Financing for Sustainable Development Report 2019

Inter-agency Task Force on Financing for Development

United Nations

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

FINANCING FOR SUSTAINABLE DEVELOPMENT REPORT 2019

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New York, 2019

This report is a joint product of the members of the Inter-agency Task Force on Financing for Development (a full list of members can be found on page x). 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) comprehensively monitors 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. It provides the complete evidence base for the Task Force's annual report on progress in the seven action areas of the Addis Agenda (chapters III.A–III.G). The report is by necessity more concise and selective and should thus be read in conjunction with the online annex.

The online annex also covers several key cross-cutting initiatives that build on the synergies of the Sustainable Development Goals:

- Delivering social protection and essential public services
- Ending hunger and malnutrition
- Closing the infrastructure gap
- Promoting inclusive and sustainable industrialization
- Generating full and productive employment for all
- Protecting ecosystems
- Promoting peaceful and inclusive societies
- Gender equality
- Investing in children and youth
- Addressing the diverse needs and challenges faced by countries in special situations
- Global partnership

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Foreword

There is progress to report on financing for sustainable development since the adoption of the Addis Ababa Action Agenda in 2015. Private sector interest in sustainable finance is growing. The Sustainable Development Goals are increasingly being incorporated in public budgets and development cooperation efforts. But these changes are not happening at the required scale, nor with the necessary speed.

As a result, many key SDG investments remain unfunded. Private investments in infrastructure of developing countries, at $43 billion, are lower than they were in 2012. Least developed countries, in particular, face large financing gaps; their annual spending on education alone would need to more than triple in order to achieve universal pre-primary, primary and secondary education.

More broadly, global growth has peaked at 3 per cent, and debt risks are rising. Real wages have risen only 1.8 per cent, the lowest in a decade, and most of the world's people now live in countries with increasing income inequalities. Trust in the multilateral system itself is eroding, in part because we are not delivering inclusive and sustainable growth for all.

The impacts of climate change are worsening, even as greenhouse gas emissions continue to increase. Far more ambitious climate action – including climate finance – is critical, especially for the poorest and most vulnerable.

Given these broad trends, it is clear that the world will not achieve the Sustainable Development Goals without a fundamental shift in the international financial system that enables us to address urgent global threats and restore trust in international cooperation. Action is needed at all levels.

Our shared challenge is to make the international trading and financial systems fit for purpose to advance sustainable development and promote fair globalization. At the same time, countries can adopt integrated frameworks to support and finance their national sustainable development strategies.

These and other recommendations in this Financing for Sustainable Development Report, produced by a United Nations Inter-agency Task Force, will support my Strategy for Financing the 2030 Agenda for Sustainable Development, which sets out priority actions to align global economic policies and financial systems with the 2030 Agenda and sieze the potential of financial innovation, new technologies and digitalization.

The analysis in this Report will guide the United Nations system, including the Country Teams, as we strengthen our support for Member States. It can also inform and facilitate key discussions related to financing for development taking place in 2019 at the Economic and Social Council, the High Level Political Forum, the High-level Dialogue on Financing for Development and the Climate Change Summit.

I commend this report to policy-makers and a wide global audience as we work together to bring the 2030 Agenda to life for all.

António Guterres
Secretary-General

Preface

Financing for sustainable development is high on our global agenda in 2019. As we take stock of progress in the implementation of major global agreements, financing challenges have emerged as key bottlenecks. The ECOSOC Financing for Development Forum in April, and the General Assembly High-level Dialogue on Financing for Development in September, are major opportunities to identify and take active measures to overcome these bottlenecks and identify the accelerators that will enable us to meet our ambitious commitments.

The 2019 Financing for Sustainable Development Report, the fourth report of the Inter-agency Task Force on Financing for Development, provides a comprehensive assessment of the state of sustainable finance, four years after the adoption of the Addis Ababa Action Agenda. Prepared by more than 60 UN agencies, programmes and offices and other relevant international organizations, the report brings together a wide range of expertise and perspectives. It puts forward a set of policy recommendations that are both ambitious and targeted at helping achieve tangible progress on financing for sustainable development in 2019 and beyond.

Six key messages emerge from this year's analysis:

- While global growth is steady, it has peaked; debt risks are rising; and climate change continues apace. These global challenges put our aspirations at risk and raise the urgency of action.
- In this difficulty lies opportunity. The multilateral system is under strain, but as we revisit existing arrangements in trade, debt, tax cooperation and other areas, we open the door to making them fit for purpose for sustainable development.
- Rather than retreating from multilateralism, the international community must recommit to the Addis Ababa Action Agenda and strengthen collective action to address global challenges.
- Global approaches need to be complemented by national actions. Countries should consider developing integrated national financing frameworks to support national development strategies.
- Achieving sustainable development requires a long-term perspective. Public and private incentives need to be aligned with sustainable development so that all financing decisions incorporate sustainability as a central concern.
- We must harness the potential of innovation to strengthen development finance. Yet such innovations do not eliminate financial and sustainability risks, which policy makers and regulators need to manage carefully.

In its analysis, the report puts special emphasis on the five SDGs under in-depth review at the July 2019 High-level Political Forum, on quality education, decent work and economic growth, reduced inequalities, climate action, and peace, justice and strong institutions. It also addresses 11 requests for analysis that Member States made in the outcome of the 2018 FfD Forum. This analysis is mainstreamed through the chapter on the global economic context, the thematic chapter on integrated national financing frameworks, and the chapters on the seven action areas of the Addis Ababa Action Agenda and data. Additional analysis and data are presented in the comprehensive online annex of the Task Force (http://develpomentfinance.un.org).

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Liu Zhenmin
Under-Secretary-General for Economic and Social Affairs
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Chair of the Inter-agency Task Force

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United Nations Research Institute for Social Development (UNRISD)

United Nations University (UNU)

United Nations World Food Programme (WFP)

World Health Organisation (WHO)

World Intellectual Property Organization (WIPO)

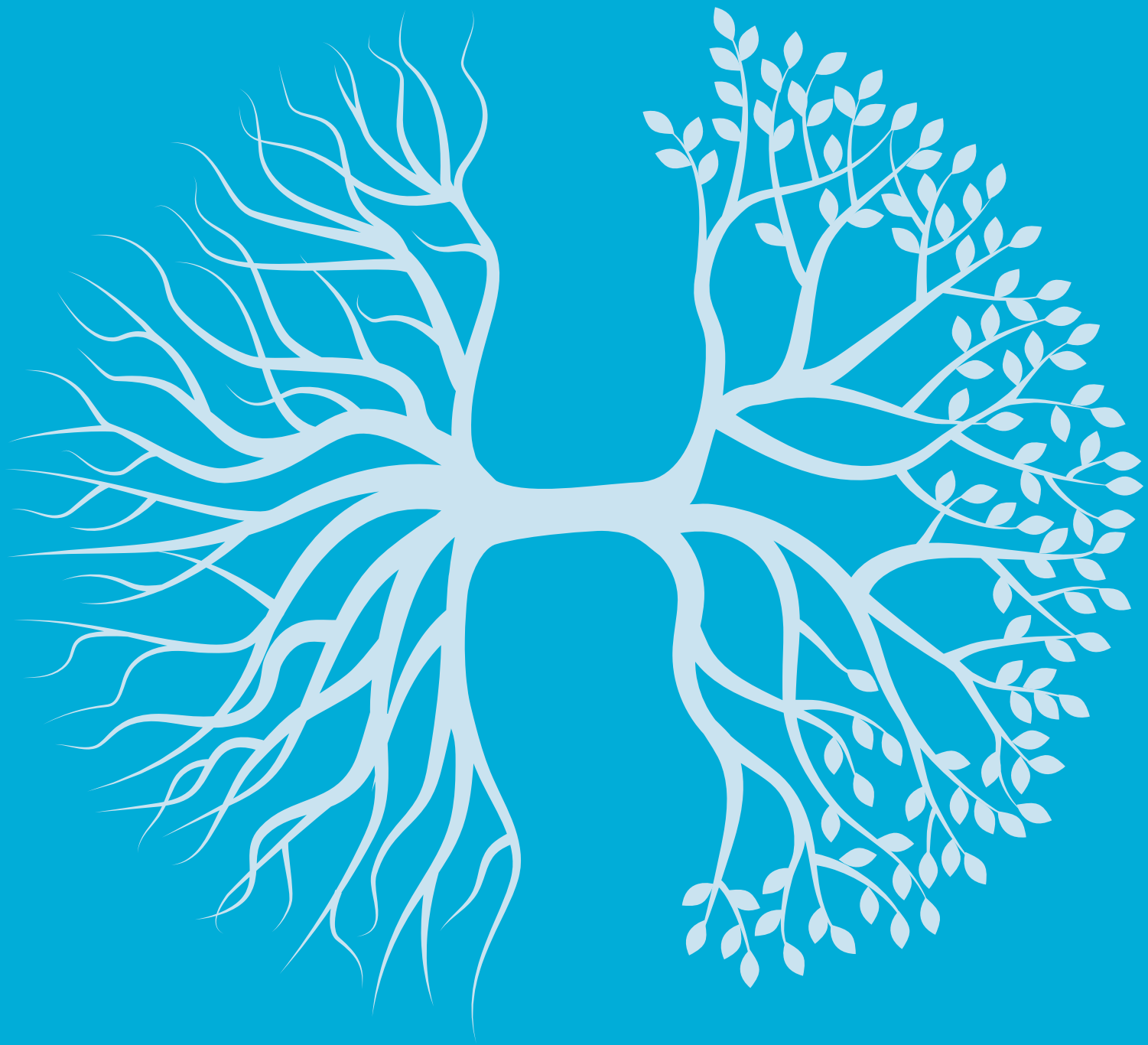
Abbreviations

AI	Artificial intelligence
AIIB	Asian Infrastructure Investment Bank
AML/CTF	Anti-money laundering and countering the financing of terrorism
ASYCUDA	Automated System for Customs Data
BEPS	Base erosion and profit shifting
BIS	Bank for International Settlements
BIT	Bilateral investment treaty
BRI	Belt and Road initiative
CbC	Country-by-country
CBR	Correspondent banking relationships
CCFF	Climate change financing framework
CDM	Clean Development Mechanism
CERF	Central Emergency Response Fund
CGIAR	Consultative Group on International Agricultural Research
COP	Conference of Parties
CPA	Country programmable aid
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
CRAs	Credit rating agencies
CSTD	Commission on Science and Technology for Development
DAC	Development Assistance Committee
DCF	Development Cooperation Forum
DFA	Development finance assessment
DFIs	Development finance institutions
DGI	Data Gaps Initiative
DMF	Debt Management Facility
DMFAS	Debt Management Financial Analysis System
DREI	Derisking Renewable Energy Investment Initiative
DSA	Debt sustainability assessment
ECA	United Nations Economic Commission for Africa
ECLAC	Economic Commission for Latin America and the Caribbean
ECOSOC	United Nations Economic and Social Council
EIP	External Investment Plan
ENPCC	Climate Finance Committee
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
ESG	Environmental, social and governance
ETF	Exchange Traded Fund
ETS	Emissions trading schemes
FAO	Food and Agriculture Organization
FATF	Financial Action Task Force
FDI	Foreign Direct Investment
Fintech	Digitally enabled innovation in the financial sector
FLAR	Latin American Reserve Fund
FOSS	Free and open-source software
FSB	Financial Stability Board

FTSE	Financial Times Stock Exchange
G20	Group of Twenty
GCF	Green Climate Fund
GCM	Global Compact for Safe, Orderly and Regular Migration
GDP	Gross domestic product
GEF	Global Environmental Finance
GFSN	Global financial safety net
GHG	Greenhouse gas
GIIN	Global Impact Investing Network
GRB	Gender responsive budgeting
GPE	Global Partnership for Education
GVCs	Global value chains
GWG	Global working group
IATT	United Nations Inter-agency Task Team on Science, Technology and Innovation for the Sustainable Development Goals
ICOs	Initial coin offerings
ICSID	International Center for Settlement of Investment Disputes
ICT	Information and communications technology
ICTP	International Centre for Theoretical Physics
IDA	International Development Association
IDFC	International Development Finance Club
IFC	International Finance Corporation
IoT	Internet of Things
IFFs	Illicit financial flows
IIAs	International investment agreements
ILO	International Labour Organization
IMF	International Monetary Fund
IPR	Intellectual property rights
ISAR	Standing Intergovermental Working Group of Experts on International Standards of Accounting and Reporting
ITC	International Trade Centre
KYC	Know-your-customer
KYCC	Know your customer's customer
LDCs	Least developed countries
LEI	Legal Entity Identity
LICs	Low income countries
LIC-DSF	Low-income country debt stability framework
LLDCs	Landlocked developing countries
MAC DSA	Market-access country debt sustainability analysis framework
MCAA	The Common Reporting Standard Multilateral Competent Authority Agreement
MDB	Multilateral development bank
MDG	Millennium Development Goal
MERCOSUR	Southern Common Market
MNEs	Multinational enterprises
MSCI	Morgan Stanley Capital International
MSMEs	Micro, small and medium sized enterprises
MTEFs	Medium-term expenditure frameworks
MTRS	Medium-term revenue strategies
NAFTA	North American Free Trade Agreement
NDB	National development bank
NDCP	National development cooperation policies
NGOs	Non-governmental organizations

NTMs	Non-tariff measures
OCHA	Office for the Coordination of Humanitarian Affairs
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
PCT	Patent Cooperation Treaty
PFM	Public finance management
PGGM	Pension Fund for Care and Well-Being
PPI	Private Participation in Infrastructure
PPP	Public-private partnership
PRGT	Poverty Reduction Growth Trust
R&D	Research and development
SASB	Sustainability Accounting Standards Board
SCD	Systematic Country Diagnostic
SCDIs	State Contingent Debt Instruments
SDGs	Sustainable Development Goals
SDR	Special drawing right
SIDS	Small island developing States
SIIFF	Solomon Islands Integrated Financing Framework
SISCLIMA	National System of Climate Change
SMEs	Small and middle-sized enterprises
SPFs	Social protection floor
SSC	South-South cooperation
StAR	Stolen Asset Recovery
STI	Science, Technology and Innovation for the Sustainable Development Goals
STIP	Science, technology and innovation policy
TCFD	Task Force on Climate-related Financial Disclosures
TCX	Currency Exchange Fund
TFA	Trade facilitation agreement
TFM	Technology Facilitation Mechanism
TOSSD	Total Official Support for Sustainable Development
TRIPS	Trade-related Aspects of Intellectual Property Rights
UBI	Universal basic income
UNCAC	United Nations Convention Against Corruption
UNCDF	United Nations Capital Development Fund
UNCITRAL	United Nations Commission on International Trade and Law
UNCTAD	United Nations Conference on Trade and Development
UN/DESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNEP-FI	United Nations Environmental Programme Financial Initiative
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	UN Framework Convention on Climate Change
UNISDR	United Nations Office for Disaster Risk Reduction
UNODC	United Nations Office on Drugs and Crime
UNWDF	United Nations World Data Forum
USMCA	United States-Mexico-Canada Agreement
WBG	World Bank Group
WEPs	Women's Empowerment Principles
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

OVERVIEW AND KEY MESSAGES



Overview and key messages

Mobilizing sufficient financing remains a major challenge in implementing the 2030 Agenda for Sustainable Development. Despite signs of progress, investments that are critical to achieving the Sustainable Development Goals (SDGs) remain underfunded. Interest in sustainable financing is growing, but the sustainability transition in the financial system is not happening at the required scale. Systemic risks are rising and parts of the multilateral system are under strain.

This 2019 *Financing for Sustainable Development Report*, produced in collaboration with over 60 agencies of the United Nations system and partner international organizations (the Inter-agency Task Force on Financing for Development), recognizes the scale and urgency of the challenge. But it also sees opportunity for revisiting national and global approaches to sustainable finance.

The international community should make use of this opportunity to reshape both national and international financial systems in line with sustainable development. If we fail to do so, we will fail to deliver the 2030 Agenda.

Global aspirations at risk

The world is being changed by rapid shifts in geopolitics, technology, climate, and other factors. There are some encouraging signs. Extreme poverty continues to decline and inequality between countries has fallen. Investment in some countries and regions has strengthened after a period of slow growth. Carbon prices are slowly recovering and there is growing interest in sustainable investing.

Nonetheless, many of the risks highlighted in last year's Task Force report have begun to materialize or intensify, putting progress at risk, and raising the urgency of action.

- World economic growth remains steady at around 3 per cent, but has likely peaked.
- More than half a trillion dollars' worth of goods are subject to trade restrictions, 7 times more than a year ago.
- Debt risks are rising. Around 30 least developed and other vulnerable countries are either in or at high risk of debt distress—hampering their ability to invest in the SDGs.
- Several countries have experienced significant capital outflows, with aggregate net outflows of over $200 billion from developing countries expected in 2018.
- Inequality has risen in countries home to most people in the world, and global growth in real wages is only 1.8 per cent, the lowest since 2008.
- Climate change continues apace, with greenhouse gas emissions increasing by 1.3 per cent in 2017, with dire consequences for communities worldwide.

Achieving sustainable development requires: multilateral action to address global challenges; revisiting the global institutional architecture; and strengthened regional and national action, including adjusting policies to the changing global landscape. It includes countering short-term behaviour on all levels and harnessing the potential of innovation while managing risks.

Recommit to multilateral action. . .

Multilateral action is needed to address global risks and achieve the 2030 Agenda, including combatting climate change. ***Governments should recommit to the Addis Ababa Action Agenda, which provides a global framework for financing sustainable development, and strengthen collective action to address global challenges to sustainable development.***

. . . and revisit the global institutional architecture

Globalization and technological change contributed to reducing extreme poverty at the global level,

but uneven distribution of the benefits has left many behind and undermined support for the global architecture. The multilateral system is under stress. And yet, in this difficulty may lie opportunity.

For example:

- the crisis of the ***multilateral trading system*** opens the door to revamp and make it fit for purpose for sustainable development;
- challenges in ***sovereign debt*** restructuring, in part due to new instruments and non-traditional creditors, have sensitized the international community to gaps in the existing architecture;
- increasing vulnerabilities have underscored the importance of ***strengthening the global financial safety net;***
- the digitalisation of the economy has fuelled the debate about the design of the ***international tax system*** that could help address inequities***;***
- ***growing market concentration*** has underscored the need to better monitor this trend and manage its socio-economic implications.

To achieve the 2030 Agenda, global solutions need to be complemented by national actions.

Adopt integrated national financing frameworks and adjust policies to new realities

The Addis Agenda notes that "cohesive nationally owned sustainable development strategies, supported by integrated national financing frameworks, will be at the heart of our efforts." In response to the 2030 Agenda, many countries have injected new life into their sustainable development strategies. However, most strategies do not have concrete financing plans to fund their implementation.

The Task Force has identified four building blocks to operationalize "integrated national financing frameworks." ***All countries should consider developing financing frameworks to support their national development strategies. The international system should continue to support countries in these endeavours.***

Financing policies do not work in isolation. Integrated financing frameworks should not only respond to financing challenges, but also to the realities of a changing global landscape. For example, to combat inequality, including gender inequalities, national policies will need to address the falling wage share, growing vulnerabilities, digitalization and increasing market concentration, amongst other issues. ***Governments should revisit their labour market policies, social protection systems, fiscal policies, competition policies, financial sector regulations and strategies, and trade policies to ensure that these are in line with the new realities.***

Counter short-term behaviour

Achieving sustainable development—particularly eradicating poverty, reducing inequality, and combatting climate change—requires a long-term perspective, with governments, the private sector, and civil society working together to tackle global challenges.

Yet, a more uncertain world begets more short-term behaviour. Private businesses, many of whom already face a range of short-term incentives, hesitate to commit funds to long-term investment projects. During periods of financial insecurity, households often focus on their immediate needs. And policymakers are often guided by short-term political cycles.

Actions are needed at all levels. Strengthened collective action can help reduce global uncertainty. Nationally, integrated financing frameworks provide a basis for long-term policymaking beyond political cycles. For private investors and businesses, ***achieving the SDGs will require a shift towards long-term investment horizons and sustainability as a central concern of investment decisions. This demands aligning private and public incentives with sustainable development, and better measuring the impacts on sustainability.***

Harness the potential of innovation while managing risks

Financial innovations can generate significant progress across the 2030 and Addis Agendas. New technologies and innovation can improve the functioning of markets. Financial technology (fintech) can enhance access to finance for millions of people. Big data can contribute to better policymaking. Blended finance, when well-managed, can contribute to strengthening development finance. New instruments, strengthened sustainability reporting, and innovative policy solutions can enable a growing number of investors to pursue financial returns with positive sustainable development impact.

But financial and sustainability risks do not disappear with innovative forms of financial intermediation—credit risk still needs to be managed, and new technologies give rise to new risks.

Non-bank financial institutions and fintech companies are not always well positioned to manage these risks, and neither are regulators who have historically focused on traditional financial services providers. ***Policymakers and regulators will need to increasingly shift to looking at the underlying risks associated with financial activities from all actors rather than looking at the type of institution. At the same time, they need to strike a balance between managing emerging risks and enabling experimentation and innovation.***

About this report

The 2019 *Financing for Sustainable Development Report* of the Inter-agency Task Force begins its assessment of progress with an analysis of the global macroeconomic context (chapter I), including sustainable growth, inequality and climate change. The thematic chapter (chapter II) presents four building blocks to operationalize implementation of the Addis Agenda at the country level though integrated financing frameworks.

The remainder of the report (Chapters III.A to III.G and IV) discusses progress in the seven action areas of the Addis Agenda. Each chapter begins with a summary that highlights key messages and presents policy options.[1] Each chapter gives updates on implementation, and lays out challenges and policy options on both the national level, including links to integrated financing frameworks, and for international cooperation.

In ***chapter III.A on domestic public resources,*** main issues include: raising resources and using fiscal systems to combat inequality; aligning fiscal systems with environmental goals; and strengthening international tax cooperation and fighting illicit financial flows. In ***chapter III.B on private business and finance,*** main issues include: leveraging the growing interest in sustainable investing to maximize sustainability impacts; financial sector strategies to develop inclusive and sustainable financial systems, as well as capital market development; and links between financial markets, business concentration and inequality. In ***chapter III.C on international development cooperation,*** main issues include: a deep dive into ODA, along with other forms of development cooperation; international public finance for climate change and strengthening resilience; and development cooperation strategies as an integral part of national financing frameworks. In ***chapter III.D on international trade as an engine for development,*** main issues include: reforms of the multilateral trading system; trade policies consistent with the SDGs, including investment treaties; adjustment for the future of work; as well as e-commerce and trade financing gaps. In ***chapter III.E on debt and debt sustainability,*** main issues include: rising risks of debt distress; financing the SDGs in the context of rising debt burdens, including through the use of innovative instruments; transparency and debt management; and challenges to creditor coordination in a changing landscape of debt financing. In ***chapter III.F on addressing systemic issues,*** main issues include: global systemic risks, including capital flow volatility; financial regulations and sustainable development investment, as well as correspondent banking; and risk management for national development banks. In ***chapter III.G, on science, technology and innovation,*** main issues include: the impact of technology on labour markets; fintech and financial inclusion; and access to technology. Finally, in ***chapter IV on data and monitoring***, main issues include: development cooperation in support of statistical systems and the role of big data for the 2030 Agenda.

Chapters III.A to III.G and IV address the eleven requests Member States made to the Task Force in the intergovernmentally agreed conclusions and recommendations of the 2018 ECOSOC Forum on Financing for Development.[2] Table 1 lists the issues and where the related content can be found in this report.

Member States designated five SDGs to be reviewed

Table 1
Requests made by Member States and coverage in this report

Subject	Coverage
Relationship between ESG investing and returns	Chapter III.B section 2
Breakdown of the use of ODA in developing countries	Chapter III.C section 2
Climate and disaster risk resilience in development financing	Chapter III.C section 6
Trade financing gaps	Chapter III.D section 5.1
State-contingent debt instruments and other innovative borrowing instruments	Chapter III.E section 4
Correspondent banking and unintended consequences of regulation	Chapter III.F sections 3 and 5
Development bank risk management	Chapter III.F section 4
Impact of technologies on labour markets	Chapter III.G section 3
Implications of financial technolgy and the weightless economy	Chapter III.G section 4
Access to appropriate technologies	Chapter III.G section 5
Role of big data for the 2030 Agenda for Sustainable Development	Chapter IV section 2

in-depth in 2019 at the United Nations High-level Political Forum on Sustainable Development, namely SDGs 4 (quality education), 8 (decent work and economic growth), 10 (reduced inequalities), 13 (climate action) and 16 (peace, justice and strong institutions). These are addressed throughout the report. To guide readers interested in a consolidated picture of the financing issues related to these SDGs, the Task Force also brought together pointers to the relevant content in the boxes following this introduction.

This Task Force is made up of 60 United Nations agencies, programmes and offices, the regional economic commissions and other relevant international institutions. The report and its online annex draws 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—take 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 Task Force and substantive editor of the report.

The Task Force carried out background research, held dedicated technical meetings, and engaged outside experts to inform this analysis.[3] The report further benefited from the work of the Intergovernmental Group of Experts on Financing for Development, which held its second session in Geneva from 7 to 9 November 2018, on the topics of debt and debt sustainability and interrelated systemic issues.[4]

SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Achieving SDG 4 on quality education for all requires significant additional financing. Annual total spending to achieve the first two—and costliest—education targets, namely universal pre-primary, primary and secondary education, would need to more than triple in low-income countries.[5]

Three sources of funding are available to fill the gap: Governments, donors and households. Domestic public finance is by far the most important source of funding, accounting for 79 per cent of education spending globally. Poorer countries prioritize education more in their public expenditure, but this still translates into vastly smaller expenditure by student—less than $200 annually per primary school student in low-income countries, compared to around $8,000 in high-income countries.[6]

In response, households have to contribute a much larger share of education financing directly. In some developing countries, households account for more than half of all expenditure, compared to less than 15 per cent in most developed countries. Overreliance on households raises equity concerns. **Chapter III.A** presents the case of Chile, which is gradually expanding free access to tertiary education, with a view to increasing inclusion. To this end, it undertook a broad reform of its tax system in 2014, with the explicit objective of permanently increasing public spending on education and other social sectors (box 2).

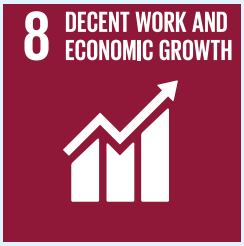
In developing countries, fiscal and household spending is complemented by aid as a third major source of education funding. Donors account for 12 per cent of education spending in low-income countries. However, over the past decade, education has become less of a priority for development partners, with the share of education falling from 8.8 per cent of total official development assistance in 2010 to 7.1 per cent in 2017. **Chapter III.C** describes one response to this trend—that is, the use of partnerships and innovative funding mechanisms, such as the Global Partnership for Education and Education Cannot Wait, to support education in crisis settings, and the recently proposed International Finance Facility for Education (box 1).

A share of aid for education is used for the provision of scholarships.—Means of implementation target 4.b calls for a substantial expansion of scholarships available to developing countries. More than $3 billion were disbursed as aid for either scholarships or as costs incurred by donor-country higher education institutions. **Chapter III.F** notes that scholarships and migration for education purposes are included in the Global Compact for Migration (box 3).

