international standard-setting bodies, including the AML/CFT standards developed by the Financial Action Task Force; the BCBS proposals on the exposure of banks to cryptoassets; and the FSB recommendations for the regulation, supervision and oversight of GSC arrangements. Enhanced international cooperation will be needed to create a comprehensive, coordinated regulatory framework that can also address spillover risks to the global financial system.[72]

Policymakers should also address underlying structural problems that drive the adoption of cryptoassets and stablecoins. Where the adoption is driven by weak macroeconomic performance and high inflation expectations, macroeconomic policies and structural reforms can help to stabilize the macroeconomic environment while regulatory action can disincentivize the use of non-official currencies. Where the adoption is driven by inefficiencies in the domestic financial system and a lack of access to financial services, policymakers can consider how to improve the functioning and inclusiveness of the financial system, including possibly through the introduction of a central bank digital currency (see below). Where the main goals are tax and regulatory evasion, this will have to be addressed by stronger and internationally coherent regulation and supervision (see also chapter III.A).

Decentralized finance

Closely linked to the growing market valuation of cryptoassets and stablecoins is the rise of DeFi. Based on a public blockchain—most frequently Ethereum—developers can create digital assets, such as cryptocurrencies, stablecoins or non-fungible tokens (NFT), that can be traded or lent out through decentralized applications, with transactions carried out automatically through "smart contracts" (blockchain-based code that triggers actions according to predefined terms and rules). Different components can be combined to create new financial instruments and services—allowing for new uses, but also potentially aggravating vulnerabilities by introducing unexpected interactions and increasing the risk of flash crashes. The value of digital assets locked into DeFi services grew almost tenfold from mid-2020 to the end of 2021. As of 31 December 2021, digital assets locked in DeFi services were valued at $86.4 billion (down from a peak of $112.5 billion in November 2021).[73] While part of this increase can be attributed to the rise in prices of digital assets, growth has also been driven by an expanding ecosystem of applications and users.[74]

DeFi has the potential to replicate many of the services provided by traditional financial institutions and create new applications. According to its proponents, DeFi could increase transaction speed and efficiency. For instance, decentralized exchanges can execute trades through smart contracts without the help of escrow services or central clearinghouses. Other DeFi services include decentralized borrowing and lending platforms, which pool liquidity in the form of digital tokens that borrowers can access if they provide sufficient digital collateral. Such loans are typically used to leverage trading and/or acquire new assets. These and other services are still in their infancy, and they are mainly used to speculate on the value of digital assets with little to no connection to the real economy.[75]

If DeFi applications continue to evolve and bridge the gap to the real economy, they could have a transformative impact on the global financial sector, with far-reaching effects on monetary policy and financial and macroeconomic stability, including by accelerating the broader adoption of cryptoassets and stablecoins and amplifying associated risks (see above). To do so, blockchain technology would need to be made more efficient and less energy-intensive. This is already happening to an extent. The announced changes of the Ethereum blockchain on transaction verification could reduce its energy intensity and increase the number of transactions that can be processed; several competing blockchains also aim to address these issues.

A range of new and emerging risks related to DeFi have been identified, some of which also exist in the traditional financial sector, while others are specific to the DeFi sector. The latter include: (i) technical risks—failures of the software systems for the execution of transactions, pricing and integrity; (ii) operational risks—failures of human systems for maintenance, security management and governance; (iii) legal compliance risks—related to the use of DeFi for illicit activities, fraud and market manipulation or tax and regulatory evasion; and (iv) emergent risks to financial stability—for example, large-scale flash crashes stemming from the interaction, scaling and integration of DeFi components. The automated execution of smart contracts in times of high market volatility could increase the likelihood and severity of flash crashes and downward price cascades. High levels of leverage, including in DeFi lending and derivatives trading, could also lead to fire sales and rapidly falling prices in the case of a downturn. Owing to the global nature of DeFi operations, contagion risks could be greater than in the traditional financial sector.[76]

The decentralized nature of DeFi and its evolving characteristics pose new challenges to regulators and supervisors. They need to carefully monitor new financial instruments and apply and/or review and adapt existing financial regulations according to their functions and risks. Without financial intermediaries, it will be difficult to identify regulatory subjects to enforce regulations. While it could be technically feasible to embed regulations into the underlying software protocols—as the ultimate expression of regulatory technology (RegTech)—this would require close cooperation between regulators and software developers (which would also depend on significant political will) and strong supervisory

capacities and resources,[77] and would need to keep pace with technological changes over time. A natural entry point for more traditional regulation could be the governance structures of DeFi platforms (typically organized around holders of "governance tokens", often the platform developers).[78] International standard-setting bodies and authorities could support international cooperation to exchange information and develop comparable standards to address the cross-jurisdictional implications of DeFi.

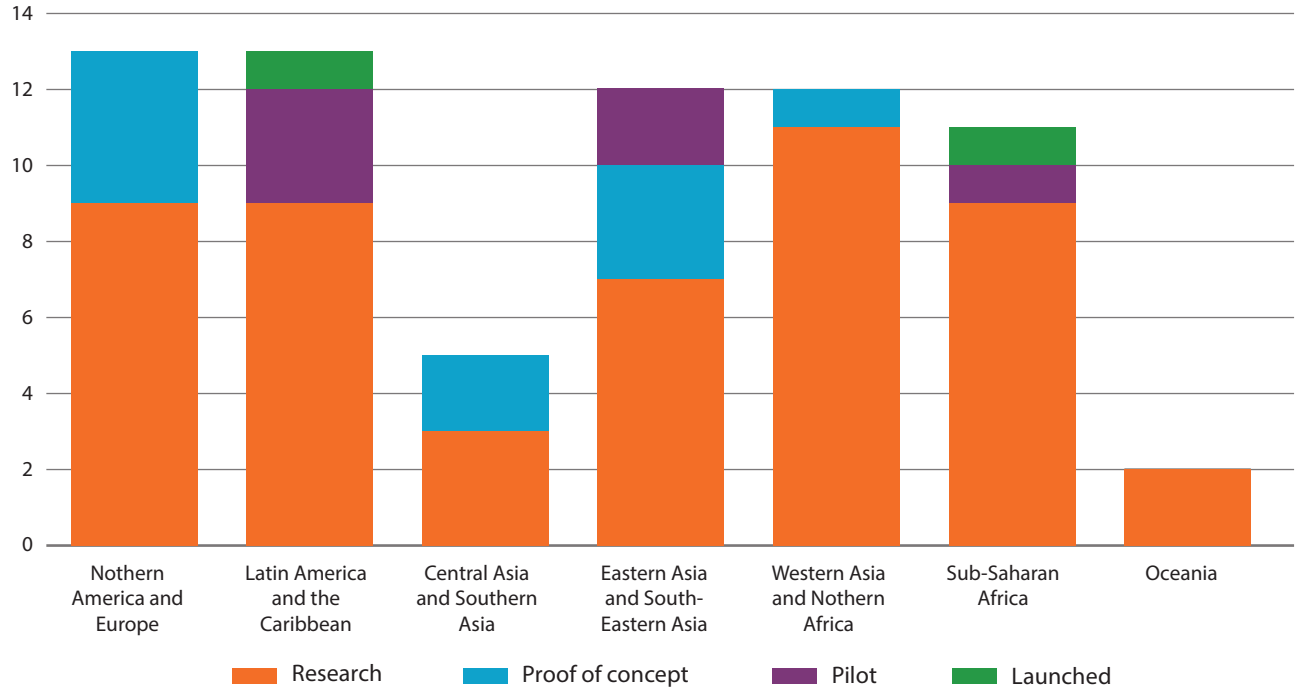
Central bank digital currencies

The increasing digitization of financial services and the evolution of a new ecosystem of assets and services has also raised interest in central bank digital currencies (CBDCs). In February 2022, a total of 68 central banks were actively engaged in different stages of work on retail CBDCs (figure III.F.5). The Central Bank of the Bahamas was the first to launch a retail CBDC in October 2020, with the primary goal of increasing financial inclusion. One year later, the Central Bank of Nigeria launched its own CBDC to (i) increase financial inclusion; (ii) facilitate and lower the cost of remittances; and (iii) reduce informality by making transactions more transparent and traceable.[79]

Retail CBDCs can have different characteristics, depending on technical design choices. CBDCs could be similar to cash, or they could grant account-based access requiring digital identity verification to allow for better monitoring to deter and detect illicit activities. The interaction of retail CBDCs with the financial system can also take on different forms: a two-tier system would essentially mimic the structure of financial markets today, as consumer-facing services and financial intermediation would be carried out by private actors (such as banks) while central banks would provide the operational backbone and use their regulatory and supervisory powers to ensure a level playing field. A one-tier architecture, where retail clients hold accounts directly with the central bank, would effectively eliminate the need for financial intermediaries, with central banks deciding on credit allocation—giving them much more direct control over the economy, but also making them carry the full risk of credit defaults and maturity mis-matches. The design as a one-tier or two-tier system would also affect monetary policy transmission channels: in a two-tier system, monetary transmission channels would be essentially the same as in today's financial sector, while in a one-tier system, central banks could use interest-bearing CBDC accounts to directly set retail interest rates.[80]

CBDC design choices must be tailored to the characteristics of each economy and their financial sectors. Another important choice has to do with the openness of payment networks and their interoperability. Similar to GSCs, CBDCs could help to enhance cross-border payments, but they also carry risks, especially in relation to possible currency substitution and capital flow volatility (including from illicit financial flows) for countries that cannot adopt their own CBDC—particularly small developing countries. Specific design choices could help to mitigate those risks: by using an account-based system and tying the CBDC to digital identification, issuing central banks could retain control over their user base and the kind of transactions performed (i.e., they could limit non-residents' access to the CBDC).[81] Ongoing experiments on linking national wholesale CBDCs for cross-border settlements[82] could also be replicated for retail CBDCs.

Figure III.F.5
Status of central bank digital currencies (retail),February 2022, by region
(Number of central banks)



Source: UN/DESA based on CBDC Tracker.

Central banks should continue their exploratory work to develop appropriate designs for CBDCs, with support from international standard-setting bodies who can develop proofs of concept and prototypes and foster broad dialogue and peer learning. A group of central banks and the Bank for International Settlements published a set of common principles for CBDCs in October 2020.[83] This was followed by an agreement of the G7 Finance Ministers and Central Bank Governors on public policy principles for the implementation of retail CBDCs in October 2021.[84] Such discussions should be broadened, with developing countries having an active voice. This includes countries that cannot adopt their own CBDCs, as they are most likely to be affected by unintended consequences and cross-border spillovers. Special consideration should also be given to the potential role of CBDCs in nascent DeFi systems, where they might be traded in parallel or in lieu of private stablecoins.[85]

6. Global governance and policy coherence

6.1 Governance at international institutions and standard-setting bodies

Reform in global economic governance remains urgent, yet progress in this area has been uneven. In the Addis Agenda, Member States committed to strengthening the voice of developing countries in international economic decision-making and global economic governance. While the representation of developing countries in financial institutions, regional development banks and standard-setting bodies increased slightly between 2005 and 2015, vote shares have remained largely constant since then, and major advanced economies continue to hold de facto veto powers in their decision-making boards (figure III.F.6, left-hand panel).

Capital increases in international financial institutions and regional development banks are important not only to strengthen their resource envelope, but also as an opportunity to revisit the allocation of voting rights. The ongoing IMF Sixteenth General Review of Quotas, which shall be concluded no later than 15 December 2023, is an opportunity to continue the process of IMF governance reform. Any adjustment in quota shares would be expected to result in increases in the quota shares of dynamic economies in line with their relative positions in the world economy and, hence, are likely in the share of emerging market and developing countries as a whole, while protecting the voice and representation of the poorest members. The World Bank's most recent shareholding review in 2020 concluded with no adjustment in shareholding. The next such regular review will take place in 2025.

For the first time in over 50 years, there has been a major revision of voting rights at the International Development Association (IDA). At the 2021 Annual Meetings of the World Bank Group and IMF, IDA's Board of Governors endorsed the outcome of a review of IDA's voting rights framework and recommended its implementation under the Twentieth Replenishment of IDA resources (IDA20). While representatives of IDA's recipient countries participate in replenishment discussions and also exercise their voice this way, the new framework aims to ensure fairness, incentivize future contributions and enhance the voice of Recipient members. It sees the voting power for Non-Recipients (IDA members that do not borrow from IDA) gradually aligning to their level of contributions to IDA. Recipients' voting power will be boosted over the next several replenishments and protected from dilution.[86]

In recent years, there has been no significant progress in strengthening the voice and participation of developing countries in international standard-setting bodies. Developed countries remain predominant in most standard-setting bodies—most of which were set up by their national regulatory and supervisory authorities. Despite the commitments made in the Addis Agenda, there was no increase in the participation of developing countries in 2021, with the weight of developing countries in the governance of the International Organisation of Pension Supervisors, International Association of Insurance Supervisors and International Accounting Standards Board falling due to rotating executive body memberships (figure III.F.6, right-hand panel). The set-up of the new International Sustainability Standards Board under the International Financial Reporting Standards Foundation is an opportunity to ensure appropriate representation of developing countries from the beginning.[87]

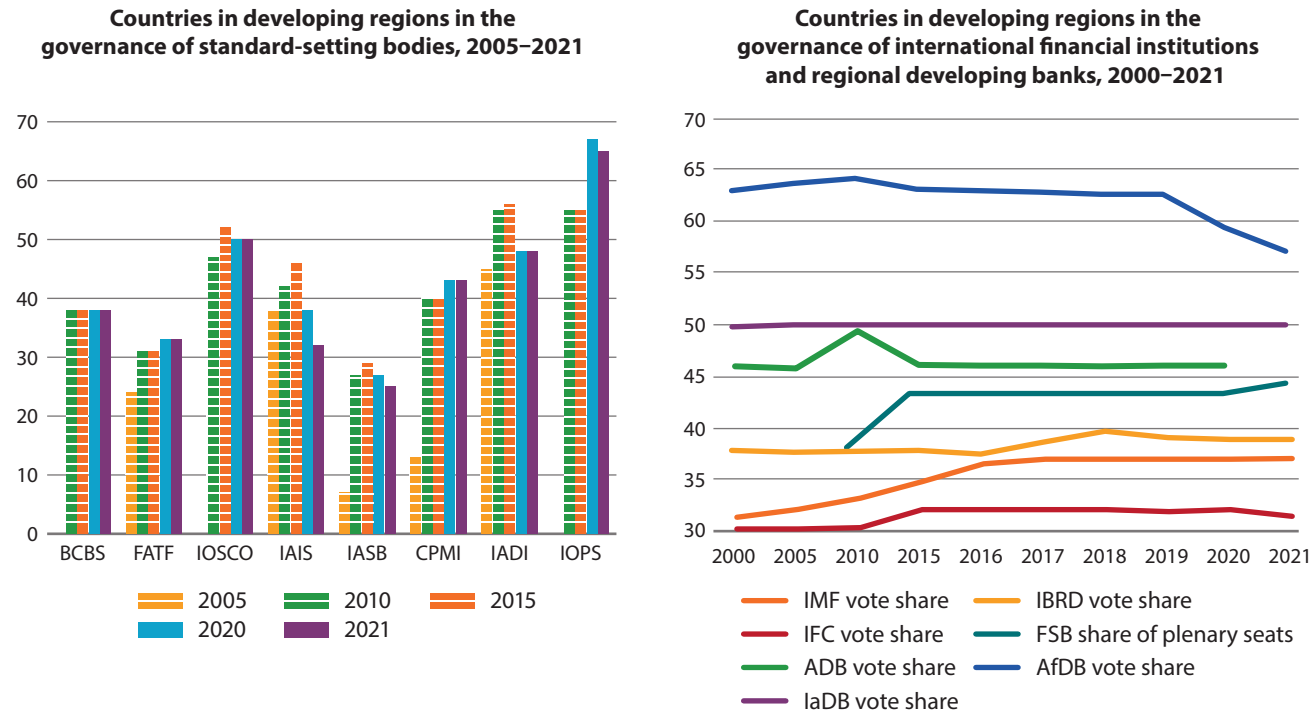
6.2 Improving coordination and policy coherence

Improved coherence and consistency of policies and increased cooperation between major international institutions has been a long-standing objective in the financing for development process. The Addis Agenda calls for the coherence of international financial, monetary and trading systems, as well as investment, development policy and environmental institutions and platforms. It also calls on development finance institutions to align their practices with the 2030 Agenda for Sustainable Development. Increased multilateral coordination is also needed in areas such as tax, competition and non-economic issues, including climate change, disaster risk reduction, human rights, gender and migration.

The IMF, World Bank and other multilateral development banks continue efforts to align their activities with the Sustainable Development Goals (SDGs) and the Paris Agreement. In April 2021, the IMF launched a new long-term macroeconomic framework to support its members in the design and analysis of development financing strategies to achieve the SDGs, which could be utilized within a broader Integrated National Financing Framework.[88] The World Bank Group published its updated Climate Change Action Plan for 2021-2025, committing to align all new operations with the Paris Agreement by mid-2023.[89] The multilateral development banks and the IMF recently published a joint report highlighting their respective contributions to helping countries overcome the current crisis and achieve development goals.[90] The impact of such efforts could be further strengthened through increased cooperation between the international financial institutions, including multilateral development banks, and with the United Nations.

To support a strong, sustainable and inclusive post-COVID-19 recovery, all stakeholders should align their actions with climate protection and ensure they are gender-responsive. The transition towards more environmental sustainability must be inclusive and support growth in sustainable and labour-intensive sectors that open opportunities for advancing gender equality. Countries should step up efforts to implement the Enhanced Lima Work Programme on Gender that

Figure III.F.6
Representation of developing countries in international institutions and standard-setting bodies, 2000–2021
(Percentages of voting rights or members)



Source: UN/DESA.
Note: The International Monetary Fund (IMF), International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC), Asian Development Bank (ADB), African Development Bank (AfDB), Inter-American Development Bank (IADB) show the percentage of voting rights. The Financial Stability Board (FSB) does not have voting rights, and thus data shows the number of seats at the plenary. All data is categorized according to the M49 classification of developed and developing regions. The main international SSBs include the Basel Committee on Banking Supervision (BCBS); the Financial Action Task Force (FATF); the International Organization of Securities Commissions (IOSCO); the International Association of Insurance Supervisors (IAIS); the International Accounting Standards Board (IASB); the Basel Committee on Payments and Market Infrastructure (CPMI); the International Association for Deposit Insurers (IADI); and the International Organisation of Pensions Supervisors (IOPS). The Basel Committee on Banking Supervision (BCBS) had no developing country members in 2005; and IOSCO and IOPS do not have data prior to 2010.

calls for integrating gender considerations into the work of Parties and the Secretariat in the implementation of the United Nations Framework Convention on Climate Change and the Paris Agreement to achieve gender-responsive climate policies and actions.[91] National, regional and multilateral development banks, development finance institutions and export credit agencies also expressed their joint commitment to support gender equality and women's empowerment, at the Generation Equality Forum in July 2021.[92] Enhanced public-private collaboration building on existing initiatives such as NGFS, GFANZ and the Finance in Common Summit of global public development banks, could strengthen alignment around the SDGs and the Paris Agreement to support the reorientation of financial flows and capital.

For over 75 years, the United Nations has provided an inclusive forum for addressing global challenges, forging multilateral consensus and fostering policy coherence. Within the United Nations, the General Assembly and the Economic and Social Council are the main forums for building global consensus on key economic and social norms and goals, including the 2030 Agenda for Sustainable Development and the Addis Ababa Action Agenda. To discuss the policies needed for financing for sustainable development, the Economic and Social Council Forum on Financing for Development follow-up (FfD Forum) continues to provide an important platform.

The United Nations system aims to support the accelerated implementation of international agreements, including on the SDGs, and to strengthen cooperation with other forums and institutions. The Inter-agency Task Force on Financing for Development, convened by the Secretary-General, has been bringing together the views of over 60 institutional members and helping to shape joint analysis and recommendations for its annual *Financing for Sustainable Development Report* since its inception in 2016. Ongoing work to increase coherence and leverage synergies within the United Nations system itself will also strengthen its capacity to assist Member States in the implementation of agreed Goals. In his report on Our Common Agenda, the Secretary-General proposes the establishment of a biennial summit at the level of Heads of State and Government between the members of the G20 and the members of the Economic and Social Council, the Secretary-General and the heads of the international financial institutions. Enhanced coordination at the highest level between these multilateral forums and institutions can help to move the needle on joint actions towards a more sustainable, inclusive and resilient global economy.[93]

Endnotes

1 The SDR allocation has important macroeconomic benefits for the global economy and for member countries. At the same time, the SDR allocation entails risks that need to be considered and managed. Recipient countries could delay needed macroeconomic adjustment and reforms or use SDRs without fully considering the potential costs and risks. These include, among others, the quarterly interest charges at variable interest rates associated with the use of SDRs and the need to monitor closely SDR holdings to ensure timely settlement of SDR-denominated obligations to the Fund. Additionally, risks arising from making an inadequate use of SDRs could be high in countries with unsustainable debt or weak governance. This underscores the need for enhanced efforts to strengthen transparency and accountability. Members should not use SDRs to maintain unsustainable policies. Doing so may lead to costs, including by undermining members' ability to secure adequate access to future financing. For further discussion see, IMF. 2021a. "Guidance Note for Fund Staff on the Treatment and Use of SDR Allocations." *IMF Policy Paper.* August 2021.