Chapter III.G (section 3) finds that new and emerging technologies are putting additional demands on education systems, as even advanced education is no longer a guarantee for employment due to the automation of cognitive tasks. Continuous and rapid technological change will require provision of opportunities for lifelong learning, but implications of artificial intelligence and related technologies for education systems and practices are only just coming into focus and warrant attention by policymakers (box 1).

Chapter IV reports on capacity development efforts to improve national education data, as availability of reliable and disaggregated data remains a challenge in the education sector (box 1).

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



SDG 8 promotes sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all. It includes higher levels of productivity and technological innovation, encouraging entrepreneurship and decent job creation, access to financial services and protecting labour rights. These issues, which cut across the action areas, are at the heart of the Addis Ababa Action Agenda.

The global context chapter (**chapter I**) provides data on growth and employment. It highlights the lack of sufficient growth in least developed countries, as well as continuing challenges in generating sufficient employment. The chapter notes that hundreds of millions of workers are living in poverty despite being employed, and that youth employment remains a challenge. Gender disparities in workforce participation and pay are stubbornly wide.

The global context chapter also points to a decline in the labour share of income (and a corresponding increase in the profit share) over the last several decades, as a structural factor linked to growing inequality in some countries. Wage growth has lagged labour productivity growth, while the profit share has been rising. Insufficient welfare gains for the broader population risk lowering demand and economic growth.

Informality of businesses undermines the enforcement of labour rights and safe working conditions. **Chapter III.A** on domestic public resources examines the role fiscal policy can play in addressing labour market challenges, including in the informal economy. Policymakers can use fiscal systems to incentivize the formalization and growth of micro, small and medium-sized enterprises (section 3).

Policymakers can also create an enabling business environment that encourages entrepreneurship and a vibrant business sector, as discussed in **chapter III.B** (sections 3 and 4). Access to financial services is a key component of this enabling environment. While financial inclusion has improved in recent years, significant gaps remain between developed and developing countries (section 6). Policymakers can encourage a range of tools to strengthen financial inclusion. Financial technology (fintech) has successfully fostered financial inclusion in a number of countries, but has also led to new risks and challenges (**chapter III.G**, section 4). The regulatory framework for financial institutions, covered in **chapter III.F**, will need to shift from looking at the type of financial institution providing financial services to the underlying risks associated with the financial activity, with international regulatory standards also needing to adapt to the new landscape (section 3). Financial sector strategies should holistically address financial inclusion, deepening and stability, along with consumer protection.

There is significant uncertainty about the long-term impact of technology and innovation on jobs and decent work. **Chapter III.G** focuses on the impacts of technologies on labour markets and employment (section 3), addressing the fear that rapid advances in artificial intelligence could make the labour of millions of people redundant. Automation has led to a high concentration of profits among a few companies and locations, contributing to growing income inequality and job polarization. Governments can encourage innovation that creates new jobs and ensures that social protection systems adapt, while investing in lifelong learning that enables upskilling and re-skilling.

Member States of the United Nations have prescribed Aid for Trade as a means of implementation for SDG 8 (target 8.a). Aid for Trade aims to help developing countries, and in particular least developed countries, build the supply-side capacity and trade-related infrastructure they need to implement and benefit from multilateral trade agreements. **Chapter III.D** describes the progress (section 5.4), which has been steady since 2006, although the most recent year's data showed a decline. Ensuring Aid for Trade is aligned with country priorities for infrastructure and industrialization, and is incorporated in integrated national financing frameworks, will contribute to implementation of the 2030 Agenda.

SDG 10: Reduce inequality within and among countries

SDG 10 aims to reduce inequality within and among countries. Inequality can erode trust and leave the most marginalized behind. At the same time, reduced inequality is associated with stronger, more sustainable growth. The global context chapter (**chapter I**) finds that income inequality within countries has increased over the past three decades in about half the countries where estimates have been made. Indeed, most people live in countries with increasing income inequality, and individuals in the bottom 10 percent of income scales in many countries have seen little or no growth in disposable income over the last decade (section 3).

Many factors have contributed to this trend, some of which are discussed in this report. Advances in technology are displacing low- and medium-skilled workers while benefiting higher-skilled workers, thus exacerbating inequality, as discussed in **chapter III.G** (section 3). As highlighted in **chapter III.B**, market concentration has been rising across a range of industries in some countries, particularly in the digital economy, with a high concentration of profits among a few companies and locations (section 7.2). Such concentration has contributed to a decline in the share of wages in favour of profits, raising inequality. **Chapter III.B** also explores how the financial sector has impacted inequality. On the one hand, financial development benefits the poor, with better access to financial services helping some people escape poverty (section 7.1). Promoting financial inclusion can thus have a positive impact on inequality when implemented with consumer protection. Financial inclusion can also reduce transaction costs for migrant remittances (SDG means of implementation target 10.c) (section 6.1). On the other hand, excess financialization may contribute to greater income inequality, as the financial sector appropriates a disproportionate share of profits and may lead to some degree of regulatory capture (section 7.1). Excess financialization may also result in an unsustainable build-up of debt, increasing the risk of a financial crisis, which may widen inequality. Policy solutions will require efforts across government, including revisiting competition policy, as well as promoting regulatory and other policies aimed at reducing financial and capital market risks and ensuring that finance benefits the real economy (**chapter III.F** section 3).

Chapter III.A discusses the role of fiscal systems in reducing inequality. Fiscal systems can incorporate impact analysis on inequality on both taxation and expenditure (section 3). Effective and progressive tax systems can lower inequality, as can public spending, including the provision of public services and social protection. Labour policies, such as minimum wages, and efforts at formalizing businesses, which allows better enforcement of labour rights, also lower inequality.

The benefits from international trade have not been shared equitably and have required costly adjustments from some groups of workers, though recent research shows this effect might be smaller than believed. **Chapter III.D** underlines that expediting preferential market access for least developed countries (SDG means of implementation target 10.a) should contribute to making trade more inclusive, (section 2.2). Investment in education and training to provide workers with skills in high demand also helps reduce inequality (section 6.2).

Tackling inequality requires partnership–governments, the private sector, and civil society working together to eradicate discrimination against women, design the right labor market reforms, and strengthen education, training and social protection systems. While certain policies can be implemented at the national level, others require international efforts, for example, international tax cooperation (**chapter III.A** section 5), global governance (**chapter III.F**, box 2) and the monitoring of global market concentration trends (**chapter III.B** section 7.2). Key international efforts to reduce inequality also include enhancing official development assistance flows (SDG means of implementation target 10.b), which are covered in detail in **chapter III.C**.

SDG 13: Take urgent action to combat climate change and its impacts

SDG 13 commits the international community to take urgent action on climate change mitigation and adaptation, noting the need for awareness-raising, capacity-building and financing. Climate risk is the most important systemic risk for the near future, but climate change is proceeding faster than humanity is tackling the problem. There is no country that is not experiencing the drastic effects first-hand.

The global context chapter (**chapter I**) provides data on growth in emissions and trends in the carbon intensity of the economy. It highlights the urgency of more ambitious actions if the international community wants to avoid the worst impacts of climate change by limiting the average temperature increase to 1.5°C (section 4).

Chapter III.A discusses how national fiscal systems are crucial for transitioning the world to a sustainable, low-carbon economy. Carbon pricing and other environmental taxation can help steer economic activities away from high emissions, while at the same time generating fiscal revenues (section 4). Climate change adaptation can be bolstered by expenditure on disaster resilience and setting incentives for disaster risk reduction (section 4.4).

Chapter III.B highlights that investors are gradually recognizing that the performance of companies on environmental issues may affect their financial performance (section 2). They are thus incorporating these elements into their investment decisions. Policy measures should complement private initiatives, and help build a policy environment that aligns private sector incentives with public goals (for example, through carbon pricing) and strengthens accountability. These measures include promoting more meaningful and harmonized sustainability reporting by corporations and clarifying the fiduciary duties of institutional investors. The impact of climate risks on financial sector returns, risks and stability is also considered in **chapter III.F** (section 3), which highlights the role that credit rating agencies can play in assessing and publishing these risks.

Chapter III.C reviews progress towards the commitment made by developed-country parties to the United Nations Framework Convention on Climate Change (UNFCCC) to jointly mobilize $100 billion annually by 2020 to support the climate financing needs of developing countries. Climate finance is the SDG means of implementation target 13.a. The report highlights how access to climate finance for the poorest and most vulnerable countries will need to be improved (section 6.2). Lessons on governance and institutional coordination of climate financing are also covered in **chapter II** (box 4).

Chapter III.C also highlights the importance of international cooperation for resilience building, to support developing countries' disaster risk reduction strategies, and the particular relevance of ex ante financial instruments to incentivize risk reduction (section 6.1).

Chapter III.G notes that green technology transfer was meant to be a key element of the UNFCCC Clean Development Mechanism. It reports that the bulk of environmentally sound technologies have been developed in response to explicit and strong government support, providing Governments with leverage to disseminate them more broadly in the larger public interest (section 5).

Promoting planning and management is the SDG means of implementation target 13.b, and **chapter II** lays out steps for countries to develop institutional coordination mechanisms for more effective planning (section 4.1).

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

SDG 16 promotes peaceful and inclusive societies, the provision of access to justice for all, and the building of effective, accountable and inclusive institutions at all levels. In the Addis Ababa Action Agenda, Member States of the United Nations agree to "promote peaceful and inclusive societies," with an emphasis on institutions as a means of implementation. This report covers both national level institution-building as well as efforts at the international level.

Chapter II lays out steps for countries to develop and implement integrated national financing frameworks. Effective, accountable and transparent institutions are a key element of these frameworks. This includes institutional coordination mechanisms, such as national steering committees, which can provide leadership, facilitate a whole-of-government approach and policy coherence, and lead a consultative process that engages all relevant stakeholders, including parliament, civil society, the private sector and other non-state actors. Many examples are presented throughout the report, such as **chapter III.A,** which notes the importance of the consultative process to generate broad national agreement on medium-term revenue strategies so those strategies can extend across political cycles (section 2.4).

At the international level, the role of global institutions is discussed throughout the report. To achieve the SDGs, international norms and institutions need to be fit for purpose. Rising global economic risks, the rapidly changing international landscape, and insufficient progress on some SDGs (such as combatting climate change) have sensitized more stakeholders to the need for reforms to the current multilateral system. This creates a window of opportunity for reform, which is discussed in relation to the multilateral trading system (**chapter III.D** section 3), tax (**chapter III.A** section 5), debt (**chapter III.E** section 5) and the international financial architecture (**chapter III.F** section 2).

Chapter III.F further notes that the 2030 Agenda makes high demands to maximize synergies and break down silos. Coherence of financial and economic systems with sustainable development is critical (section 5). The deeper coordination that is now needed extends across policy areas and institutions including tax, investment, competition and non-economic issues–which have previously been excluded from the development discourse–such as climate change, disaster risk, human rights, gender and migration.

SDG 16 also makes specific reference to reducing illicit financial flows (IFFs), which are discussed in **chapter III.A**. While there remains no universally agreed definition of what constitutes IFFs, the report highlights efforts to estimate the volume of different components of IFFs and the policy work needed to tackle money laundering, combat corruption and return stolen assets (section 6). Progress can be enhanced by both greater national enforcement and enhanced international cooperation across the channels and mechanisms that contribute to the problem.

Endnotes

1 The necessarily concise assessments in the report are complemented by and should be read in conjunction with the comprehensive online annex of the Task Force report, available from http://developmentfinance.un.org.
2 United Nations, "Report of the Economic and Social Council forum on financing for development follow-up", 9 May 2018, E/FFDF/2018/3.
3 For additional information on these workstreams and related technical meetings, please refer to the online annex, available from https://developmentfinance.un.org/workstreams.
4 United Nations, "Report of the Intergovernmental Group of Experts on Financing for Development on its second session", 10 January 2019, TD/B/EFD/2/3.
5 See UNESCO, "Pricing the right to education", Policy Paper 18 (2015).
6 UNESCO, *Global Education Monitoring Report, 2019: Migration, displacement and education: building bridges, not walls* (Paris, 2018).

THE GLOBAL ECONOMIC CONTEXT AND ITS IMPLICATIONS FOR SUSTAINABLE DEVELOPMENT

Chapter I

The global economic context and its implications for sustainable development*

1. Introduction

Risks to the global economy have begun to materialize, leading to modest downgrades in growth projections by members of the Inter-agency Task Force on Financing for Development. Global growth remains steady, but is projected to have now peaked, with economic activity expected to continue expanding at about 3 per cent per year. Global growth is projected to remain uneven across regions and countries. There is some good news: investment has gained strength in some countries and regions, particularly in East and South Asia, which also have large populations of poor people; inequality within many developing countries is declining; and prices on carbon markets are slowly recovering due to policy changes. There is also growing interest in sustainable and impact investing (see chapter III.B). Yet, financial markets are volatile, the trade system is in crisis, wage shares are declining which is linked to economic concentration increasing, and risks of debt distress have increased. Carbon emissions have also begun to rise again. At this trajectory, Member States of the United Nations will not be able to meet the aspirations of the 2030 Agenda for Sustainable Development, with many being left behind.

Policymakers face a daunting task of containing rising short-term risks, while advancing long-term development strategies towards economic, social and environmental goals. Both national and global actions are necessary. National Governments can take meaningful steps to build resilient and inclusive economies. Given that many of the challenges are global by nature, strengthening rules-based multilateralism is also necessary to fully achieve the Sustainable Development Goals (SDGs). Waning support for international cooperation, often driven by the uneven distribution of the benefits of economic and financial integration, will not only hamper an effective short-term response to any global economic downturn, but also complicate collaborative efforts to implement the Addis Ababa Action Agenda, address the global challenges, and promote sustainable development.

The chapter also examines how economic performance and non-economic factors impact each other. Economic growth can lead to greater environmental degradation and carbon emissions, while the effects of climate change have enormous economic costs. The human and economic costs of disasters fall primarily on low-income and lower-middle-income countries. Yet, policy choices matter. Economic growth and climate goals can be mutually supportive, depending on the policy framework. Similarly, ensuring women's rights and empowerment can promote gender equality and improve their livelihoods, while also positively impacting economic performance.

2. Outlook and risks for the global economy

2.1 Global growth outlook

According to the United Nations *World Economic Situation and Prospects 2019,* global gross domestic product (GDP) growth is expected to remain

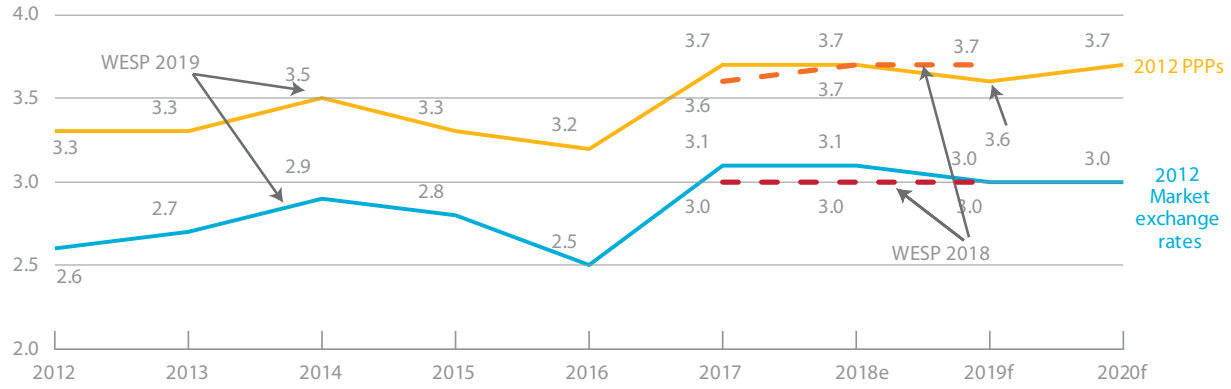
steady at 3.0 per cent in 2019 and 2020, following growth of 3.1 per cent in 2018 (figure 1).[1] Most growth forecasts have been revised downward, due in part to the negative effects of trade uncertainty and weakening financial market sentiment.

Recent indicators suggest that global growth has likely peaked. Global industrial production and merchandise trade growth have slowed, particularly in the trade-intensive capital and intermediate goods sectors. At the same time policy uncertainty persists on multiple fronts, downside risks to growth forecasts remain high, and surveys show an overall weakening in business and consumer confidence.

A positive development over the past two years has been the recovery in investment in many countries. However, despite the recent improvement, the average investment-to-GDP ratio in developed countries remains lower than in the pre-crisis period, while corporate non-financial borrowing has risen in developed economies since the crisis. For example, more than half of leveraged loans issued in 2018 have been used to fund mergers and acquisitions and leveraged buyouts, pay dividends, and buy back shares from investors rather than finance productive investment.[2]

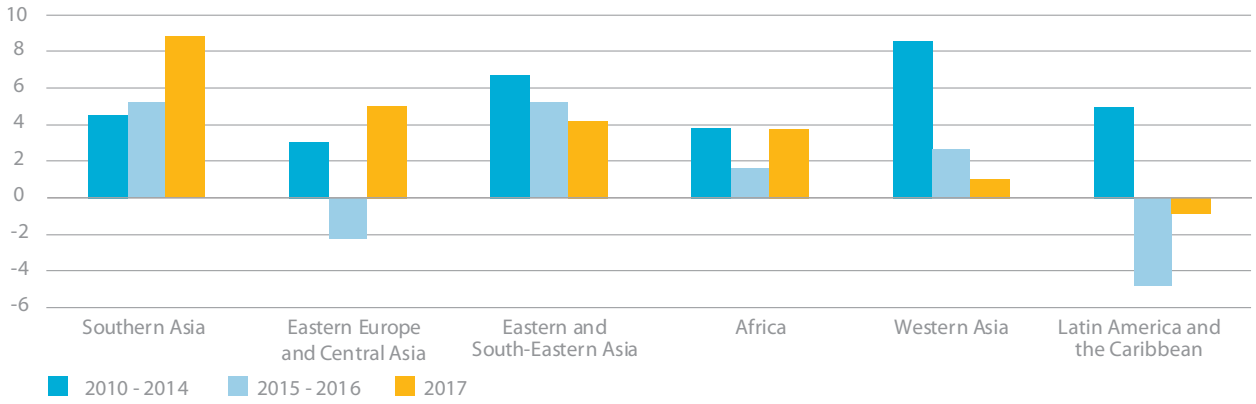
Many developing economies, including several large commodity exporters, also experienced a pick-up in investment growth in 2018. In parts of Africa as well as East and South Asia, investment has been underpinned by large infrastructure projects, primarily publicly financed. However, in many parts of Africa, investment levels still appear insufficient to achieve faster and more inclusive growth (figure 2).

Figure 1
Growth of world gross product
(Percentage)



Source: UN/DESA.
Note: e=estimate, f=forecast.

Figure 2
Annual growth of gross fixed capital formation, developing regions, 2010-2017
(Percentage)



Source: UN/DESA calculations based on CEIC.

2.2 Uneven growth

Beneath the global headline figures, economic progress remains highly uneven across regions and countries. In most parts of East and South Asia, economic activity continues to grow rapidly, underpinned by robust domestic demand and macroeconomic policy support. Economic activity in commodity-exporting countries, notably fuel exporters, is gradually recovering, although growth remains susceptible to volatile commodity prices. Many commodity exporters are still undergoing adjustments following the sharp drop in global commodity prices in 2014 and 2015, which left some countries saddled with high levels of debt.

Growth in Africa, Latin America and the Caribbean, and Western Asia—home to half of the world's people in extreme poverty—is on average significantly below 1.5 per cent on a per capita basis. While a modest recovery is projected in 2019, per capita incomes are still likely to remain stagnant or grow only marginally (figure 3), impeding efforts to advance sustainable development and reach the SDGs.

In the majority of least developed countries (LDCs), per capita GDP growth is significantly below levels needed to eradicate extreme poverty. As a group, economic growth in the LDCs is estimated at 5.0 per cent in 2018, or 2.6 per cent in per capita terms. Although a few large LDCs are expanding by 7 per cent or more—the level set in SDG target 8.1—in many LDCs, and small island developing States (SIDS), growth remains well below that rate.

2.3 Significant downside risks

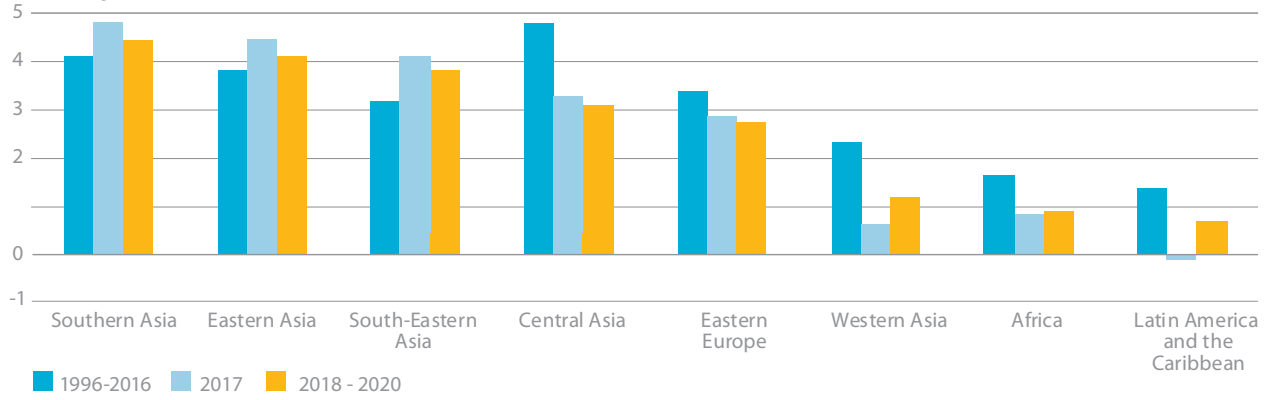
Downside risks to the global growth outlook have increased, with the potential to disrupt economic activity and impede development prospects. Compared to pre-crisis conditions, many countries now have less policy space to bolster growth in the event of an external shock. In most developed countries and several developing countries, interest rates are still very low. On the fiscal front, public debt has risen in many countries, potentially constraining the ability of Governments to undertake large-scale fiscal stimulus measures. At the same time, developing countries as a group have become more exposed to global finance (see chapter III.F), providing access to finance but also leaving them more susceptible to contagion. Member States have less fiscal and monetary policy space to respond to crises, and given the current challenges to multilateral approaches, it is unknown whether Member States have the political will to coordinate policy actions in a similar fashion to their response to the 2008 world financial and economic crisis.

Tightening of global financial conditions

The protracted period of abundant global liquidity and low interest rates in the aftermath of the 2008 crisis has fuelled a potential build-up of financial fragilities across both the developed and developing economies. Despite the financial market corrections seen in 2018 and early 2019, asset overvaluations and high-risk behaviour remain concerns in global financial markets. The global stock of high yield bonds and leveraged loans has doubled in size since the global financial crisis,[3] driven by low borrowing costs, high risk appetite, and looser lending standards. In addition, as of 2018, corporate bond spreads, particularly those of high-yield bonds, appear very low after accounting for expected default rates, suggesting a certain degree of under-pricing of risk.[4]

Across many developed and developing economies, public and private debt levels have risen to historical highs in the post-crisis period (figure 4). In several developing economies, the fragility of corporate and government balance sheets has been exacerbated by a rise in dollar-denominated and/or floating rate debt. Continued tightening of monetary policy and rising global risk aversion are likely to increase the burden of debt service, posing a risk to debt sustainability (see chapter III.E). If bankruptcies of non-financial corporations increase, this could also transmit stress to the domestic financial

Figure 3
Average annual GDP per capita growth by region
(Percentage)

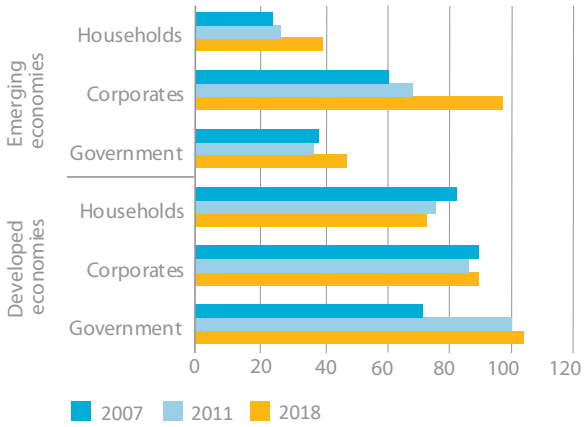


Source: UN/DESA.

sector (and ultimately to government balance sheets in the event of a crisis), while any financial sector stress could lead to reductions in credit availability, posing risks to other highly leveraged businesses.

In the current uncertain environment, financial markets are highly susceptible to a sudden shift in investors' perception of market risk, which could result in a sharp and disorderly tightening of global financial conditions. A faster-than-expected pace of increasing interest rates in systemically important developed economies could have significant spillover effects on the rest of the world, including a sharp reversal of capital flows from developing countries. This would likely have a larger impact on countries with weak macroeconomic fundamentals, large external imbalances, high indebtedness and a high share of short-term liabilities among their capital inflows, and low policy buffers. Currency depreciations can also dampen capital investment through balance sheet effects.

Figure 4
Breakdown of non-financial sector debt of developed and emerging economies
(Percentage of GDP)



Source: Bank for International Settlements.
Note: 2018 refers to outstanding debt data as of 2Q 2018.

Trade policy disputes and slow trade growth

Global trade growth is again moderating in 2018, after one year of solid growth in 2017 following five years of anaemic trade growth. The rise in trade tensions in 2018 among the world's largest economies was accompanied by an increase in the number of disputes raised under the dispute settlement mechanism of the World Trade Organization. A prolonged episode of heightened trade tensions and a spiral of additional tariffs poses a significant risk to the global growth outlook. Global economic activity would be impacted through several channels, including a slowdown in investment, higher consumer prices and a decline in business confidence. This could create severe disruptions to global value chains, particularly for the East Asian economies that are deeply embedded into global supply chains. Slower growth in major countries would also reduce demand for commodities, affecting commodity-exporters in Africa, Latin America and Western Asia. A protracted period of subdued trade growth would weigh on productivity growth in the medium term, and hence on longer-term growth prospects.

3. Employment and inequality outlook[5]

3.1 Employment and job growth trends

The upturn in the world economy over the past few years has been associated with a slight improvement in global labour market indicators. The global unemployment rate is estimated to have fallen marginally in 2018 to about 5 per cent. However, after expanding by an annual average of 1.2 per cent between 2013 and 2018, global employment is projected to grow by less than 1.0 per cent in 2019, slowing further in 2020.

In many developed economies, unemployment rates are currently at historical lows. Against this backdrop, firms in several countries have reported capacity constraints, amid the inability to attract sufficient numbers of qualified workers. By contrast, in a few large developing economies, unemployment rates have risen, as job markets have been deeply impacted by sharp economic downturns and/or political crises.

Headline indicators also conceal structural weaknesses in labour market conditions, which pose a developmental challenge for policymakers. Many of the working poor hold informal jobs or are in other vulnerable forms of employment, such as contributing family work and own-account work. Of those employed in 2018, 265 million workers were nonetheless living in extreme poverty. In developing countries, three out of four workers are in vulnerable forms of employment, which entail lower levels of job stability and are often associated with a lack of decent working conditions. Moreover, more than half of the world population has no access to social protection. This tends to perpetuate high levels of subsistence activities, which generally provide low levels of income.