2 In an effort to increase transparency and accountability in the use of SDRs, since the allocation in August 2021, the IMF has made available a number of additional information sources about its members' use of SDRs. Since early December 2021, the IMF have added a new report to its quarterly financial statements to show changes in SDR holdings by member countries (see page 31 in the report). The most recent report (covering operations through end-October 2021) is already published. In addition, the IMF now publishes an *Annual Update on SDR trading operations*—the next paper is expected to be published in the fall of 2022. Finally, the IMF will publish an ex-post report on the use of the SDRs two years after the allocation.

3 G20 Finance Ministers and Central Bank Governors Meeting. Communiqué. Jakarta: G20. February 17–18 2022.

4 SDR allocations are unconditional and "cost-free", but their use incurs an interest cost at the SDR interest rate, to be paid to the IMF, on the difference between a country's cumulative SDR allocations and its holdings. In turn, countries whose SDR holdings exceed their allocations receive interest payments on the difference, from the IMF (IMF. 2022. "Questions and answers on special drawing rights." Last accessed February 3, 2022. https://www.imf.org/en/About/FAQ/special-drawing-right.).

5 IMF. 2021b. "Fund Concessional Financial Support for Low-Income Countries: Responding to the Pandemic." *IMF Policy Paper.* July 2021.

6 United Nations. 2021a. "Liquidity and debt solutions to invest in the SDGs: the time to act is now." *Policy Brief*, March 2021.

7 Potential SDR lenders have indicated that they require very strong reassurances regarding the security and liquidity of any such SDRs channelled to MDBs, to the level where SDRs lent to MDBs maintain their reserve asset characteristics.

8 ECA. 2021. "Launch of the Liquidity and Sustainability Facility." Last modified November 3, 2021. https://www.uneca.org/?q=events/launch-of-the-liquidity-and-sustainability-facility.

9 Mottley, Mia Amor. 2021. Remarks at the World Leaders Summit Opening Ceremony of the UN Climate Change Conference COP26, Glasgow, November 1, 2021.

10 A breakdown of IMF COVID-19 financial assistance and debt service relief is available at www.imf.org/en/Topics/imf-and-covid19/COVID-Lending-Tracker. Last modified February 8, 2022.

11 IMF. 2021c. "Review of Temporary Modifications to the Fund's Access Limits in Response to the COVID-19 Pandemic." *IMF Policy Paper.* December 2021.

12 IMF 2021b.

13 The data used in this sub-section are based on the UNCTAD-Boston University-Freie Universität Berlin Global Financial Safety Net Tracker, which is part of an evaluation of whether the financial options of the International Monetary system can deliver what is needed to member states in terms of potential access to short-term finance in foreign currencies (see Hawkins, Penelope, and Daniela M. Prates. 2021. "Global Financial Safety Nets, SDRs and Sustainable Development Finance: Can the Options on the Table Deliver Needed Fiscal Space?" *UNCTAD Project Policy Brief.*).

14 These are the Arab Monetary Fund, the Contingent Reserve Arrangement of the New Development Bank, the Chiang Mai Initiative Multilateralization, the Eurasian Fund for Stabilization and Development, the Latin American Reserve Fund and the South Asian Association for Regional Cooperation swap arrangement.

15 Grabel, Ilene. 2018. "Toward a Pluripolar Global Financial Architecture? The Bretton Woods Institutions and the New Landscape of Developmental Finance." *Journal of Radical Political Economics* 50, no. 4 (June): 653–659. https://doi.org/10.1177/0486613418761894.

16 China, Indonesia, Japan and the Republic of Korea.

17 The African Union approved the creation of an African Monetary Fund in 2014, but thus far not enough member States have become signatories for it to become operational.

18 Mühlich, Laurissa, Fritz, Barbara and William N. Kring. 2021. "Towards the Marginalization of Multilateral Crisis Finance?" The Global Financial Safety Net and COVID-19. *GEGI Policy Brief.*

19 Mühlich, Laurissa and Barbara Fritz. 2022. "Regional Monetary Cooperation in the Developing World Taking Stock." In *South–South Regional Financial Arrangements, Collaboration Towards Resilience*, 139–175. International Political Economy series, Palgrave MacMillan.

20 United Nations. 2021b. *Financing for Sustainable Development Report 2021*. New York: United Nations.

21 Das, Mitali, Gita Gopinath and Şebnem Kalemli-Özcan. 2022. "Preemptive Policies and Risk-Off Shocks in Emerging Markets." *IMF Working Paper*, no. 22/3. January 2022.

22 Bergant, Katharina, and Kristin Forbes. 2021. "Macroprudential Policy During COVID-19." *NBER Working Paper*, no. 29346. October 2021.

23 See, for example, Forbes, Kristin J. 2019. "Macroprudential Policy: What We've Learned, Don't Know, and Need to Do." *AEA Papers and Proceedings* 109: 470–475.

24 Bergant, Katharina and Kristin Forbes 2021.

25 IMF. 2022. "An Integrated Policy Framework." Last accessed February 2, 2022. https://www.imf.org/en/Topics/IPF-Integrated-Policy-Framework.

26 The recent announcement that Brazil plans to eliminate its tax on financial transactions on foreign exchange operations as part of its accession discussions towards OECD Membership is a case in point (see, e.g., Bloomberg Tax. 2022. "Brazil Will Phase Out Forex Tax As Part of Effort to Join OECD." Last modified January 28, 2022. https://news.bloombergtax.com/daily-tax-report-international/brazil-will-phase-out-forex-tax-as-part-of-effort-to-join-oecd.).

27 BCBS. 2021a. *Early Lessons from the COVID-19 Pandemic on the Basel Reforms.* Basel: BIS.

28 FSB. 2021a. *Promoting Global Financial Stability: 2021 FSB Annual Report.* Basel: FSB.

29 Ibid.

30 FSB. 2021b. *Global Monitoring Report on Non-Bank Financial Intermediation.* Basel: FSB.

31 For a systematic overview of the March 2020 sell-off, see, for example, FSB. 2020a. *Holistic Review of the March Market Turmoil.* Basel: FSB.

32 FSB 2021a; and BIS. 2021a. *BIS Quarterly Review: International banking and financial market developments.* December 2021. Basel: BIS.

33 BCBS. 2021b. *Climate-related financial risks—measurement technologies.* Basel: BIS.

34 Ibid.

35 BCBS. 2021c. *Principles for the Effective Management and Supervision of Climate-Related Financial Risks. Consultative Document.* Basel: BIS.

36 TCFD. 2021. *2021 Status Report.* Basel: TCFD.

37 Glasgow Financial Alliance for Net Zero. 2022. "Bringing together the financial sector to accelerate the transition to a net-zero economy." Last accessed January 17, 2022. https://www.gfanzero.com/.

38 UNDRR. 2021. *Opportunities for Delivering Risk-Informed Investment: Addressing the Barriers.* Geneva: UNDRR.

39 These include Brazil, the European Union, Hong Kong, Japan, New Zealand, Singapore, Switzerland, and the United Kingdom (TCFD 2021, p.5).

40 BCBS 2021b.

41 Network for Greening the Financial System. 2021a. "General Information." Last modified August 19, 2021. https://www.ngfs.net/en/about-us/governance/general-information.

42 BCBS 2021c.

43 FSB. 2021c. *FSB Roadmap for Addressing Climate-Related Financial Risks.* Basel: FSB.

44 Network for Greening the Financial System. 2020. *Survey on monetary policy operations and climate change: Key lessons for further analyses.* Paris: NGFS. Since January 2021, the Swedish Riksbank is also including broader sustainability aspects in its corporate bond purchases, requiring compliance with international norms in the areas of human rights, working conditions, the environment and anti-corruption (Sveriges Riksbank. 2021. *The Riksbank's Climate Report: Climate Risks in the Policy Work.* Stockholm: Sveriges Riksbank.).

45 BIS. 2021b. "BIS launches Asian Green Bond Fund." Press release. Last modified February 25, 2022. https://www.bis.org/press/p220225.htm.

46 Network for Greening the Financial System. 2021b. *Guide on climate-related disclosure for central banks.* Paris: NGFS.

47 Pan, Dongyang and Raimund Bleischwitz. 2021. "Engaging central banks in climate change?" Last accessed January 19, 2022. https://oecd-development-matters.org/2021/11/09/engaging-central-banks-in-climate-change/.

48 Claire Jones. 2021. "The Old Lady Turns Green: the Bank of England Becomes the First Major Central Bank to Commit to Offloading Brown Assets." *Financial Times* March 3, 2021.

49 European Central Bank. 2021. *The ECB's Monetary Policy Strategy Statement.* Frankfurt: ECB.

50 Kihara, Leika. 2021. "BOJ Offers to Pump $18 bln Into Green Finance Scheme." *Reuters* December 23, 2021. https://www.reuters.com/markets/rates-bonds/boj-offers-pump-18-bln-into-green-finance-scheme-2021-12-23/.

51 Liwey, Wang, and Luo Meihan. 2021. "Central Bank Steps up Green Finance Efforts." *Caixin* February 15, 2021.

52 Network for Greening the Financial System. 2021c. *Adapting Central Bank Operations to a Hotter World: Reviewing Some Options.* Paris: NGFS.

53 Croxson, Karen and others. 2022. "Platform-based business models and financial inclusion." *BIS Working Papers*, no. 986. January 2022.

54 United Nations. 2020. *Financing for Sustainable Development Report 2020*. New York: United Nations.

55 For a detailed discussion of the role digital platforms on financial inclusion, see Croxson and others 2022.

56 Dober, Marc, and others. 2021. "E-Money: Prudential Supervision, Oversight, and User Protection." *IMF Departmental Papers*, no. 2021/027. December 2021.

57 United Nations 2021b.

58 See, for example, United Nations 2020.

59 Restoy, Fernando. 2021. "Fintech Regulation: How to Achieve a Level Playing Field." *FIS Occasional Paper*, no. 17. February 2021.

60 Carstens, Agustín and others. 2021. "Regulating Big Techs in Finance." *BIS Bulletin*, no. 45. August 2021.

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Science, technology, innovation and capacity building

Chapter III.G

Science, technology, innovation and capacity building

1. Key messages and recommendations

Two major technology transitions are under way that together will shape a post-COVID-19 world: (i) the digitalization of the economy; and (ii) the progress in science, technology and innovation (STI) that can support a sustainable energy transition. Both trends are creating new opportunities for more resource-efficient, resilient and sustainable development, underpinning transitions in all other areas of the Sustainable Development Agenda and Addis Ababa Action Agenda. They are closely interlinked, as digital technology can help to accelerate the energy transition while also being a potential source of growing energy demand. Both technology transitions may also create new risks and worsen inequalities, effects which are already visible in the digital economy and which could possibly be expected as a result of the energy transition, if not carefully managed. Greater efforts are needed at the national and international levels to harness these technologies and mobilize the financing and capacity building required for just and inclusive transitions.

Increased digitalization has helped to mitigate the COVID-19 crisis for some population groups but has exacerbated the cost of digital exclusion and created new risks. Affordable and universal access to the Internet and digital skills have become a precondition for participating in the digitalized economy. This has exposed and exacerbated digital gaps between countries—with least developed countries (LDCs) continuing to lag behind. It has also highlighted the digital gaps between men and women, companies, workers and vulnerable groups, each with different capacities to benefit from the digital transition. The growth of digital financial services has provided an opportunity to strengthen financial inclusion, while also exposing persistent gender gaps and creating new risks, including new forms of exclusion, cyber incidents and digital fraud. The growing role of big technology platforms has raised concerns about market power and data governance.

- *To close digital divides, policymakers need to ensure universal and affordable Internet access, digital skills training and targeted policies for specific groups, including women and girls;*
- *Regulators and supervisors can build on financial technology to support financial inclusion while addressing growing risks from cyber incidents and digital fraud by strengthening consumer protection and holding financial service providers accountable for safeguarding data;*
- *Well-managed and transparent universal service and access funds can help to mobilize the necessary resources to achieve universal broadband Internet access, based on private-sector contributions, which can be pooled with public funds where necessary;*
- *Regulatory frameworks should be reviewed and strengthened, where appropriate, to address issues of data governance (including to avoid concentration of market power), content accountability, discrimination and human rights. International coordination will be needed to ensure coherent global standards.*

As a sustainable energy transition becomes increasingly urgent, STI solutions are opening up new opportunities. There is little time left to achieve the Paris Agreement and greenhouse gas (GHG) emissions will need to be cut sharply by 2030 and to net zero by 2050. While political commitments have strengthened, investments in sustainable energy sources are still insufficient. Energy investments have fallen in developing countries (excluding China) and there has been a reduction in clean technology transfer. Yet, recent technology innovations have made the energy transition achievable, with improvements in sustainable energy production and end use, including through digital consumer technologies.

- *Policymakers must further increase climate ambitions and support their pledges through appropriate budget measures,*

including by building on fiscal stimulus measures for a sustainable recovery from the COVID-19 crisis;

- *Private investment can be a large source of funding for energy infrastructure, while the public sector can set incentives and help to ensure universal and affordable energy access for remote and underserved communities. International cooperation will be needed to support the transition in many developing countries, including through capacity building and technology transfer;*
- *Efforts to increase energy efficiency, including through digital technologies, can lower overall investment needs and help to reduce the reliance on unproven technological solutions for the reduction and abatement of GHG emissions.*

The United Nations system is working to strengthen countries' STI capacity, complementing bilateral and other multilateral efforts. The Technology Facilitation Mechanism (TFM) and the United Nations Technology Bank for the Least Developed Countries (Technology Bank) are facilitating policy dialogue and technology transfer, including to harness digital technologies for development and to address the COVID-19 pandemic. United Nations entities have joined forces with other partners through the Access to COVID-19 Tools Accelerator (ACT-A) that has delivered over 1 billion vaccine doses to developing countries but remains underfunded. Collaboration at different levels also aims to support country efforts to align finance, investment and technology to recover better from the current crisis.

- *Member States are called upon to step up their contributions to ACT-A and consider sharing know-how and intellectual property to support the fight against COVID-19 and strengthen resilience to future pandemics;*
- *Continued support for the TFM and Technology Bank is needed to help them deliver on their mandates and further strengthen developing countries' capacity to harness STI—for instance, through STI for SDGs roadmaps.*

The next section of this chapter analyses opportunities and risks from digital trends that have been accelerated by the pandemic and puts forward recommendations for enabling a just and inclusive digital transition; section 3 lays out the challenges of a sustainable energy transition and reviews investment needs and technological opportunities to make it happen; and section 4 takes stock of United Nations system actions to help countries to harness STI for sustainable development.

2. Enabling a just and inclusive digital transition

Digital information and communications technologies are transforming every aspect of life, including all areas of financing for development highlighted in the Addis Ababa Action Agenda. The COVID-19 pandemic has further accelerated these trends. Yet, while digital technologies can increase efficiencies, strengthen resilience and enable inclusion, they can also deepen inequities between and within countries and create new risks. With affordable Internet access and digital skills being basic requirements to benefit from technology and related services, rapid digitalization has greatly increased the cost of exclusion for those who do not have access or cannot use these technologies (often the most vulnerable groups of society). Many developing countries, especially LDCs, are also at risk of falling behind and becoming mainly users and data providers rather than inserting themselves productively into the global digital value chain. Other risks at the individual and institutional levels include the growing threat of cyber incidents and digital fraud, as well as new forms of exclusion, for example, through biases in algorithmic decision-making. At the market level, digitalization has been associated with increased concentration of market power due to the rise of large international tech platforms. The growth in digital financial services has also raised concerns about financial stability and integrity (see chapter III.F).

2.1 Acceleration of digital trends

Increased Internet usage, with persistent gaps

The COVID-19 pandemic has boosted Internet usage worldwide. This has helped mitigate the social and economic impact for some but not all population groups, thereby exacerbating the cost of digital exclusion. According to the latest data from the International Telecommunication Union (ITU), in 2021, 4.9 billion people, or 63 per cent of the world population, were using the Internet—up from 4.6 billion (59 per cent) in 2020 and 4.1 billion (54 per cent) in 2019. Most of this increase was driven by new Internet users in middle-income countries (MICs). In LDCs, the share of individuals using the Internet remained low, at 27 per cent, compared to 57 per cent in developing countries overall, and 90 per cent in developed countries (figure III.G.1).

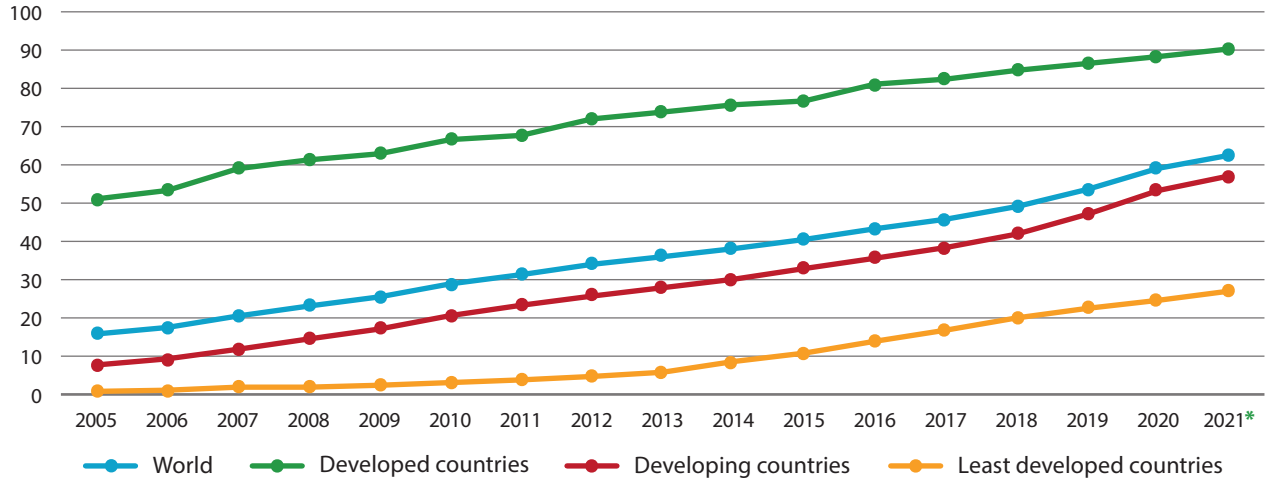
Global data flows—as measured by the global use of Internet bandwidth—have continued to increase at an accelerated pace. Global data flows increased by 35 per cent in 2020 to reach 230 Exabytes per month. They are expected to more than triple by 2026, to reach 780 Exabytes.[1] This increased reliance on digital connectivity underscores the inequalities between and within countries and regions in terms of access to digital opportunity and creates new policy challenges.

Affordable Internet access and the cost of devices remain a challenge in many developing countries and for vulnerable populations everywhere (figure III.G.2). Even where broadband coverage exists, the cost of access continues to be an obstacle, especially in LDCs. The median monthly price of the cheapest broadband subscription with at least 5 GB of data in LDCs is $22.3, or just over 20 per cent of gross national income (GNI) per capita. This compares to a global median of $22.8, or 2.8 per cent of global GNI per capita.[2] The cost of digital devices is also prohibitive for significant segments of the population in lower-income groups in many developing countries. Nearly 2.5 billion people live in countries where the cost of the cheapest available smartphone equals 25 per cent or more of the average monthly income.[3] This lack of affordability is one of the main drivers of the mobile Internet usage gap, with 3.4 billion people not using mobile Internet despite living in areas with mobile coverage.[4]

The gender digital gap remains sizeable, especially in poorer countries

The gender digital divide has narrowed substantially but remains sizeable in some developing countries, particularly LDCs and landlocked developing countries (LLDCs). In 2020, 57 per cent of all women used the Internet, 5 percentage points below the level for men. This represents a slight reduction of the gap (by 1 percentage point) from

Figure III.G.1
Individuals using the Internet, by country groups, 2005–2021
(Percentages)



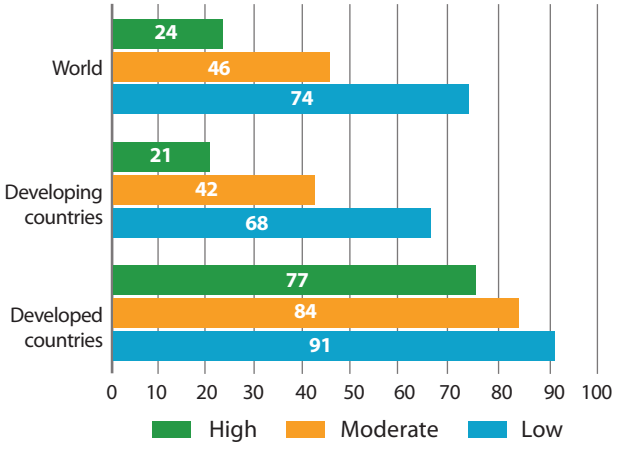
Source: ITU World Telecommunication/ICT Indicators database.
Note: *Data for 2021 are estimates.