With about 60 million unemployed youth and 139 million young workers living in poverty, youth unemployment remains a global policy challenge. About 22 per cent of young people across the world aged 15-24 are not employed or enrolled in education or training—more than three-fourths of them are female.[6]

In addition, gender disparities in the labour market remain wide. In 2018, women still accounted for less than two-fifths of the global workforce. The global labour force participation rate of women in 2018, at 47.9 per cent is considerably lower than that for men, which stands at 74.9 per cent. The gap between women's and men's wages is large—from 16 per cent to 22 per cent

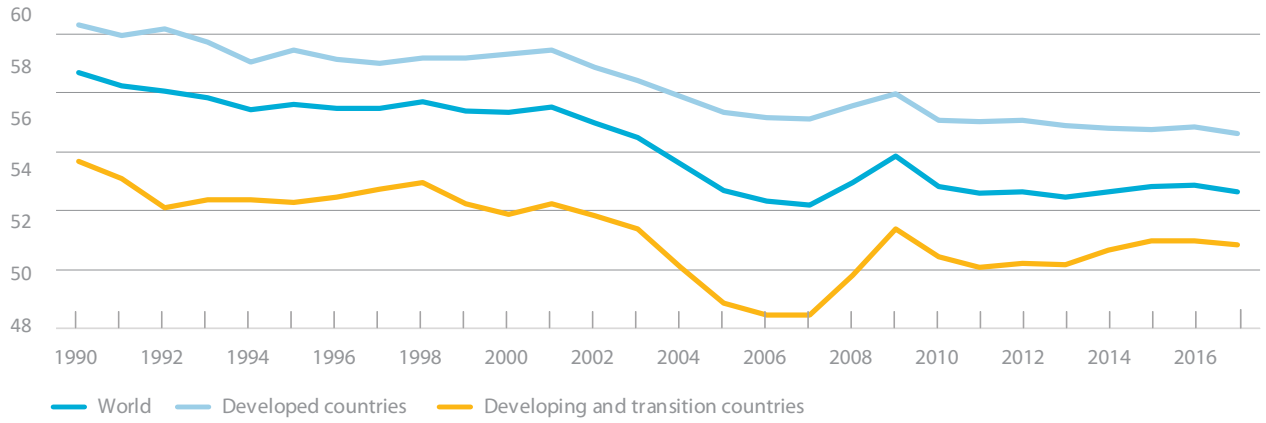
depending on the estimation technique. In developed countries, the gender pay gap is largest at the top of the income distribution, while in poorer countries, the gap is largest at the low end of the wage distribution.[7]

3.2 Wages and profit shares

Despite strong economic growth, global real wage growth grew by only 1.8 per cent in 2017—the lowest since 2008 and far below growth rates seen prior to the global financial crisis. The labour share of income has been falling, while the profit share has been rising (figure 5). In high-income countries, wage growth has lagged labour productivity growth between 1999 and 2017 (figure 6), resulting in declining labour income shares in many countries. Such a decline could have adverse effects on economic growth, for instance if lower income shares constrain household consumption while the gains to capital are not sufficiently channelled into productive investment. In many countries, individuals at the bottom of income scales have seen little or no growth in disposable income for the last decade. Persistent declines in the labour income share and the lack of growth in disposable income could also lead to political instability.

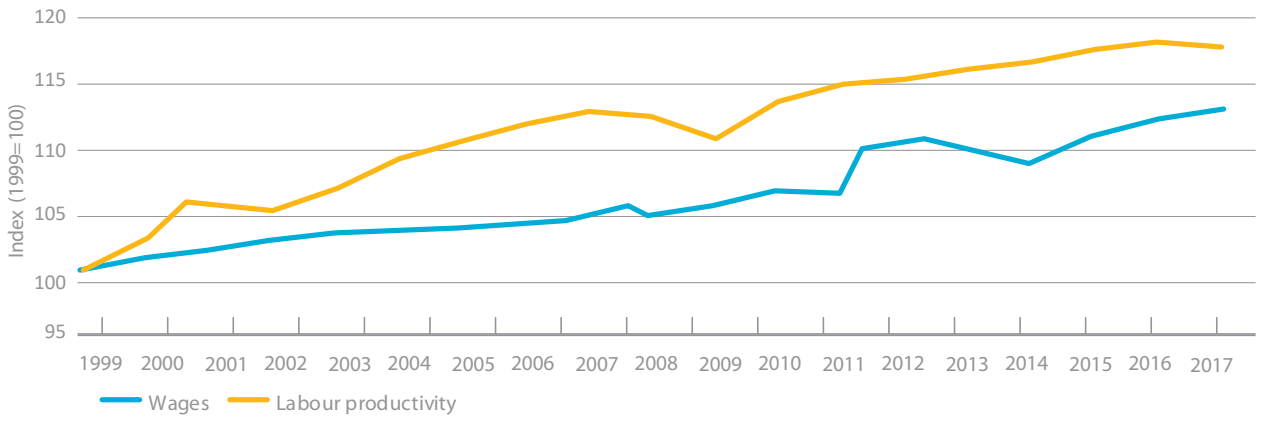
Low real wage growth reflects several factors. It may reflect a lack of bargaining power, especially of workers in low-skilled jobs, such as from more stringent social security conditions, or a lack of labour protection legislation, especially in the case of informal employment.

Figure 5
Labour income share, 1990-2017
(Percentage of GDP)



Source: UNCTAD Trade and Development Report 2018.
Note: based on statistics of distribution of value added from the UN Statistical Division, complemented with International Labour Organization ILOstat, European Commission's AMECO and OECD statistics. When available, social accounting matrices produced by national statistical offices are used to adjust wage shares. Missing data are interpolated.

Figure 6
Trends in average real wages and labour productivity, high-income countries, 1999-2017
(Index)



Source: ILO.

It also reflects rising market concentration, including monopoly power, in some countries and sectors (see chapter III.B).

In addition, low real wage growth for people in the lower parts of the income distribution can reflect advances in technology. The proliferation of artificial intelligence (AI) systems and other new technologies, in the future, will likely benefit higher-skilled workers, while low- and medium-skilled workers, both in manual and cognitive jobs, are expected to face further pressures from ever more capable machines and AI software. This could exacerbate rising wage inequality, particularly in many developed countries.

Current technological changes have also contributed to a shift away from traditional work arrangements to contingent or casual work arrangements. While this increases flexibility, many of these non-standard arrangements lead to precarious work relations, with workers having to bear employment and income risks by themselves. Demographic trends and new technologies are key factors that will shape the future of work, as discussed in depth in chapter III.G.

Fiscal policy can play an important role in addressing critical labour market challenges and making more substantial progress towards sustainable development (see chapter III.A). Yet the changing patterns of work may require rethinking the balance of taxation between labour, capital and consumption and the mechanisms of collecting social contributions to social protection systems.

3.3 Inequality trends

The Addis Agenda calls for an equitable global economic system in which no country or person is left behind; the 2030 Agenda calls for a reduction of inequality within and among countries. While within country inequality has been trending upward in many countries, global inequality, measured as a global Gini coefficient, has actually trended downward over the last several decades, a change from the upward trend since the beginning of the nineteenth century (figure 7). This largely reflects high growth in a few large developing countries, active policies to reduce inequality in some developing countries, and catch up across countries. Differences in per capita income between countries account for about two-thirds of global inequality in 2015.

In contrast, most people live in countries where inequality has increased. Over the past three decades, inequality has increased in about half of the countries around the world, particularly in developed economies.[8] Even among the economies that are experiencing strong per capita income growth, economic activity is often driven by core industrial and urban regions, leaving peripheral and rural areas behind.

Declining or inadequate income growth, coupled with high levels of inequality, poses an enormous challenge as countries strive to reduce poverty, develop essential infrastructure, and support economic diversification. In Africa, Latin America and the Caribbean, and Western Asia—three regions with historically high levels of inequality—some moderate progress has been made over the past two decades in reducing inequality. However, in Africa and in the LDCs, eradicating poverty by 2030 will require both double-digit GDP growth and dramatic declines in inequality, illustrating the considerable scale of current challenges (see chapter II).

Figure 7
Decomposition of global income inequality, 1988-2013
(Index)

Source: IMF Fiscal Monitor October 2017, based on Lakner and Milanovic 2016 and World Bank 2016.
Note: Bar height indicates level of global inequality as measured by mean log deviation. Blue bars show corresponding level of population-weighted inequality within countries; orange bars show level of between country inequality which captures differences in average incomes across countries.

4. The economic impacts of non-economic factors

One of the major contributions of the 2030 Agenda is the integrated nature of its holistic approach across environmental, social and economic factors. Non-economic factors include global megatrends, such as technological change, demographic trends, environmental degradation and climate change. Economic performance, including growth, employment and inequality, are influenced by these non-economic factors, while these factors are impacted by economic performance.

4.1 Climate change development

The adverse impact of modern economic activity on the environment is apparent. This includes loss of biodiversity and ecosystems, deforestation, water pollution, deterioration of air and soil quality, and emissions-driven climate change. Total greenhouse gas (GHG)

emissions have increased steadily since 1970. In 2017, the total GHG emissions, reached 53.5 gigatons of CO2 equivalent, an increase of 1.3 percent compared with 2016.[9]

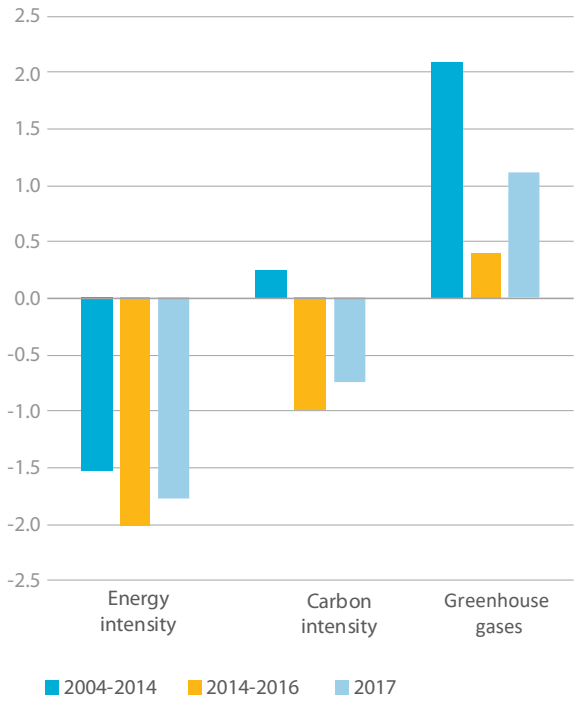
Growth in GDP and emissions remains closely linked. In 2017, for every 1.0 per cent increase in world gross product there was a 0.3 per cent increase in global CO2 emissions. The 2017 growth in GHG emissions was a notable change from the trend in 2014-2016, when GHG emissions growth had been negligible despite the global economy growing by 3.2 percent per year. The carbon intensity of the global economy has been declining, but the 2017 decline was smaller than in previous years (figure 8). There is uncertainty about which short-term factors were primarily responsible for the 2014–2016 slowdown in emissions growth.

Limiting the global average temperature increase to 1.5°C would involve a 45 per cent reduction of global net human induced CO2 emissions from 2010 levels by 2030. A 20 per cent decline in emissions would be needed to limit global warming to below 2°C.[10] Current national pledges made under the Paris Agreement on climate change are inadequate to ensure that global warming stays well below 2°C. [11]

Evidence suggests that the impacts of climate change and structural inequalities are locked in a vicious cycle.[12] Vulnerability to climate hazards is closely linked to existing underlying inequalities, while the impacts of climate hazards will deepen those same inequalities. Similar feedback mechanisms exist between climate action and sustainable economic growth. Failing to address climate change will have direct costs for economies, with differential impacts based on the structure and geography of the country. The direct economic costs from climate-change-related disasters are estimated to be in the hundreds of billions of dollars annually (see chapter III.A). Over the last six years, more than half of extreme weather events have been attributed to climate change, and the human cost of disasters falls overwhelmingly on low-income and lower-middle-income countries. SIDS are particularly exposed to climate risks, through flooding[13], rising aridity, coastal erosion and depletion of freshwater. Climate-related damage and disruption to critical transport infrastructure has broader implications for international trade and global supply chains. An increase in the frequency and severity of weather events would also increase the risk of a significant disruption to food production, while raising the possibility of large swings in international food prices.[14]

Yet, according to many estimates, the investment needed for transition to a low-carbon economy will have a positive economic growth effect. Such estimates are subject to many assumptions and models but net economic gains from tackling climate change are estimated to be on the order of tens of trillions of dollars over the course of several decades.[15] As with any transition, financing short-term costs and assisting people who lose out from the change will be needed (see chapter III.A). As discussed in last year's report, investment in sustainable and resilient infrastructure can combat climate change and/or strengthen resiliency, while stimulating economic growth. Economic growth and climate goals can be inconsistent or mutually supportive, depending on the policy framework, underscoring the importance of integrating climate goals into national financing frameworks (see chapter II).

Figure 8
Growth of key drivers of global CO2 emissions, 2004-2017
(Percent change per year)



Source: UNEP.
Note: Greenhouse gas (GHG) emissions not including land use changes.

4.2 Gender equality

Gender equality and the empowerment of all women and girls is an explicit goal under the 2030 Agenda and also a driver of sustainable development in all its dimensions, from ending poverty and hunger, promoting prosperity and inclusive growth and building peaceful, just and inclusive societies to securing the protection of the planet and its natural resources.

Greater gender equality in the distribution of economic resources can provide the means for women to generate income and creates positive multiplier effects for the achievement of inclusive, equitable and sustainable economic growth.[16] Women's empowerment and participation in the labour market are central to realizing gender equality and can strengthen economic growth. The International Monetary Fund estimates economic losses due to gender gaps from 5 per cent to over 30 per cent of GDP per capita across a wide range

of developed and developing countries.[17] More recent research by World Bank staff finds that the negative growth effect of gender inequality is higher in poorer countries.[18] Legal gender discrimination, which can also hamper labour force participation, is being regularly tracked with the latest research showing that while the vast majority of countries still do not give women full equality of opportunity, on average, legal treatment of women became more equal in every region over the last decade.[19]

Equal access to and control over economic resources also provides women with greater bargaining power within the household and the capacity for economic independence. Greater voice and agency in the household has also been shown to increase investment in the well-being of other household members, particularly children, with benefits for long-term growth.

5. Reorienting policy towards long-term sustainable development

The Addis Agenda, which provides a comprehensive framework for ensuring that investments are long-term oriented and that growth is inclusive and sustainable, speaks to the challenges described in this chapter. The rest of this report will highlight progress and implementation gaps in each of the Addis Agenda's action areas and put forward recommendations for setting the global economy on a more sustained, sustainable and inclusive growth path, and for achieving the SDGs.

Chapter II focuses on country actions to implement the Addis Agenda on the ground, through integrated approaches. However, to achieve sustainable development and the 2030 Agenda, both domestic actions and international cooperation will be needed.

Endnotes:

* This chapter is based on the following reports: World Economic Situation and Prospects 2019 (United Nations Publication, Sales No. E.19.II.C.1); Matthias Bruckner, Marcelo LaFleur and Ingo Pitterle, "The Impact of the Technological Revolution on Labour Markets and Income Distribution" Frontier Issues (New York: United Nations Department of Economic and Social Affairs, 31 July 2017); World Economic Outlook October 2018 (Washington, D.C., IMF, 2018); IMF, "World Economic Outlook Update" (January 2019); Adrian Peralta-Alva and Agustin Roitman, "Technology and the Future of Work", IMF Working Paper, WP/18/207 (September 2018); UNCTAD, Trade and Development Report 2018: Power, Platforms and the Three-Trade Delusion (United Nations publication, Sales No. E.18.II.D.7); Global Economic Prospects (Washington, D.C., World Bank, 2019)

1 The IMF World Economic Outlook estimates global growth of 3.7 per cent in 2018, and forecasts 3.5 and 3.6 per cent in 2019 and 2020 respectively using (PPP) exchange rates, similar to, but slightly below UN estimates of 3.6 and 3.7 per cent respectively on a PPP basis.

2 Leveraged loans are debt taken on by companies that already have significant liabilities; see Tobias Adrian, Fabio Natalucci and Thomas Piontek, "Sounding the Alarm on Leveraged Lending", IMF Blog (15 November 2018).

3 Tirupam Goel, "The rise of leveraged loans: a risky resurgence?", BIS Quarterly Review (September 2018).

4 IMF Global Financial Stability Report October 2018.

5 This subsection is based on ILO, *World Employment and Social Outlook: Trends 2019* (Geneva, 2019).

6 ILO, *Global Employment Trends for Youth 2017: Paths to a better working future* (Geneva, 2017).

7 ILO, Global Wage Report 2018/19: What lies behind gender pay gaps (Geneva, 2018).

8 Measured using the Gini coefficient; IMF, *Fiscal Monitor October 2017* (Washington, D.C., 2017).

9 See UNEP Emissions Gap Report 2018.

10 International Panel on Climate Change, *Global Warming of 1.5 °C* (Geneva, IPCC, 2018). Available from https://report.ipcc.ch/sr15/index.html.

11 IPCC, Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report of 1.5 °C* (World Meteorological Organization, Geneva, 2018).

12 United Nations, World Economic and Social Survey 2016: Climate Change Resilience—an Opportunity for Reducing Inequalities (New York, 2016).

13 See for example Isabel Monioudi and others, "Climate change impacts on critical international transportation assets of Caribbean SIDS: The case of Jamaica and Saint Lucia", *Regional Environmental Change*, vol 18, no 8, pp. 2211-2225 (December 2018).

14 For greater detail please see the topical essay on "Poverty impact of food price shocks and policies" in *Global Economic Prospects, January 2019: Darkening Skies* (Washington, D.C., World Bank, 2019).

15 See for example New Climate Economy, "Unlocking the Inclusive Growth Story Of The 21st Century: Accelerating Climate Action in Urgent Times", August 2018.

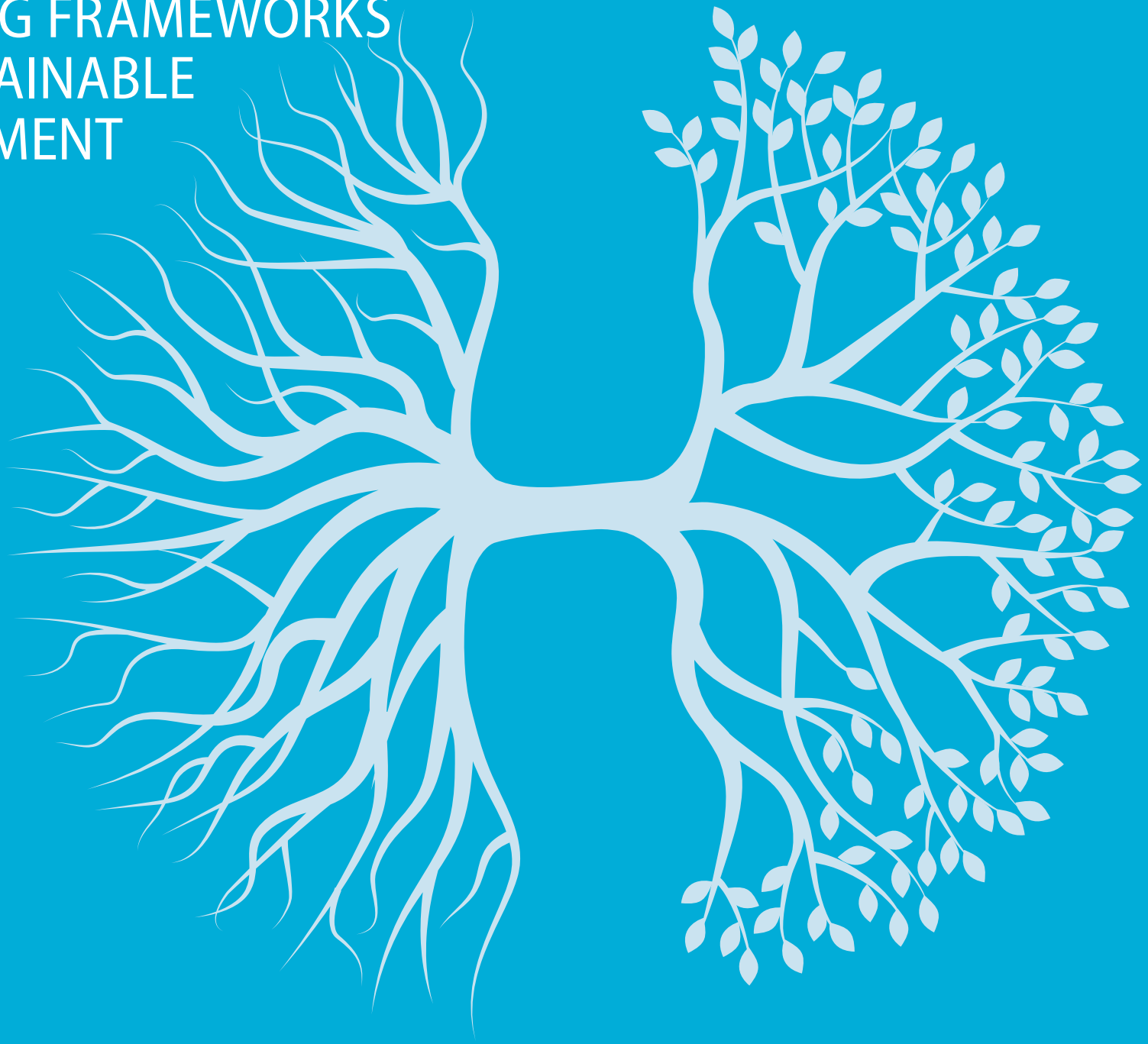
16 UN Women, *Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development* (New York, 2018).

17 International Monetary Fund, "Women, Work, and the Economy: Macroeconomic Gains from Gender Equity", IMF Staff Discussion Note (SDN/13/10) (September 2013). Available from http://www.imf.org/external/pubs/ft/sdn/2013/sdn1310.pdf.

18 Mohammad Amin, Kuntchev Veselin and Schmidt Martin, "Gender inequality and growth: the case of rich vs. poor countries", Policy Research Working Paper 7172 (Washington, D.C., World Bank, 2015).

19 World Bank, *Women, Business and the Law 2019: A decade of reform* (Washington, D.C., World Bank, 2019).

INTEGRATED NATIONAL FINANCING FRAMEWORKS FOR SUSTAINABLE DEVELOPMENT



Chapter II

Integrated national financing frameworks for sustainable development

1. Introduction

The Sustainable Development Goals (SDGs) are comprehensive, complex and interrelated. Because of their synergistic nature, implementation of the 2030 Agenda for Sustainable Development has revived interest in national development strategies. However, most national strategies do not spell out in detail how they will be financed. Mobilizing sufficient resources remains a key challenge.

Member States of the United Nations recognized this challenge in the Addis Ababa Action Agenda. They decided to put in place ***integrated national financing frameworks*** to support their sustainable development strategies.[1] Such country-owned financing frameworks bring together financing and related policies most relevant to addressing a country's financing challenges. They look at the full range of financing sources and non-financial means of implementation that are available to countries, and lay out a financing strategy to raise resources, manage risks, and achieve sustainable development priorities. In short, integrated national financing frameworks are a tool to implement the Addis Agenda at the national level.

There are several benefits to an integrated approach. By connecting financing and related policies with longer-term objectives, integrated financing frameworks can help overcome short-term oriented decision-making. They allow policy makers to exploit synergies and manage possible trade-offs across different policies. They help countries manage an increasingly complex financing landscape, and help mobilize different types of financing appropriate for country specific characteristics and risks.

Adopting integrated national financing frameworks is a challenging endeavour. In many countries, capacities are limited and policy reform is costly; long "to-do" lists of needed reforms will therefore not be helpful. Existing financing policies may be misaligned due to underlying political constraints, which cannot be ignored. Yet, many elements exist that countries can build on.

All countries have a variety of financing policies in place. If they have already begun implementing a national sustainable development strategy, they should also have governance and coordination mechanisms in place. The integrated financing framework will not need to reinvent the wheel; it is a tool to identify and implement targeted policies and reforms to increase their effectiveness, coherence and alignment with sustainable development. There is clearly scope to do so in both developed and developing countries.

This chapter aims to provide guidance to Member States as they design and implement integrated national financing frameworks. It presents four main building blocks for their operationalization: (i) assessments and diagnostics; (ii) design of the financing strategy; (iii) mechanisms for monitoring, review and accountability; and (iv) governance and coordination mechanisms.

As interest in more integrated and strategic approaches to sustainable development financing is growing, more detailed lessons are emerging for their design and implementation. These lessons inform the analysis put forward in this chapter, and will guide the Inter-agency Task Force on Financing for Development (Task Force) as it continues to refine its methodology and its work in this area

through, for example, further elaborations of policy toolkits most useful for different types of countries.

2. Identifying the gap

Interest in national planning was revived with the adoption of the Millennium Development Goals (MDGs), and appears to have picked up pace with the advent of the SDGs. The number of countries with national development plans almost doubled between 2006 and 2016.[2] National strategies and plans are also increasingly well aligned with the 2030 Agenda. Among the 46 countries that presented a Voluntary National Review (VNR) to the High-level Political Forum (HLPF) in 2018, almost all have taken steps to incorporate the SDGs into their planning documents, or have carried out mapping exercises and coherence checks.[3]

However, financing is often the weakest component of national plans. A majority (79 out of 107 plans analyzed in one recent study) do not provide specific costings or details about how they would be financed.[4] Strategies and plans that do contain a financing component often focus on the annual government budget as a source of investment, sometimes incorporating on-budget development assistance or public-private partnerships. Most plans lack explicit guidance on how to link broader policies, such as those targeting private investment, with planning processes.

This weakness is mirrored to some extent in the VNRs provided to the HLPF. A few more countries provided some information on costing or financing sources in 2018 than in previous years, but the information was generally limited and incomplete, and very few carried out costing and identified specific sources of finance or the range of necessary financing policies.[5] Similarly, climate finance strategies are often limited to identifying financing instruments for specific projects and/or aligning funding proposals with requirements of international climate funds, rather than formulating a comprehensive strategy that would assess how the entire financial system can be aligned with and support sustainable investments.[6]

One central lesson from these reviews is that financing plans often focus solely on items that can be budgeted, without incorporating the broader financing landscape. This lack of a comprehensive financing component has sometimes impeded the ability of plans to effectively guide policy. There is evidence that when policy objectives or specific investments are not costed and budgeted, and not linked to investment plans and policy strategies, the development plan risks remaining a vision, rather than becoming a vehicle for change.[7]

3. What are integrated national financing frameworks?

A country's sustainable development strategy lays out ***what*** needs to be financed. Integrated financing frameworks spell out ***how*** the national strategy will be financed and implemented.

Ongoing work by members of the Task Force, including UN/DESA, UNDP, the OECD and the World Bank, have highlighted key elements of such frameworks and their relations (see figure 1 for a schematic visualization):

i. **The main sources of financial and non-financial means of implementation**. All financial and non-financial means of implementation—public, private, domestic and international finance, technology and capacity building—need to be mobilized to support sustainable development. The evolving financing landscape, including new actors and a wider range of instruments, have added complexity to the financing challenge and put a premium on strategic approaches to actively manage financing flows and other means of implementation.

ii. **A national financing strategy.** The financing strategy brings together various financing policies and instruments in an integrated manner. As noted above, a wide range of such national policies are already in place. However, existing policies, which develop over time and often in an ad hoc fashion, may not be well aligned with the sustainable development strategy. A financing strategy promotes upward coherence by aligning financing policies with the national sustainable development strategy. It also promotes lateral coherence between different public and private financing policies and instruments, and it can support prioritization of financing policy actions that best respond to national goals, needs, and constraints.

iii. **The institutions and processes that underpin these relations**. Successful policy design and implementation is conditional on institutions and actors that have the capacity and the political clout to do so effectively. The concrete ***form*** these institutions take will differ from country to country. The breadth of the agenda suggests a role for a high-level government coordination mechanism, which could be played by the same body that oversees the national sustainable development strategy. In addition, platforms for dialogue and engagement with non-state actors help ensure that all relevant actors have ownership of the process.

4. Why should countries adopt an integrated financing framework?

Integrated national financing frameworks are a powerful tool, which can help overcome many of the existing impediments to financing sustainable development. For example, by assessing the full range of financing sources and their respective characteristics and risks, financing frameworks allow countries to more strategically manage a complex financing landscape. Financing deci-

Box 1

Frameworks, strategies, policies: what's in a name?

Different terminology is often used to describe countries' integrated efforts to implement the Addis Ababa Action Agenda. Concepts such as financing frameworks or strategies are not always easy to distinguish and labels are often used interchangeably.

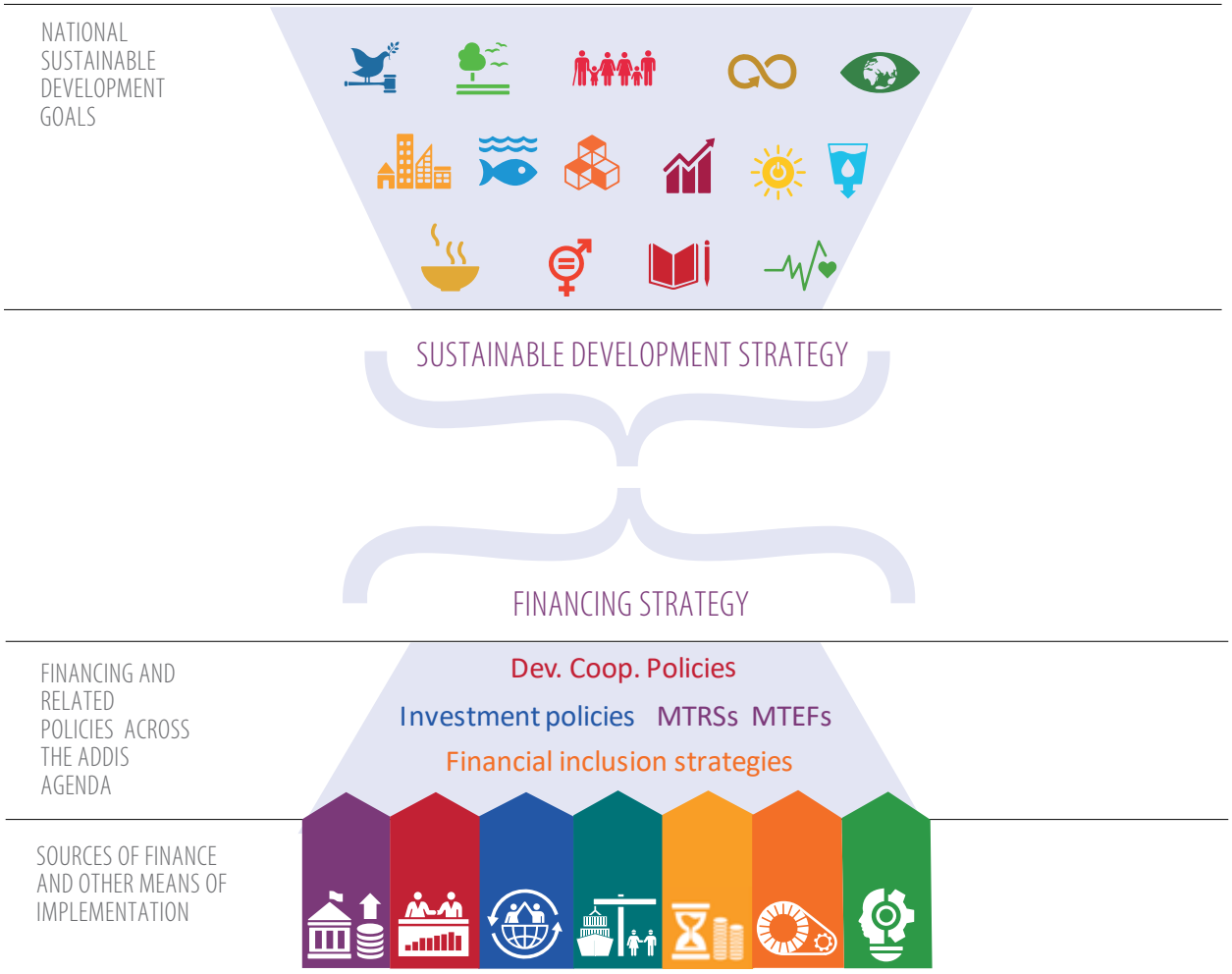
The focus of analysis in this report lies on their ***function***—the role they are intended to play and under which circumstances they can do so effectively. In doing so, the chapter makes clear distinctions between the various terms, even if this may not always match terminology by all agencies or in all countries.

Frameworks identify the relationship between the main components of a policy area (e.g., the objectives, policy actions, and institutions that support financing sustainable development).[a]

Strategies prioritize actions and resources to achieve long-term goals. ***National financing strategies*** bring together the full range of policies in support of financing sustainable development in an integrated manner. They are the heart of the integrated national financing framework. They can take the form of a process, a document that puts actions to paper, or a less formal approach.

a Ostrom Elinor, Understanding institutional diversity (New Jersey, Princeton University Press, 2005).

Figure 1
Schematic of functional relations in an integrated national financing framework



Source: UN/DESA.
Note: Schematic depiction using examples of financing policies and actors for illustrative purposes.

sions are often guided by short-term considerations and taken in silos. Integrated frameworks formulate long-term objectives that are interrelated and connected. By linking financing policies more explicitly to long-term objectives, financing frameworks can help overcome short-termism. By seeking financing solutions for integrated and interrelated policy objectives, and setting incentives for greater collaboration, they help promote coherence. They also can help in the difficult task of prioritizing financing reforms.

4.1. Managing a complex financial landscape

The financing landscape is growing in complexity due to new actors, instrument, and an increasingly challenging global environment. Development assistance has long been characterized by fragmentation, putting administrative burdens on recipient countries. Along with greater donor coordination, the imperative that countries better manage these flows to reduce transaction costs is a long-standing objective. Recently, a wider range of international public financing sources has become available. Southern partners today play a bigger role in the provision of finance and capacity building. Private financing is inherently dispersed, but investment and trade relations have also become more geographically diversified. At the same time, financing instruments continue to grow in complexity. Instruments for the mobilization of private funds, such as blended finance and guarantees, are growing in use in development cooperation. Over 1000 instruments or modalities are available, representing a small but growing share of official development assistance (ODA).[8] Other innovative instruments—from green bonds and impact bonds to non-standard forms of securitization — have become more widely available.

This complexity puts a premium on strategic approaches to managing financing flows. In an integrated financing framework, different flows and instruments can be assessed and compared for their potential impacts and risks. Building Block I in section 5 on the operationalization of integrated frameworks presents assessments and diagnostics. Managing flows goes beyond mobilizing sufficient volumes. It needs to consider the characteristics of different types of finance. For example, development cooperation has a development mandate and is more appropriate for public goods, while for-profit investments are more suited for investments that generate returns. Within private flows, short-term capital could generate liquidity risk if used to finance long-term illiquid investment such as infrastructure projects. Blended finance, which brings together developmental and profit-oriented flows, might be best suited for investments with development impact and non-competitive financial returns.

The greater diversity of flows also increases the urgency for the international community to better track resources and make information available in a more accessible and transparent manner. This includes better measurements of official concessional and non-concessional financing flows from different providers and of private investments and financing flows; and better tracking and understanding of their impact on national development priorities and the SDGs.[9] (See also Building Block III below on monitoring and review.)

4.2. Aligning financing with long-term priorities

Both public and private actors are often faced with short-term incentives that are difficult if not impossible to reconcile with the long-term objectives of sustainable development. Policymakers operate within political cycles. Narrowly defined value for money measurements, while helping to improve efficiencies, can also introduce a focus on short-term results. And investors and other private actors, such as managers of publicly traded companies, often respond to short-term incentives of capital markets. By connecting current financing policies with longer-term objectives, integrated financing frameworks can strengthen the case for addressing longer-term structural policy challenges, providing an impetus to help overcome short-term political bottlenecks. Building Block II below, on the ***financing strategy***, sets out some policy tools that support alignment of financing policies with the long-term objectives in a national sustainable development strategy.

4.3. Increasing the effectiveness of financing policies by strengthening coherence and overcoming siloed behaviour

An integrated financing framework can facilitate coordination between different financing policies and provide a space to consider trade-offs and synergies. For example, if a country identifies financing for infrastructure as one of its priorities, environmental, social and other policies, as well as financial market regulations, tax policies, debt management, and other areas can be geared towards this objective.

Financing frameworks can also support cooperation and coordination among different areas of government —ministries, regulatory bodies, and other relevant public actors—and facilitate dialogue with the private sector and other non-state actors. Building Block IV, on governance and coordination, addresses these issues.

4.4. Translating priorities into strategic action

Integrated national financing frameworks ground the ambition expressed in national sustainable development strategies in the realities of constrained budgets, incomplete financial markets and macroeconomic volatility. Financing frameworks can inform budget allocations, prioritization of financing policy reform efforts, and policy asks of the international community. One of the innovative features of integrated financing frameworks

is that they incorporate diagnostics to identify binding constraints. These diagnostics provide an analytical basis that can help Governments be more deliberate in policy choices and prioritization, as discussed in Building Block I below.

5. How can countries operationalize integrated financing frameworks?

There are four main building blocks for the design and operationalization of financing frameworks (see Box 2): (i) assessment and diagnostics; (ii) the financing strategy; (iii) monitoring, review and accountability; and (iv) governance and coordination.

However, the specifics of these building blocks differ by country, reflecting country capacities and priorities. For example, vulnerable countries might emphasize the importance of contingency financing options to be able to respond to shocks. Countries more reliant on provision of concessional finance might address alignment of development cooperation with national priorities. Countries with significant capacity gaps may need to prioritize steps to strengthen their basic institutional capacities in key financing areas, before trying to implement more complex tools. Increasing domestic resource mobilization is a priority in most countries, but the approaches taken differ, reflecting existing capacities and constraints.

The building blocks of integrated national financing frameworks need to be developed in an iterative process, with each step informing the others. The priorities expressed in the sustainable development strategy provide the basis for the needs assessment. But this assessment is impacted by type of financing. For example, the costs of private and public finance differs, due to different financing rates. The financing strategy also influences the needs assessment. For example, policies that stimulate economic activity might raise public resources, lowering the financing gap. Monitoring and review gives feedback, which can inform the assessments and lead to different priorities. On the other hand, weak monitoring and review can undermine policy effectiveness, raising financing needs and affecting future policy decisions by leaving lessons unlearned. This also underscores the importance of a strong governance and coordination mechanism that guides this process throughout all its stages.

A growing number of countries are developing such integrated approaches to financing sustainable development strategies. Boxes 3 and 4 present some experiences from early movers. The country examples highlighted below present a diverse set of countries faced with different financing needs and challenges. They include least developed countries, small island developing States, countries affected by conflict, and middle-income countries.

The remainder of this section discusses these building blocks in more detail, presents select examples and case studies to illustrate implementation experiences, and also lays out available tools and support that the international community provides to countries.

Box 2

Four building blocks for the design and operationalization of financing frameworks

i. **Assessment and diagnostics**: There are four main types of assessments and diagnostics. An assessment of financing and resource needs and an assessment of flows create a baseline understanding of the financing gap. The third element is an assessment of risks. The final element is the diagnostic to identify policy, institutional and capacity binding constraints.

ii. **Financing strategy**: The financing strategy brings together priority financing policy actions. Experience shows that these need to be comprehensive in scope, going beyond public finance and budgets to cover the full range of action areas across the Addis Ababa Action Agenda. At the same time, they need to be focused and carefully sequenced, taking capacity constraints into account, based on the assessment and diagnostic exercise.

iii. **Mechanisms for monitoring, review and accountability**: Monitoring the impact of different financing flows and policies provides the basis for informed policy making, facilitates learning, adaptation of instruments and policies to enhance their impact, and can help mitigate risks;

iv. **Governance and coordination frameworks**: Integrated financing frameworks need to have strong political backing and broad ownership. This lesson emerges consistently from experiences with sustainable development strategies and financing policy reform efforts. This calls for high-level government coordination mechanisms and engagement of all stakeholders.

Figure 2
Building blocks to operationalize integrated financing frameworks

Source: UN/DESA.

Box 3

Experiences from early movers

The Solomon Islands launched its National Development Strategy (NDS) in 2016. To support its implementation, the Government has established a Solomon Islands Integrated Financing Framework (SIIFF), which draws together public and private financing policies. It is based on the recognition that "when it comes to the NDS, it's everyone's business," and that all actors – from Government to private companies, NGOs, faith-based organisations and others – have a role to play in the delivery of the NDS. The SIIFF is used to improve efficiency and coordination of financing policies, and build stronger partnerships with all stakeholders involved in financing the NDS.

The SIIFF was developed by the cross-governmental NDS Implementation Oversight Committee, which also holds overall responsibility for implementation. The Committee brings together all key ministries, consults regularly with representatives of non-state actors, and is responsible for reporting on progress towards the NDS objectives to the Cabinet. The Committee led a wide-ranging consultative process, facilitated through a development finance assess-

ment (DFA), to diagnose the challenges and opportunities for financing the investments needed to achieve the NDS. These consultations also helped build a shared understanding and ownership of priority reforms.

The SIIFF acts as a bridge between the NDS and shorter-term policies across 11 areas of public and private financing. It is rooted in an assessment of the types of investment that will be needed to achieve the NDS, and the various types of public and private finance that can fund those investments. On this basis, it articulates a vision of desired trends in each area of financing and compares these with current trends. To link the two, it sets the strategic direction for policy in each area, and puts forward specific, tangible steps in the short and medium term. For example, to realize stronger private sector investment, it considers steps such as improving public-private dialogue, cross-government coordination around improving the business environment, and tackling priority issues such as tax reform and infrastructure. It also identifies short-term steps, such as establishing a private sector advisory group, and initiating a programme of strategic trade and investment missions.

Bangladesh developed a Perspective Plan for mobilizing finance for the seventh five-year plan and Vision 2021. It covers a wide range of public and private resources and articulates the contributions that they can each make to sustainable development. The framework put forward in the Perspective Plan tightens the link between planning and financing processes; provides a basis for guiding the objectives and design of operational financing policies in the short term; and aims to stimulate deeper dialogue between public and private actors. As the eighth five-year plan is being developed, a joint public-private process has been put in place to assess how to unlock financing for future development.

Elements of the plan include linking financial and non-financial means of implementation to national goals. For example, remittances are important elements for Bangladesh, due to their potential to support poverty reduction in recipient communities and as a source of foreign currency. The Perspective Plan outlines a range of strategic actions to enhance their contribution toward national development objectives. The Perspective Plan also identifies strategic sectors for foreign direct investment, and identifies actions and instruments to encourage investment. In addition, it outlines desired outcomes, such as technology transfer.

Box 4

Financing for Stability: Guidance for development finance strategies in fragile contexts [a]

The OECD Development Assistance Committee's subsidiary body, the International Network on Conflict and Fragility, has developed and field-tested a methodology, which presents an example of how financing frameworks can be applied in fragile contexts.

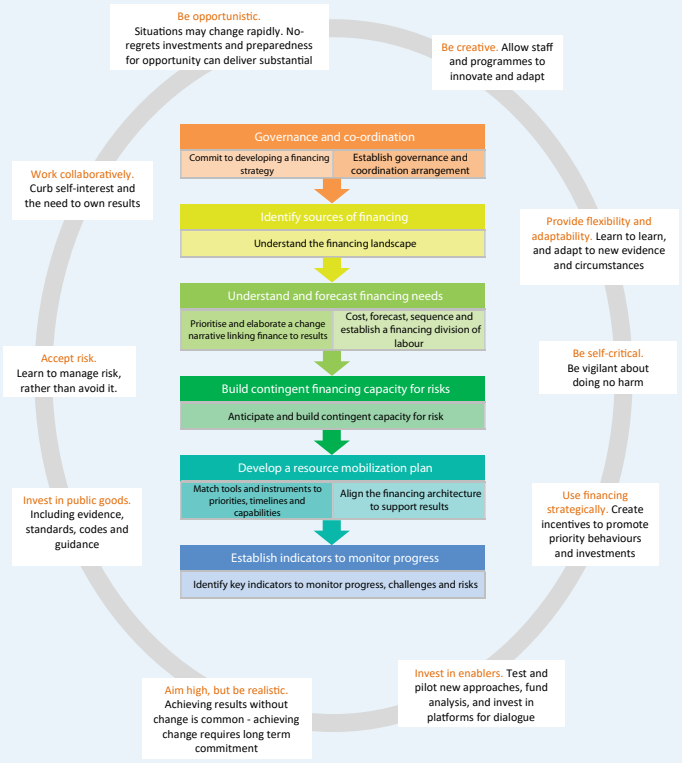
The methodology aims to support better results by raising the right amount of finance, using appropriate financing tools at the right time, and ensuring that the financing mix delivers incentives for stability. It includes steps to deliver a financing strategy, accompanied by financing principles, alongside tactical investments that allow financing actors to incentivize behaviours and priority investments, and to invest in enabling conditions and public goods (see figure 3 below).

Lessons from field-testing include:

- The imperative to increase development finance expertise on the ground, including through the United Nations;
- How financing provides incentives and disincentives, and the necessity of ensuring that the way financing is provided and used does not inadvertently provoke new conflicts over resources, or reinforce existing conflict drivers, such as corruption and the exclusion of vulnerable groups;
- The importance of including contingency financing options in all financing plans for inevitable natural or conflict-related shocks, and to provide a buffer should new opportunities arise;
- The need to phase in and sequence the development financing mix over time, for example by planning for the gradual decrease of official development assistance, as domestic resource mobilization improves and private sector investment grows.

Field-testing has also identified challenges and opportunities, including: the financing of transitions when peacekeeping missions wind down; access to climate finance which is often difficult to obtain in such contexts; minimizing the fallout from debt distress; financing for forced displacement and improving capacity for domestic resource mobilization.

Figure 3
Financing for Stability: Country Level Strategies



a Rachel Scott, Team Leader, Crisis and Fragility, Global Policy and Partnerships Division, OECD Development Co-operation Directorate. This contribution builds on Poole L. and R. Scott, Financing for Stability: Guidance for Practitioners (2018). The additional opinions expressed and arguments employed herein do not necessarily reflect the official views of the member countries of the OECD.

5.1. Building Block I: Assessment and diagnostics

Assessments and diagnostics entail several steps, including a needs assessment for priorities identified in national sustainable development strategies; a mapping of resources; a risk assessment; and a diagnostic of key binding constraints.

Assessments of financing needs and costing

Needs assessments played a prominent part in efforts to achieve the MDGs.[10] Because they require an understanding of the interventions to be undertaken, they helped identify knowledge gaps in implementation strategies for specific goals, in addition to determining public spending needs and financing gaps.

Several agencies have estimated financing needs and investment gaps for the SDGs at global and regional levels, including most recently the IMF and ESCAP (see box 5 for more details and methodology). Costing exercises have also been carried out for other SDG priorities. The expenditure reviews and costing in biodiversity strategies carried out by BioFin are one example.[11]

Needs estimates have significant limitations however. Costing methodologies rely on estimates of unit costs of inputs. Changes to production technologies and the policy environment are not knowable for the relevant medium-term time horizons but may significantly impact costs. They often do not capture possible synergies and trade-offs between different policy objectives. The financing gap they help determine depends significantly on the macroeconomic environment. Alternative growth paths significantly affect spending needs: with higher growth, countries could see a large reduction in their spending needs; with lower growth, needs could increase significantly.[12] In addition, the production function for many policy objectives—particularly those that rely less on direct investment and more on broader policy change—is poorly understood. Objectives that call for concerted global action would also not be captured in national needs assessments.

Even if a full costing is not feasible, costing exercises provide an approximation of future spending needs to inform resource mobilization targets, engagement with development partners, and appropriate sequencing of planned investments. They are particularly useful in public budgeting, including public projects that might involve the private sector. But they should be seen as a first step that will need to be revaluated periodically.

Box 5

Global and regional costing exercises for the Sustainable Development Goals

Both the IMF and ESCAP have carried out needs assessments for several SDG investment areas.

The IMF assessed annual spending needs in five areas—education, health, roads, electricity, and water and sanitation for 155 developing countries, and estimated total needs of $2.6 trillion by 2030.[a] Emerging markets face additional spending of 4 percentage points of their GDP by 2030, on average, or $2.1 trillion, with spending needs varying between 0 and 21 per cent of GDP. Low-income and developing countries face additional spending of 15 percentage points of their GDP by 2030, on average, or $ 0.5 trillion.

These estimates were based on an input-outcome approach which establishes key inputs for each performance area (e.g. teachers and other current and capital spending in education), sets benchmark cost levels for these inputs, drawing on well-performing countries with similar levels of development, and then calculates total spending in 2030. The additional spending estimate as a percentage of GDP in 2030 is the difference between the estimated total spending and the current level of spending.

ESCAP used sectoral models to identify needed interventions to reach goals, and estimates the associated resource requirements to reach specific populations. It finds that the Asia-Pacific region would need to invest an additional $1.5 trillion per year, on average, during the period 2016-2030 in SDG areas ranging from education, health and social protection to infrastructure, climate action and environmental conservation to reach the SDGs by 2030.[b] This is equivalent to approximately 4.1 per cent of the region's annual average GDP for 2016-2030. Across the region, the investment gap varies significantly, rising to 16 per cent of GDP in least developed countries and 10 per cent in South Asia, where investments in people account for more than two thirds of the total gap. In comparison, clean energy and climate action make up the bulk of the additional investment needs in East Asia. For the Pacific Island developing States, investment need in climate-resilient infrastructure is relatively high. Going forward, these estimates could be further developed to (i) allow for more flexible scenario-based approaches; (ii) include more forward-looking assumptions that reflect new technology options, e.g. for online learning or renewable energy, as well as changes to consumption and production patterns envisaged in the SDGs; and (iii) take better account of synergies and co-benefits across SDGs and sectors.

a Gaspar Vitor and others, "Fiscal Policy and Development: Human, Social, and Physical Investment for the SDGs", ***IMF Staff Discussion Note*** 19/02.
b United Nations Economic Commission for Asia and the Pacific, "Economic and Social Survey of Asia and the Pacific 2019" (Bangkok, forthcoming).

Assessment of the development financing landscape

An assessment of trends across public and private financing flows and instruments allows policymakers to identify opportunities and challenges in mobilizing investment. It can provide the basis for selecting priority financing policy actions.

The assessment of the financing landscape goes beyond quantifying financing flows to include the different roles that different types of finance play. The different objectives and characteristics of public and private finance make them more or less suitable in different contexts and sectors. Understanding these characteristics, and the risks associated with different instruments' modalities, is important to making the best use of the growing and increasingly complex set of resources available.

Remittances are one pertinent example. A lot of attention has been paid to remittances because they exceed other forms of cross-border flows at the global level. However, remittances, as wages of migrant workers, are private sources that cannot be compared to public development finance or private investment flows and should be viewed more like domestic wages, albeit with currency implications, than foreign investment or development finance (see chapter II.B).

Assessments also need to be mindful of data gaps. While international flows can be estimated from balance of payment data, domestic private financing flows, in particular, are often difficult to estimate, but no less important than foreign flows.

To get a detailed overview of financing trends and future trajectories, a growing number of countries are using diagnostic tools such as the UNDP's development finance assessments (see box 6). Such exercises not only provide an overview of financing flows, but also point to the effectiveness of policies and capacities of institutions that regulate and manage them.[13]

Assessing risk

All financing policies, regulatory frameworks, and institutions should be designed to prevent and manage financial and non-financial risks. Indeed, at its core, financing is about being compensated for taking risks. This applies to private investment decision-making but is also critical in public borrowing and budgeting.

Assessing risk is challenging, but financing frameworks can lay out a country's biggest risk factors, along with relevant tools to help measure those risks. They can also incorporate alternative risk management

Box 6

The Development Finance Assessment process

A Development Finance Assessment (DFA) is a country-level process that supports Governments and their partners in identifying and building consensus around policy reforms that support more integrated financing of the SDGs.[a]

DFAs have been completed or are underway in more than 35 developing countries. They analyse financing trends and four aspects of government systems: (i) the integration of planning and financing within government; (ii) public-private collaboration; (iii) monitoring; and (iv) review and transparency and accountability (see figure below).

The DFA process brings together a wide constituency of actors to develop and build consensus around a set of recommendations. They focus on strengthening the link between planning and financing, strengthening multi-stakeholder participation in financing dialogues, mobilizing financing for the SDGs and strengthening finance policy to promote greater SDG impact. DFAs have contributed to reforms in different country contexts, from the development of integrated national financing frameworks and stronger financing strategies for national development plans, to the consolidation of planning and budgeting systems, the development of policies focused on specific types of financing, and various capacity building initiatives.

a For more on DFAs, including a more in-depth overview of the kind of questions that can be covered by a diagnostic assessment of financing trends, challenges and opportunities, see the DFA guidebook, UNDP, 2019

Figure 4
Dimensions of the DFA analytical framework

Source: UNDP DFA Guidebook

tools, such as financial instruments, including insurance and innovative debt instruments. Sometimes even "plain vanilla" financial instruments can play this role. For example, during the recent period of low interest rates, many countries borrowed in floating rate debt to take advantage of low capital costs. With global interest rates now rising, debt risks are increasing (chapter III.E.), due in part to rising refinancing risks. With a risk-based approach, borrowing costs would have been weighed against interest rate volatility and the risks of rising interest rates. Countries may have instead opted for long-duration fixed interest debt, even at higher short-term cost. Adopting this perspective requires a long-term horizon for decision making, which integrated financing frameworks could help strengthen.

Beyond financial risks, investing in and prioritizing disaster risk reduction in national budgeting will reduce future expenditure due to losses avoided when a hazard hits, while preserving the development investment made and the resources allocated for the achievement of the SDGs. To this end, assessments should incorporate financing needs and available resources to build resilience, including to the impacts of climate change. This will then inform the financing strategy. For example, public project pipelines should account for all aspects of risk, including disaster risk. Tax and regulatory in-

centives on the other hand can increase private sector investment in disaster risk reduction.

Many risks cannot, however, be managed at the national level alone. Creating a more enabling international environment remains a key responsibility of the international community. Integrated frameworks can inform policy asks of development partners and global policy processes.