2018. While gender parity in Internet use has been more or less achieved in developed countries and in small island developing States (SIDS), larger gaps, of over 10 percentage points, remain in some LDCs and LLDCs (figure III.G.3). Among geographic regions, the largest gaps are in Africa (11 percentage points) and in the Arab States (12 percentage points).[5]

Globally, women and girls are more likely to experience gender-based online harassment, which may further cement the digital divide. For instance, in a 2017 United States survey, women were about twice as likely as men to say they have been targeted because of their gender. In the same year, a study in Pakistan found that 40 per cent of women had faced online harassment. Across countries, female politicians, journalists, human rights activists and women who are members of ethnic minorities and other vulnerable groups tend to be particularly targeted. Affected women often reduce their online presence and withdraw from debates and online discussions, which may result in reduced access to online services and the cementing of the digital divide.[6]

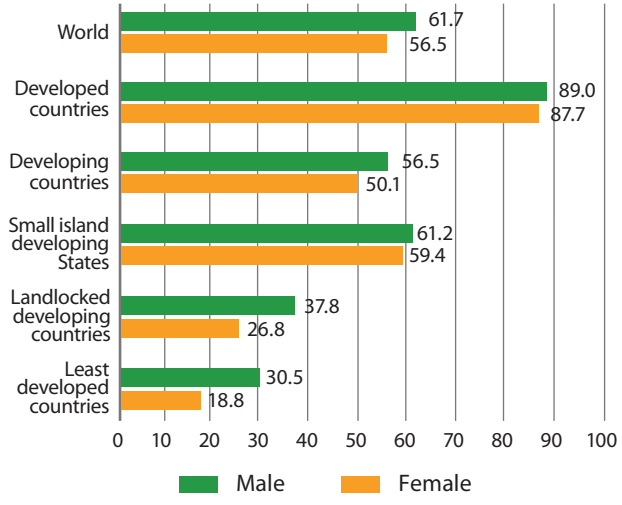
Closing the gender gap will require more affordable access and devices and targeted policies to support and protect women in the digital space. Policies to reduce the gender divide—and digital divides in general—include the promotion of affordable Internet access,

Figure III.G.2
Internet access, by vulnerability, 2019
(Percentages)



Source: Gallup.
Note: Percentage of people with access to the Internet based on economic vulnerability, as measured by times in the past year when people could/could not afford food or shelter and did/did not have help from friends or family.

Figure III.G.3
Percentage of female and male population using the Internet, 2020
(Percentages)



Source: ITU World Telecommunication/ICT Indicators database.

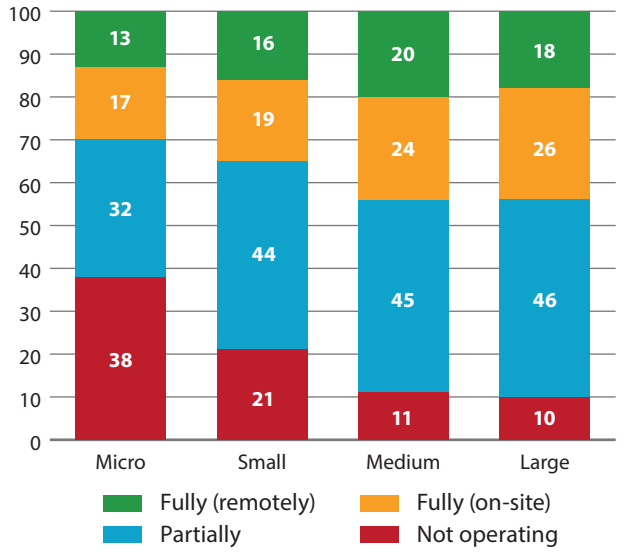
universal access to official identity systems and ownership of digital devices. Protecting the right to privacy, strengthening the responsible use of artificial intelligence (AI) and combating cybercrimes could also contribute to a safer digital space for all. More targeted policies can include the promotion of digital skills development among women and girls and support for their increased participation in technology development and content creation.

Digitally enabled new forms of work and doing business benefited some but excluded many others

Teleworking allowed more people to work from home during lockdowns but exacerbated inequalities between and within countries. During the second quarter of 2020, around 17 per cent of the global workforce worked from home, compared to just 8 per cent in 2019.[7] The extent of the increase differed between countries, depending on their digital infrastructure and sectoral employment patterns, which are closely related to income levels. According to estimates, around 27 per cent of the workforce could, on average, work from home on a permanent basis in high-income countries, compared to 17 per cent in MICs and 13 per cent in LICs. Within countries, smaller businesses were generally less prepared to transition to teleworking arrangements than larger companies (figure III.G.4). At the individual level, higher-skilled, and therefore higher-paid, workers are more likely to have jobs that can be carried out from home and to have the necessary digital skills.[8]

The medium-term outlook depends on countries' preparedness, and the balance of benefits and challenges for employers and workers. While telework has the potential to increase productivity and improve work-life balance through reduced commutes and more flexible working hours, the change in intra-company communication styles could also have negative impacts on creativity and innovation. An increase in telework by women during the pandemic has been linked to an increased burden of unpaid care work (including home schooling). More broadly, increased teleworking also has the potential to shift the territorial distribution of economic activity, affecting the demand for housing and other services. Based on surveys in several high-income countries, some hybrid arrangements are expected in the medium term. For example, the share of remote work in the United States could remain at around 20 per cent after the pandemic. In the United Kingdom, over 60 per cent of surveyed employers planned to introduce or expand hybrid working. In Japan, over 50 per cent of teleworkers reportedly want to continue to telework at least part time.[9]

Figure III.G.4
Operational status of enterprises during the COVID-19 crisis, by size, 2020
(Percentages)



Source: ILO.
Note: Based on an ILO survey carried out during the second quarter of 2020 with over 4,500 enterprises in 45 countries. Respondents were asked whether, and how, their enterprise was currently operating.

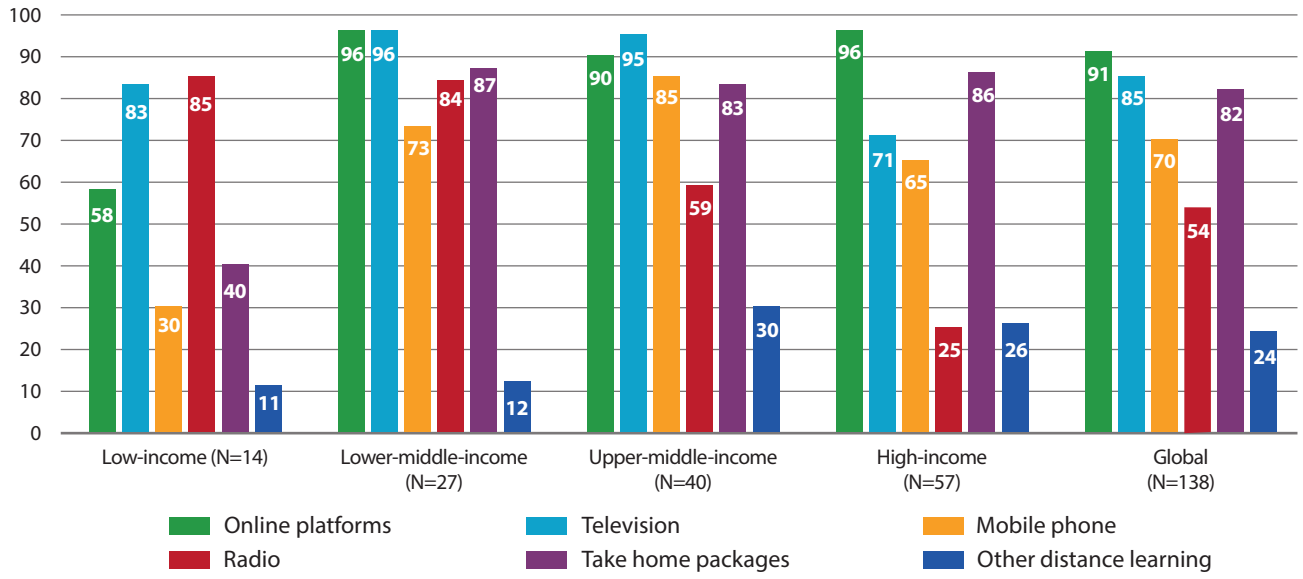
Experiments with e-learning showed mixed results

COVID-19 has disrupted education worldwide, and vast differences in remote learning opportunities have further exacerbated inequalities. At the peak of the crisis, school closures affected over 1.6 billion students in 188 countries. While schools reopened quickly in some countries, they remained fully or partially closed in many others, leading to an estimated global learning loss of 0.9 learning-adjusted years of schooling. Almost all countries implemented remote learning programmes during school closures, with a majority relying on online learning platforms (91 per cent), educational television programmes and take-home packages, with large differences across income groups (figure III.G.5). Yet, in many countries, remote education has not effectively mitigated learning losses, and children from lower-income households and/or in poorer countries have been more likely to fall behind.[10]

Online learning platforms are gaining more attention, but many students have been left behind. While online education helped to somewhat mitigate the academic and social impacts of school closures during the pandemic in most developed countries, it also exacerbated existing inequalities. More than 700 million students worldwide do not have Internet access at home, around 800 million do not have a household computer and 56 million students live in areas not covered by mobile service.[11] As a result, 850 million children and young adults — half of those enrolled in schools, colleges and universities worldwide — were not in education or training at some point during 2020 and 2021.

To make online education more inclusive, public educational institutions must ensure that more learners can benefit from new technologies. While there should be an emphasis on keeping schools open where possible, access to and the quality of remote learning tools need to be improved. This can be done through prioritizing access to broadband Internet, smartphones and laptops, and by including all students in remote learning strategies. Some Governments have reported progress in these areas, for example, by providing specific support to those with disabilities (56 per cent), designing learning materials in minority languages (21 per cent) and making a special effort to ensure that remote and online learning becomes more accessible to migrant and displaced children (16 per cent).[12] In addition, teachers need specialized digital skills training and technical support to effectively implement—and evaluate the impact of—remote and online learning.[13]

Figure III.G.5
Share of survey respondent countries offering a remote learning modality across at least one education level, by income group
(Percentages)



Source: UNESCO, UNICEF and World Bank.
Note: Percentage of respondent countries in a particular income group that reported using a particular modality for at least one of the education levels (pre-primary, primary, lower secondary, and upper secondary).

2.2 Digital financial services and financial inclusion

Financial technology (fintech) has supported strong growth in financial inclusion in recent years. Digital financial innovations have reduced market frictions and lowered transaction costs, making it profitable to provide financial services to previously excluded or underserved individuals and micro-, small and medium-sized enterprises (MSMEs). Fintech services, and particularly mobile money services, have contributed to a rapid increase in account ownership, including by women. This trend was accelerated by the COVID-19 pandemic, as digital financial services provided a lifeline to many individuals and businesses. Governments also used digital financial services to deploy broad-based government-to-person transfers.[14]

New types of digital payments, such as instant payments and e-money, continued to grow rapidly during the COVID-19 pandemic. According to a recent report on the global payments industry, overall non-cash payments increased by 7.8 per cent in 2020. While this was less than the annual compound growth rate of 14.3 from 2016 to 2019, the share of "new payments" (instant payments and e-money payments) continued to rise, to the detriment of traditional non-cash payment methods such as checks, direct debits, credit transfers and cards.[15] Similarly, registered mobile money accounts worldwide increased by 13 per cent in 2020, to 1.2 billion, with a 22 per cent increase in the value of transactions, to $767 billion.[16]

Fintech lending continued to outgrow traditional lending in 2020, but the share of non-performing assets of non-bank fintech companies outside the regulatory umbrella rose. Lending by fintech banks (that is, regulated online banks) and non-banks (such as consumer lending platforms) increased by 21 per cent and 8 per cent, respectively, in 2020, following steady growth of 60 per cent and 125 per cent, between 2013 and 2019. In comparison, lending by traditional banks increased by a more modest 16 per cent in 2020 and lending by traditional non-banks (such as credit card issuers and sales finance companies) grew by 2 per cent. While the share of non-performing assets of both fintech and traditional regulated banks remained relatively constant, at around 0.5 per cent to 0.7 per cent, non-performing assets of fintech non-banks rose to almost 8 per cent in the first half of 2020, almost four times that of traditional non-banks. This suggests that a further increase in non-bank fintech lending could become a greater risk to financial stability in future downturns and highlights the importance of regulation for all fintech companies involved in lending.[17]

Investment in fintech recovered in 2021, driven by strong increases in venture capital (VC) and private equity (PE) investments. Global fintech investment totalled $210.1 billion in 2021, marking a strong recovery after the sharp decline in 2020 but remaining below the record of $213.8 billion in 2019 (figure III.G.6). Investments began to rebound in the fourth quarter of 2020 and remained above average throughout 2021. The main drivers were VC and, to some extent, PE investments, while mergers and acquisitions (M&A) grew more slowly. Investments picked up in all major regions, but especially in the combined Europe, Western Asia and Africa region, where they reached a new record high after the significant drop in 2020—owing to a sharp increase in VC investments and a strong recovery in M&A. Fintech investment in Asia and the Pacific nearly doubled from 2020, while growing by a more moderate 26 per cent in the Americas. Investments in the cryptoassets and blockchain space recorded the fastest growth, increasing almost six-fold to $30.2 billion in 2021. Investments in

cybersecurity almost doubled amid growing concerns about cyber threats (see chapter III.F).

Government support, regulatory responses and initiatives by digital financial service providers helped some MSMEs to navigate the challenges of the COVID-19 crisis. Governments in both developed and developing countries have taken measures to provide financial support to MSMEs (see chapter III.B). In several countries, this included support for greater digitalization of MSMEs, such as the implementation of digital payment and financing systems.[18] Policies in support of mobile payments, such as transaction fee waivers, increased transaction limits and the flexibilization of Know Your Customer and on-boarding requirements (figure III.G.7), also benefited many MSMEs—although in some cases, these measures affected the revenues of mobile money providers. Many traditional financial intermediaries also strengthened their digital service channels to better support MSMEs remotely. Fintech and big tech companies stepped up their services too, including by participating in government relief schemes and launching new digital payment mechanisms.[19]

Strengthening digital financial inclusion

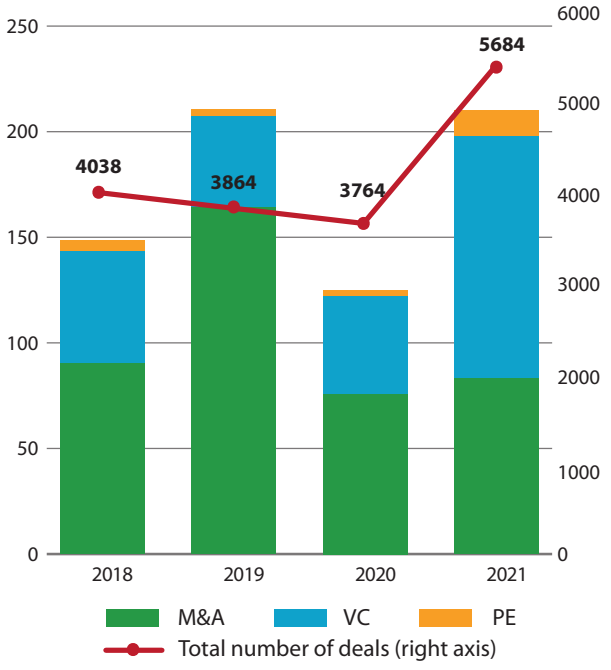
Despite improvements in women's Internet use and targeted policies for women's financial inclusion, the gender gap in financial access remains high. Deposits by women and loans to women remained broadly stable during 2020.[20] Nonetheless, women in low- and middle-income countries are still 33 per cent less likely than men to own mobile money accounts (although gender-disaggregated data is not always available and reliable). To increase the share of women account holders, several operators have taken targeted measures, such as recruiting female agents, developing products tailored to women's needs and redesigning mobile apps.[21]

The expansion of digital financial services during the COVID-19 crisis has provided an opportunity to reach vulnerable populations, but has also created growing risks that policymakers need to address—including new forms of exclusion, cyber incidents and digital fraud. Authorities should work with all relevant stakeholders to enhance the digital financial skills of vulnerable groups, including the poor, women, rural dwellers and MSMEs. They should strengthen consumer protection requirements—including by addressing new forms of exclusion, e.g., through biases in AI decision-making—and hold financial service providers accountable for safeguarding their customers' financial information and personal data, and protecting their systems against possible outages.[22] Together with financial service providers, experts and community representatives, authorities can develop and implement strategies to support the overall financial health of the most vulnerable and underserved populations and help them to detect and avoid digital fraud. Such strategies can build on the G20 Menu of Policy Options for Digital Financial Literacy and Financial Consumer and MSME Protection, which include crisis support for vulnerable individuals and MSMEs; enhanced customer protection and financial education; awareness-raising about fraud; and strengthening redress mechanisms.[23]

2.3 Fostering a just and inclusive digital transition

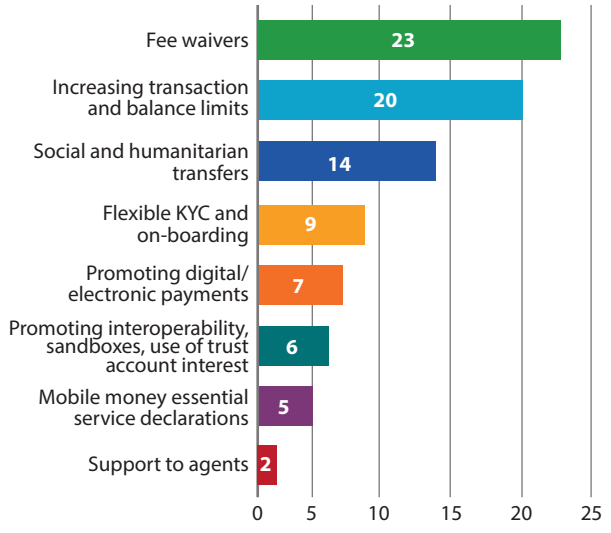
Overcoming divides and ensuring universal and inclusive participation in the digital economy will require significant additional investment and enabling policies and regulations. Global investments of around $428 billion will be needed between 2020

Figure III.G.6
Global fintech investment activity, 2018–2021
(Billions of United States dollars)



Source: KPMG. 2021. "The Pulse of Fintech".
Note: Mergers and Acquisitions (M&A), Venture Capital (VC), and Private Equity (PE).

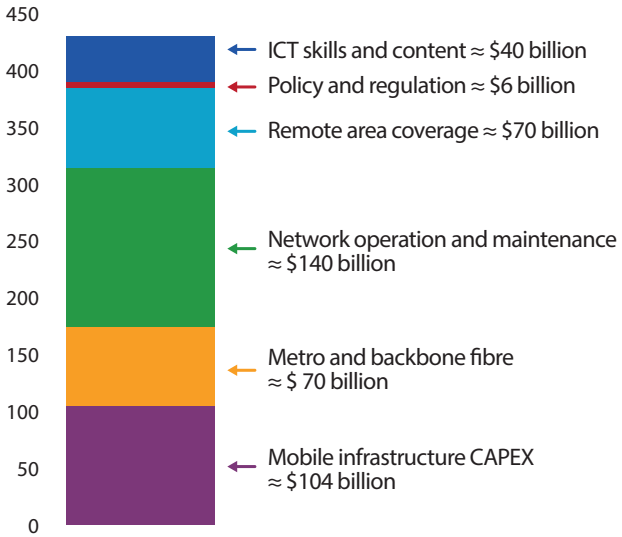
Figure III.G.7
Mobile money policy response
(Number of countries)



Source: GSMA. 2021. State of the Industry Report on Mobile Money.
Note: Based on data from 32 countries in sub-Saharan Africa (17), East Asia and the Pacific (7), South Asia (4), Middle East and North Africa (3), and Latin America and the Caribbean (1). A country may have introduced one or several of these policies.

and 2030 to connect the over 3 billion people who are currently unconnected to the Internet. This includes around US$40 billion for information and communication technology (ICT) skills and content, with the rest primarily for infrastructure development and operations (figure III.G.8).

Figure III.G.8
Connecting humanity to broadband – investment requirements by category, 2020–2030
(Billions of United States dollars)



Source: ITU.

ICT infrastructure has relied on private-sector funding, traditionally from network operators and tower companies, although the expansion of the digital economy has extended the pool of possible contributors. Digital platforms, data centre providers and digital content providers benefit directly from the digital economy. Therefore, they could be encouraged to co-fund network upgrades and expanded coverage. Funds from other sources—including public finance, multilateral, regional and national development banks and private philanthropic investors—can play an important role in supporting infrastructure for remote areas and underserved populations. Direct levies on service providers can also help to finance universal service and access funds (see below).[24]

Further support for the demand side—to foster the broader adoption and use of broadband Internet—can come from both private and public sources. Private companies and individuals will be the main drivers of content and applications or "use cases"—such as data analytics, AI applications or media content—that make the use of broadband Internet attractive. The public sector can also support demand (e.g., by providing digital public services), and policymakers can support local innovation and content creation, for instance, through incubators and innovation hubs. Public support will also be needed to strengthen digital skills and could help to facilitate a stronger participation of MSMEs in the digital economy (box III.G.1 showcases select digital skills programmes).

Box III.G.1
Promoting digital skills in South-East Asia

To support an inclusive digital transition of their economies and societies, several countries in South-East Asia have implemented a range of policy measures to enhance the digital literacy of their citizens and digital skills of their workforce. For example:

Indonesia has prioritized digital skills and literacy as a key agenda for the country's G20 Presidency in 2022. At the national level, the Government is implementing a National Movement for Digital Cyber-Skills Literacy programme that aims to instil basic digital skills in 12.5 million participants, and a Digital Talent Scholarship programme for mid-level digital skills (100,000 participants) and advanced digital skills (300 participants).[a]

In ***Thailand***, the Ministry of Labour launched the Digital Skill Development Academy in early 2021. The Academy oversees digital skills development for the workforce and provides digital skills training programmes and courses for youth.[b]

Cambodia is aiming to overcome low digital literacy levels that have prevented women micro-entrepreneurs from accessing finance and growing and scaling their business. The United Nations Economic and Social Commission for Asia and the Pacific (UN/ESCAP), United Nations Capital Development Fund (UNCDF) and SHE Investments recently launched the KOTRA-Riel bookkeeping app that creates a simple, user-friendly experience to support Cambodian micro-entrepreneurs plan, manage cash flows and access formal financial services.[c]

Source: UN/ESCAP.

a Hani, Aineena. 2021. "Indonesia Strengthens Digital Literacy to Improve Digital Economy." September 15, 2021. https://opengovasia.com/indonesia-strengthens-digital-literacy-to-improve-digital-economy/.
b Bangkok Post. 2021. "MOL Launches DISDA to Enhance Digital Workforce." February 22, 2021.
c UN ESCAP. 2021. "United Nations and SHE Investments launch a mobile bookkeeping app for women entrepreneurs." February 12, 2021.

Updated universal service and access funds (USAFs) could help to pool funds and provide expertise to achieve universal and inclusive broadband coverage and use. Since the early 2000s, USAFs have been adopted by over 100 countries to promote universal access to telecommunication services. The main funding source of most USAFs are mandatory contributions from telecommunications service providers, which are sometimes complemented with public funds. These resources are typically used to incentivize private-sector investments in areas that would otherwise not be commercially viable. The past performance of USAFs has been mixed, with some funds achieving coverage goals and operating in a transparent and accountable manner, while others have been criticized for a lack of transparency and the underutilization of funds. To address shortcomings and harness USAFs for the transition to universal broadband coverage, they should be reviewed to determine what updates are necessary and feasible (while some may have to be discontinued). Updates can include the following:

- Include a broader range of contributors (e.g., only 7 per cent of funds currently require Internet service providers to contribute);

- Pool resources and use public funds (e.g., from development banks) to leverage additional resources when necessary;
- Impose developmental conditions on funding, such as infrastructure sharing, universal access, digital inclusion and the prioritization of local development needs; and
- Implement good governance principles, such as accountability and transparency, and avoid over-collecting/underspending of resources (addressing problems with some first-generation USAFs).[25]

Enabling policies and regulatory frameworks

Policymakers and regulators can establish supportive frameworks and requirements for universal and inclusive broadband coverage, while enabling innovation. Universal-service obligations (USOs) have long been used to oblige network operators to extend telecommunications coverage to hard-to-reach and vulnerable populations. While they have become less common in recent years, they could play a role in the universal roll-out of 4G and 5G broadband, in return for access to high-demand spectrum, especially where operators hold significant market power. Other regulatory requirements could include open access regimes and infrastructure sharing, among others. Authorities can also establish non-financial incentives for private investment, such as streamlining of procedures and approval processes; access to local infrastructure mapping and geographic information; and electronic transaction, cybersecurity, copyright and privacy frameworks. Regulatory sandboxes can help to spur innovation by providing a safe space for companies to develop and test new concepts and products at limited scale.[26]

As digital services continue to expand, authorities should also review regulatory frameworks for data governance to protect users and ensure a level playing field. The cross-border nature of data flows calls for greater global coordination. Global digital platforms—most of which are located in a small number of countries—are currently in a privileged position to collect and process data at large scale (including from cross-border data flows), while many developing countries risk being locked into a position of raw data providers. This has raised concerns about data security, ownership and the accrual of value, creating a strong rationale for a global data governance framework. Such a framework should seek to enable gains from data flows to be equitably distributed within and between countries, while addressing emerging risks and concerns. Policymakers also need to ensure the full realization of the social value of data for the whole economy, beyond the accrual of private value to the platforms who collect and control the data.[27]

Continued work towards a global digital governance framework should complement national and regional efforts. Regulatory efforts are progressing at different speeds across jurisdictions. For example, the European Union is expected to advance legislation on digital competition and content moderation in the course of 2022 (the Digital Markets Act aims to limit the market power of large "gate-keeper" platforms, while the Digital Services Act sets out accountability and transparency standards for online content and the functioning of algorithms). While such regulations have the potential to become legislative benchmarks, global standards should be flexible to allow countries with different levels of readiness and capacities to benefit from the digital economy. As proposed by the Secretary-General in his report on Our Common Agenda, a public-private Global Digital Compact could address questions of universal connectivity; data governance; accountability criteria for content and regarding discrimination; and the protection of human rights.[28]

Progress in the digital transition is closely linked with the need for a sustainable energy transition. Digital technologies can enhance resource and energy efficiency, although the growing use of digital devices and services could also cause net increases in energy use if not carefully managed.[29] For instance, there are growing concerns about the energy intensity of some types of distributed ledger technology that underpin digital assets such as Bitcoin (see chapter III.F).

3. STI for a sustainable energy transition towards net-zero GHG emissions

Recent technological and political trends hold promise for accelerating the global sustainable energy transition. While the challenge to achieve a sustainable energy transition towards net-zero GHG emissions remains enormous, especially in terms of globally coordinated investments, increasing political will and very promising recent technological developments show a way forward. This includes progress in digital consumer technologies that can help to accelerate the energy transition by "doing more with less".

3.1 Increasing consensus on the extraordinary challenges and opportunities ahead

The global sustainable energy transition is essential for sustainable development progress in all other areas. Since the Brundtland report in 1987,[30] a series of United Nations reports have pointed out that the energy transition is one of the most important sustainability transitions for achieving sustainable development, as it will be essential for all other sustainability transitions. This includes a comprehensive transformation of the entire energy system—from extraction of primary energy to end-use and energy services, such as heating, cooling and mobility—that requires complementary actions beyond the energy sector, in transport, housing, industry and agriculture, and digitalization.[31]

For several decades, Governments have pursued various policy mixes to build a sustainable energy system to support economic, social and environmental goals, including the SDGs. At the global level, a sustainable energy system should be more integrated, highly efficient, affordable, reliable and cleaner, with rapidly increasing modern renewables capacities and other low-carbon options. While the specific characteristics of such a system at the local or national level depend greatly on local conditions, one common factor is the quest for higher energy densities,[32] especially in places with high population densities.

However, the share of fossil fuels in the global energy system has barely changed since 1995, requiring an ever faster global energy transition to achieve climate goals. Despite global agreement on climate goals—particularly SDG 13 and the Paris Agreement target of limiting global warming to 1.5°C above pre-industrial levels—fossil fuels accounted for just below 85 per cent of global primary energy consumption in 2020, compared to 86 per cent in 1995.[33] Driven by growing global

energy demand, GHG emissions increased rapidly until 2010, and thereafter at slower rates, reaching an all-time high of 52.5 Gt carbon dioxide equivalent (CO_2-eq) by 2020 (figure III.G.9). While the impact of the COVID-19 pandemic reduced CO_2 emissions from fossil fuels by an estimated 5.8 per cent in 2020, emissions are estimated to have reached new record levels by the end of 2021.[34] To achieve temperature goals of either 1.5°C or 2°C, global GHG emissions would need to be cut by half by 2030 and reduced to net zero by 2050. To achieve the 1.5°C target, GHG emissions would need to be reduced by 7.6 per cent per year until 2030.[35] The technical feasibility of such a rapid energy transition has been demonstrated in a multitude of studies, but time is running out, and the challenge grows with every year without decisive action.

Governments have significantly increased their ambitions for clean energy transitions since 2016. Under the Paris Agreement, Governments specify planned GHG mitigation actions, most of which are centred on the energy sector. Figure III.G.9 shows the resulting global GHG emissions under the assumption that all plans and commitments are fully implemented until 2030. The fan lines depict progressively increased ambitions for GHG reductions: as of April 2016, commitments would have implied continued emissions increases, whereas by October 2021 (around the time of the United Nations Climate Change Conference (COP26)), for the first time ever, government plans envisaged a peaking of emissions by 2025. Yet, much more ambitious action will be needed to meet the 1.5°C target.

Fiscal support for a "green" recovery from COVID-19

Fiscal stimulus packages related to COVID-19 were more focused on a sustainable recovery in 2021. Recent data on public spending policies in the world's 50 largest economies shows that of a total of $18.2 trillion committed to address the COVID-19 crisis by the end of 2021, only $3.1 trillion was directed to longer-term recovery measures. Of that amount, 31 per cent ($970 billion) was for "green" or environmentally compatible spending (table III.G.1). On the one hand, this means that only 5 per cent of the total stimulus has been committed for green recovery packages, raising concerns that public investments may lock in a "business-as-usual" pathway. On the other hand, the share of "green" funding in recovery measures greatly increased from 18 per cent in 2020 to 51 per cent in 2021, as new initiatives with longer lead times were incorporated into public budgets.[36]

Table III.G.1
Fiscal stimulus packages in response to the COVID-19 pandemic in 2020 and 2021, worldwide
(Billions of United States dollars)

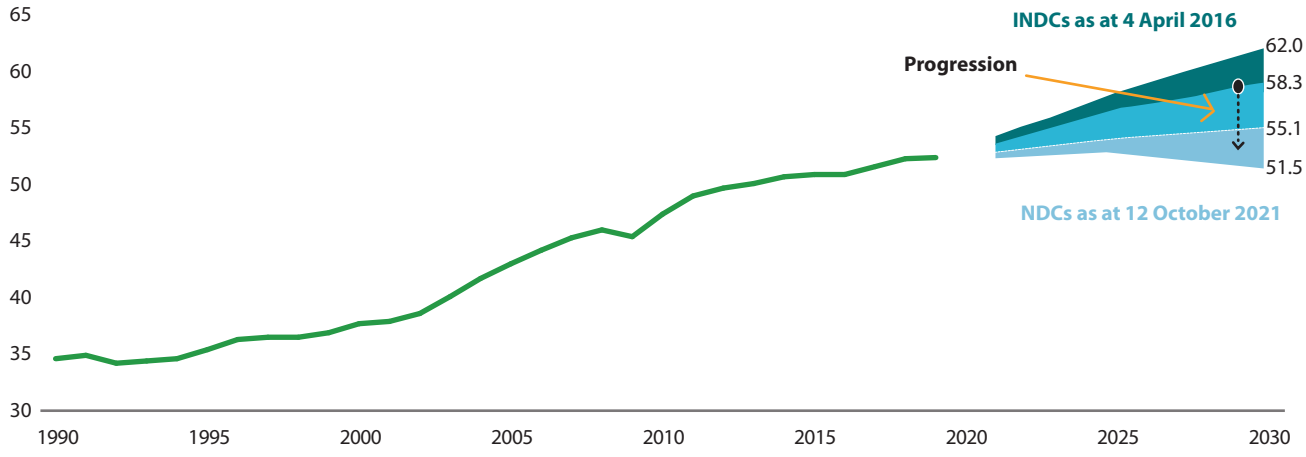
	Rescue efforts	*Recovery measures*		*Total*
		Green	*Not green*	
2020	11,100	341	1,553	14,594
2021	3,931	629	606	5,166
Both years total	15,031	970	2,159	18,160

Source: Global Recovery Observatory (UNEP and University of Oxford).

Green recovery spending was concentrated in a few countries, with a focus on sustainable energy. Countries that committed at least 1 per cent of GDP and spent at least 30 per cent of recovery funding in an environmentally compatible manner include primarily European countries, as well as Canada and the Dominican Republic.[37] In 2020, most green recovery spending was committed to new electric and hydrogen-fuelled transport and infrastructures, public transport, low-carbon energy supply and infrastructure, energy-efficient building upgrades, and green research and development for decarbonizing aviation, plastics, agriculture and carbon sequestration (figure III.G.10).

The large-scale financial stimulus packages show the feasibility of closing the remaining gap on the unfulfilled promise of $100 billion per year in climate finance for developing countries. The stimulus packages in the sample in 2020 accounted for 23 per cent of the

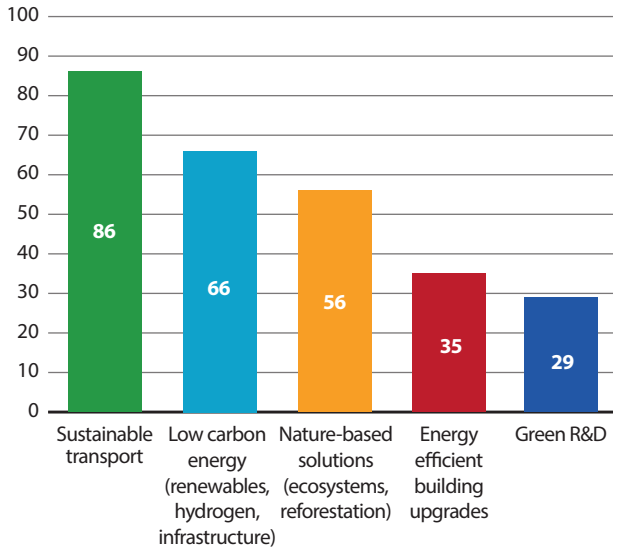
Figure III.G.9
Global GHG emissions, 1990–2020 and projected until 2030
(Gt CO_2 equivalent)



Source: UNFCCC.
Note: Projections assume full implementation of all the Nationally Determined Contributions (NDCs) to which Governments have committed under the Paris Agreement.

GDP of advanced economies and 11 per cent of the GDP of emerging market and developing countries. This shows the possibility of raising trillions of dollars on short notice, provided there is political will.

Figure III.G.10
Green recovery spending in response to COVID-19, 2020
(Billions of United States dollars)



Source: Global Recovery Observatory (UNEP and University of Oxford).
Note: An additional $68 billion of green investments fall into a range of categories that are not shown, including conditional liquidity support, electronic appliance incentives, green worker retraining and job creation, green market creation and unspecified.

Total investment in the sustainable energy transition keeps growing

In 2021, the public and private sector together invested an estimated US$755 billion in the global energy transition. Most of it, around $360 billion, was invested in modern renewable energy—a level that has stayed roughly constant since 2015 after rapid increases in the previous ten years. Falling costs, however, imply continued growth in annual installed capacities of renewables (see below). More than half of the modern renewable investments were in solar photovoltaic (PV) energy. From 2016, most of the increase has been in electrified transport and electrified heat, with smaller investments in nuclear energy and, most recently, sustainable materials. Much less was invested in energy storage, carbon capture and storage (CCS) and hydrogen (figure III.G.11).[38]

Private-sector interest in the sustainable energy transition is also reflected in the market capitalizations of various technology companies. For example, the market capitalization of electric vehicle specialists increased more than five-fold from January 2020 to January 2021, when their value reached that of all traditional automakers combined.

3.2 New opportunities from recent energy technology and systems innovations

Recent energy technology and systems innovations have opened up new opportunities. A peak in GHG emissions by mid-decade, as envisioned by political commitments, is technologically feasible. Technological change and innovations have reached critical levels, especially in modern renewables (e.g., solar PV energy), electric and hydrogen-fuelled transportation and digital consumer innovations.

Solar photovoltaic cells

A third generation of solar PV cells is emerging that can overcome the efficiency limit of conventional single bandgap solar cells.[39] Current solar PV is already the modern renewable option with by far the highest power density[40] and the only currently available renewable option that could in principle fully support our modern, highly energy-intensive civilization. While their power densities would still be 10 to 100 times less than fossil fuels, they represent a feasible option at global scale, with multiple environmental advantages beyond GHG emissions. Greater efforts in research and development and knowledge exchange could facilitate a larger-scale deployment of higher-efficiency solar PV technology in developing countries as a fundamental ingredient of a menu of energy sources for a stable and reliable electricity supply.

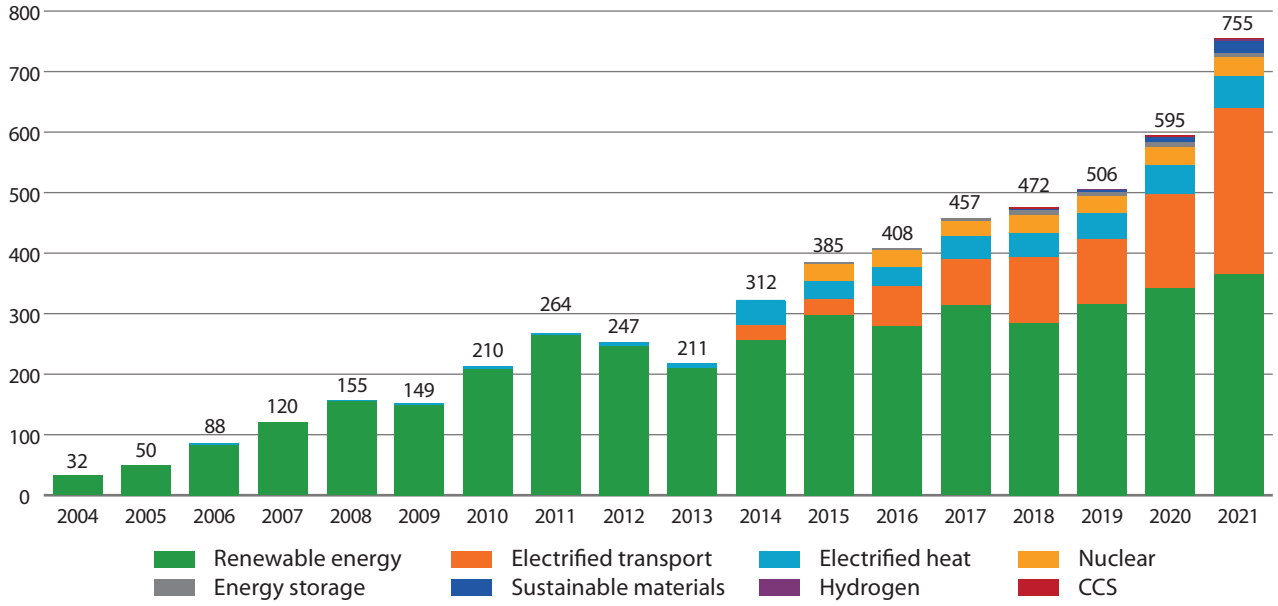
Production costs of conventional solar PV have fallen rapidly. Levelized costs declined from an average of 38 cents per kWh in 2010 to less than 6 cents in 2020. This is also reflected in auction prices which are a mere 4 cents per kWh, making solar PV increasingly cost-competitive, especially when combined with the emerging managed-charging systems for electric vehicles (see below). The cost reduction for solar PV has been much faster than for any other modern renewable. For example, the cost of onshore wind power—previously the most competitive modern renewable option—only halved from 8 cents to 4 cents per kWh over the same time frame, and auction prices for 2022 are higher than for commercial solar PV parks. As of 2020, solar PV and onshore wind power achieved levelized costs of less than half that of concentrated solar power and offshore wind power (figure III.G.12).

Electrified transport

While a sizeable share of rail transport has benefited from electrification for many decades, recent technological progress has enabled increasing electrification of passenger road vehicles. State-of-the-art batteries in fully battery-driven passenger vehicles reached 40 to 100 kWh at the beginning of 2021,[41] making them a viable option for a wide range of applications. Meanwhile, the cost of lithium-ion batteries has decreased from US$10,000 per kWh at the time of their commercial market entry in 1991 to around US$200 per kWh today.[42] Yet, while today's leading lithium-ion batteries have much higher power densities than just a few years ago, they remain rather heavy and bulky (easily increasing the weight of a car by half), which continues to limit the environmental benefits of electric vehicles.