Identification of binding constraints for financing, sequencing and prioritization

Countries face a range of constraints, such as capacity or institutional weaknesses, market failures, or policy gaps, which impede financing for sustainable development. But all these issues cannot usually be addressed at once, since it is unlikely that more than a few major reform efforts can successfully be completed at a time.[14]

The challenge is to identify ***binding constraints***—those factors that, if lifted, would have the most significant impact on the availability of resources. For example, the introduction of medium-term expenditure frameworks (MTEFs) (see also box 9 below) did not initially lead to sustained positive change in many developing countries because preconditions, such as credible annual budgeting processes and macro and fiscal forecasting capacities, were not in place.[15] The latter were the binding constraints. Identifying these early would have led to a more gradual approach. Indeed, in the case of MTEFs, reforms that then took initial capacity constraints into account have shown better results.

Sequencing and prioritization are among the most challenging aspects of policy reform. It is not only about taking existing capacity constraints into account in a specific area (horizontal sequencing); it is also about which financing policies should be addressed first across the action areas in the Addis Agenda (vertical sequencing). This is why an integrated approach to examining constraints is so important. Ultimately, prioritization is a political process. However, the growth diagnostics methodology, which has been used for a long time to provide an analytical basis to inform prioritization, provides some pointers on how countries can make informed decisions. (See box 7 for experiences from the World Bank's Systemic Country Diagnostic.)

Since constraints cannot usually be observed directly, the goal of this approach is to find other indicators that might signal bottlenecks in the economy.[16] For example, if firms are investing heavily in generators and other expensive forms of self-generated (and often highly-polluting) power, this suggests that investments in electricity infrastructure should be a high priority in national investment plans. If sectors highly dependent on debt financing, such as textiles, are underdeveloped, while activities that can be financed from cash flows are comparatively well developed, financial sector development and access to credit emerges as a key priority. Sovereign risk premiums that diverge significantly from comparable countries indicate a perception of heightened macroeconomic risks and suggest putting emphasis on macroeconomic stability and risk perceptions. Box 8 lays out sample questions that can be used to inform this process in the context of integrated financing frameworks.

Box 7

World Bank Group Systematic Country Diagnostics

Since 2014, the World Bank Group (WBG) has prepared Systematic Country Diagnostics (SCD) for client countries to inform the Bank's country programmes in consultation with country partners. The SCD presents an evidence-based assessment of the constraints a country would need to address and the opportunities it can embrace to accelerate progress towards ending extreme poverty and promoting shared prosperity. SCDs, which are publicly available upon completion, have been a valuable input into governments' own development planning processes in some countries. They have been completed for 89 countries as of December 2018 and are under preparation in 17 more.

While SCDs are tailored to country contexts, they all include a few interrelated themes: taking stock of recent performance of the country on key development goals, such as poverty reduction, growth and inequality; identifying the critical factors driving or constraining economic growth and its inclusiveness and sustainability (environmental, social and fiscal); and narrowing down the list of identified constraints to a set of priorities. This last step, prioritization, is critical and the most challenging part of an SCD, where evidence must be complemented by a crucial element of judgment. Given the enormous diversity of countries, no one-size-fits all methodology is applied to prioritization. Instead, a few principles provide a broad framework. *Transparency and contestability* are the most critical principles, which require articulating the rationale (evidence and judgment) for the choices made, the underlying theory of change, and the limitations of evidence and knowledge. This in turn requires clearly defining the *criteria and methodology* that have been adopted for assessing constraints and identifying priorities.

Among the criteria for prioritizing across constraints, each constraint's impact on the goals— the size and sustainability of impact on welfare of the less well off—is typically the most important. Other criteria include whether the constraint addresses essential preconditions for mitigating other constraints; whether addressing the constraint will have important complementary effects on other constraints; and the strength of the evidence used to identify a constraint. Benchmarking a country's performance against carefully chosen comparators and against its own historical performance provides a useful starting point for prioritizing.

Box 8

Examples of questions to support prioritization

- How do different financing flows compare with well-performing (aspirational) peer economies?
- What are key constraints and the most significant opportunities in mobilizing additional resources (e.g., tax revenues, foreign direct investment, domestic investment, etc.) for priority investments, particularly in areas in which the country performs poorly compared to peers?
- Are the associated costs of investments similar to those of successful peers? Are expected returns and risks similar? Are there low-cost solutions to address these differences?
- What instruments have countries facing similar contexts used to mobilize additional sources of financing for sustainable development?
- Which sectors have (partially) succeeded in raising financing versus those that have not; what are the risk/return characteristics of those sectors; have they raised public or private finance; which tools/ mechanisms/ policies have they employed? For example, have development partners used country systems and programme-based approaches in one sector, but not in others, and why?
- Does the needs assessment point to actions that are low cost but have high returns?
- Which investments target goals most directly? Which reach those most in need?
- Will removing constraints have knock-on effects in other areas, and for other SDGs?
- Which areas will have the highest impact in the medium term and on the country's long-term development, versus short-term results?

5.2 Building Block II: The financing strategy

The financing strategy is at the heart of the integrated national financing framework. It brings together financing policies from across the action areas of the Addis Agenda. It matches financing policies to priorities in the sustainable development strategy. The financing strategy has two distinct but related elements. First, mobilizing resources for specific investments often takes a central place in discussions on financing for sustainable development. Existing financing plans often focus on this aspect. Countries match needs assessments to resources, such as public revenues, aid, and sometimes private financing (e.g. project finance). The second element comprises financing policies, regulatory frameworks, and other aspects of the enabling environment—which aim to align financing and behaviour with sustainable development. These policies will also impact and can reduce funding needs, as discussed in section 5.1.

The range of policy options is extremely wide, and the ultimate policy mix will depend on national circumstances and thus differ greatly between countries. But in all cases, the financing strategy aims to increase upward and lateral coherence of financing policies, instruments and flows, and of non-financial means of implementation (e.g., ensuring that tax and investment policies are not conflicting, or that macroeconomic, trade and technology policies jointly reinforce overarching development priorities).

Below are some examples of policies that countries can and have used to raise resources or better align financing with sustainable development. The examples highlight why these policies can be important elements of integrated financing frameworks and its financing strategy, and how incorporating them into the frameworks can strengthen a country's overall financing landscape. Medium-term expenditure frameworks and revenue strategies are highlighted under domestic public resources because they align public financial management with long-term planning. Case studies of investment policies show how countries bring together different financing flows (public and private) and a range of financing and related policies to support specific national priorities (e.g. clean energy and job creation). They also provide examples of institutional collaboration mechanisms and public private dialogue (Building Block IV). The case study on small and medium-sized enterprises (SMEs) financing reports on an effort to identify and address binding constraints, and use the diagnostics to prioritize policy action. National development cooperation policies are an example of managing a more complex landscape. They also demonstrate the importance of monitoring and follow-up (Building Block III).

In addition to select initiatives presented in the report, the Task Force also collected a wide range of technical assistance, capacity development, diagnostic tools and other measures that the international community offers. A survey of members of the Task Force, in which they were asked to highlight key initiatives they undertake at country level, elicited about 180 such initiatives. It is available in the online annex of this report.[17]

Policy actions to mobilize and align domestic public financing with national priorities

See chapter III.A. on domestic public resources for additional details

Aligning public expenditures with sustainable development strategies, and raising additional public resources is often a central aim of integrated financing frameworks. Many countries prioritize efforts in this area, and a wide range of existing experiences can inform them. A challenge in public policymaking can be short-term decision-making. MTEFs, which have been introduced in many countries since the 1990s, and medium-term revenue strategies (MTRS), a much more recent concept, both facilitate multi-year budget planning.

MTEFs integrate policy, planning and budgeting within a medium-term perspective. Annual budgets typically modify the previous year's budget in an incremental manner, making it difficult to reprioritize policies and spending. MTEFs take a forward-looking approach to allocating resources and require policy makers to restructure spending for policy objectives formulated in national strategies and plans. MTEFs have helped address key challenges in public financial management, including improving linkages between national development commitments, planning and funding and prioritization of expenditures (box 9).

Box 9

What are medium-term expenditure frameworks and what can they do? [a]

Medium-term expenditure frameworks (MTEFs) are prepared in three stages. First, the Ministry of Finance, in conjunction with other economic ministries and usually the central bank, uses a macro-fiscal framework and forecasting models to assess the availability of total resources. These are translated into initial allocations for spending agencies, based on past spending, new priorities and policies to reach a countries' national development priorities. Second, line ministries prepare spending plans based on sector strategies and estimated costs, which are translated into multiyear budget requests. Third, expenditure allocations and finalizing the annual budget are reconciled. Multiyear allocations are agreed based on discussions with spending agencies and consideration of trade-offs.

MTEFs have not always lived up to expectations, particularly when key aspects of budget management remain weak, or when there is weak coordination across the ministries involved. In response, more gradual approaches have been considered, which aim to enhance effectiveness and functionality step by step—for example, putting in place a medium-term fiscal framework first, which specifies the aggregate resource envelope and the allocation of resources across spending agencies, and a medium-term budgetary framework, which reconciles the resource envelope with a bottom-up determination of spending agency needs.

Success factors have included political commitment to a new approach to budgeting through, for example, linking reform efforts to broader strategies and plans; organizational adaptability and technical capacity; appropriate macro-fiscal institutions; and sound budget and public financial management systems. Incorporating the MTEF in an Integrated Financing Framework with a strong governance mechanism can help build support for the process, as well as strengthen coordination across ministries.

a Adapted from World Bank, Beyond the Annual Budget: Global Experience with Medium Term Expenditure Frameworks (Washington, D.C., The World Bank, 2013).

In addition to realigning public spending, many countries will need to mobilize additional tax revenue, and will hence require substantial reforms in revenue policy and administration. The success of revenue reform benefits from a medium-term perspective, which can anchor reform in a broader vision of where the tax system should be heading, and from a reform strategy that clearly identifies priorities and sequencing.[18]

Recognizing the need for a more forward-looking revenue generating approach, the Platform for Collaboration on Tax is promoting the concept of MTRS, consisting of four key elements: (i) broad agreement on the level of revenue mobilization effort for the medium-term (5-10 years); (ii) a comprehensive reform plan for the tax system; (iii) political commitment to a steady and sustained implementation; and (iv) secured financing for capacity development. A stocktaking and gap analysis of the current state of these elements stands at the beginning of the reform process. Some countries are now taking steps to introduce MTRS. For example, Indonesia is transitioning its existing revenue reform into an MTRS, with the goal of achieving a revenue raising target of about 5 percentage points of GDP for critical public investments over the next 5 years. The MTRS also provides a framework for coordinating assistance by development partners.[19]

Aligning private finance and investment with national priorities

See chapter III.B. on private business and finance for additional details

Many priorities expressed in national sustainable development strategies will require private action, including additional long-term private investments and greater alignment of private business practices with sustainable development. Countries have adopted a wide range

of policies to channel private investments in priority areas—investment policies to incentivize and attract foreign investment, reforms to improve the overall enabling environment for business development, and many others. Alignment of these policies with the broader sustainable development strategy has emerged as a key success factor in implementation. Integrated financing frameworks provide an opportunity to assess and if necessary increase policy alignment and coherence.

In Rwanda's Vision 2020, which set out key public policy objectives to achieve over a period of 20 years, private sector-led development was identified as a key pillar of transformation. The Government created the Rwanda Development Board and cabinet-level coordination mechanisms to oversee reform efforts. It also engaged with private sector representatives and development partners. As a result, a wide range of concerted reforms were implemented, including the establishment of a one-stop center for investors, streamlined property registration, customs reforms, and post-investment support through the Rwanda Development Board.[20]

In Uruguay, national energy and environmental targets were successfully advanced by sharing the risks of private investment throughout energy subsectors. Policy measures included regulatory changes, predictable tariffs, and showcase windfarms (see box 10).

Box 10

Facilitating investment in energy in Uruguay

Uruguay's long-term energy plan, the National Energy Policy 2005-2030, was established to diversify the country's energy mix, reduce dependency on fossil fuels and increase the use of the country's resources. It set a target of 50 per cent primary renewable energy by 2015. The project incorporated public and private finance, development cooperation, incentives, and regulations, bringing together a range of actors and exemplifying the strengths of an integrated approach.

With support of the UNDP Derisking Renewable Energy Investment Initiative (DREI) and the Global Environment Fund (GEF), the Government adapted regulations to promote private involvement in the wind sector, put in place an auction system, and committed to predictable tariffs. The DREI and GEF programme also established a showcase wind farm and created infrastructure for monitoring wind speeds to identify the best locations. The Government introduced incentives to promote rapid development of capacity, with higher tariffs paid in initial years of operation. It also linked the development of the sector with wider national development objectives by requiring that 20 per cent of components for wind energy investments were made within Uruguay.

These policy reforms rapidly transformed the sector. Over $ 2 billion in investment has been mobilized in wind energy. Wind energy is substantially lower in cost than many alternatives and is replacing the most expensive fossil fuel sources within Uruguay's energy mix. Wind farms generating over 1.2 gigawatts in energy were operational by the end of 2016.[a]

a Yannick Glemarec, Wilson Rickerson and Oliver Waissbein, "Transforming on-grid renewable energy markets" (UNDP-GEF, 2017).

Many countries have also adopted financial sector development strategies and financial inclusion strategies. These strategies are key to identifying and overcoming financing gaps and binding constraints, such as the lack of access to finance for SMEs (see box 11). In the assessment phase, Governments need to understand impediments to financial sector development. Policymakers could then consider what types of instruments, institutions, and regulations could help fill the gap. For example, cooperatives and savings banks (see chapter III.B) and national development banks could be useful complements to commercial banks due to their mandates to pursue economic viability rather than profit maximization, along with social, development, and sometimes environmental impacts. Fintech can also be leveraged to address market failures in SME and other lending and to reach out to previously unbanked populations (see chapter III.G).

Box 11

Access to finance for micro, small and medium-sized enterprises: the UNCTAD Entrepreneurship Policy Framework

Micro, small and medium-sized enterprises (MSMEs) create the vast majority of jobs in most countries. For the Gambia, key constraints to MSME and start up finance were identified during the formulation of an integrated entrepreneurship policy, based on the UNCTAD Entrepreneurship Policy Framework. Constraints included insufficient coverage and distribution of credit information, low levels of competition and product diversification in the financial sector, and low levels of financial literacy. Policy recommendations to respond to these constraints included the development of public guarantee schemes, the establishment of information points on access to finance, and the establishment of a national business angels network, easing access to finance for women and youth including through financial education campaigns or programmes and training.[a]

a UNCTAD, "The Gambia: Formulating the National Entrepreneurship Policy" (UNCTAD/DIAE/2017/1).

Aligning development cooperation with national priorities

See chapter III.C. on international development cooperation for additional details

Many countries have adopted national development cooperation policies to increase the coherence and effectiveness of development cooperation. They are increasingly covering a broader scope of resources, beyond ODA, underscoring the need for coordination with other areas of finance. By enhancing coordination between different ministries and different levels of government, integrated frameworks could further facilitate the active engagement of all parts of government in the implementation of development cooperation policies.

Development cooperation providers can also take steps to better support integrated national financing frameworks. As integrated financing frameworks address the full range of financing sources, they are a tool to better understand the role that development cooperation and concessional finance can play versus other sources of finance. They thus inform national development cooperation policies, which can help guide providers' allocation decisions of ODA and other concessional finance. The chapter on international development cooperation highlights the concept of transition finance as one example to strengthen the effectiveness of external financing provided by the OECD Development Assistance Committee (DAC) in cases when countries increasingly rely on resources beyond ODA, but remain vulnerable to socio-economic setbacks (see box 2, chapter III.C).

At the same time, country experiences with national development cooperation policies hold important lessons for integrated financing frameworks. Box 12 summarizes some of the key lessons learned on their design, implementation, and monitoring and review.

Box 12

Lessons learned from National Development Cooperation Policies

The National Development Cooperation Policies (NDCP) experience shows that political will and leadership at the highest level is critical. Multi-stakeholder participation in the design, implementation and monitoring and review of NDCPs is equally important. NDCPs that have emerged from inclusive, participatory and transparent political processes with strong public dialogue platforms, have proven to be more successful than policies conceived in a narrow technical exercise.

Setting clear financing and non-financial targets is critical for success. Where NDCPs have set clear targets for all actors, not just Governments, they have been particularly effective in securing support and alignment with country priorities. In addition to financial targets, NDCPs will need to increasingly include non-financial targets in support of the SDGs.

The experience with the NDCPs also demonstrates the importance of an effective monitoring and evaluation system. Monitoring and evaluation increases accessibility and transparency of information to the public and enables countries to learn from past practice and make improvements based on emerging evidence.

The NDCP experience also shows that capacity gaps have proven to be a key bottleneck in implementing successful NDCP processes. This suggests that any effort to put in place integrated financing frameworks should not only include a mapping of existing financing needs and resources, but also needs to include capacities at the national, regional, and local levels in constraint diagnostics.

Enabling environments and non-financial means of implementation

See chapters III.D through III. G. for additional details

The global enabling environment shapes and confines financing options for national Governments, and thus has a significant impact on integrated financing frameworks. Addressing the challenges in the global enabling environment requires first and foremost multilateral action, as discussed throughout this report.

Nonetheless, there are a range of actions that Governments can take, within the framework of the financing strategy, to better manage external risks. This does not replace the need for global action, but it does allow Governments to better plan within an increasingly challenging global environment. Policy actions include trade and technology policies, debt management strategies, science, technology and innovation roadmaps, capital account management techniques, regulatory frameworks for the financial sector, and commodity stabilization funds.

5.3 Building Block III: Monitoring, review, and accountability

Monitoring and review is a key component of an effective integrated national financing framework. Monitoring delivery and use of relevant financial and other resources helps to track progress, feeds lessons from policy implementation back to policy design and thus supports iterative policy reform, and provides a basis for dialogue among governments, partners and stakeholders.

In the context of an integrated financing framework, monitoring and review could consist of several layers: monitoring of progress in different financing flows and policy areas, building on existing exercises; bringing these exercises together to strengthen coherence among them; and assessing whether the financing strategy itself

is succeeding in increasing overall coherence and alignment of financing and related policies.

Monitoring and review starts with tracking changes in different financing flows. Such tracking can use a wide set of data, such as SDG-relevant expenditure in public budgets. Monitoring systems then assess the impact of these flows on national priorities. For example, some countries have integrated SDGs into the budgetary performance evaluation system.[21] Similarly, country results frameworks allow Governments to review the impact of development cooperation with agreed, country-specific indicators for development results. There is often less understanding of the impact of private investments on sustainable development.

Currently, these different tracking and monitoring systems are distinct and may not be coherent in many countries. An integrated financing framework could serve as a vehicle to strengthen coherence among the existing systems and to close gaps in the architecture. For example, results frameworks for national budgets might not be aligned with results frameworks used in development cooperation. Bringing different monitoring systems together can also reveal redundancies and overlaps. In other cases, such as with private investment, there are gaps. The holistic perspective of an integrated framework can give further momentum to ongoing initiatives to better measure and report on the sustainability impact of private sector behaviour (see chapter III.B. for a detailed discussion).

Lastly, there is a need to understand whether the financing strategy itself adds value. The focus could be on whether alignment and coherence of financing policies with national priorities is increasing; whether coordination among relevant stakeholders to this end is improving; and ultimately whether the integrated approach has raised additional resources for implementing a national sustainable development strategy. This review would solicit feedback from key stakeholders, both within Government and from non-state actors. It can support ongoing dialogue among all relevant actors, allowing them to share lessons on what does and does not work.

Monitoring and review lays the groundwork for greater transparency and accountability. Accountability mechanisms can help ensure that Governments are responsive to all stakeholders, including civil society, private sector, parliamentarians and others. Such mechanisms can provide transparency to the policy process, facilitate mutual learning and thus help improve its effectiveness (see Box 13 for the role that supreme audit institutions can play). They can also help build partnerships, create political constituencies for reform processes and thus propel political momentum for change.

Box 13

Supreme audit institutions

Supreme audit institutions are one important element of national accountability mechanisms. A significant number of supreme audit institutions have integrated SDG considerations into their strategic planning. This has resulted in assessments of preparedness for SDG implementation,[a] as well as broader consideration of public financial management practices. These audits have identified some common issues relevant to sustainable financing strategies—insufficient adjustment of national budgetary mechanisms with the SDGs and national development strategies; insufficient coordination within government and among stakeholders; and availability and quality of data. Through annual audit practices, supreme audit institutions can continue to assess and report on institutional capacities to operate effective, accountable and transparent institutions.

a Le Blanc, David, and Aranzazu Guillan Montero, 2019, The role of external audits in enhancing transparency and accountability for the Sustainable Development Goals, DESA Working Paper 157.

5.4 Building Block IV: Establishing governance and coordination mechanisms

Integrated financing frameworks need to be demand driven, have strong political backing, and broad-based country ownership. Experience from early movers in implementing integrated financing frameworks shows that such ownership was often present because the financing framework was developed jointly with a national development strategy or plan. Accordingly, governance and coordination was also tasked to the body that oversees the national sustainable development strategy. This also helped ensure that financing policies were closely tied to the overarching strategy. National efforts to finance climate action provide further examples of institutional mechanisms such as a national steering committee or cabinet-wide coordination mechanism. This mechanism can provide leadership, facilitate a whole-of-government approach and promote policy coherence.

The governance and coordination mechanism should also lead a consultative process that engages all relevant stakeholders, including parliament, civil society, the private sector and other non-state actors. Such platforms for public dialogue can generate broad-based support, while helping to better inform policymakers of stakeholders' needs and priorities. (See box 14 below for experiences from climate finance and box 12 above on national development cooperation policies.)

The governance and coordination mechanism guides the entire process—from the assessment and diagnostics to policy formulation and implementation and monitoring and review. This can help create accountability and facilitate capacity building and learning. It also needs to be appropriately resourced. Governance mechanisms often rely on a technical secretariat, which requires expert staff and funding. Technical inputs will be needed throughout the process and must be budgeted for.

Institutional mechanisms provide 'top-down' coordination. A range of additional tools—safeguards, screening tools, coherence checks, mainstreaming and incentives for inter-ministerial coordination, for example —can also facilitate better coordination and coherence of financing policies and support effective delivery.

Safeguards are a minimal form of policy coordination, that is, they ensure that policies and investments do not harm or undermine specific policy objectives. While they do not, by themselves, facilitate systemic changes called for by the 2030 Agenda, safeguards can ensure that individual policies and investments are aligned with, and do no harm to, overarching policy objectives by being applied by all policies.[22]

Screening tools that assess policies for their positive contribution to national development objectives go one step further. Bhutan for example has introduced a 'policy screening tool' that assesses all new policies against their contribution to the country's overall policy objective to increase gross national happiness. Only if a policy is found to be at least neutral to a range of indicators linked to gross national happiness can it be adopted.[23]

Coherence checks ask institutions to assess rules, standards, regulations and policies for consistency with national priorities. This approach has been used in the context of climate action in some countries. It can serve as a basis for strengthening financing frameworks, especially if incentives are well-aligned.

Mainstreaming entails the integration of a specific perspective (e.g. gender equality) into the entire policy process. To address the differential impacts of policies and financing decisions on women and men, gender equality and women's empowerment have to be fully integrated into formulation, implementation, monitoring and evaluation of sustainable financing strategies. Many countries have adopted a National Gender Policy with corresponding National Action Plans, providing information on financing needs to achieve gender equality targets. Together, they can serve as a starting point to bring gender equality dimensions into the financial mapping process.

Incentives can be put in place for greater inter-ministerial coordination and cooperation. For example, allocation of funding for planning and activities can be made conditional on cooperation and joint implementation across several ministries. Rewarding performance with larger budgets can also incentivize and make joint efforts attractive in cases where they deliver better results. However, such performance-based budgeting requires significant administrative and analytical capacity, and will be suitable only in countries where basic budgeting processes are well established.[24] In addition, incentives can be used to align government behaviour with the sustainable development strategy. For example, environmental shadow prices could be introduced on investments and activities with negative externalities. Line ministries could be asked to remit this tax on externalities to the treasury, aligning their incentives with sustainable development priorities.

Box 14

Lessons on governance and institutional coordination from climate finance

Colombia: The climate response of the Government of Colombia focuses on designing long term policy frameworks to embed climate action and green growth into its national agenda. It is governed under its National System of Climate Change (SISCLIMA), which coordinates climate and climate finance efforts across all government agencies and oversees integration of climate considerations into policy at the national, sectoral and regional level.

Institutionally, SISCLIMA comprises an intersectoral commission on climate change, with four permanent committees (focused on sectoral, territorial, international affairs and research) and a Climate Finance Committee (ENPCC). Among other functions, ENPCC serves as a platform for inter-institutional and public-private dialogue, formulates and updates a national climate finance strategy, and supports the generation of policy guidelines for inclusion of climate criteria in the budget cycle. The Committee is supported by a Monitoring, Reporting and Verification system, which facilitates the tracking of inflows and outflows of different sources of climate-related funding.

By establishing an integrated governance structure around the country's climate response, SISCLIMA has focused its efforts on long term planning processes, intergovernmental coordination and created systems for learning by doing. It helped build awareness, created space for dialogue with key actors, led to the emergence of a community of experts, and guided engagement with development partners.

Cambodia: Cambodia was one of the first countries to have developed a national climate change financing framework (CCFF). The CCFF was endorsed by the Ministry of Economy and Finance. However, overall institutional coordination in Cambodia was led by the Ministry of Climate Change to help support the integrated planning and financing among different line ministries.

The CCFF identifies scenarios for climate financing needs and projections for future funding from various sources, including international climate funds and official development assistance. A National Climate Change Action Plan, developed in parallel to the CCFF, supported prioritization and a clearer costing of actions.

The CCFF continues to evolve to sustain initial reforms. Climate change has been introduced in the budget circular. The macro-fiscal impacts of climate change are incorporated as fiscal risk into macroeconomic and budget planning, and to inform potential fiscal reforms. For example, the Ministry of Finance projected that under a scenario of an additional 2 degrees of global warming, national gross domestic product could be 9.8 per cent lower than anticipated in 2050. These findings led to the inclusion of climate change in the priorities of the new "Rectangular Strategy 4", which will guide macro-fiscal planning for the next five years.

The Ministry of Finance is also supporting institutional capacity building to develop climate change investment screening and appraisal. To reinforce implementation of the strategy as part of routine planning and budgeting processes, sector ministries are also trained on cost benefit analysis and climate responsive budgeting.

Endnotes

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DOMESTIC PUBLIC RESOURCES

Chapter III.A

Domestic public resources

1. Key messages and recommendations

Revenue is not an end in itself; it is a means for Governments to finance the expenditure necessary to achieve sustainable development and policy goals. The fiscal system plays several roles. It finances the provision of public goods, sets incentives for the behaviour of private actors, and promotes equity. It also supports macroeconomic stabilization and can be used to stimulate growth during economic slowdowns. While median tax-to-gross-domestic-product (GDP) ratios have increased, there is still a large gap between public resources and financing needs to achieve the Sustainable Development Goals (SDGs).