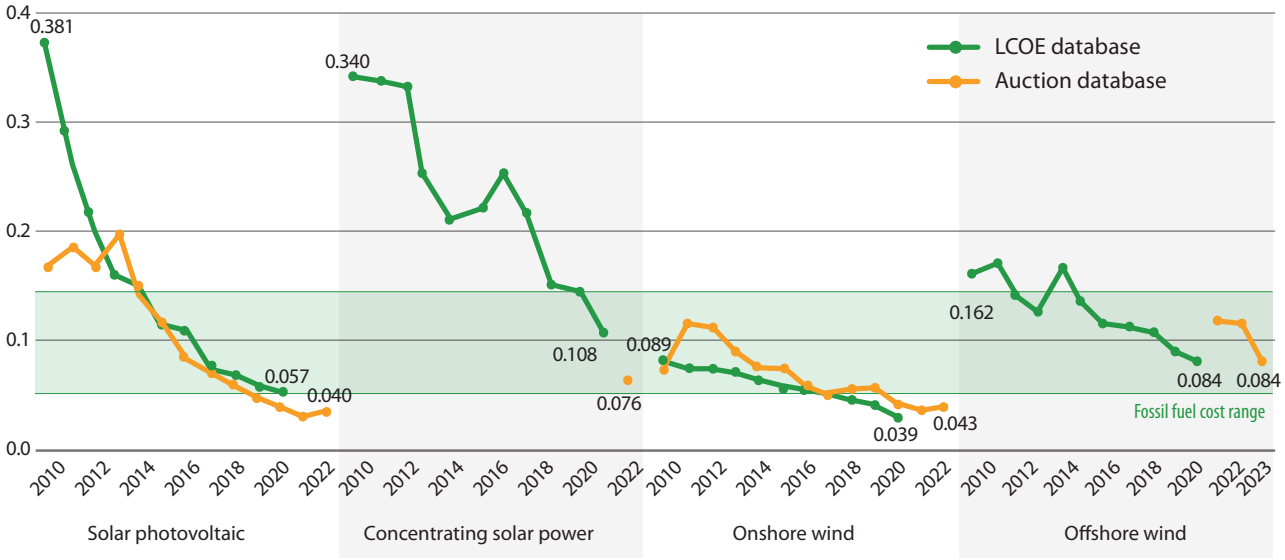
Managed electric charging systems—in which the system rather than the user decides when a vehicle is charged or used as a power source for the grid—hold great promise to balance the grid, solve the intermittency issue of solar and wind power and improve grid stability. Installed capacity of automobiles is very large compared to power plants—for example, in the United States in 2000, it was almost ten times as large. Digital technologies are key in building smart charging infrastructures (see below). Without making full use of such digital opportunities, the introduction of fully electric vehicle fleets would require a significant expansion of electricity generation capacities.

Figure III.G.11
Global energy transition investments, 2004–2021
(Billions of United States dollars)



Source: BloombergNEF.
Note: Start-years differ by sector but all sectors are present from 2019 onwards.

Figure III.G.12
Global weighted average levelized cost of electricity and auction prices for solar photovoltaic, onshore wind, offshore wind, and concentrating solar power, 2010–2023
(2020 United States dollars/kWh)



Source: IRENA Renewable Cost Database.
Note: The thick lines are the global weighted average levelized cost of electricity (LCOE, derived from the individual plants commissioned in each year) or auction values, by year. The project-level LCOE is calculated with a real weighted average cost of capital of 7.5 per cent for OECD countries and China in 2010, declining to 5 per cent in 2020; and 10 per cent in 2010 for the rest of the world, declining to 7.5 per cent in 2020. The band that crosses the entire chart represents the cost range of fossil fuel-fired power generation.

Hydrogen

Hydrogen produced from low carbon and renewable sources has become an energy storage option that could replace fossil fuels in most areas. Several countries have launched programmes to investigate how to harness hydrogen production from renewable sources for storing the energy captured from intermittent new renewable sources such as wind power and solar PV.

Hydrogen has power densities that are six times higher than those of even the best lithium-ion batteries, which makes it a better option for long-range transport and heavier vehicles, such as trucks, ships and airplanes.[43] The GHG performance of battery-operated vehicles quickly worsens for longer ranges, compared to fuel cell vehicles running on hydrogen. Fuel cell vehicles weigh much less, cost less, require less "well-to-wheels" energy and take less time to refuel. This makes hydrogen fuel cells the only viable option for achieving very aggressive emissions reduction targets in transport (e.g., beyond 80 per cent below 1990 levels by 2070 in the case of the United States) without fundamental changes in behaviour. However, there remain challenges regarding the handling, storage and safety of hydrogen, leading many Governments to support infrastructure for both electric vehicles and hydrogen fuel cell vehicles. The European Green Deal is a case in point.[44]

The industrial sector is among the most difficult to decarbonize, but hydrogen fuel offers a path forward. Spurred by new technologies, renewable hydrogen production is rapidly expanding for refining, steel, ammonia and chemicals production, mostly combined with on-site electrolysers to avoid the issues of hydrogen storage and transport. Following the adoption of the ambitious European Green Deal targets, many European countries are pursuing more rapid technological development and deployment of hydrogen technologies.[45]

Digital consumer technologies

Digital consumer technologies could greatly reduce primary energy demand, making the global sustainable energy transition easier to achieve. A range of disruptive digital consumer-facing innovations in buildings, mobility, food and energy distribution and use are readily available for local adaptation and deployment across the world. They entail novel application of knowledge that first emerges in market niches before spreading further, typically offering novel product or service attributes to consumers. Some of them appeal to low-end and price-sensitive users, whereas others appeal to high-end market and technophile users.

Estimates of potential energy and GHG savings vary, pointing to the importance of context, local adaptation and user behaviour; in some cases energy demand may increase. For example, digitally enabled home energy systems have led in some cases to energy savings of 91 per cent, while in some outliers they increased energy use by 9 per cent.[46] Consumer innovations that change how energy is supplied to, generated or managed by households can also help to reduce GHG emissions. For instance, third party service providers managing household energy use subject to performance contracts, has led to energy savings of 10-50 per cent in the United States. Fully autonomous vehicles, electric vehicles and e-bikes could lead to large reductions in GHG emissions as well, but they could also increase energy use due to changed behaviours.

3.3 Global cooperation and investment needs for the energy transition

To make use of these opportunities, the energy transition must be a global effort. Greatly enhanced levels of international cooperation in technology, finance, knowledge-sharing and concerted joint action are needed to achieve a global energy transition at the scale required to meet the 1.5°C target. Cooperation also makes economic sense, as mitigation costs in developing countries tend to be much lower than in developed countries. Yet, because of a myriad of other factors, incentives must also be geared to reduce emissions and provide affordable, reliable and clean energy services everywhere.

Some developed countries have achieved reductions in emissions by shifting energy-intensive manufacturing and production to emerging economies, underscoring the importance of global solutions. The global manufacturing share of developed countries fell from over 80 per cent in 1995 to around 50 per cent in 2019, and the vast majority of the world's ammonia, steel, cement and plastics production is now taking place in emerging and developing economies.[47] This has intensified discussions about CO_2 border tax adjustments which would align incentives towards emissions reduction but could potentially constrain the flow of technologies, skills and knowledge that are so essential for making global progress (see chapters III.A and III.D).

Developing economies, excluding China, have seen reductions in energy investments by 20 per cent since 2016 and a reduction in clean technology transfer.[48] While much of this is related to reduced spending on oil and gas supply, this trend also reflects challenges these countries face in mobilizing finance for capital-intensive, lower-carbon energy projects (worsened by the COVID-19 crisis). Without strengthened global cooperation and financial instruments, the world will not benefit from the much lower GHG mitigation costs in these countries.

Sustainable energy investments need to quadruple in developing countries (excluding China), with an increase in private financing. The International Energy Agency (IEA) estimates that annual investments of $600 billion would be needed in developing countries (excluding China) by 2030 to limit the rise in global temperatures to 1.65°C, and over $1 trillion to achieve net-zero GHG emissions by 2050 and limit the global temperature rise to 1.5°C. While public sources of finance are dominant in today's energy investments in these countries, the IEA also estimates that more than 70 per cent of new, sustainable energy investments, primarily renewables and efficiency, would need to be privately financed by the second half of this decade. This should be feasible, given the high average private returns on such investments. State-owned enterprises and development finance institutions can continue to play a role, especially for reaching remote and underserved communities. With renewables, the capital structure of investments is also expected to move towards more debt, with important implications for capacity building and skills requirements.[49]

"Doing more with less": digital consumer innovations for energy efficiency gains

Most of the newer energy transition scenarios rely on yet unproven technologies in the far future to achieve global climate goals. To achieve net-zero GHG emissions by 2050 without curbs on a

continuously rising global energy demand, planners and scenario analysts alike have assumed that as yet unproven technological fixes, such as bioenergy with carbon capture and storage, will result in a large-scale decrease in emissions, especially 30 years from now. Even if those technologies were to be implemented at scale, they would likely create new logistical problems (e.g., for the safe storage of billions of tons of carbon dioxide every year) and concerns about food security related to the potentially large-scale use of land for bioenergy crops.

Digital consumer innovations provide a ready alternative to "do more with less" by increasing energy efficiency which would reduce overall investment requirements. A large-scale deployment of technological and behavioural action in areas with untapped potential (such as digital consumer innovations in mobility, food, buildings and energy services) could help to reduce global energy and resource needs despite rapid increases in living standards. This would make it possible to achieve the 1.5°C climate target through the deployment of renewable energy, without relying on as yet unproven negative emission technologies.[50]

Such a shift could reduce overall investment requirements for the sustainable energy transition but increase investments in energy end use. This would require the rapid electrification of energy end use, pervasive digitalization, innovation in granular technologies, together with a shift from ownership of material goods to accessing services, and would need to be supported by strengthened global cooperation on STI. As a result, investment requirements for fuel systems, power plants and networks would need to increase only slightly until 2030. Investments in energy end use and services and related business opportunities would need to initially quadruple, from $0.4 trillion to $1.6 trillion, but much of it would benefit consumers through lower electricity and fuel costs. This pathway would also have important co-benefits in the food and land use system. Compared with current trends, it could double the growth of rural incomes and create an additional 120 million decent jobs. Agricultural productivity could be increased by more than 1 per cent per year and food loss and waste reduced by a quarter.[51]

4. United Nations system actions on STI in the areas of the Addis Ababa Action Agenda

4.1 Actions by the United Nations system

The 2030 Agenda for Sustainable Development recognizes that the world will achieve the SDGs only by mustering the full power of STI. Governments and other decision makers everywhere must have access to the latest science and evidence, disaggregated data, and technology solutions, as well as to the resources needed to build capacity and foster innovation and to bring innovations to scale. In the Addis Ababa Action Agenda, Member States pledged their continued support for developing countries to strengthen their scientific, technological and innovative capacity and enhance international cooperation in these areas, including through official development assistance (ODA).

In the Addis Agenda and the 2030 Agenda, Member States mandated the creation of a Technology Facilitation Mechanism (TFM), to advance development cooperation on STI through multi-stakeholder collaboration and enhanced knowledge-sharing (see section 4.2). The multi-stakeholder TFM complements the United Nations Commission on Science and Technology for Development (CSTD), which has brought together Ministries of Science and Technology since 1992 to deliberate on key issues and share experiences and lessons learned on different policy approaches. Both Agendas also envisaged the establishment of the Technology Bank that would create synergies with the TFM.

The broader United Nations system is supporting Member States' STI capacity through ongoing analytical and capacity building work. This includes joint work by United Nations entities through the Cluster on Finance and Technology that is following up on policy options generated by the Financing for Development in the Era of COVID-19 and Beyond Initiative in 2020. The follow-up involves bringing together and further developing ongoing UN system work, including at the country level.[52] Four pilot countries (Jordan, Samoa, Senegal and Zambia) have been identified for joint action to support Governments and other actors in improving the alignment of finance, investment and technology to recover better from COVID-19 and accelerate the implementation of the SDGs.

Harnessing digital technologies

The Technology Bank continues to support LDCs' efforts to overcome the digital divide as part of its mandate to support their structural transformation and building of productive capacities.[53] In January 2021, the Technology Bank joined the Alliance for Affordable Internet[54] to support the Alliance's mandate to expand access to affordable and equitable Internet in all LDCs through technical assistance, advancing policy and regulatory reform and joint participation in research.

In 2021, the CSTD developed recommendations for the potential use of distributed ledger (blockchain) technology for sustainable development. At its twenty-fourth annual session, the CSTD discussed "Harnessing blockchain for sustainable development: prospects and challenges" as one of its two priority themes (see box III.G.2).

STI for health

Other United Nations entities are continuing to support Member States' capacity in STI, including to combat COVID-19. Despite growing global availability of COVID-19 vaccines, some countries are still struggling to ramp up administration of available supply. As vaccine supplies will continue to increase over the course of 2022, countries need to ensure preparedness, including through microplanning, expanded cold chain equipment, logistics, funding and trained staff. COVAX, the vaccine pillar of the WHO-led ACT-A, is assisting countries through its Country Readiness and Delivery workstream by providing guidance, catalytic financing, technical assistance and enhanced coordination and monitoring at the global, regional and country levels.

Beyond the efficient delivery of vaccine doses, a faster global roll-out will also require the sharing of know-how and intellectual property with developing countries, including through

technology transfer hubs. Under the umbrella of COVAX, WHO and its partners (including the Medicines Patent Pool) have set up a multilateral technology transfer initiative to support the sustainable, regional production of essential health biologicals, including vaccines. Through a network of technology transfer hubs and recipients, the initiative aims to: (i) establish or enhance sustainable biomanufacturing capacity in regions with no significant capacity; and (ii) build human capital for regulation and biomanufacturing in low- and middle-income countries (LMICs). The first hub has been launched in South Africa, aiming to enable the transfer of mRNA vaccine technology to LMIC manufacturers. The first recipients have been identified in South Africa, Brazil and Argentina.[55]

Box III.G.2
Harnessing blockchain for sustainable development

According to some estimates, the market for blockchain applications could grow from $708 million in 2017 to over $60 billion in 2024. Currently, the top use cases are cryptocurrencies and online payments and decentralized finance (see chapter III.F), as well as international trade value chains (including to trace sustainability criteria related to labour conditions and environmental impacts).

Participants at the 2021 session of the United Nations CSTD acknowledged the opportunities of blockchain technology for accelerating progress towards the SDGs, including in areas such as land titles, remittances, identity systems, climate change and financial inclusion. To harness these opportunities while overcoming challenges and constraints (e.g., cost per transaction, interoperability, privacy and confidentiality, and insufficient regulations and infrastructure) they agreed on a set of recommendations:

- Identify short- to medium-term opportunities for blockchain and encourage innovation and create opportunities for skills development through pilot projects to kickstart blockchain diffusion;
- Identify opportunities to share resources, skills and knowledge among various stakeholders to benefit the whole ecosystem;
- Connect various blockchain players to government authorities, for better coordination, guidance and security;
- Create a trusted legitimate body to make sure all agents work together towards widespread use of blockchain.

Source: UNCTAD, based on: United Nations, Report of the Secretary-General on harnessing blockchain for sustainable development: prospects and challenges (E/CN.16/2021/3). Available at https://unctad.org/system/files/official-document/ecn162021d3_en.pdf.

Technology transfer and capacity building can also increase resilience to future pandemics. Increased capacity for local vaccine production in developing countries through the COVAX initiative has the added benefit of strengthening resilience to future disease outbreaks and pandemic threats. A recent initiative by the International Atomic Energy Agency (IAEA) focuses on strengthening countries' outbreak detection and response capacities (see box III.G.3).

Box III.G.3
Zoonotic Disease Integrated Action initiative

The IAEA's Zoonotic Disease Integrated Action (ZODIAC) initiative is designed to help countries prevent future pandemics by strengthening the preparedness and capabilities of Member States to rapidly detect and respond to outbreaks.

Since ZODIAC's launch in June 2020, around 150 Member States have designated ZODIAC National Coordinators, and over 120 ZODIAC National Laboratories have become part of the initiative. To support capacity building, the IAEA has begun to procure equipment for the early detection of pathogens for some of the participating laboratories—initially 25 laboratories in Africa, Asia and the Pacific, Latin America and the Caribbean and Europe.

The IAEA has initiated several activities to support coordinated joint research and is making available training, know-how, expertise and technology packages to enhance pathogen surveillance and disease diagnostics, along with prevention and response actions. ZODIAC also provides access to scientific and diagnostic data that can support timely science- and results-based decision-making using radiation imaging technologies or radiomics.

Source: IAEA.

4.2 The Technology Facilitation Mechanism

The TFM has facilitated collaboration and partnerships on STI for sustainable development through four components: (i) the United Nations interagency task team on STI for the SDGs (IATT); (ii) the United Nations 10-Member-Group of High-level Representatives of Civil Society, Private Sector and Scientific Community to support the TFM (10-Member-Group); (iii) an online platform for the TFM—"2030 Connect"; and (iv) an annual Multi-stakeholder Forum on STI for the Sustainable Development Goals (STI Forum), which also provides formal inputs to the High-level Political Forum on Sustainable Development (HLPF) (see box III.G.4). Two main workstreams of the IATT, "STI for SDGs roadmaps" and "analytical work on emerging science and technologies for the SDGs" are featured below.

STI for SDGs roadmaps

STI4SDGs roadmaps can be applied at the national level to accelerate the adoption and use of STI for sustainable development. Based on multi-stakeholder engagement, the roadmaps provide a framework to envision, plan, communicate and facilitate actions, track progress and foster a learning environment to harness STI to achieve the SDGs. The COVID-19 pandemic has increased the demand for further deployment of STI4SDGs roadmaps, to accelerate efforts to close the digital divide and support the digital inclusion of disadvantaged groups.[56]

The IATT, together with non-United Nations partners and stakeholders from pilot countries, has developed guidance material and is providing capacity building for countries interested in

designing their own STI4SDGs roadmaps. In 2021, the IATT and partners published a *Guidebook for the preparation of Science, Technology and Innovation Roadmaps for the SDGs*,[57] accompanied by an operational note with practical guidance for Governments in pilot countries.[58] The first online course was prepared by the beginning of 2022 and several more are planned in the near future.

Emerging science and technologies for the SDGs

To help decision makers make sense of rapid technological changes, an IATT sub-working group is bringing together analytical expertise from across the United Nations system and a wide range of external experts who volunteer their support. A recent inter-agency report on the impact of the COVID-19 crisis on growing science and technology divides—as well as the broader implications of the acceleration of innovation trends in biotechnology, AI and digitalization—highlights the need to bring together all relevant stakeholders to make sense of these trends and ensure that the way forward is marked by inclusion, equity and sustainability.[59]

Box III.G.4
Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals

To-date, the annual STI Forum has mobilized a growing number of diverse stakeholders to discuss and showcase STI solutions for achieving the SDGs and has led to many new partnerships.

The 2021 STI Forum reviewed lessons from the COVID-19 pandemic for a better science-policy-society interface, a resilient recovery and rapid responses to global challenges. It also discussed the promises and potential risks of emerging science and technologies, as well as technological and capacity divides.

Government representatives reported on the progress of STI for SDGs (STI4SDGs) roadmaps and the related Partnership in Action, which helps to spur coherent STI action towards the SDGs. Key topics were capacity building, gender and next steps for the TFM, including its online platform 2030 Connect.

Source: UN/DESA/DSDG, based on: United Nations, Note by the Secretariat on the multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals (E/HLPF/2021/6). Available at https://sdgs.un.org/sites/default/files/2021-10/2021-STI-Forum-summary-final_version.pdf.

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Data, monitoring and follow-up

Chapter IV

Data, monitoring and follow-up

1. Key messages and recommendations

The COVID-19 crisis has emphasized the value of robust and timely data, providing a stark reminder of the prevailing divide in statistical capacity between developed and developing countries. The pandemic caused a sudden spike in demand for timely and accurate data on population, health and the economy across the globe, but many national data systems, particularly in poorer countries, were not prepared to address unexpected data needs and withstand shocks. This highlighted the global data inequalities that prevailed before the pandemic, with least developed countries (LDCs) and small island developing States (SIDS) having less data capacity and scoring much lower than developed countries against statistical performance indicators.

Despite the importance of data and statistics for monitoring the Sustainable Development Goals (SDGs) as well as for policymaking, data and statistical systems have long been underfunded, while costs and demands have risen. Current donor commitments and support for data and statistics are a fraction of actual needs. The financing landscape has also become more diffuse, fragmented and complex. In response, three new, global instruments—the Global Data Facility (GDF), the Bern Network Clearing House for Development Data, and the Complex Risk Analytics Fund (CRAF'd)—were launched in 2021 to strengthen coordination and mobilize finance for data and statistics. It is critical that these initiatives benefit from broad participation and are adequately resourced.

The international community should:

- *Increase the share of official development assistance (ODA) for data and statistics, especially to strengthen the national statistical systems of LDCs and SIDS, as well as support the development of national data strategies;*
- *Enhance coordination and greater integration of efforts, including through the new global funds and instruments (GDF, Bern Network Clearing House and CRAF'd); and*
- *Ensure that country ownership and development effectiveness principles are at the centre of increased efforts and investments.*

A national data strategy in the context of an integrated national financing framework (INFF) can help to implement an integrated data system to realize the full value of data for achieving national sustainable development strategies. The data ecosystem, if properly harnessed, can foster sustainable development by: (i) helping Governments and international organizations with evidence-based policymaking, (ii) enabling individuals, civil society and academia to hold policymakers accountable, and (iii) transforming the private sector through data-driven innovations and accountability. Better data and information also helps to make markets more efficient. Improving data accessibility and interoperability can foster an integrated system, while better data literacy can enhance participation in the system. However, an integrated national data system that goes beyond official statistics to encompass the data produced, exchanged and used by all participants requires appropriate infrastructure policies, laws and regulations, economic policies and institutions, as well as a rights-based perspective to effectively and safely govern data and mitigate the risk of misuse. Governments need a national data strategy to implement an integrated national data system that considers these requirements. This can be done in the context of an INFF, which can help to ensure that there is sufficient funding for the national data strategy as well as benefit from an integrated data system.

Governments should:

- *Develop a national data strategy in accordance with their level of data maturity, which outlines responsibilities and institutional arrangements to enhance effective data use throughout government, the private sector and civil society, including through improved data access and data integration initiatives to improve data literacy;*

- *Establish data stewards to promote issues of data access, interoperability and governance; and*
- *Prioritize domestic resources for data and statistics and clearly convey priorities for external support to implement the data strategy—an INFF can help.*

Progress continues to be made on improving data frameworks, measurements and collection despite some challenges. There are only a few remaining gaps in the global SDG indicator framework where global reporting has not yet started. Monitoring of gender-specific SDG indicators has improved but more remains to be done, while the United Nations Statistical Commission has adopted a new indicator for SDG Target 17.3 to "mobilize additional financial resources for developing countries from multiple sources", underpinned by an initial framework for the measurement of South-South cooperation. However, significant data gaps remain in terms of SDG reporting. On monitoring the economic and financial sector, a new international cooperation initiative to succeed the Data Gaps Initiative (DGI) is under development.

The pandemic and climate crises have revived discussions on measures of sustainable development beyond gross domestic product (GDP). The upcoming update of the 2008 System of National Accounts (SNA), the international standard for measuring GDP, will consider issues of well-being and sustainability, as well as the nexus of SNA and the System of Environmental Economic Accounts (SEEA) that measures the contribution of the environment to the economy and the impact of the economy on the environment. To complement GDP as a criterion for access to concessional finance (see chapter III.C), development of a multidimensional vulnerability index (MVI) is under way.

All stakeholders should:

- *Work together to close the SDG data gaps, including advancing gender statistics and measuring the new indicator on development support;*
- *Support the implementation of the SEEA, update of the SNA and development of an MVI as well as the use of measures that extend beyond GDP; and*
- *Call on the Inter-agency Task Force on Financing for Development to map the use and effectiveness of GDP metrics in the analysis of sustainable development and climate change, including for allocation of finance.*

This chapter discusses the ongoing impact of COVID-19 on statistical systems and highlights the importance of harnessing the data ecosystem to improve data accessibility and innovation. It also assesses global data inequalities and the need to strengthen national systems. Finally, it provides an update on data frameworks, measurements and collection.

2. The impact of COVID-19

The COVID-19 crisis has widened data gaps and deepened challenges. Nearly two years into the pandemic, the impact on national statistical offices (NSOs) is better understood. Many national data systems were not built to withstand shocks and address unexpected data demands, particularly in poorer countries. The fourth round of the United Nations-World Bank survey on the impact of COVID-19 (see box IV.1) highlighted large disparities in statistical capacities across countries, with NSOs in two thirds of low- and lower-middle-income countries lacking sufficient resources to meet the demands for pandemic-related data.[1] Two thirds of countries in Africa were forced to postpone their censuses due to delays, interruptions and diversion of funds.[2] NSOs also reported that they were less optimistic in May 2021 than they were in October 2020.[3]

Data-driven analytics proved critical for the pandemic response. The COVID-19 crisis expedited the adoption of innovative approaches to respond to increased data needs for tracking the impact of the pandemic and for designing and implementing policies. Many NSOs were quick to adopt alternative data sources and modes of data collection to meet pressing data demands, turning to telephone or web surveys instead of face-to-face interviews or by increasing the use of alternative data sources such as administrative and geospatial data. Initiatives by development partners also helped with the COVID-19 response (see box IV.1). For example, the World Health Organization (WHO) leveraged digital solutions and technology partners to establish the World Health Data Hub, which will provide easy access to view and download health data using powerful visualization to better understand trends, patterns and connections. Also, UN Women and partners developed models to forecast the impact of the COVID-19 pandemic on extreme poverty by sex and age, demonstrating the pandemic's differential and disproportionate impact on women.[4]

3. Accessibility and innovation

The data ecosystem, if properly harnessed, can foster sustainable development through multiple pathways. First, Governments use data to design policies and understand their impact, which can help to achieve sustainable development.[5] Without strong data systems, the potential for data is unrealized. International organizations can help developing countries to strengthen national statistical systems (see section 4) and are also important collectors and disseminators of data. Together, Governments and international organizations play a central role in the data ecosystem (figure IV.1). Second, making data widely available enables individuals, civil society and academia to hold Governments and international organizations accountable for policy choices. They are also a source of data. For example, civil society and academia can create data by collecting surveys or crowdsourcing information from individuals. Third, data generated by the private sector has the potential to spur development. Use of data in the production process is transforming sectors, such as payments systems (see chapter III.G), while innovations, such as big data and machine-learning algorithms, are creating significant economic value by enhancing data-driven decision-making and reducing transaction costs. Better data and information improves market efficiency, lowering the costs of borrowing (see chapter II). Finally, data reuse, sharing and repurposing is key to realizing its value. This can occur between actors within each of the pathways (two-way arrows in figure IV.1). However, the use, reuse and repurposing of data simultaneously poses considerable risks, which can manifest through any of these pathways (figure IV.1). For example, Governments can abuse citizens' data for political ends. Individuals and organized groups can inflict considerable harm through cybercrime, for instance on the dark net. Heavy market concentration in data-driven platform businesses (e-commerce, search engines, social media) can also abuse consumers' data, while algorithms and machine learning can widen inequality through embedded discriminatory assumptions.[6] These risks must be managed to avoid an adverse impact on development. The High-Level Group on Partnership, Coordination and Capacity-Building for statistics for

Box IV.1
Selected initiatives to support the COVID-19 response

Several initiatives have been established to support the COVID-19 response, including:

- **Monitoring the State of Statistical Operations Under COVID-19 Surveys:** The United Nations Statistics Division and the World Bank's Development Data Group, in coordination with the five United Nations Regional Commissions, launched a global online survey to understand and monitor the effects of the pandemic on NSOs, completing four rounds of the survey;[a]
- **COVID-19 Household Impact Survey:** The World Bank undertook high-frequency mobile phone surveys of households to assess the impact of COVID-19;
- **COVID-19 Business Impact Survey:** At the onset of the pandemic, the International Trade Centre launched a global online survey to assess the economic impact of the pandemic on businesses.
- **COVID-19 Impact on Manufacturing Firms:** The United Nations Industrial Development Organization (UNIDO) implemented online firm-level surveys on the impact of the pandemic on manufacturing firms;[b]
- **COVID-19 Global Education Observatory/Education Response portals:** UNESCO[c] provides data and information on school closures, drawing on surveys conducted jointly with the World Bank, UNICEF[d] and the Organisation for Economic Co-operation and Development (OECD). The portals provide country dashboards, statistical resources and guidance on assessing the impact of COVID-19 on the education sector;
- **World Health Data Hub:** The Hub will transform data ingestion from multiple sources, provide a secure environment for country consultation, leverage the latest in predictive analytics and data visualization and support WHO and partners' commitment to help countries build data capacity;
- **Global Census Tracker Dashboard:** provides real-time data on censuses, including the impact of COVID-19;
- **COVID-19 Population Vulnerability Dashboard:** provides information on populations at risk to target preparedness and response;
- **Development Data Partnership:** a new consortium founded by the World Bank, International Monetary Fund (IMF) and Inter-American Development Bank to facilitate collaboration between private sector data partners (including Google, Facebook, LinkedIn and Mapbox) and development partners to enable access to and use of private sector data and analytics for public goods. It supports more than 200 projects across 13 SDGs, many of which helped with the COVID-19 response. One project, for example, examined the economic impact of COVID-19 in India through daily electricity consumption and night-time light intensity. Another project traced the successive waves of the COVID-19 outbreak in Viet Nam using Facebook mobility data.

Source: UN/DESA.

a See Haishan, Fu, and Stefan Schweinfest. 2020. "COVID-19 Widens Gulf of Global Data Inequality, While National Statistical Offices Step up to Meet New Data Demands". World Bank Blogs. 5 June 2020; Calogero, Carletto, and Francesca Perucci, 2020. "Coping with the Pandemic Crisis: What Do National Statistical Offices Need the Most?" World Bank Blogs. 17 August 2020; UN/DESA and World Bank. 2020. "Monitoring the State of Statistical Operations under the COVID-19 Pandemic"; UN/DESA and World Bank. 2021. "One Year Into the Pandemic: Monitoring the State of Statistical Operations Under COVID-19". NSO Survey, June 2021.

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c United Nations Educational, Scientific and Cultural Organization.

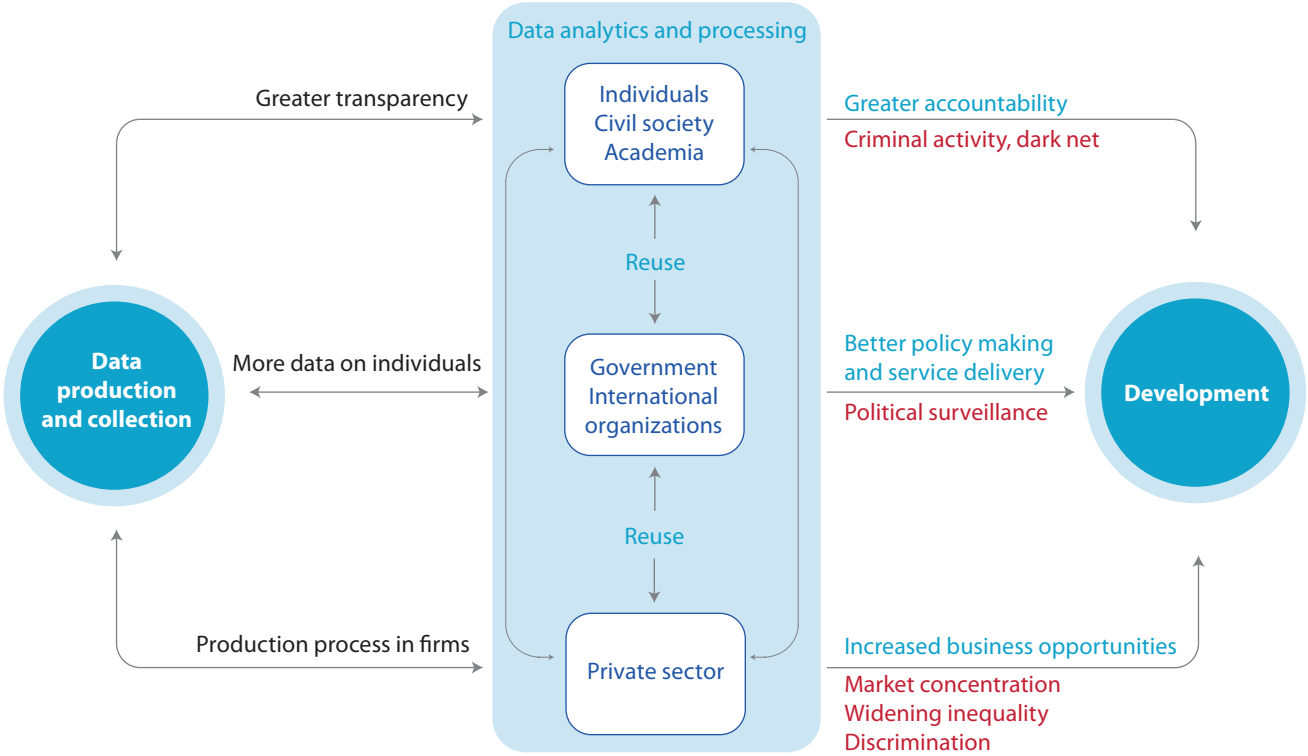
d United Nations Children's Fund.

the 2030 Agenda for Sustainable Development (HLG-PCC) highlighted the importance of all actors working together in the data ecosystem in the Bern Data Compact for the Decade of Action on the SDGs presented at the United Nations World Data Forum in October 2021.[7]

Improving the accessibility and interoperability of data can increase its impact on development. National data platforms or portals are a critical part of the infrastructure of official statistics to connect users and producers. However, many LDCs either lack or have poorly designed data portals. For example, one third of the countries eligible for funds from the World Bank's International Development Association do not have a data portal for official statistics.[8] For low-income countries (LICs) that do, only 38 per cent make data available in machine-readable formats.[9] When data is not machine readable, users cannot easily access and work with the data. There are, however, some initiatives looking to support countries in this area.[10] Fragmentation of data systems can also affect accessibility and inhibit the interoperability of data. For example, administrative data is too often siloed in different government systems and cannot be integrated and combined with other data, prohibiting its effective use for statistical purposes, monitoring and policy design.[11] Adhering to key principles developed in the context of SDG reporting and dissemination platforms by the Statistical Commission can enhance data portals: having clear institutional arrangements and management; ensuring portals are fit for purpose; mobilizing internal and external resources for sustainability; and enhancing interoperability and statistical standards.[12] Interoperability, the ability to exchange data across many platforms, also allows for innovative uses of data as it becomes accessible to a more diverse set of users. However, phasing out legacy technical and operational systems is a significant challenge, especially in capacity-constrained countries. For these countries, prioritizing basic functions such as metadata availability over more advanced features, such as standardized interfaces or globally linked data, would be more practical.[13]

Promoting open data can help to drive sustainable development. Making official statistics and data openly available and easily accessible to the public can support sustainable development in many areas, such as improving service delivery, spurring innovation, increasing aid transparency, monitoring government budgets, uncovering gender inequalities and improving targeting policy interventions.[14] The value of open data has also been demonstrated in its use for the COVID-19 crisis response (see box IV.1).[15] However, LDCs struggle the most with making data open and need increased financial resources and capacity building to collect, publish and disseminate data more frequently.[16]

Figure IV.1
Data for sustainable development ecosystem



Source: World Bank. 2021. *World Development Report 2021: Data for Better Lives*. Washington, DC: World Bank.

Innovations in repurposing and combining public intent and private intent data can inform and advance policy goals. Private intent data—often labelled within the "big data" category due to its wide reach and scope from growing rates of mobile phone and social media usage—can overcome gaps in public intent data due to its unique features: it is always on, as the daily use of new technologies entails constant data collection; it can zoom in on individuals and locations; and it can potentially reveal less biased information about people, such as through Internet searches compared to surveys or polls.[17] Repurposing private intent data and combining it with public intent data can help to tackle crises and development issues. For example, many countries used mobile phone data for COVID-19 contact tracing. Mobile call detail records and remote sensing data are used to map poverty. Commercial trawlers' automatic identification systems can be combined with satellite optical and radar imagery to detect illegal fishing activity, while country-specific searches of news articles have been used to construct a news flow index of corruption.[18]

The limitations in using private intent data for development should be recognized. Private intent data is often a by-product of the use of digital technologies so results are skewed towards those who can afford smart phones, which is the relatively wealthier share of the population, particularly in LDCs with low mobile phone and Internet penetration (see chapter III.G). At the same time, the expansion of data, with many actors collecting vast amounts of "big data"—often with limited oversight—comes with risks; for example, in contexts where there is a lack of transparency in the data-generating process and algorithms are used to process private intent data.[19] Often this data is also not readily accessible or available in a format that allows its public use, and it does not have to comply with statistical standards. Moreover, there is a lack of internationally accepted standards for data use, regarding, for example, licensing, privacy and security, that increases the costs of data access and sharing. Many developing countries have limited government capacity (e.g., infrastructure and skills) to use private data and do not have the necessary data governance policies and procedures in place. Fostering data partnerships, such as the Development Data Partnership (see box IV.1), can help to enhance capacity.

Better data literacy improves policymaking and decision-making by business and strengthens efforts to hold Governments and the private sector accountable. Data literacy should be understood in a broad sense: understanding basic statistical and numerical concepts; understanding how to analyse, interpret and communicate data using digital tools; understanding data in decision-making; and understanding data rights and data governance. Data literacy is a prerequisite for people's participation in the national data system.[20] Lack of both data literacy and demand for data, limits its effective use for public policy.[21] Data literacy should be promoted at all levels: investments by Governments and their development partners in strengthening the data literacy of policymakers and legislators; improving data literacy in civil society; and equipping businesses and workers with skills to use data.[22]

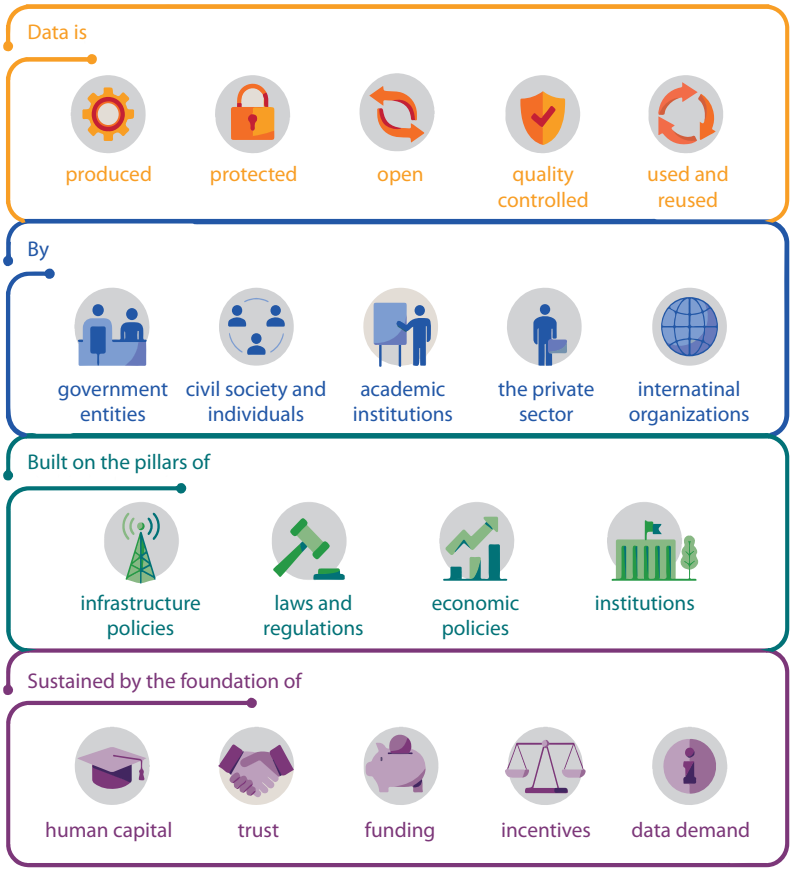
Concrete steps for building an integrated national data system are required to realize the full value of data for development. An integrated data system is built on an approach that is whole-of-government, multi-stakeholder and international (figure IV.2).[23] The scope of such a system goes beyond official statistics to encompass the data produced, exchanged and used by participants from the public and private sectors as well as civil society. It is built on the pillars of infrastructure policies, laws and regulations, and the economic policies and institutions required to effectively govern data. Building these pillars is not easy as they need to be anchored in a solid foundation of human capital, trust, funding, incentives and data demand. Trust plays a critical role in facilitating the integration of participants and their data.

Governments need a data strategy to implement an integrated national data system. The steps required to implement an integrated national data system depend on a country's data maturity, as what works in one context may not work in another. At low levels of data maturity, countries should prioritize establishing the basics of a national data system (e.g., robust data protection, strengthening technical capacity) before seeking to initiate data flows (e.g., prioritizing open data), while those at advanced levels of data maturity should seek to optimize their systems (e.g., empowering NSOs). The data strategy should clearly outline responsibilities and institutional arrangements to enhance integration while safeguarding the rights of individuals.[24] For example, some countries have established or are considering the establishment of data stewards to tackle issues of data access, interoperability, governance and the lack of expertise and resources for data management.[25] INFFs can help to ensure that there is sufficient funding for a national data strategy and will, in turn, benefit from an integrated data system as data is a key input for planning, policy, monitoring and evaluation as captured in national sustainable development strategies.