As noted in the Addis Ababa Action Agenda, domestic resource mobilization is first and foremost generated by economic growth. With global growth projected to have peaked, as discussed in chapter I, the needed further increases in revenue will require application of political will to tax policy and administrative reform, expanding the tax base and improving compliance. Given the long-term nature of the SDGs, Governments will need plans that operate through political and business cycles. ***Embedding medium-term revenue strategies into long-term planning and developing a national consensus that can see revenue reform through political cycles should allow countries to raise more public resources.*** A focus on aligning the expenditure side of fiscal policy with sustainable development strategies to deliver public services equitably will create further progress in achieving the SDGs, while stimulating inclusive growth.

Member States of the United Nations can work towards establishment of a new social contract, based on a more equitable and inclusive society with fair contributions by all. The renewed social contract should be reflected in national sustainable development strategies and integrated financing frameworks (see chapter II). Fulfilling the social contract requires that these resources be raised fairly and tied to effective expenditure and the delivery of accountable public services.

Combatting inequality and achieving SDG 10 (reducing inequality) requires careful design of the fiscal system. Placing a priority on effective and progressive tax systems and expenditures can make achievement of inequality goals more likely. Governments can ***explicitly take account of inequalities, including gender inequalities, in fiscal policy and public financial management.*** Gender-responsive budgeting is an effective tool for tracking financial commitments to and actual expenditure on gender equality. Countries with large informal sectors can pursue efforts to formalize business in ways that do not harm the poor. ***Policymakers can use relatively high tax-exempt thresholds to incentivize formalization, encourage greater levels of compliance, and ensure that the poor are not burdened by the tax system. Removing means testing for access to social protection*** would help remove barriers to participation in the formal economy, while also providing benefits to participation. More effective taxation of large businesses, including multinational enterprises (MNEs), can boost revenue, while contributing to perceptions of fairness in tax systems, as well as reducing inequality.

Incentives set by the fiscal system can be used to effectively target progress on SDG 13 (climate action). Climate change mitigation and adaptation policies, and disaster risk reduction, can be supported by incentives in the fiscal system. ***Environmental taxation and the reform of energy and other subsidies have a critical role to play in transitioning the world to a low-carbon economy.***

The international tax environment looks remarkably different than it did just ten years ago. Norm-setting is more inclusive and more information is now available on financial accounts and corporate activity, although profit shifting remains a challenge. Efforts at strengthening international tax cooperation have brought important benefits in enforcement of tax rules. All countries should aim to participate in international efforts to strengthen tax transparency, at the same time more work needs to be done to enable developing countries to benefit from information-sharing networks, especially the poorest countries. Some of the fundamental tenets of the international tax architecture, such as the

arm's length principle and allocation of taxing rights, are now being questioned, particularly as a result of digitalization of the economy.

The international tax architecture needs to continue to be more inclusive and the voices of all countries need to be part of discussions on setting new tax norms. It is in the global interest to seek a consensus, but it needs to reflect the realities and priorities of different countries. It is critical to pay attention to the potential impact on small and poor countries, who already lag behind in their ability to raise revenue. ***Putting the needs and capacities of these countries at the forefront of analysis and decision-making would help create a fairer international tax system and advance sustainable development.*** Official development assistance (ODA) in support of domestic revenue mobilization remains small. ***Donors should continue to increase their contributions to revenue mobilization capacity-building.***

A number of international initiatives aim to ensure MNEs pay taxes where economic ac curs and value is created, with particular importance placed on efforts for country-by-country reporting of MNEs. ***Greater public availability of aggregate data on offshore financial assets and the taxation of MNEs would contribute to more accurate assessment of the distributional effects of tax norm changes and empower countries to choose tax norms that enhance equity.***

The Inter-agency Task Force recognizes the damage done by illicit financial flows (IFFs) and Member States' interest in this issue. ***While technological advances pose risks related to IFFs, they can also be used in strengthening tax administration, as well as assisting Member States to combat IFFs.***

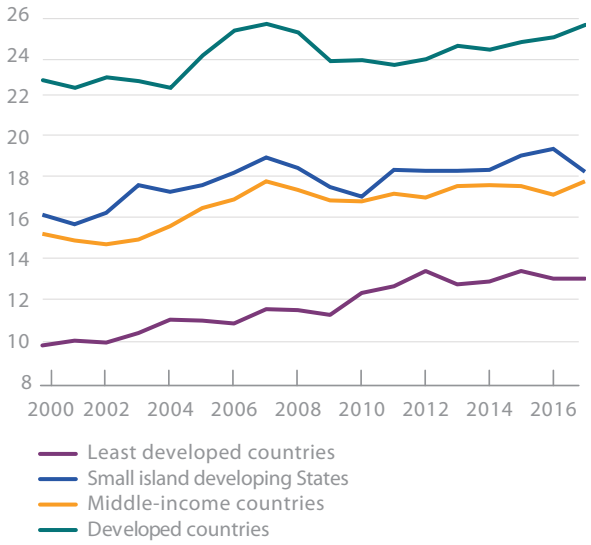
2. Domestic revenue mobilization

2.1 Trends in revenue and taxation

Member States recognized in the Addis Agenda that additional domestic public resources would be needed in order to achieve the SDGs. In 2017, developed countries and middle-income countries again saw rises in tax revenue measured as the median ratio of tax-revenue-to-GDP (figure 1). These annual rises continue a seven-year upward trend, which has brought the ratios back above levels witnessed in 2007 before the 2008 world financial and economic crisis. Least developed countries (LDCs) have generally seen increasing revenue trends: 60 per cent of LDCs saw year-on-year improvements in tax-revenue-to-GDP ratios in 2017, with an average gain of nearly 1 percentage point in the 27 countries making progress. That said, the median ratios in LDCs stayed steady, and the median ratios for small island developing States (SIDS) dipped in 2017.

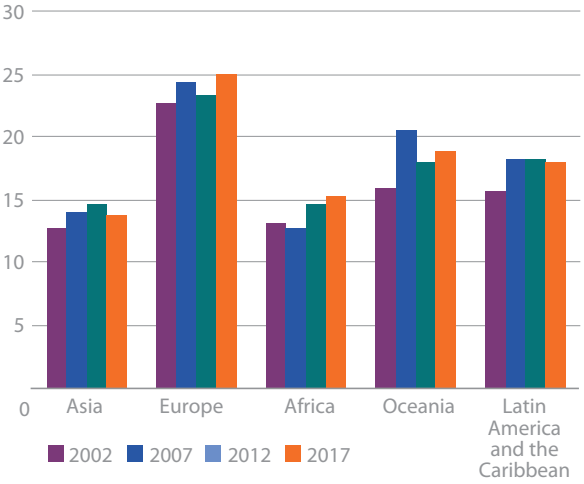
Tax revenues vary widely by region (figure 2) as well as by country. For example, commodity exporting

Figure 1
Median tax revenue, 2000-2017
(Percentage of GDP)



Source: IMF, World Revenue Longitudinal Dataset.
Note: Excluding social security contributions and non-tax revenue.

Figure 2
Median tax revenue, by region, 2000-2017
(Percentage of GDP)



Source: IMF, World Revenue Longitudinal Dataset.
Note: Excluding social security contributions and non-tax revenue.

countries' public revenues (royalties, fees and taxes) are linked to commodity-price cycles. Stagnation in overall revenues in commodity exporting countries is partly explained by low commodity prices since 2015. Regionally, the biggest improvement in revenue occurred in Africa, with 30 countries improving their tax-to-GDP ratios, while 22 saw declines.

The Latin American and Caribbean region provides an example of the variation that can be found in a single region. Domestic public revenues in aggregate have re-

mained stagnant since 2014, at close to their 2011 levels (figure 2). The 2017 median tax-to-GDP ratio increased slightly, with an equal number of countries recording gains and declines. These aggregate trends hide a more complex interaction between different sources of government funding. Revenue from non-renewable natural resources has been falling, reflecting declines in global commodity prices (figure 3), while public revenues from other sources rose through 2016. Many countries undertook significant tax reforms during this period to raise resources, although the emphasis of reforms varied based on national circumstance. Countries that had large revenues from non-renewable natural resources, made up for falling revenue principally through strengthened direct taxation on personal and corporate incomes. Meanwhile, Caribbean countries, many of which have high debt burdens, have turned to higher levels of indirect taxes, while also raising the expected social contributions from employers and employees towards social protection programmes. The within-region disparities highlight the importance of national analysis of tax reform and structures and their impact on the SDGs, such as inequality and climate change (see below).

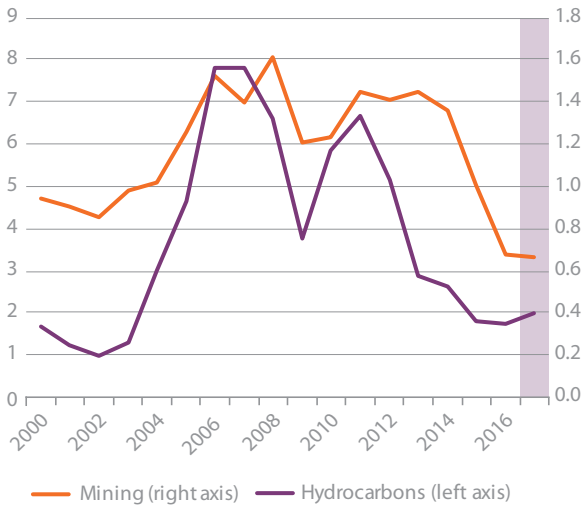
2.2 Domestic tax avoidance and evasion

Tax avoidance and evasion continues to be a significant barrier to domestic resource mobilization efforts in all parts of the world and can have an impact on both efficiency and equity considerations. It can have also high

Figure 3

Revenues from non-renewable natural resources, Latin American and Caribbean countries, 2000-2017

(Percentage of GDP)



Source: ECLAC.

Note: For the purpose of maintaining compatibility between total revenues and revenues from non-renewable natural resources statistics the following coverages are used in this figure: Argentina (non-financial public sector), Bolivia (Plurinational State of) (general government), Brazil (general government), Colombia (non-financial public sector), Ecuador (non-financial public sector), Mexico (federal public sector) and Peru (general government). All other countries refer to data from the central government.

Box 1

Municipal land taxation in Asia-Pacific

Providing essential public infrastructure and services to support sustainable development is not a task for central governments alone. In medium or large developing countries, subnational governments can account for more than half of the aggregated public expenditure. Yet, subnational governments often lack tools with which to raise resources. There is no one-size-fit-all strategy for municipal governments given the variety of national legal frameworks and economic circumstances.

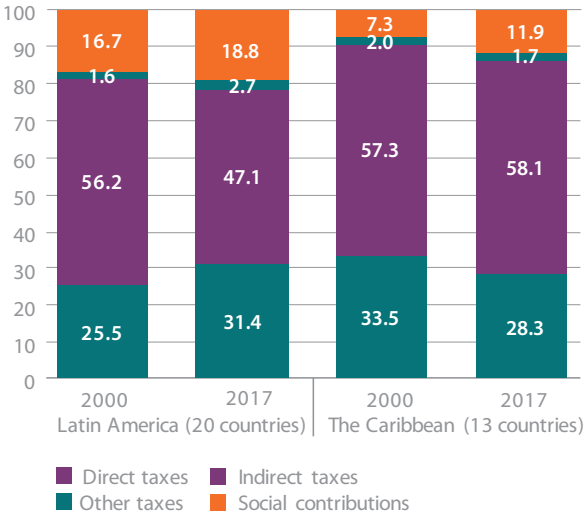
A series of recent municipal revenue case studies[52] by the Economic and Social Commission for Asia and the Pacific (ESCAP) in the Asia-Pacific region highlighted some examples of land taxation as revenue mobilization options. In most developing countries in the region, property tax remains the only significant revenue tool for municipal governments. However, property tax has underperformed compared to expectations due to its unpopularity and the assessment challenges, although technology solutions can help improve performance. Recurrent property tax in general contributes less than 1 per cent of gross domestic product (GDP) in revenue in developing countries worldwide.

Land value capture can complement property taxes, particularly in countries with fast urban expansion and booming real estate markets. Land value capture can take two general forms. First, the sale of building rights can raise revenues and can be accomplished through imposing fees on changes in the approved use of land, zoning, or floor-area ratio. Second, subnational governments can impose betterment contributions, which are charges on properties that benefit from public improvements or services. Land value capture allows governments to recover a proportion of the unearned increase in land value that results from public investments, while also raising revenues that can be reinvested. Compared to recurrent property tax, land value capture generates revenue streams that are more front-loaded.

The sale of building rights is particularly common in Asia-Pacific. Land lease programmes in China, for example, charge developers for the building rights through public bidding, with municipal governments in aggregate raising, on average, 5.8 per cent of GDP annually between 2013 and 2017.[53] Land lease, together with non-recurrent taxes[54] on land use and real estate, have generated enough revenue in China to finance the entire public infrastructure budget in recent years.[55] A derivative version of value capture through land lease is the practice of including the sale of building rights in large infrastructure public-private partnership (PPP) projects, as seen in subway PPPs in Hong Kong and Beijing. In India, Mumbai started to collect payment for the right to build additional floor space on a given plot of land in the suburbs in 2015 and in the city centre in 2018.[56] This is expected to become an important local revenue source and one way for the city government to reclaim part of the economic rent in increased property values.

Source: ESCAP.

Figure 4
Revenue and social security structure in Latin America and the Caribbean, 2000 and 2017
(Percentage)



Source: ECLAC Tax Revenue Database.

costs in terms of foregone investment in areas related to the SDGs. For example, In Latin America, the Economic Commission for Latin America and the Caribbean (ECLAC) estimates that the costs associated with tax non-compliance of income tax and value-added tax (VAT) reached 6.3 per cent of GDP, or $335 billion, in 2017 (figure 5). There are indications that VAT non-compliance has dropped significantly over the last decade as a result of consistent investment in administration. Non-compliance on income tax—corporate and personal—is especially acute, ranging from 31 per cent of potential tax take to as high as 73 per cent.[1]

Analysis of administrative data also points to significant evasion, including "bunching" in reported income just below tax thresholds and "missing mass" above the threshold.[2] Such evasion is particularly prevalent for self-employed workers, firms transitioning from being medium-sized to large enterprises, and businesses at the threshold of tax-base changes, particularly when moving from turnover taxes to income taxes on profits. Existing evidence points to bunching effects being driven by manipulated reporting rather than changes in real economic activities.[3] Unlike problems of international tax avoidance and evasion by corporations and wealthy individuals (see below), domestic tax avoidance and evasion can be addressed unilaterally.

Modern tax administrations take a multi-tiered approach to reducing avoidance and evasion. First, they promote voluntary compliance. Voluntary tax compliance can be enhanced by education, outreach, simplification, and so-called tax certainty (which refers to having clear and simple tax rules and regulations that minimize disputes) and effective methods of dispute resolution. Second, tax policy changes can reduce avoidance and evasion. Amending tax laws to close loopholes and implementing different tax structures—such as making use of turnover taxes for the smallest businesses and having withholding taxes—can contribute to reducing avoidance and evasion. While turnover taxes are considered distortionary for productivity, one country case study found that the shift from profit taxation to turnover taxes increased revenue from affected businesses by 74 per cent without reducing profits.[4] The implementation of withholding taxes is another method used to effectively collect revenue while spurring voluntary compliance, as businesses then have a greater incentive to file tax returns to claim refunds.[5]

Ultimately, countries do not have the ability to audit and verify all tax filings, but data and better administration can help. To strengthen enforcement, some countries have moved to use third-party information, such as credit card data or customs data, that help to cross check financial transactions.[6] In one case, such policies led to a small increase in income reported, although firms adjusted other figures on their tax returns to minimize increases in reported profits.[7] Enforcement will be more effective with better dispute resolution systems and arrears collection processes.

2.3 Putting revenue and expenditure together for the SDGs

In 2018, the Task Force emphasized that revenue collection linked to effective expenditures for quality public service delivery can boost the link between citizen and state and form the basis of the social contract. Short-term political cycles and lack of national consensus on fiscal priorities can undermine efforts to strengthen this social contract.

As described in chapter II, medium-term revenue

Figure 5
Tax non-compliance in Latin America, 2017
(Percentage of GDP)

Source: ECLAC.
Note: Estimations are GDP-weighted averages based on country-level studies on tax non-compliance. Income tax estimates based on 13 country studies, value-added tax estimates based on 16 country studies.

strategies (MTRS) are an approach to frame tax system reform in a comprehensive and holistic five-to-ten year framework. Embedding MTRS into long-term planning, through integrated national financing frameworks, can boost the link between citizen and states and help ensure the application of sufficient political will through political and business cycles to raise public resources and spend them effectively for sustainable development. MTRS should be coherent with medium-term expenditure frameworks—which integrate policy, planning and budgeting within a medium-term perspective—and cognizant of the approximate future spending needs to achieve the SDGs (see chapter II). Embedding the SDGs into medium-term expenditure planning, medium-term revenue strategies and annual budgeting would promote better informed decisions and support policymakers in promoting synergies among different goals.

Most countries already have ongoing tax policy and administrative reforms, as well as systems for publishing fiscal and budget information and consulting with stakeholders. Transitioning an ongoing tax system reform effort into an MTRS is not a simple task, as it may require rethinking aspects of the existing reform programme and how they fit together with other policies. It requires policymakers to be precise in formulating tax policy packages, revenue administration reforms, and legal adjustments—including clear revenue mobilization objectives and/or other tax policy objectives, such as reducing inequality or preserving the environment. It also requires building a national consensus around the reforms so that the MTRS can outlast short-term political cycles. For these reasons, MTRSs may vary drastically from country to country.

MTRS, like all tax reform, should be guided by efficiency, equity, and ease of administration and compliance. Because the MTRS concept is relatively new, lessons from early adopters are still being learned. The need for political commitment and national buy-in to the MTRS is clear and is a fundamental building block of the MTRS. Creation of an MTRS can leverage existing mechanisms for budget transparency, participation and accountability to generate national agreement on tax reform priorities and how those will be linked to public expenditure. Perceptions that tax reforms will unfairly burden the poor or vulnerable can derail reform efforts and even lead to political instability. This re-emphasizes the need for the open discussion on distributional implications and policy impacts on the poor and vulnerable.

3. Fiscal systems and inequality

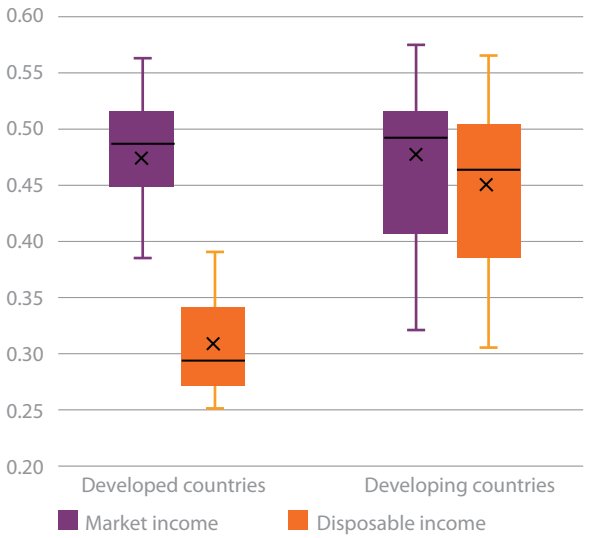
Fiscal systems can be an important tool for combatting inequality (SDG 10) while promoting inclusive economic growth (SDG 8), along with other public policies, such as labour policies. There is a special place for fiscal policy when considering income and wealth inequalities because of the efficacy of using taxation and expenditure to address the distribution of resources. While some redistributive policies may have conflicting effects on growth and distribution, empirical evidence shows it is possible to achieve growth that is inclusive and sustainable.

3.1 Fiscal system progressivity

Reducing inequality will require careful design of the fiscal system. There are two separate policy areas that need to be addressed. Countries wishing to scale up or redesign redistributive policies need to look at the effects of both taxes and expenditures. The progressivity of revenue systems determines who is bearing the burden of financing public expenditure, while expenditure policies determine who is benefitting from public resources and the alignment of resources with the SDGs. The two systems must be analysed together.

The impact of fiscal policy on inequality can be seen by comparing data before and after taxes and transfers (figure 6). In developed countries, fiscal policy offsets about one third of market (before-tax-and-transfer) income inequality, on average, with 75 per cent of the offset coming from transfers. In-kind transfers, such as those for education and health, also affect market income inequality over time. In developing countries, fiscal redistribution is much more limited, reflecting lower and less effectively progressive taxation, greater reliance on regressive indirect taxes, and difficulties on the spending side in implementing universal social programmes and conducting transfers to the poor and vulnerable.

Figure 6
Inequality effect of fiscal policy, various years
(Gini index)



Sources: Commitment to Equity Institute Data Center on Fiscal. Redistribution (2019); OECD Income Distribution and Poverty (2018)
Note: Chart shows medians, averages, 25th and 75th percentile and minimum and maximum of Gini coefficients excluding outliers; disposable income is after income taxes, social security contributions and other transfers; developed countries based on 30 OECD countries in 2015; developing countries based on most recent data for 29 countries in CEQSI database.

3.1.1 Progressivity of taxes and revenues

Tax progressivity aims at having the wealthier parts of society finance a greater proportion of public goods, thus helping to redistribute income. Tax progressivity has declined over the past four decades in Organization for Economic Cooperation and Development (OECD) countries (figure 7). This decline is consistent with the drop in top personal income tax rates in those countries from an average of 62 per cent in 1981 to 35 per cent in 2015. In developing countries, indirect taxes, which are more regressive, represent a significant portion of revenues. Indirect taxes have increased over time, largely to compensate for the decline in trade taxes that accompanied the reduction of trade tariffs in the late 1990s and early 2000s (figures 8-10).

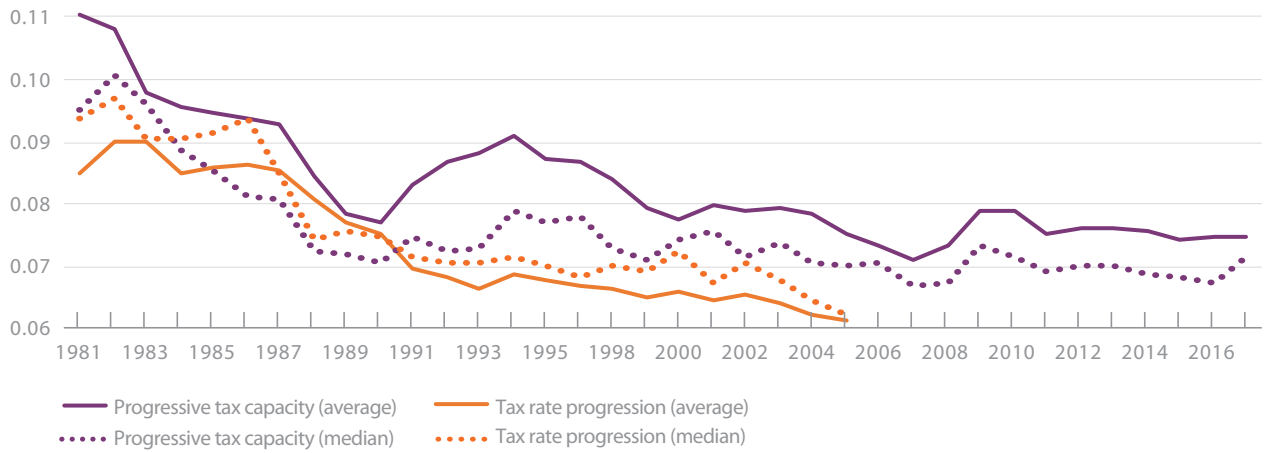
Direct taxes on income can be the most progressive form of taxation if they have increasing marginal tax rates and are able to reach the full incomes of the richest citizens. In particular, exemptions and low rates of tax on capital sources of income often prevent higher effective taxation of the wealthy, who may not have large labour income but have disproportionate amounts of capital income. In poorer countries, the incidence of personal income taxes is mainly on wage-earning people in the middle of the income distribution, not the elite. Indirect taxes, which are often levied as sales taxes or VAT, tend to be more regressive as consumption makes up a higher share of the income of the poor. Nonetheless, consumption taxes can contribute to fiscal redistribution if they are used to finance progressive spending, as discussed below. They can also be made more progressive by including higher excise taxes on luxury goods such as yachts and luxury cars. Special provisions of the tax code, such as exclusions, deductions, deferrals, credits, and tax rates that benefit specific activities or groups of taxpayers, also have strong inequality impacts. However, these often result from lobbying by an interest group that already wields political and economic power for its own interest, which can itself have regressive impacts.

Different types of wealth taxes—such as recurrent taxes on property or net wealth, and inheritance and gift taxes—as well as certain types of transaction taxes can also be sources of progressive taxation. Taxes on real estate or land are particularly efficient but remain underused in many countries (box 1). An even stronger impact on equity can be achieved through higher taxes on second homes.[8] The degree of progressivity of each of these types of taxes will depend on both the design of the tax policy and how it is administered. Overall, the data suggests that it is possible to increase the degree of tax progressivity while preserving growth, at least for levels of progressivity that are not excessive.[9]

In developing countries, improving tax capacity is critical for increasing the distributive role of fiscal policy while ensuring fiscal sustainability. In many developing countries, widespread informality contributes to corporate and personal income tax revenues being low and most citizens not filing tax returns. For example, the personal income tax in Latin America, on average, reduces income inequality by 2.0 per cent, as opposed to 12.5 per cent in Europe,[10] due to lower maximum marginal tax rates, narrow tax bases resulting from a large number of exemptions and deductions, and high levels of non-compliance.

Efforts at formalizing businesses can raise revenues and have important non-fiscal effects on equality, as formalization can allow better enforcement of labour rights and workplace safety rules. There are however,

Figure 7
Tax progressivity in OECD countries
(Index, percentage)



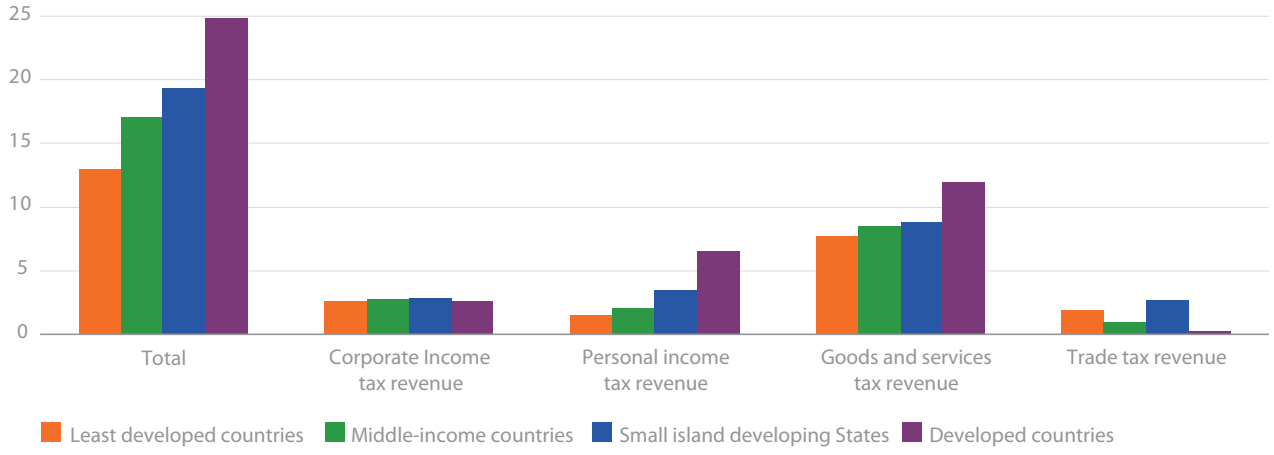
Source: IMF Fiscal Monitor October 2017.
Note: The average tax rate progression is the slope coefficient from regressing actual average tax rates on log of gross income. The progressive tax capacity index is calculated as twice the area between the Lorenz curve for income and taxation, using uniform distribution of income.

important inequality implications of formalization. Informality generally comprises two types of taxpayers: (i) micro and small enterprises, including smallholder farmers and the poor, and (ii) self-employed professionals, large land owners or other forms of enterprise with relatively high incomes.[11]

Efforts to tax the former group would yield little revenue, have high administrative and compliance costs and likely lead to greater inequality, as this group is relatively poor. Developing countries with lower administrative capacity and larger informal sectors may find it advisable to set a relatively high tax-exempt threshold—combined with low initial tax rates but which escalate rapidly—to ease the administrative burden, strengthen tax compliance, and enhance progressivity. This can encourage greater levels of tax compliance and ensure the poor are not burdened by the tax system. High tax-free thresholds can also lead to formality in the sense of encouraging people's broader engagement with the state without becoming subject to tax—for example, through participation in social protection systems (see below).