4. Strengthening national statistical systems

Global data inequalities continue to persist. According to the World Bank's Statistical Performance Indicators (SPI) index (see box IV.2),[26] the national statistical systems of developing countries improved prior to the COVID-19 pandemic, led by increased capacity in data services (figure IV.3). Despite progress, however, developing countries, particularly SIDS and LDCs, score much lower than developed countries overall, with SPI scores particularly weak on data sources and infrastructure. A successful statistical system is one which draws on all types of data sources relevant to the indicators that are produced, but many developing countries have

Figure IV.2
Integrated national data system



Source: World Bank. 2021. *World Development Report 2021: Data for Better Lives*. Washington, DC: World Bank.

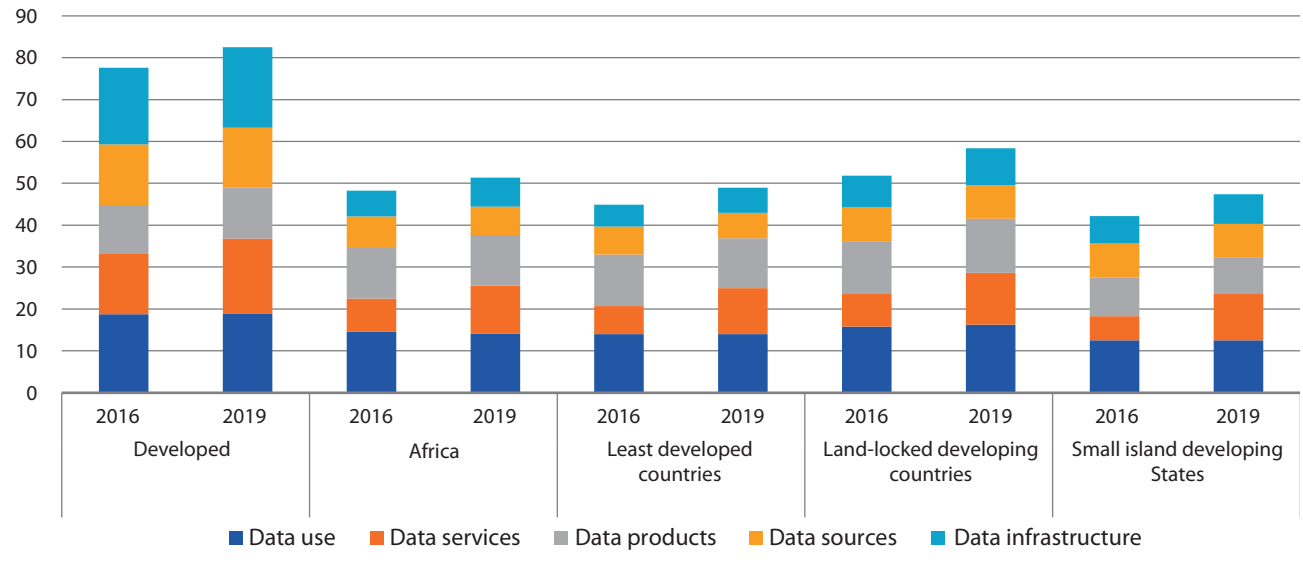
not gone beyond the typical censuses and surveys to include administrative and geospatial data, or data generated by private firms and citizens (see section 3). Even with improved levels of investment, many developing countries lack basic functioning civil registration and vital statistics systems. There are also weaknesses in both hard (legislation, governance, standards) and soft (skills, partnerships) infrastructure, with significant financing gaps.

Data and statistics programmes have long been underfunded, while costs are rising, exacerbated by the COVID-19 crisis. Global donor commitments to data and statistics have remained more or less stagnant since 2015 (figure IV.4), with ODA disbursements of $551 million in 2019, accounting for 0.3 per cent of the total.[27] This pales in comparison to the estimated $1.3 billion needed annually to implement the Cape Town Global Action Plan for Sustainable Development Data agreed in 2017.[28] A survey on the implementation of the Cape Town Global Action Plan also highlighted that over half of sub-Saharan African countries have experienced a decrease in funding from donors since the pandemic.[29] National Governments also fall short in meeting the costs for data and statistics, estimated to require $4.3 billion worth of domestic investment annually.[30] The pandemic has worsened the situation. The number of countries that reported availability of government funding for national statistical plans fell sharply in 2020 compared to 2019, particularly for LDCs, LLDCs and SIDS.[31] Moreover, as of May 2021, four in 10 NSOs reported that data collection costs had increased since the beginning of the pandemic.[32]

The financing landscape for data and statistics has become more diffuse, fragmented and complex. Many development partners are supporting statistical capacity development, including bilateral donors, international financial institutions, United Nations agencies, private foundations and civil society organizations. They provide different types of support and target different actors within the national data ecosystem (see section 3). This diversity raises challenges around coordination and coherence, especially for countries with low capacity to absorb different types of support and where domestic demand for data and statistics may be low,[33] such as in LDCs and SIDS (see chapter III.C). COVID-19 has further exposed these coordination issues. The past decade has also witnessed a shift away from providing core support to national statistical systems.[34] OECD Development Assistance Committee (DAC) donors increasingly invest in sectoral data and statistics rather than in general statistical capacity (figure IV.5). They also opt for project-type interventions over joint-funding mechanisms[35] even though four out of five DAC members believe that more systematic coordination is needed between donors and NSOs in partner countries.[36] Support to projects that feature data and statistics as a partial component has also increased, from 17 per cent in 2012 to 49 per cent in 2020.[37]

Three key global instruments have been developed to strengthen coordination and mobilize finance for data and statistics in line with the Cape Town Global Action Plan: the World Bank's GDF, the Bern Network Clearing House for Development Data and the CRAF'd. In August 2021, the World Bank launched the GDF to mobilize and coordinate donor support for data and statistics at all levels.[38] The Facility is designed to catalyse additional financing, including International Development Association and International Bank for Reconstruction and Development loans, and enable long-term support by leveraging domestic investments in data and statistics. The GDF will be informed by country demand as well as key inputs, including the SPI. The GDF is complemented by the Bern Network Clearing House for Development Data, a new, multi-stakeholder initiative designed to help increase transparency and the efficiency of international financial support for data activities (see box IV.3). Also complementing the GDF, in October 2021, the United Nations launched the CRAF'd, a multilateral financing instrument to support a strong data ecosystem and expand shared capabilities to better anticipate, prevent

Figure IV.3
Overall Statistical Performance Indicators scores by country group, 2016, 2019
(Index average)



Source: World Bank Statistical Performance Indicators.

Box IV.2
Statistical Performance Indicators

In March 2021, the World Bank launched the SPI to measure the capacity and maturity of national statistical systems and better reflect the changing global data landscape.[a] The SPI builds on and replaces its predecessor, the World Bank's Statistical Capacity Index (SCI),[b] which had been in place since 2004.

The SPI framework assesses five pillars of statistical performance: use of data, the quality of services, the coverage of topics, the sources of information, and the infrastructure and availability of resources. Underpinning these five pillars are 22 dimensions and 51 indicators, which were selected based on their relevance and data availability, after consultations with a range of country partners and global experts.[c]

PILLARS	DIMENSIONS				
Data Use (User Types)	Legislature	Executive	Civil Society	Academia	International Bodies
Data Services (Service Types)	Quality of Data Releases	Richness & Openness of Online Access	Effectiveness of Advisory & Analytical Services Related to Statistics	Availability & Use of Data Services	
Data Products (Topics)	Social (SDG 1-6)	Economic (SDG 7-12)	Environmental (SDG 13-15)	Institution (SDG 16-17)	
Data Sources	Statistical Office (Censuses & Surveys)	Administrative Data	Geospatial Data	Private Sector Data/Citizen Generated Data	
Data Infrastructure	Legislation & Governance	Standards & Methods	Skills	Partnership	Finance (Domestically & From Donors)

The SPI framework aims to help countries build better statistical systems and supports the creation of data ecosystems that can develop and adapt to the requirements of Governments and citizens so that better data can support better decisions. The SPI benefits from large-scale data collection efforts by organizations such as the World Bank, IMF, Open Data Watch, PARIS21, the International Labour Organisation (ILO), WHO, UNESCO, International Household Survey Network, and the United Nations, among others.

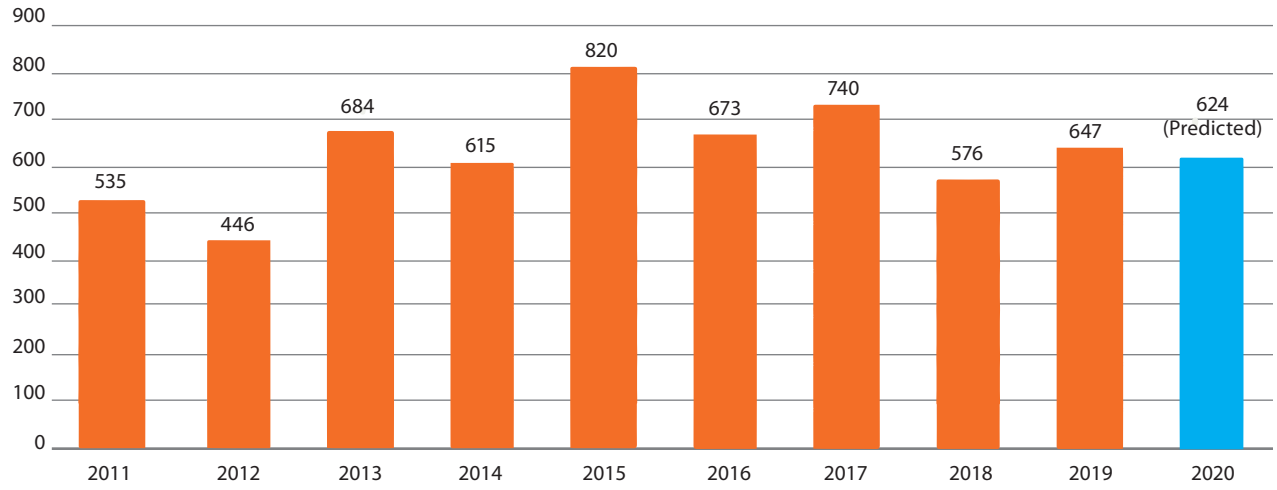
Source: World Bank and UN/DESA.

a Haishan, Fu et al. 2021. "The Statistical Performance Indicators: A New Tool to Measure the Performance of National Statistical Systems". World Bank Blogs. 31 March 2021.

b See World Bank. 2021. "Data on Statistical Capacity".

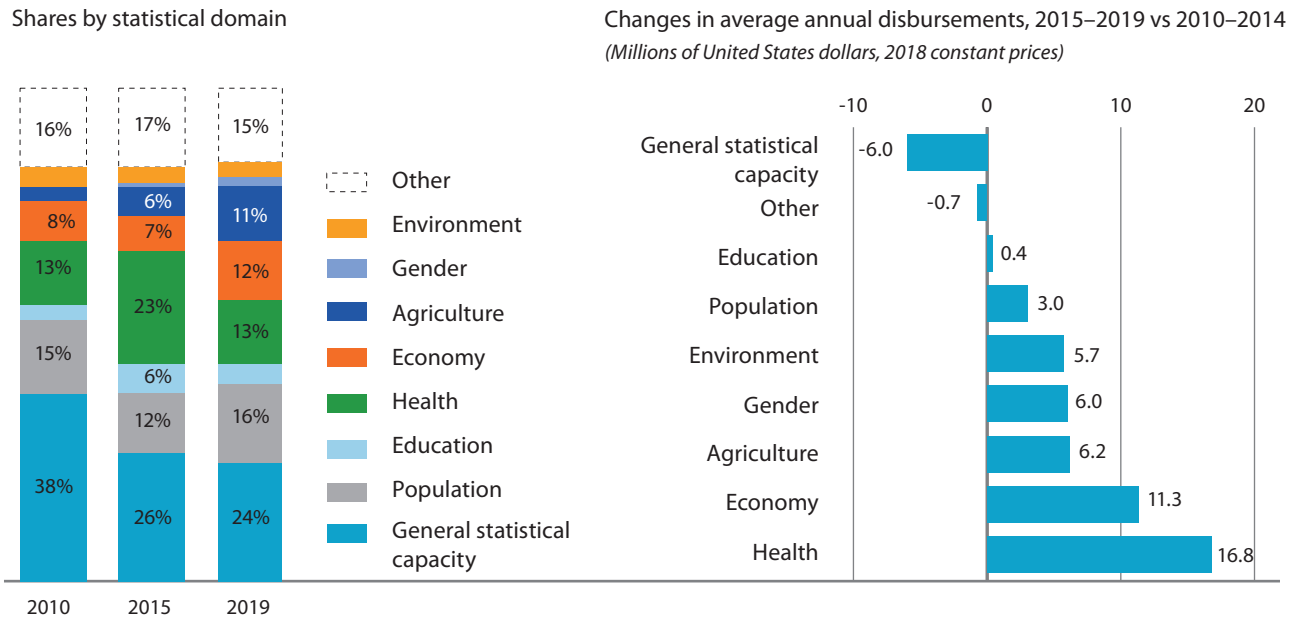
c World Bank. 2021. "Statistical Performance Indicators (SPI)".

Figure IV.4
Global donor commitments to data and statistics, 2011–2020
(Millions of United States dollars, 2019 constant prices)



Source: PARIS21. 2021. "The Partner Report on Support to Statistics". Paris.

Figure IV.5
Official development assistance by DAC members for data and statistics by sector



Source: OECD. 2021. *Data for Development Profiles: Official Development Assistance for Data and Statistical Systems.*

and respond to complex risks in conflict- and crisis-affected settings.[39] CRAF'd is targeting $15 million to $25 million in annual investments to unlock data for anticipatory humanitarian action. Both the World Bank and United Nations have pledged that support from these instruments will be coordinated closely with existing efforts and have committed to ensuring transparency in the monitoring of results.

Box IV.3
Bern Network Clearing House for Financing Development Data

In the lead up to the United Nations World Data Forum 2021, a multi-stakeholder community of data and statistics-focused development practitioners, technical experts and advocates formed the Bern Network on Financing Data for Development. The Network has explored key challenges in financing for data and statistics, including: (i) the fragmented and patchwork nature of support to data and statistics; (ii) the squeeze on external and domestic budgets overall; and (iii) the lack of information-sharing and matching mechanisms between donors and countries. The Network developed a Clearinghouse for Financing Development Data to help inform efforts to overcome these challenges. The online platform provides information to match the supply of and demand for financing for data and to facilitate coordination among donors and partner countries. It also aims to create a community of practice to leverage existing knowledge and facilitate monitoring of investment results. In this way, the Clearinghouse complements the GDF by helping to inform the allocation of effective resources.

Source: UN/DESA.

Country ownership and development effectiveness principles should be at the centre of increased efforts and investments in data and statistics; INFFs can help. The Addis Ababa Action Agenda highlights several development cooperation principles (see chapter III.C) that should guide increased efforts to support data and statistics. Country ownership is one of these key principles and lessons from strengthening national statistical systems indicate that it is crucial to ensuring sustainable results.[40] Country-led support can help to manage the different incentives of donors, including as a user. Budget support and a whole-of-government programmatic approach, including joint funding mechanisms, can help to support country ownership and strengthen general statistical capacity building. Country priorities can also be reflected in regional or subregional programmes, which partners can help to support. INFFs can help Governments to align development cooperation with country priorities in data and statistics.

5. Data frameworks, measurements and collection

5.1 Progress on the global indicator framework for the SDGs

The global indicator framework for the SDGs continues to be strengthened, but gaps remain. The global SDG indicator framework provides a comprehensive framework of indicators and statistical data to monitor progress, inform policy and ensure the accountability of all stakeholders.[41] In March 2020, the Statistical Commission agreed to both major changes and minor refinements recommended by the Inter-Agency and

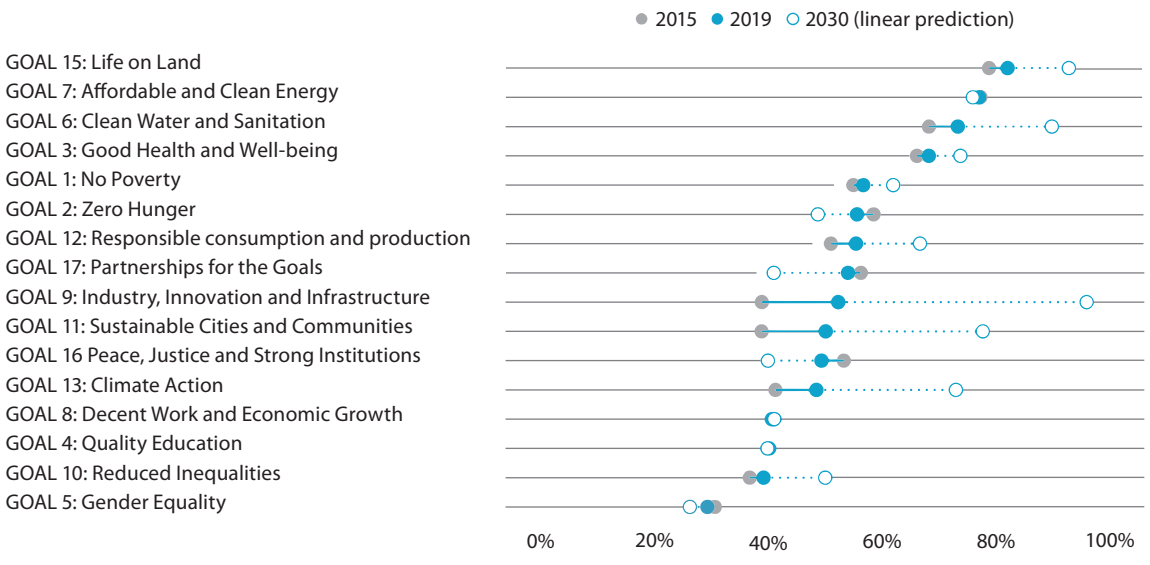
Expert Group on SDG Indicators (IAEG-SDGs) in their 2020 comprehensive review. Many of these changes have since been implemented, significantly improving the indicator framework. As of 2 November 2021, the global SDG indicator database includes data for 213 of the 231 unique indicators and more than 1.8 million data records. Plans are in place to fill the remaining gaps at the level of aggregate and global reporting, such as for SDG 11 (sustainable cities and communities) and SDG 16 (peace, justice and strong institutions). However, this progress should not camouflage the huge gaps in national reporting and in disaggregated data, including by sex.

Despite progress in SDG reporting, there are significant data gaps, with national collection programmes and production of core statistics lagging. Most countries' statistical systems struggle to provide data on SDG indicators—on average, countries reported one or more data points on only 55 per cent of the SDG indicators for the years 2015 to 2019; 22 countries reported less than 25 per cent, with no country reporting data on more than 90 per cent of the indicators.[42] Even with progress made in many areas, the pace is insufficient to reach universal reporting by 2030 (figure IV.6). Population censuses, which should be conducted every 10 years and are a critical source of disaggregated data for monitoring the SDGs, are outdated in many LICs. In 2018, only 70 per cent of LICs had conducted a population census since 2009, compared to more than 90 per cent of middle-income countries.[43] LICs are also lagging in the production of economic statistics. Estimates of GDP are important for many SDG indicators (about 10 per cent use GDP as their denominator) yet less than half of all developing countries produce monthly data on industrial production, a key input for GDP estimation.[44]

Monitoring of gender-specific SDG indicators has improved. All 18 indicators of SDG 5 on gender equality can be measured,[45] with UN Women continuing to strengthen methodological work for SDG 5.1.1 (whether legal frameworks are in place to promote, enforce and monitor equality and non-discrimination based on sex), 5.5.1b (women's representation in local governments) and 5.c.1 (gender-responsive budgeting). In addition, 19 out of 51 gender-specific SDG indicators can be reliably monitored at the global level, an increase of six since 2016.[46] For example, 55 per cent of data needed to measure violence against women is available, up from 45 per cent in 2019, and 41 per cent of data needed to measure women's unpaid care work is available, compared to 31 per cent in 2019. Established methodologies exist for the other 32 indicators (an increase of nine since 2016) but country coverage is insufficient to allow for global monitoring. However, an analysis of SDG 5 data availability indicates that only 48 per cent of the required data to monitor SDG 5 is available. More efforts are needed to close this gap, including greater support for monitoring and reporting from a gender perspective, as well as on groups and subgroups facing intersecting forms of inequality.[47]

The Statistical Commission adopted a new indicator for SDG Target 17.3, which aims to "mobilize additional financial resources for developing countries from multiple sources". The IAEG-SDGs Working Group on Measurement of Development Support, consisting of 21 countries and several observers, developed a new SDG 17.3 indicator, a replacement indicator, which comprises gross receipts by developing countries of: a) official sustainable development grants; b) official concessional sustainable development loans; c) official non-concessional sustainable development loans; d) foreign direct investment; e) mobilized private finance on an experimental basis (subject to review in the 2025 review of SDG indicators); [48] and f) private grants (see also discussion in chapter III.C.). These indicators are not meant to be aggregated and will

Figure IV.6
Share of SDG indicators with data reported, 2015, 2019, 2030 (linear prediction)
(Country mean)



Source: Kitzmueller, Lucas, Brian Stacy, and Daniel Gerszon Mahler. 2021. "Are We There yet? Many Countries Don't Report Progress on All SDGs According to the World Bank's New Statistical Performance Indicators". World Bank Blogs. 10 August 2021.
Note: Values included are either country reported, country adjusted, estimated, or are included as global monitoring data. Values that were produced by an international organization through modelling are excluded. Goal 14 is not included as there are no reports by land-locked developing countries. The predictions are based on linear models estimated by ordinary least squares on all data points from 2015 to 2019.

be reported separately, consistent with the Addis Ababa Action Agenda to distinguish flows of different nature and concessionality that have different impacts on development. The indicator is underpinned by an initial conceptual framework on South-South cooperation developed by a subgroup on South-South cooperation that will allow reporting by countries that practise this form of cooperation. As part of its indicator proposal, the Working Group developed criteria and an approach that will be used to identify flows that can be considered as supporting sustainable development. It follows the recipient perspective, and all proposed data represents new financing flows to developing countries. The new indicator 17.3.1 will also help with monitoring progress towards the Addis Agenda in the annual *Financing for Sustainable Development* reports.

5.2 Monitoring the economic and financial sector

The second phase of the Group of Twenty (G20) Data Gaps Initiative is completed. Accurate and timely data enhances the ability of policymakers and market participants to develop effective responses to address economic and financial stability risks, especially during times of crisis.[49] Hence, the aim of the G20 DGI was to address data gaps in the financial sector that were exposed by the 2008 world financial and economic crisis. The second phase of the Initiative (DGI-2) commenced in 2015 and focused on: (i) monitoring risk in the financial sector; (ii) vulnerabilities, interconnections and spillovers; and (iii) data-sharing and communication of official statistics. Under DGI-2, conceptual frameworks were developed and improvements made in the coverage, timeliness or periodicity of data in several areas, including financial soundness indicators, non-bank financial intermediation, derivatives data and securities statistics.[50] Information and data gaps also remain in other areas of the Addis Agenda; for example, there is insufficient information-sharing of tax information (see chapter III.A), a lack of full debt transparency (see chapter III.E), as well as a need for more comparable reporting on the sustainability of private finance (see chapter III.B). Addressing the many data gaps would help to provide a more complete picture of the economic and financial system to support policymaking and make markets more efficient (see chapter II).

Advancements made under the DGI have helped with the COVID-19 response, even as the Initiative is affected by the pandemic.[51] Progress made under the DGI has proven valuable in the COVID-19 response, as policymakers are able to access key information to assess developments and risks in financial and nonfinancial sectors, as well as to analyse interconnectedness and cross-border spillovers. However, COVID-19 has also posed significant challenges in advancing some areas, including: securities financing transactions data, institutional sectoral accounts, household distributional information, data on general government debt and commercial property price indices. Expectations are that some DGI-2 recommendations may not have been completed by end 2021, although participating economies are likely to continue to advance work in these areas.

A new international cooperation initiative on data gaps is under development. Following a request by the G20 Finance Ministers and Central Bank Governors in April 2021, the IMF, in close cooperation with the Inter-Agency Group on Economic and Financial Statistics (IAG) and the Financial Stability Board (FSB), prepared a concept note on a possible new initiative, building on the work of the DGI. It identified four main statistical and data priorities: (i) climate change; (ii) household distributional information; (iii) financial technology and financial inclusion data; and (iv) access to private sources of data and administrative data, and data-sharing. The IMF, IAG and FSB are currently developing a detailed workplan for the proposed initiative.

Further improvements were made on debt transparency data, helping the assessment and management of external debt risks (see chapter III.E). International Debt Statistics 2022 provided more detailed and disaggregated data on external debt for the 2020 dataset.[52] The data now breaks down each borrowing country's external debt stock into the amounts owed to each official and private creditor, the currency composition and the financial terms of the loans extended. In addition, for countries that were eligible for the Debt Service Suspension Initiative (DSSI), the dataset includes the debt service deferred in 2020 by each bilateral creditor and the projected monthly debt-service payments. The borrower classification also presents the central bank as a separate borrower entity and increasingly reflects external borrowing by state-owned enterprises.

Assessing debt transparency for LICs is made difficult by inconsistent methodologies, lack of timely data and incomplete coverage. Despite the progress described above, there are significant gaps in external debt data for LICs due to poorly resourced debt management offices with limited reach, as well as an opaque reporting system (see chapter III.E). There are also considerable data gaps on domestic debt. A World Bank survey of 70 countries reported that 50 per cent relied mainly on their national statistics frameworks rather than on international standards in compiling and producing domestic debt statistics.[53]

Increasing the quality of data on the private sector's contribution to the SDGs is critical to enabling Governments to monitor national progress towards the Goals. Companies have a significant impact (positive and negative) on society and the environment, for example, through carbon emissions and labour practices. Large companies increasingly communicate about this impact at the request of regulators, investors and consumers. In 2020, 92 per cent of S&P 500 companies published a sustainability report compared to only 20 per cent in 2011.[54] However, there is a need to improve the quality of the information provided and chapter III.B presents concrete actions that Governments can take to address this issue. It is also important to better link corporate sustainability disclosure to the SDGs. To this end, the Global Investors for Sustainable Development (GISD) Alliance put forward in 2021 recommendations on SDG-related disclosure.[55] For example, these investors recognize the need for companies not only to report on their current impact but also to establish targets for improvement. Progress is already visible in this area with an increasing number of sustainability reports that align targets to the SDGs (21 per cent in 2021 vs. 15 per cent in 2019).[56] The GISD Alliance has also spearheaded the development of sector-specific metrics that could increase transparency on the SDG impact of companies in eight industries.[57] Standard-setters should consider how these sector/industry-specific metrics could be integrated into existing and future reporting frameworks.

5.3 Gender statistics

COVID-19 has highlighted the importance of timely disaggregated gender data to guide policy responses. Previous public health emergencies, such as outbreaks of Ebola in West Africa and Zika in Latin America, highlighted the vulnerability of women and girls to these

outbreaks.[58] Women, for example, are more vulnerable to infections as frontline healthcare workers and face higher risks of domestic violence and sexual assault. COVID-19 has brought these issues into sharper focus, but acute data gaps make it difficult to gauge the gendered impact of the pandemic. *Women Count*,[59] the strategy championed by UN Women to create a wholesale shift in how gender statistics are used, created, shared and accessed, is helping to address these gaps. The *Women Count* Data Hub[60] shares the latest data, technical tools and resources to improve gender-responsive COVID-19 efforts, including: a COVID-19 and gender monitor,[61] which is a dashboard of indicators to inform policy; the latest analysis and research;[62] rapid gender assessments;[63] data-collection guidance tools; and tips for integrating gender perspectives into data and analytical work.[64] Rapid gender assessments have been particularly useful, influencing government policy, programmes and pandemic responses across all regions.[65] Since April 2020, UN Women has conducted more than 70 rapid gender assessments—58 on the socioeconomic impact[66] and 13 on violence against women[67]—in collaboration with NSOs, national women's machineries, United Nations agencies, civil society organizations and private sector organizations.[68]

Despite the COVID-19 pandemic, progress has been made on enhancing the enabling environment for gender-responsive statistical systems. More countries are prioritizing gender in national planning and policies. Thirteen countries have integrated gender statistics into their national sustainable development strategies, while 16 countries have created institutional mechanisms and/or strengthened the coordination of statistics (an increase of 15 since 2008).[69] In addition, regional efforts have been made to improve coordination. For example, gender is mainstreamed in the work of the Committee on Statistics for Asia and the Pacific, while the Statistical Commission for Africa adopted a minimum set of gender indicators tailored to the region to serve as a guide for the development of national frameworks.[70] Yet, despite initiatives to support countries' gender data collection,[71] countries and international donors are not providing the levels of investments needed in gender data.[72]

Mainstreaming gender perspectives into trade statistics can support inclusive trade policies. In developing countries, women make up 33 per cent of the workforce of exporting firms, compared to 24 per cent in non-exporting firms.[73] Economy-wide gender inequalities in employment and wages also exist in trading firms and trade-intensive industries. For example, a study in Finland found that the gender pay gap tends to be larger in multinational enterprises than in domestically owned businesses.[74] Another study in Georgia found that women-owned trading businesses employ more women and have a lower gender wage gap, compared to men-headed trading businesses.[75] Gender-disaggregated data can support more inclusive trade policies. For example, Chile relies on regularly collected data about the participation of women-led companies in exports to inform trade policymakers and negotiate chapters on gender in free trade agreements.[76] However, gender-disaggregated data in trade is not collected systematically and existing economic data primarily focuses on gender equality in employment. Linking trade data with business statistics and gender-disaggregated labour force and earnings data can help. UNCTAD is working with the United Nations Regional Commissions in Africa and Europe, as well as other partners, to develop methodologies, statistics and indicators relevant for trade policymakers and to test them in pilot countries. The International Trade Centre also has a tool to assess the level of women's economic empowerment and resources to support policy improvements.[77]

5.4 Measures of sustainable development

The COVID-19 and climate crises have reinvigorated efforts to develop measurements of progress on sustainable development beyond GDP. Member States of the United Nations agreed in the Addis Agenda to "develop measurements of progress on sustainable development that go beyond per capita income", and in SDG Target 17.19 "to build on existing initiatives to develop measurements of progress on sustainable development that complement GDP". Gross domestic product, the total monetary value of all goods and services produced by a country within a given period, is a longstanding measure of economic prosperity, with GDP per capita often used to broadly measure average living standards or economic well-being in different countries. However, there are long-standing concerns over the limitations and inadequacy of GDP, particularly as it does not encompass dimensions of well-being, distribution, economic sustainability (such as increasing indebtedness) and environmental sustainability. In a 2009 landmark report, the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz-Sen-Fitoussi Commission) concluded that GDP was not a measure of well-being and called for more attention to indicators of income, consumption and wealth that are also included in the SNA and urged reform of the measurement system. The report noted that neither private nor public accounting systems were able to provide an early warning signal of the 2008 world financial and economic crisis, and amongst other issues, that GDP does not measure environmental costs, distribution or inequality, and non-market activities.[78] For example, neither the impact of COVID-19 on the care and informal economy or environmental damage from the climate crisis are adequately captured by GDP. Although several metrics have since been constructed and used (see box IV.4), GDP continues to be used as the main proxy for progress. In response, the United Nations Secretary-General in "Our Common Agenda" has called for new measures to complement GDP.[79]

The measurement of environmental sustainability is progressing through the SEEA. In 2012, the United Nations Statistical Commission adopted the SEEA, which brings together economic and environmental information into a common framework to measure the contribution of the environment to the economy and the impact of the economy on the environment (see box IV.5). The SEEA follows a similar accounting structure to the SNA to facilitate the integration of environmental and economic statistics.[80] The SEEA Ecosystem Accounting (SEEA EA), adopted in March 2021 by the Statistical Commission, has been applied to a wide range of areas. For example, in Uganda, species accounts have demonstrated the economic importance of the indigenous shea tree.[81] Around 89 countries are implementing the SEEA, of which 62 countries are publishing at least one account on a regular basis and 11 on an ad-hoc basis, while 16 have compiled but not yet published; 34 countries are implementing the SEEA EA.[82]

The 2008 SNA is being updated to consider issues of well-being and sustainability. Following the endorsement by the Statistical Commission in 2021, work is under way to update the 2008 SNA, which is to be completed by 2025.[83] One of the priority areas is to address issues of well-being and sustainability, with the aim of defining a broader framework of accounts for better monitoring and analysis.[84] The intention is

to have additional extended accounts which will feed into the broader SNA framework rather than redefining the current set of macroeconomic indicators. Extended accounts to be considered are those accounts that already have extensive guidance and which various countries are compiling, including: distribution of household income, consumption saving and wealth; unpaid household service work; education and human capital; health and social conditions; and environmental-economic accounts. On the latter, guidance is planned on the nexus of SNA and SEEA EA.

The United Nations high-level panel is due to finalize an MVI by end 2022. SIDS have long maintained that their unique vulnerabilities were not adequately captured by income per capita and have been calling for: the consideration of vulnerability as a criterion for access to concessional finance (see chapter III.C); and the development of an MVI, including its potential use for debt restructuring (see chapter III.E). Following a series of consultations in 2021 and recommendations by the Secretary-General,[85] the United Nations General Assembly agreed to set up a high-level panel of experts to finalize the MVI by December 2022.[86] Development of the MVI will be guided by the following principles: (i) multidimensionality—indicators to represent all three dimensions of sustainability; (ii) universality—index to capture the vulnerabilities of all developing States; (iii) exogeneity—index to distinguish between exogenous and inherited factors to ensure compatibility with current performance-based allocation models; (iv) availability—index to employ available, recognized, comparable and reliable data, including necessary approximations and imputations; (v) readability—index to be clear and easily understood, avoiding redundancy.[87]

Box IV.4
A selection of efforts to advance broader measures of progress

A range of academics, civil society and Governments have undertaken efforts to construct and use broader measures of progress:

When	Who	What
1995	Non-profit organizations and universities	*Genuine Progress Indicator:* measured by 26 indicators across economic, environmental and social categories.[a]
2006	World Bank	*Wealth of Nations Report:* measures a nation's wealth by capturing renewable and non-renewable natural capital, produced capital, human capital and net foreign assets.[b]
2007	European Commission, OECD, Club of Rome, European Parliament, World Wildlife Fund, European Commission	*Beyond GDP Initiative:* aims to i) complement GDP with environmental and social indicators; ii) provide near real-time information for decision-making; iii) ensure more accurate reporting on distribution and inequalities; iv) develop a European sustainable development scoreboard; and v) extend national accounts to environmental and social issues.[c]
2008	Bhutan	*Gross National Happiness Index:* based on four pillars of sustainable and equitable socioeconomic development; environmental conservation; preservation and promotion of culture; and good governance.[d] The Government has used the index to guide policy, including on the COVID-19 response.[e]
2010	United Kingdom	*National Well-being Measures:* produced by the Office for National Statistics, measures are organized into 10 areas – personal well-being, our relationships, health, where we live, what we do, personal finance, economy, education and skills, governance, and environment.[f]
2010	United Nations Development Programme (UNDP)	*Human Development Index:* summary measure of average achievement in three dimensions: a long and healthy life, being knowledgeable and having a decent standard of living.[g]
2011	OECD	*Better Life Index:* based on 11 areas – housing, income, jobs, community, education, environment, governance, health, life satisfaction, safety, and work-life balance.[h]
2012	Sustainable Development Solutions Network	*World Happiness Report:* based on life evaluations from the Gallup World Poll.[i]
2014	Social Progress Imperative	*Social Progress Index:* based on three dimensions – basic human needs, foundations of wellbeing, and opportunity.[j]
2017	World Bank	*Human Capital Index:* measures the human capital that a child born today can expect to attain by age 18, given the risks of poor health and poor education that prevail in the country where the child lives.[k]
2019	New Zealand	*Living Standards Framework:* developed by the Treasury, the Framework includes three levels – individual and collective wellbeing, institutions and governance, and wealth of the country. The Government uses the framework to guide its Wellbeing Budget.[l]

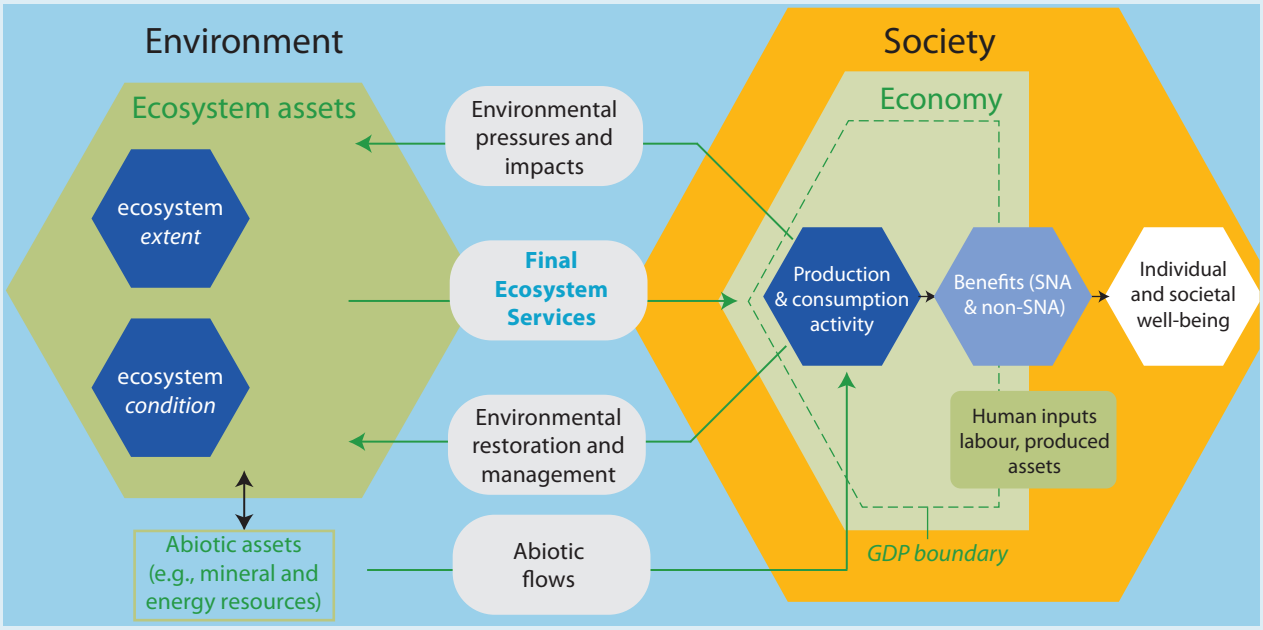
Source: UN/DESA.

a Cobb, Clifford, Ted Halstead, and Jonathan Rowe. 1995. *The Genuine Progress Indicator: Summary of Data and Methodology*. Redefining Progress.
b World Bank. 2021. *The Changing Wealth of Nations 2021: Managing Assets for the Future*. Washington, DC: World Bank.
c European Commission. 2022. "Background - Beyond GDP". Accessed 25 January 2022.
d Ura, Karma, et al. 2012. "A Short Guide to Gross National Happiness Index". The Centre for Bhutan Studies.
e Politzer, Malia. 2020. "Q&A: Is 'Gross National Happiness' the Key to Bhutan Escaping the Pandemic?" *Devex*, 22 July 2020.
f United Kingdom Office for National Statistics. 2019. "Measures of National Well-Being Dashboard". 23 October 2019.
g UNDP. 2022. "Human Development Index (HDI)". Human Development Reports. Accessed 25 January 2022.
h OECD. 2022. "OECD Better Life Index". Accessed 25 January 2022.
i Helliwell, John F., et al. 2021. "World Happiness Report 2021". Sustainable Development Solutions Network. March 2021.
j Social Progress Imperative. 2022. "Global Index: Overview". Social Progress Index. Accessed 25 January 2022.
k World Bank. 2020. "The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19". Washington, DC: World Bank. 16 September 2020.
l New Zealand, The Treasury. 2022. "Measuring Wellbeing: The LSF Dashboard". Accessed 25 January 2022.

Box IV.5
Understanding the System of Environmental Economic Accounts

The SEEA provides a common framework for organizing and presenting statistics on the environment and its relationship with the economy. The SEEA fills an important gap in official statistics. Mainline economic indicators like GDP provide important information about the state of the economy but omit the crucial role of nature. For example, if a country cut down all its forests in a single year, this would increase GDP in the short term due to increased timber production but it would be catastrophic for the country's natural wealth, destroying the forest sector's long-term viability and leading to irreversible environmental damage and massive long-term social costs. By integrating environmental assets and services with data on economic and other human activity, the SEEA expands the perspective and puts nature on an equal footing in decisions about economic development.

The SEEA Central Framework (SEEA CF) was adopted by the United Nations Statistical Commission as the first international standard for environmental economic accounting in 2012. It takes the viewpoint of the economy and examines how natural resources like fish, timber and water are used in production and consumption, along with the resulting pollution in the form of waste, water and air emissions. The SEEA EA complements the Central Framework by taking the perspective of ecosystems and their contribution to human well-being in the form of identifiable ecosystem services. Together, they provide a comprehensive view of the environment-economy nexus and make nature's invisible contributions to society visible.



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