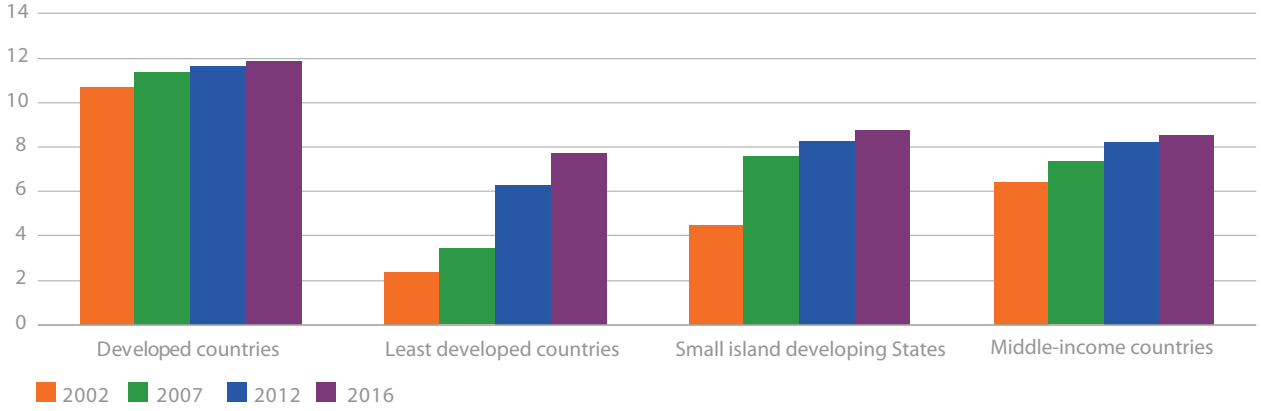
The second group of informal businesses represents a more serious problem of tax avoidance, which increases inequality and reduces the fairness of the overall tax system. Bringing self-employed professionals and large land-owners into tax compliance often presents a political challenge more than a technical one. International Labour Organization recommendation 204 emphasizes combining incentives with compliance measures and the role of social dialogue in creating an integrated policy framework to facilitate the transition to the formal econ-

Figure 8
Median tax revenue by type of tax, 2016
(Percentage of GDP)



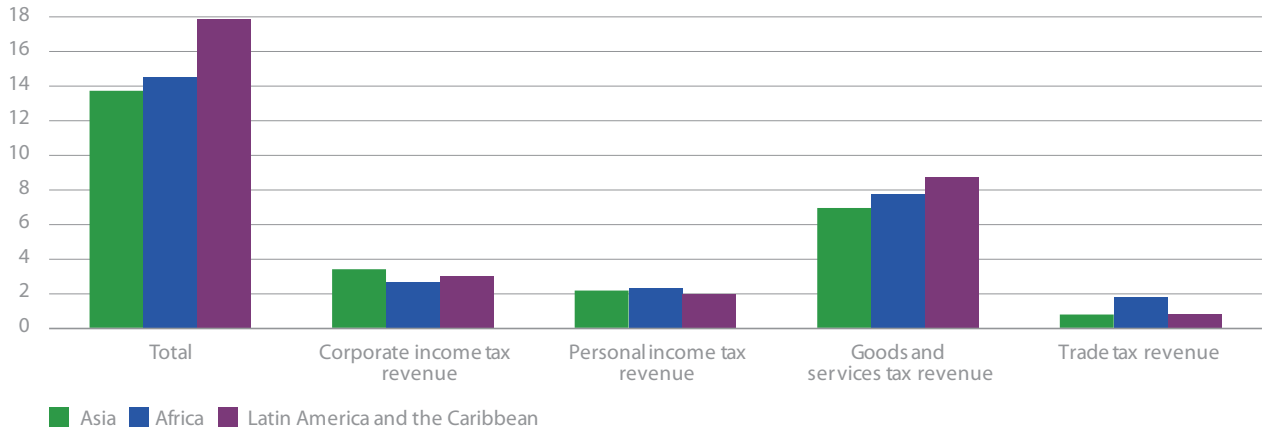
Source: IMF, World Revenue Longitudinal Dataset.

Figure 9
Median goods and services tax revenue, 2002-2016
(Percentage of GDP)



Source: IMF, World Revenue Longitudinal Dataset.

Figure 10
Median tax revenue by type of tax, by region, 2016
(Percentage of GDP)



Source: IMF, World Revenue Longitudinal Dataset.

omy.[12] While corporate income tax revenue is relatively more important in developing countries (figure 8), and can contribute to tax system progressivity, challenges in enforcement due to lower tax administration capacity and the complexity of international rules need to be tackled (see below). The political challenges and the need for national agreement emphasize the importance of long-term planning embodied in the MTRS approach.

3.1.2 Progressivity of spending

This Task Force has emphasized that revenue and expenditure should not be analysed in isolation.[13] The recommendation for comprehensive impact analysis of fiscal systems applied to all forms of inequalities and incidence should be an important part of every fiscal system.

The provision of public services is usually progressive, although the level of progressivity differs based on the quality of the service, the geographic scope of its distribution and the user base. Investments in public education and health help reduce income inequality over the medium term and can enhance social mobility. Yet public expenditure on social services, including in developed countries, has not been sufficient to close gaps in access to education and health, let alone address excessive inequalities in outcomes.

While existing social protection systems and social services can be universally available (including to specific groups, such as children and the elderly) or means-tested based on income, the 2030 Agenda for Sustainable Development urges countries to achieve universality. While means testing has been thought of as a way to make public spending more progressive, in practice, administrative costs are high and the errors in targeting have sometimes meant that public spending fails to reach the poorest.[14] Although universality can be costly, it also lowers administrative costs.

The design and financing of social protection systems affects the progressivity of the overall fiscal system. Nationally designed and owned social protection floors (SPFs) are meant to convey a nationally defined set of basic social security guarantees, which can be cash benefits or in-kind services, provided equitably to all people at every stage in their life cycle (children, mothers with newborns, support for those without jobs, persons with disabilities, the elderly).[15] Administrative costs are an important consideration in SPF design. For example, one African country shifted social transfer distribution from a cash system to a mobile-money-based system, which resulted in a 20 per cent drop in the variable administrative costs.[16] However, such shifts could exclude beneficiaries because of lack of access to technology or reduce the value of transfers because of fees for use of electronic payments systems.

Universal basic income (UBI) is an approach to SPFs being tested in some countries. UBI is usually thought of as a cash transfer of an equal amount to all individuals in a country, but can be implemented in different manners. The idea, while not new, is receiving growing attention, partly in response to the possible effects of artificial intelligence and automation on jobs (see chapter III.G). A UBI has the potential to have a significant impact on inequality and poverty, but implementation should not put existing labour and social security rights at risk. As with any public service reforms, consideration should also be given to fiscal sustainability as well as the progressivity and efficiency of any systems being replaced by a UBI. Frequently mentioned trade-offs to UBI implementation include reduced subsidies on basic necessities or reduced spending on public services. Replacing inefficient and inequitable fuel subsidies with a UBI would likely lower inequality. However, if the UBI took resources away from high-priority spending on public services such as health and education, this may increase inequality and poverty.

3.2 Gender and the fiscal system

Fiscal systems can also be shaped to address gender inequality. The 2018 report of this Task Force described in detail the importance of comprehensive gender impact analysis of both individual taxes and overall fiscal systems to promote gender equality. Gender responsive budgeting (GRB) is a strategic policy approach that enables fiscal authorities to structure tax and spending policies and/or public financial management in ways that can reduce gender disparities and promote equality.

Implementation of GRB supports stronger linkages between policy commitments to gender equality and resources allocated for their implementation. The international standard for GRB (SDG Indicator 5.c.1) measures the proportion of countries with systems to track and make public allocations for gender equality and women's empowerment progress. Preliminary 2018 data from the monitoring exercise of the Global Partnership for Effective Development Cooperation, indicates that 90 per cent of countries[17] fully met or are approaching the requirement of "having a system in place" for GRB. Despite progress, gaps remain in the comprehensiveness and transparency of systems. In particular, assessment of outcome and impact, including ex ante and ex post assessments, and gender budget audits, are often absent even among countries with aspects of tracking systems in place. As part of its regular GRB programming, UN-Women provides technical support to Governments to develop comprehensive tracking systems to collect high quality, accurate and reliable data on gender budgeting as well as strengthening the capacity of national institutions for gender equality and civil society organizations to scrutinize and validate the data.

4. Environment, climate change and fiscal policy

The use of economic instruments for environmental protection is fairly limited in many countries, with the principle that a polluter pays for the negative externalities of their pollution being applied only partially, at best. The fiscal system can be designed to address environmental problems, with the dual benefit of shifting tax burdens to incentivize sustainability while also raising additional revenue.[18]

4.1 Carbon pricing

Carbon pricing[19] can mobilize substantial amounts of new revenue. If carbon pricing were integrated into existing fuel tax regimes or fiscal regimes for fossil fuel

Box 2

Tertiary education and tax reform in Chile

In 2015, Chile enshrined free universal tertiary education in its laws. Higher education is a right "that should be available to all persons, according to their abilities and merits...and special income mechanisms should be promoted in accordance with the principles of equity and inclusion".[57]

Before 2015, higher education institutions financed their teaching, research and extension primarily through fees charged to their undergraduate and graduate students. Chilean public tertiary institutions charged higher tuition than the fees in private institutions, contributing to the country having the second highest fees among countries in the Organization for Economic Cooperation and Development in 2016.[58]

Since 2015, Chile has implemented new measures in favour of inclusion in higher education, related to Sustainable Development Goal target 4.3 on equal access to tertiary education. Today students from households with income in the lowest 60 per cent of the country attend Chile's free universities. In addition, in line with universality, the threshold will advance to the poorest 70, 80, and 90 per cent of households as the economy grows, and finally to all students.

However, this new system had significant associated costs. Chile's annual investment in education (at all levels, public and private) was equivalent to more than 6 per cent of gross domestic product (GDP) in 2016. In 2017, higher education made up 36 per cent of the education budget, equivalent to 2.5 per cent of GDP. The contribution of households to the financing of higher education dropped from 68 per cent in 2016 to 64 per cent in 2017, and is expected to drop further as the free tertiary education policy becomes universal.

In 2014. Chile undertook a broad reform of its tax system, with the explicit objective of permanently increasing public spending on education and other social sectors. The reform aims to raise additional revenue equivalent to 3 per cent of GDP, while making the tax system more progressive. It included changes in the taxation of income of companies and individuals, changes to the tax incentives for saving and investment, and substantial increases in taxation on the consumption of goods harmful to health (tobacco, alcohol and sugary drinks). The reforms also strengthened tax enforcement, adopted special anti-avoidance rules, and included a general anti-avoidance clause in the tax code. Changes in taxation on capital gains sought to equalize taxation on capital and labour to further the progressivity of the entire tax system. As a result, taxes paid by the richest 1 per cent of the population are expected to rise from 2.4 per cent of GDP to 3.5 per cent, with almost 80 per cent of that rise coming from the richest 0.1 per cent.[59]

Source: UNESCO.

extraction there would also be minimal extra administrative burdens to implement such pricing. The revenues need not be earmarked for climate-related spending, and policymakers can choose to cushion the impact on the poorest households, lower other burdensome taxes, reduce deficits, or fund other investments related to achieving the SDGs.

Carbon pricing can be implemented in two main ways: through carbon emissions trading schemes (ETS) or through carbon taxation. ETS may be designed to provide revenue for the Government through auctions of credits, but can also be non-revenue generating. ETS provide less certainty on the price of carbon, but can be designed to have greater specificity on the level of emissions. To date, several schemes have been implemented. However, prices are relatively low, at around $5 to $25 per ton of CO_2. Overly permissive exemptions, typically on transportation and heating fuels, and insufficient ratcheting down of emissions caps have reduced the effectiveness of some of these systems.

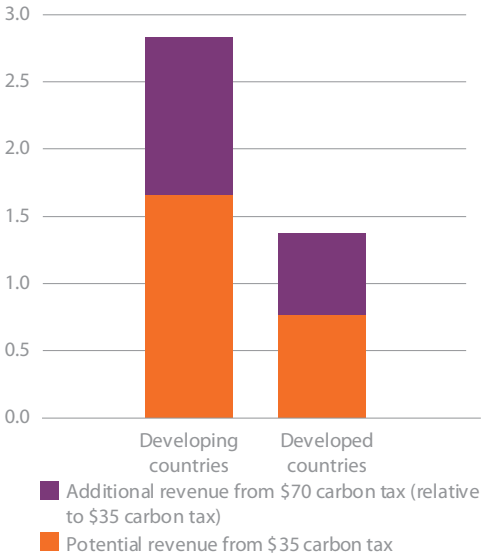
Direct carbon taxation provides more certainty about the price of carbon, and thus can be better for long-term planning by Government or businesses. However, it provides less certainty on the levels of emissions. As of 2018, 21 Governments had introduced carbon taxes (table 3) with several more scheduling implementation for 2019, although typically with partial coverage (e.g., some exempt natural gas). For Group of Twenty (G20) countries as a whole, research suggests that a carbon price of $35 to $40 per ton in 2030 is about sufficient to meet mitigation pledges[20]—with lower prices estimated for developing countries, and higher prices, often above $70 per ton, estimated for developed economies.[21] Revenues from comprehensive carbon pricing are potentially large (figure 11) —for example, typically around 1.0 to 2.5 per cent of GDP for the $70 carbon price in G20 countries in 2030, and substantially higher in a few emissions-intensive countries.

To date, 44 per cent of carbon tax revenues have been used for lowering other taxes, 28 per cent for general funds, and 15 per cent for environmental spending globally. ETS have been more targeted, with 70 per cent of revenues used for environmental spending, 21 per cent for general funds, and 9 per cent for lowering other taxes.[22] Excise taxes on polluting goods (see below) have tended to be more frequently used for general funds.

Regulation, which can be seen as an alternative tool to manage carbon emissions, could provide certainty on the level of emissions, depending on design, but does not raise any revenues and may impose higher costs for mitigation. Regulations, standards and controls are often used in conjunction with carbon taxes. Implementation of emissions control in practice may be most easily achieved by combinations of multiple kinds of carbon pricing alongside direct regulation (restrictions on the sale of fossil-fuel powered vehicles, for example).

Carbon tax competition, which in this case refers to carbon intensive industries relocationing to or growing

Figure 11
Potential revenue from carbon pricing in 2030, G20 countries
(Percentage of GDP)



Source: Parry and others (2018).
Note: Averages weighted by projected 2030 GDP.

in jurisdictions with low or no carbon taxes, is a challenge. However, empirically the size of such competition may not be large, carbon pricing may stimulate firms to adopt more productive or energy-efficient capital, and policies can aim to minimize competition. Policy options to minimize the effect of carbon tax competition include: tax rebates for exporters; border-tax adjustment for imports;[23] and multilateral agreement on carbon taxes.[24] As with other "'sin taxes", a carbon tax—if introduced effectively—will, over decades, reduce its own tax base and thus requires proper planning of long-term revenue strategies.

The United Nations Committees of Experts on International Cooperation in Tax Matters formed a subcommittee on environmental taxation in 2018. It is mandated to consider, report on and propose guidance on environmental tax issues and opportunities for developing countries in particular. The subcommittee plans to prepare a Handbook on Carbon Taxation for publication in 2021. The subcommittee will also address how carbon tax mechanisms can interact with other environmental policy instruments, with other tax instruments and with other influences on the price of energy.

4.2 Other environmental taxation efforts

There are a variety of well-developed practices on taxing harmful pollutants beyond carbon emissions. Pollution charges can be placed on emission of air pollutants, discharges of wastewater into water bodies or generation and disposal of waste, although pollution is

Table 1
Carbon taxation schemes around the world, 2018

Country	Year implemented	Price (US dollars/ton CO_2)	Coverage (percentage of emissions)
Chile	2017	5.00	39%
Colombia	2017	4.92	24%
Denmark	1992	26.45/22.91	40%
Estonia	2000	2.28	3%
Finland	1990	70.64	36%
France	2014	50.81	35%
Iceland	2010	28.87	29%
Ireland	2010	22.79	49%
Japan	2012	2.56	68%
Latvia	2004	5.13	15%
Liechtenstein	2008	95.71	26%
Mexico	2014	2.73/0.34	46%
Norway	1991	59.87/3.47	62%
Poland	1990	0.08	4%
Portugal	2015	7.80	29%
Slovenia	1996	19.71	24%
Spain	2014	22.79	3%
Sweden	1991	126.84	40%
Switzerland	2008	95.71	33%
United Kingdom	2013	23.25	23%
Ukraine	2011	0.01	71%

Source: World Bank Carbon Pricing Dashboard.
Note: Coverage rate is for total greenhouse gas emissions. Cover rates for fossil fuel CO_2 emissions would be significantly higher.

often controlled through regulation rather than taxes. Waste handling charges are widespread and can be differentiated based on the severity of the environmental impact of the waste. Like carbon taxes, effective pollution charges should be set sufficiently high to discourage the pollution, be adjusted frequently as needed to make up for inflation, and be differentiated according to the type and characteristics of pollutants. Pollution charges are often ineffective at changing behaviour because they are set too low, enforcement is insufficiently funded and fines or other sanctions are not costly enough.

There are also indirect environmental taxes—those levied on specific products or inputs—such as gasoline, vehicles or plastic bags and bottles. Taxes on motor vehicle registration, congestion charging on roadways, or parking fees can contribute to a reduction in driving and help drivers internalize the economic, social and environmental costs of their activities, while also being a desirable alternative for subnational revenue mobilization. Taxes on single-use plastics have also become a prominent fiscal policy tool designed to reduce the use of plastic bags and other items, although the revenue effects are relatively small. While there is no systemic data gathered on the prevalence of this type of instrument, it is reported that almost 50 countries have national, regional or local charges in place for plastic bags, while over 50 have total bans on these products. The regime of environmental taxation and subsidies should be coherent within itself and with national sustainable development strategies.

4.3 Inequality, energy pricing and environmental taxation

Environmental taxes applied to consumption goods, such as heating and cooking fuels, could represent a higher proportion of a poor household's income than a rich household's income, depending on the design and national circumstances. There is popular perception that the regressive effects make environmental taxes undesirable despite their environmental benefits. This concern is most prominent in relation to energy and fossil fuel pricing, as many countries use fossil fuel subsidies to try to reduce the price of necessities. Indeed, in the last few years many national efforts at fossil fuel subsidy reform and environmental taxation have been derailed by popular protest against the perceived inequities of the policies, while other countries have successfully implemented reforms.

Despite the perception of regressivity, if properly structured, the effect of reforms on the poor can be offset by using the revenue for redistributive expenditure, similar to other taxes. A large portion of the value of some subsidies may be captured by the rich. For example they may have greater access to vehicles, often with low fuel efficiency. Country experiences show that the likelihood of success in subsidy reform almost triples with strong political support and proactive public communications.[25] Clear communication about beneficiaries is important because political acceptability may be tied to the use of the revenue.

Despite much analytical work and many practical guidelines,[26] including by Task Force members, some countries proceed without coherent plans that encompass: (a) timetables for slowly phasing in reforms; (b) administration mechanisms; (c) mitigation measures for the poor or vulnerable; and (d) strategies for consultation and communication. Implementation of mitigation measures before subsidies are fully phased out or taxes fully phased in—such as larger cash transfer programmes—can demonstrate the political commitment to using revenue to reduce inequality. Such approaches can be summed up in the concept of just transition, a principle that is embedded in the Paris Agreement. Examples of successful just transitions from both developed and developing countries can serve as useful references for countries planning reforms.[27]

4.4 Disaster risk reduction

Economic losses due to disasters, including those related to climate change, increasingly undermine both sustainable development progress and the financing available for SDG-related investment. Most studies find that disasters also reduce future economic growth.[28] However, most countries do not have systems for disaster risk reduction and management in their public financial management systems.[29] Political leadership, and

greater engagement by ministries of finance, economy, planning and environment are needed to enhance the integration of disaster risk reduction into medium-term integrated national financing frameworks (see chapter II) and into annual fiscal plans.

The expected loss due to disasters,[30] measured as a share of capital investment, is concentrated in low- and middle-income countries, in particular SIDS.[31] In general, national fiscal strategies related to disasters focus on ex ante financing for post-disaster response, recovery and reconstruction. Disaster risk financing, including well-designed national and regional insurance schemes and contingency funds, can create incentives for disaster risk reduction, earlier response and "building back better".[32]

The cost of disaster risk financing is likely to grow due to climate change. National and local strategies to reduce disaster risk should include a clear financing component. Financing strategies can use a risk-layered approach, planning differently for frequent, small-scale disasters (e.g., seasonal localized flooding and landslides), for which investment in risk reduction may be cost-efficient, than for less frequent large-scale disasters, for which risk reduction may need to be accompanied by risk financing.[33] Risk reduction strategies should also be gender responsive, drawing upon comprehensive gender analysis and recognizing women's contributions.

Governments can conduct a "risk-sensitive budget review"[34] using disaster loss data and probabilistic risk assessments to find gaps between risk levels and budget allocations. Establishing disaster risk reduction labelling in budgets or dedicated budget lines can then help Governments quantify their investments and estimate the resulting costs and benefits. Budget markers can also capture "embedded" investment by distinguishing between stand-alone versus integrated disaster risk reduction investment. Ultimately, creating risk-sensitive budgets provides an opportunity for policymakers to actively consider the importance of investing in prevention through disaster risk reduction and will bring about improved efficiency and accountability.

5. International tax cooperation

The increase in cross-border economic activity over the last several decades underscores the need for international tax cooperation. There are a variety of issues that need international attention. For many years, international tax cooperation focussed on the conclusion of bilateral tax treaties, which had the principle aim of avoiding double taxation. More recently, international tax cooperation has looked at setting tax norms to reduce double non-taxation and international corporate tax avoidance and increasing the exchange of information between tax authorities to help limit tax evasion. The international conversation has also moved towards the allocation of the tax base more broadly, especially in the context of the digitalization of the economy.

5.1 Tax incentives and competition for investment

The Addis Agenda recognizes that tax incentives can be an appropriate policy tool. For example, as discussed in chapter III.B, policymakers may want to incentivize investment in SDG-related sectors that are aligned with their national sustainable development strategies.[35] But the Addis Agenda also notes that States should be careful of excessive incentives as there are trade-offs between the benefits and costs in terms of reduced tax base. Competition to attract private investment can lead to a race to the bottom in corporate income tax rates. Such tax competition can be particularly salient in developing countries, which often rely more on corporate taxation (figure 8). Replacing lost tax revenues with other forms of taxation may worsen inequality and, given the declining labour share of income (see chapter I), it may become increasingly challenging in some countries to raise tax-revenue-to-GDP ratios.

National tax policies can have international spillovers through multiple channels. First, there can be tax policy spillovers, with other countries changing their tax rates. IMF staff estimated that in one recent case, a national corporate tax policy reform was likely to lead to other countries lowering their tax rates in by up to 4 percentage points.[36]

Second there can be impacts on real investment. There are questions as to the effectiveness of attracting investment by granting tax incentives, modifying broader tax structures or lowering tax rates, as compared to other factors. There is evidence that economic growth and market size are the most important factors in the location decisions of MNEs for long-term investment, with tax rates just one of a number of other factors.[37] However, another recent IMF study found that the adoption of effective anti-tax-avoidance measures in countries hosting investment, can lead to lower levels of real investment in the country and higher investment elsewhere due to spillovers.[38]

This emphasizes that Governments wishing to attract investment through incentives–or to mobilize revenues through adoption of anti-tax-avoidance measures–can do so more effectively if they coordinate, at least regionally, to implement rules as a group of countries so that negative spillovers can be reduced. One of the proposals for tax reform in response to the digitalization of the economy could serve to reduce tax competition pressures by instituting a minimum tax scheme (see below).

5.2 International corporate tax avoidance

The Addis Agenda calls for taxes to be paid "where economic activity occurs and value is created".[39] A major challenge to revenue mobilization in both developed and developing economies is the ability of MNEs to avoid taxes through base erosion and profit shifting (BEPS), using highly sophisticated techniques to artificially move profits to different jurisdictions without any changes in the underlying real economic activity.

Once an MNE has established a presence in a jurisdiction, the business profits from that presence can be taxed. The amount of profits declared in a jurisdiction needs to take into account, where applicable, transfers between separate entities within an MNE. Implicit prices, called transfer prices, are used to value those transfers. Transfer prices for tax purposes are based on the arm's length principle, which states that the price used for transactions between two related entities (e.g., a company's headquarters and its local subsidiary) should be the same as if the two parties were unrelated. This arm's length principle is designed to assist taxpayers in meeting their obligations, help tax administrations value transactions, and accord countries a fair share of the tax base. Despite concerted efforts by tax jurisdictions, there remains a mismatch between economic activity and value creation, with significant MNE profit declared in no- or low-tax jurisdictions in which there is minimal physical presence. Companies engaging in BEPS sometimes use transfer prices that do not reflect the true value of the underlying transaction—that is, transfer mispricing. Digitalization has contributed to the growth of hard-to-price intangible goods and services, such as trademarked brands or copyrighted software, making monitoring of transfer pricing more difficult. The complexity of these issues, and the rules designed to address them, can make it difficult for countries to effectively apply and enforce tax norms on MNEs, a problem that is particularly acute for low-capacity tax administrations.

This Task Force has previously reported on efforts to estimate revenues lost to international corporate profit shifting. Two new estimates published in 2018 present evidence that the sensitivity of profit declarations with respect to tax rates is greater in developing economies than in developed countries, indicating that BEPS is a relatively more important problem in developing countries. This challenge is compounded by developing countries' higher reliance on corporate tax revenue (see above).

A recent International Monetary Fund (IMF) paper that attempted to quantify the effects of tax rates on profit shifting, found that one country reducing the corporate income tax rate by one percentage point (keeping rates elsewhere constant) raises reported profits there by 1.5 per cent, with negative spillovers for the other economies which see less profit reported.[40] Recent IMF work considered two spillover channels—changes in real activity and artificial shifts in profit declarations—in an assessment of the US tax reform, and found that they can both be large.[41] Other research shows that BEPS leads to broader challenges in interpreting international economic statistics. Income from investment abroad—much of it in the form of intangible investment in intellectual property rights of various kinds, which is owned by entities in low-tax or no-tax jurisdictions—can create "phantom trade flows".[42] With trade and investment locations reported for tax arbitrage purposes, they increasingly do not align with real economic activity.

To reduce the scope for profit-shifting, the international community has undertaken a range of initiatives, such as the OECD-G20 BEPS project and the OECD-housed Inclusive Framework for BEPS implementation. Participation in these and other related initiatives is summarized in table 3. As an example, more robust rules for transfer pricing of valuable intangibles were agreed as part of the BEPS project. While important, these initiatives cannot close all profit-shifting channels. They also do not address tax competition over real investment and may even, by reducing the available channels for BEPS, intensify incentives for direct competition over tax rates.

Country-by-country (CbC) reporting of MNEs, one of the actions that came out of the OECD/G20 BEPS project, gives tax administrations the ability to understand where businesses have activities and generate revenues. Currently, the scope of CbC reporting is limited to MNEs with annual group revenue of more than €750 million. For fiscal years beginning in 2016, which is the first full year of CbC reporting, 7,000 CbC reports were filed by ultimate parent entities or surrogate parent entities. The first exchange of CbC reporting took place in June 2018. Exchange of CbC information on MNEs requires countries to have direct bilateral arrangements or activation of a bilateral match through a multilateral agreement. As of January 2019, more than 2,000 relationships for the exchange of CbC reports have been activated. Of these, 745 involve middle-income countries, up from 477 in 2017, although to date no LDCs have matches. The CbC reporting system is due for review in 2020.

5.3 Progress on tax transparency

Exchange of tax information among countries allows tax authorities to learn about taxpayers' offshore assets,

Table 2
Selected international corporate tax avoidance estimates

Volume estimate	Underlying data used to estimate profit shifting	Estimate provider
Tax loss estimate of 0.07% of world gross product in 2015 (approx. $50 billion) from profit shifting	Meta-analysis of estimates of impact of tax rates on profit declaration	IMF Working Paper (Beer, de Mooij, Sorbe, & Liu) 2018
Tax base change estimate of $600 billion of corporate profit shifting in 2015	Differential profitability of corporate subsidiaries	NBER Working Paper (Tørsløv, Wier, and Zucman) 2018

Source: Inter-agency Task Force on Financing for Development.
Note: Volume estimates are not comparable.

tackle tax evasion and better enforce tax rules. Even countries with well-earned reputations for tax compliance have concerns, with research estimating that one quarter of the 0.01 per cent richest households in Scandinavia evade taxes.[43] The main initiative in this area has been the Global Forum on Tax Transparency and Exchange of Information for Tax Purposes, which conducts peer reviewed assessments of member countries for compliance with international standards for transparency and information exchange. Table 3 summarizes the number of countries that participate in some of the key multilateral legal instruments as well as different forums for cooperation and standards implementation. The two most high-profile areas of work are exchange of tax information and the availability and exchange of beneficial ownership information.

Exchange of tax information, such as financial account information held in one country regarding assets of other countries' residents, is now handled automatically for some jurisdictions. This practice represents an augmentation of the information-on-request standard. By the end of 2018, 86 jurisdictions were exchanging information automatically, covering over 4,500 bilateral exchange relationships, leaving 14 jurisdictions delaying implementation despite commitments to exchange. Further work is needed in making use of this information to reduce tax evasion.

To further discourage hiding of income and wealth in offshore accounts, countries are implementing stronger rules on the availability and exchange of beneficial ownership[44] information. Through published peer reviews, the Global Forum tracks the progress of its 154 members in collecting beneficial ownership information for relevant legal entities, including companies, partnerships, trusts and private foundations. There are different ways to organize this information, but a growing number of countries have centralized databases. Some of these databases are public, although even countries with public registers have territories and protectorates that do not yet participate in these publication schemes. There remain no mechanisms for the automatic sharing or the publication of this information, although regional schemes are being proposed in Europe.

5.4 Digitalization of the economy and taxation

The growth of digitalization and its impact on business models is making it more difficult to determine the location of economic activity and value creation, especially when intangible assets are an important part of value creation. Traditional tax treaties require foreign enterprises to have a physical presence in a jurisdiction in order for that jurisdiction to have a right to tax the business profits of the enterprise. Yet, some digitalized business models do not require a physical presence in countries to take and use data from users to earn profits. This renders many jurisdictions unable to tax some companies that are actively and profitably participating in their domestic markets.

As discussed in the 2018 report of this Task Force, the issue of how best to tax profits from cross-border digital transactions is being widely debated. Multiple international forums – including the United Nations Committee of Experts on International Cooperation in Tax Matters, the OECD-housed Task Force on the Digital Economy and Inclusive Framework on BEPS, and the European Union – are discussing how to revise relevant international rules, but there are different views on how to best adapt international tax rules to the digitalization challenge.

Table 3
Participation in international tax cooperation instruments, 2019

(Number of countries)

Instrument/Institution	Total membership/ signatories	Middle-income countries	Least developed countries	Small island developing States
MCAA Common Reporting Standard—on financial account information	103 (98)	30 (27)	1 (0)	22 (17)
MCAA exchange of country-by-country reports—related to MNE activity	74 (68)	17 (18)	2 (2)	5 (4)
Mutual Assistance Convention— for exchange of tax information on request	126 (117)	48 (42)	6 (3)	25 (18)
Automatic Exchange of Information Standard—for exchange of tax information between countries	108 (102)	33 (29)	1 (1)	25 (24)
Global Forum on Transparency and Exchange of Information for Tax Purposes—OECD-housed body for review of implementation of tax transparency standards	154 (149)	66 (63)	17 (17)	32 (31)
Multilateral Instrument (MLI)—to implement tax-treaty related measures for reducing BEPS	85 (79)	27 (27)	2 (2)	7 (7)
Inclusive Framework on BEPS—OECD-housed body for the implementation of the 2015 BEPS package	125 (112)	47 (42)	10 (10)	24 (15)

Source: OECD.
Note: Figures as of 31 December 2018, previous year figures in parenthesis. Two countries graduated from middle-income status between 2017 and 2018, so were included in last years' figures for middle-income countries but not in the end-2018 figures.

Box 3

Platform for Collaboration on Tax

The Platform for Collaboration on Tax is a joint effort, launched in April 2016, by the United Nations, World Bank Group, International Monetary Fund, and the Organization for Economic Cooperation and Development to intensify cooperation on tax issues. It formalizes regular discussions on the design and implementation of international tax standards, strengthens coordination of capacity-building support to developing countries, and prepares joint guidance. The Platform has three workstreams: coordination, analytical and outreach activities. Coordination will include consolidating data from the four partner organizations on domestic resource mobilization in an online platform.

In 2018, the Platform published a revised draft toolkit on the Taxation of Offshore Indirect Transfers for a second round of public consultations, with the final version to be published shortly. Future analytical toolkits will be on transfer-pricing documentation, base erosion and profit shifting (BEPS) risk assessment, tax treaty negotiation, base-eroding payments and other issues. The Platform will also provide guidance on the tax treatment of goods and services funded by official development assistance.

The Platform will hold biennial global conferences on technical issues that will help advance the global dialogue on tax and, where possible, align with the processes for reviewing the 2030 Agenda on Sustainable Development and the Financing for Development outcomes.

Source: UN/DESA.

Several proposals have been made to address this and are now under discussion.[45] One proposal is to allow the taxation of MNE profits derived from the use of "marketing intangibles" (non-physical and non-financial assets that have promotional value, such as trademarks) in a country, even if the MNE has no physical presence in that country. This would allow the country to tax all businesses' "non-routine income"[46] related to these intangibles, while all other income would be allocated based on existing principles. No precise definition of "marketing tangibles" has yet been agreed globally, so a clearer definition of this term, or specific bright-line tests and exclusion lists, is needed to ensure a consistent outcome.

Another proposal is to allow the taxation of MNE profits derived from "user participation" for certain digital business models, even if the MNE has no physical presence in that country. This would focus on value generated by user participation, such as providing personal data, particularly affecting social media platforms, search engines and online marketplaces. The non-routine profits of the MNE would be allocated to jurisdictions in which it has engaged users based on an agreed allocation metric, such as revenues. The formula that seeks to approximate the value of users would need to be established. As with the marketing intangibles proposal, other income would continue to be allocated based on existing principles. The definition of what constitutes an engaged user would need to be agreed.

A third proposal is to redefine the test for whether a business is established so that it does not rely only on physical presence, but could also rely on a "significant economic presence". A country would be able to tax the profits of an MNE if the MNE had a purposeful and sustained interaction with the economy of a country, which could be assessed based on revenue, user base, data generation, digital content creation, or other factors. Several countries have already adopted or proposed this type of test. The term "significant economic presence" would, as with other terms in this area, need to be defined clearly to allow for uniform legal interpretation.

A fourth proposal, dubbed "global anti-base-erosion" (GLOBE), falls under a general category of minimum taxation rules rather than addressing the question of how to determine which businesses can be taxed. This proposal would allow countries to tax income of an MNE branch or controlled entity that is subject to a low effective rate of taxation and tax base-eroding payments of an MNE that are not subject to a minimum rate of tax. GLOBE would operate similarly to some existing alternative minimum taxes. The minimum tax proposals would help combat tax competition and seek to limit tax-motivated corporate decisions on investment locations and legal structures. GLOBE effectively allocates more income to shareholders and so favours capital exporting countries. This proposal could be adopted alongside any of the other proposed reforms, as it addresses the broader questions in BEPS and is not limited to addressing digitalization of business. The potential impact on smaller jurisdictions, especially those with low tax rates, needs consideration. Recent work by the IMF notes that such minimum taxes set in major economies can have positive spillovers for low-capacity countries by setting an effective floor under global tax competition.

Each of these proposals has advantages and challenges for implementation. All have implications for fundamental aspects of the current international tax architecture, especially for either the physical presence test or the arm's length principle, which is used in transfer pricing to help allocate profits within an MNE. It is not yet clear to many countries what the proposals would mean for their tax bases. It is essential that any proposed international tax reforms undergo a thorough analysis of the implications for developing countries, with a special focus on their unique needs and capacities, as well as distributional implications and impact on sustainable development more broadly.

There are several dimensions of analysis that are important for an assessment of these and any other proposals. First, it is important to examine the enforceability of the proposals, given the administrative capacities of countries. Some aspects of the above proposals could add significant further complexity to a system that is already challenging to apply. Highly complex rules will disadvantage smaller and poorer countries with less capacity, but simple rules that are not well designed could shield tax avoidance. Some developing countries also lack the appropriate legal frameworks to confront the tax challenges from digitalized economic activity. Those countries that are most in need of increased revenue for implementing the SDGs may be those least able to realize it, exacerbating international inequality in ability to raise revenue.

Second, there is a need to analyse how different proposals would impact existing tax policies. For example, the ability to tax the fees for technical services provided by MNEs in a country has recently been added in the United Nations Model Double Taxation Convention (though it has not been added to the OECD Model Tax Convention on Income and Capital), and there is a growing developing country practice of this type of taxation. New rules emanating from the discussion on digitalized economy taxation may affect the ability to tax these transactions, differentially impacting countries based on whether they tax fees for technical services. The possible interactions between the new proposals and existing implementations of VAT, which can be difficult to collect from customers of digitalized goods and services when the provider has no physical presence, will need to be considered.

Third, the distributional impact of the proposals should be considered. Reforms may not be zero sum because they can increase aggregate global tax revenue from corporate income, but they could impact the tax base of LDCs and other developing countries. Data gaps unfortunately continue to prevent full understanding of the implications of tax norm changes for developing countries, partly because of the secrecy of CbC reports of MNEs, and partly due to the long-standing problem of the limited details available on MNE operations in poor countries. As noted in the previous reports of this Task Force, greater publication or sharing of data will enable better understanding of the potential implications of the reforms on the poorest countries. Some countries have already made aggregate CbC data available, and the OECD plans to publish some aggregate CbC information later in 2019.

Transparency of rules and the decision-making process through which new rules would be adopted will improve policymaking by allowing an open discussion of the pros and cons of each proposal. The United Nations Committee of Experts on International Cooperation in Tax Matters' subcommittee on this issue has agreed that it will pursue an approach which is independent of similar work being pursued in other forums, but is informed by such work. The Committee will likely agree any necessary changes to the United Nations Model Double Taxation Convention before autumn of 2021. The steering committee of the Inclusive Framework, with the support of the Task Force on the Digital Economy, will submit an interim report for all members of the Inclusive Framework by June 2019 before it is sent to G20 finance ministers, while aiming for a final consensus in 2020. Ultimately any agreed outcome would have to be incorporated in domestic legislation and tax treaties.

5.5 Capacity building

Regional and international organizations conduct training and capacity building for revenue authorities in developing countries. The Addis Tax Initiative, launched in July 2015, commits donor countries to doubling the resources they provide for capacity-building on tax. However, official development assistance dedicated to domestic revenue mobilization, from OECD Development Assistance Committee (DAC) members and reported as disbursed in the OECD creditor reporting system, fell significantly from 2016 ($329 million) to 2017 ($193 million), accounting for 0.18 per cent of ODA. The partners in the Platform for Collaboration on Tax (box 3) are coordinating their provision of technical assistance.

6. Illicit financial flows

Cross-border tax evasion is one of the three main components of IFFs, alongside corruption and the transfer of the proceeds of crime.[47] IFFs reduce the availability of resources for financing sustainable development and impact the economic, social and political stability and development of societies, especially in developing countries. The scope and complexity of IFFs and the continued need for the recovery and return of stolen assets necessitates international cooperation.

Each component of IFFs has relevant policy responses, which are discussed elsewhere in the report and in other forums. The tax transparency reforms being introduced, discussed above, will be relevant for tracking and stopping IFFs. In particular, strengthened beneficial ownership registries and mechanisms to share that information will be critical to penetrating the trusts, shell corporations and other financial vehicles used to hide IFFs and their resulting assets.

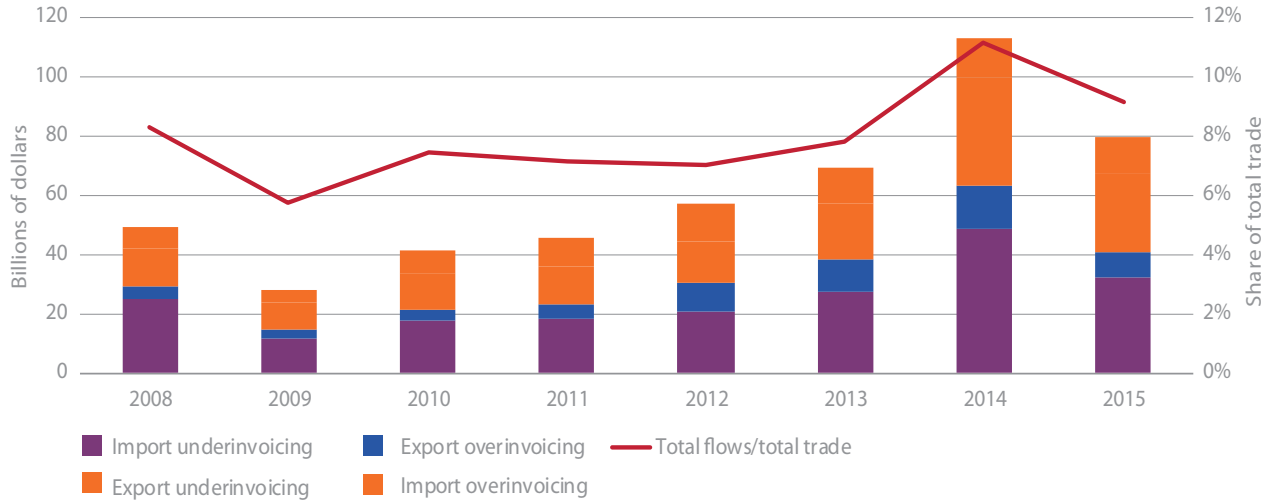
6.1 Volume estimates

There remains no universally agreed definition of what constitutes IFFs, although there are some parameters for identifying them. There are generally three components of IFFs, although these are not mutually exclusive or comprehensive: IFFs originating from transnational criminal activity; corruption-related IFFs; and tax-related IFFs. As the different components of IFFs are not comparable, aggregation across channels and components could result in double counting, and the Task Force has noted that separate analysis of channels or components is more effective.

The United Nations Conference on Trade and Development (UNCTAD) and the United Nations Office on Drugs and Crime (UNODC), as custodians of the SDG indicator related to IFFs (16.4.1), continue joint work on developing a methodology for the statistical measurement of IFFs. A June 2018 expert meeting in Geneva provided input to this process.[48] The meeting concluded that the methodologies will need to build on research findings and pilot studies and that capacity building will be needed. Pilot testing is planned to be done by national statistical offices, with UNODC working with five countries in Latin America, and UNCTAD and the United Nations Economic Commission for Africa (UNECA) working with nine countries in Africa. The inaugural technical meeting for Latin America was held in Mexico City in November 2018. An UNCTAD-UNODC Task Force on the statistical measurement of IFFs started activities in January 2019, and will work through October 2021 on conceptual and measurement challenges.

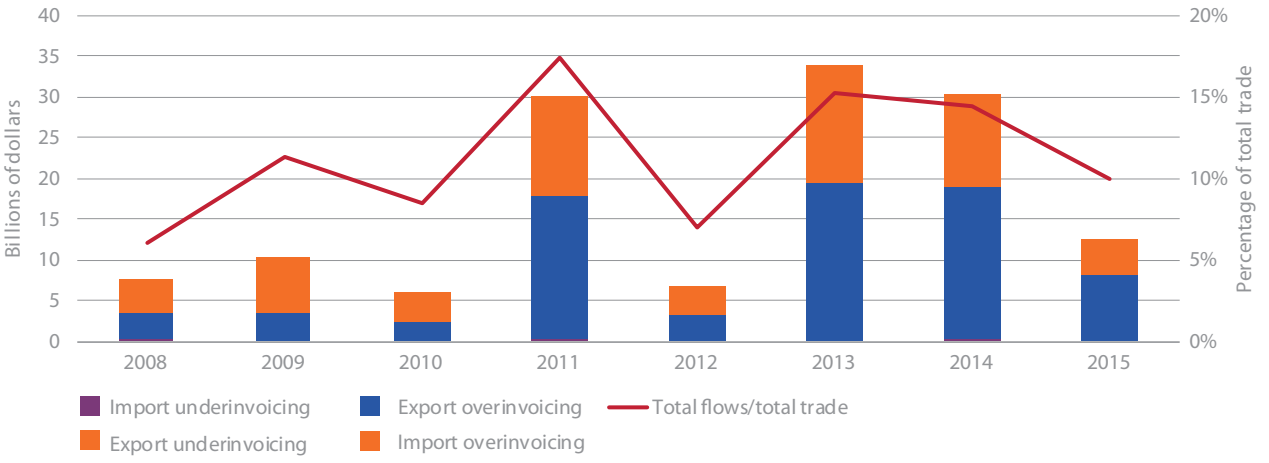
The United Nations regional economic commissions have proceeded with their work on estimating goods trade misinvoicing, which involves the manipulation of

Figure 12
Non-oil trade misinvoicing, Arab region, 2008-2015
(Billions of United States dollars, share of total trade)



Source: ESCWA.
Note: Gross flows for bilateral differences between export and import values at the product level (Harmonized System six-digit codes) covering 22 jurisdictions in the Arab region, in current prices. Differences due to limited data or values of less than $1 million between countries and products were excluded.

Figure 13
Oil trade misinvoicing, Arab region, 2008-2015
(Billions of United States dollars, share of total trade)



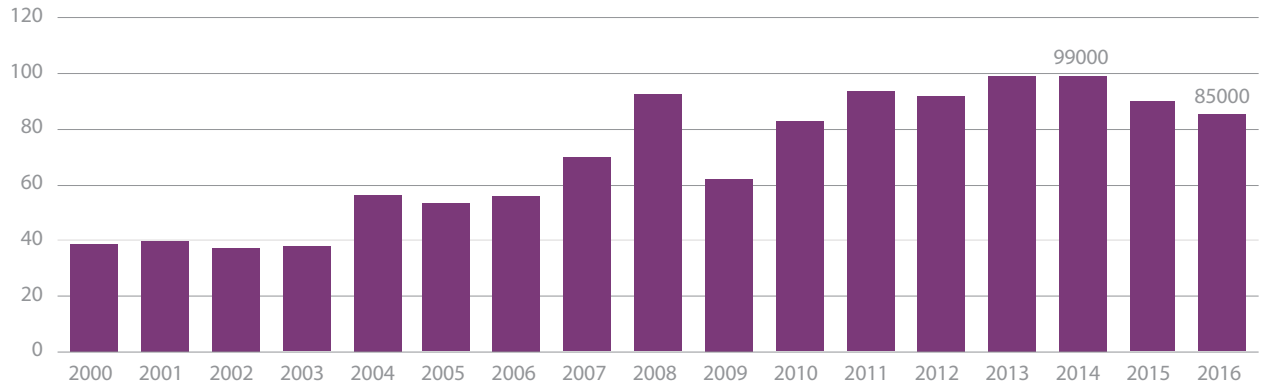
Source: ESCWA.
Note: Gross flows for bilateral differences between export and import values at the product level (Harmonized System six-digit codes) covering 22 jurisdictions in the Arab region, in current prices. Differences due to limited data or values of less than $1 million between countries and products were excluded.

the reporting of international trade transactions (figures 12-15). The three regions with updated data—Africa, the Arab region and Latin America and the Caribbean—report that trade misinvoicing, while still large, has declined. Mismatched trade figures in non-renewable natural resource exports were large factors in these estimates. As noted previously, caution must be exercised when interpreting these estimates as mismatches between import and export figures may be due to factors other than illicit transactions, such as statistical errors. The estimates also cannot capture all types of misinvoicing, such as invoicing fraud, and the value of misinvoicing is not equal to the revenue impact. However, the patterns can be indicative of areas and sectors where Governments may want to focus enforcement attention.

6.2 Advancing AML/CFT and anti-bribery work

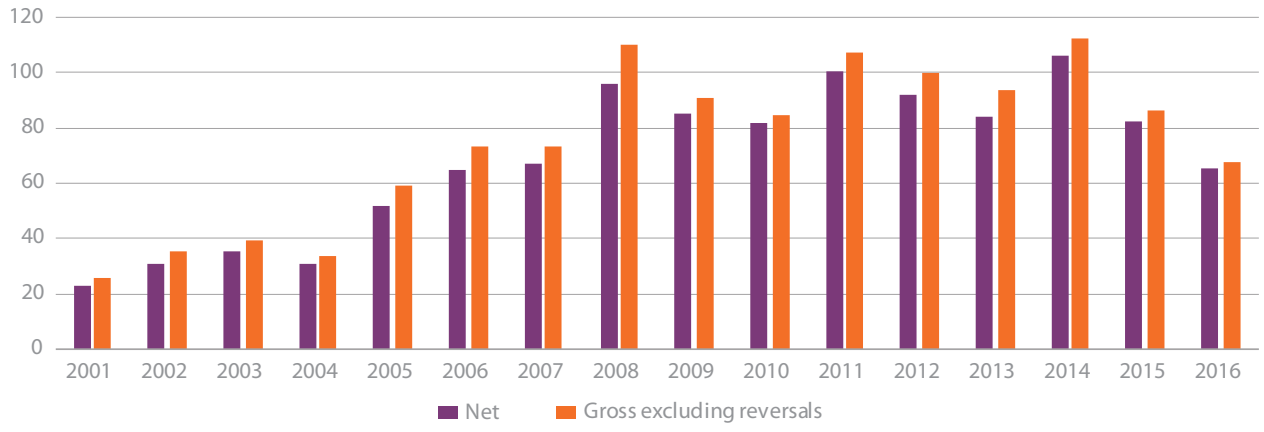
Work on anti-money laundering and combating the financing of terrorism (AML/CFT) and tackling their predicate offences continues to be addressed by many international organizations, including the Financial Action Task Force, UNODC, the IMF, and the World Bank. Implementing effective, risk-based AML/CFT frameworks is a challenge for all Member States, although the poorest countries have the least capacity to apply the available tools. Bank and non-bank financial sectors in low-income and conflict-affected countries have special needs, with the focus of AML/CFT work remaining on cash disruptions and the supervision and regulation of money transfer services.

Figure 14
Gross outflows due to goods trade misinvoicing, Latin America and the Caribbean, 2000-2016
(Billions of dollars)



Source: ECLAC.
Note: Aggregated gross outflows for the bilateral differences between export and import values at product level (Harmonized System six-digit codes) for 33 ECLAC Member States. Results are inversely weighted for differences in volume of goods to correct for inadvertent misreporting.

Figure 15
Outflows due to goods trade misinvoicing, African countries, 2000-2016
(Billions of United States dollars)



Source: ECA.
Note: 'Gross excluding reversals' aggregation is a procedure for obtaining a lower-bound estimate of gross outflows through trade mis-invoicing, which aggregates all outflows for individual observations and does not offset inflows. Net outflows for bilateral differences between export and import values at sector level (Harmonized System two-digit codes) for 36 jurisdictions within ECA Member States, in 2017 prices. The methodology has been updated since 2018 to strip out discrepancies in trade statistics that can result from transit times and asymmetric reporting of re-exports.

Money laundering, terrorist financing and corruption can impact the stability of the international monetary system, so the IMF has fully integrated these issues into its surveillance, lending, Financial Sector Assessment Programs (FSAPs), capacity development, and other relevant policy discussions.[49] The cost of implementing AML/CFT rules has also been one of the factors associated with the decline in the number of correspondent banking relationships (see chapter III.F). In April 2018, the IMF's Board approved for staff to take an enhanced approach to addressing governance and corruption related issues among its member countries, in line with the IMF's policy paper on this issue.[50]

The United Nations Convention Against Corruption (UNCAC) remains an integral tool for enhancing cooperation on combatting corruption and bribery. Under UNCAC, States Parties to the Convention conduct implementation peer reviews, to ensure that countries have the necessary legal and institutional frameworks. In 2016 and 2017, peer reviews of 77 countries are expected to be completed. States parties to the UNCAC should continue to proactively cooperate on extradition, mutual legal assistance, law enforcement and other related matters, using the Convention as a legal basis for action.

6.3 Asset recovery and return

Efforts to recover stolen assets are part of the overall effort to combat IFFs. The term "stolen assets" is used to describe the proceeds of corruption that have been transferred abroad. Their recovery and return is provided for in the UNCAC and is included in the Addis Agenda and the 2030 Agenda for Sustainable Development. Return of stolen assets is different from and cannot substitute for any other types of financial flows.

The joint World Bank/UNODC Stolen Asset Recovery (StAR) Initiative works with developing countries to facilitate more systematic and timely return of stolen assets. The StAR Asset Recovery Watch database now contains information on over 250 past and current asset recovery cases involving corruption. Since the last Task Force report, there has been extensive country and regional level work in this area. Globally, the UNCAC Open-ended Intergovernmental Working Group on Asset Recovery agreed in June 2018 that more study should be made of the practice of freezing assets before convictions are secured. They also supported the further study of and discussions on guidelines on the timely sharing of information between countries on the proceeds of crime in order to facilitate recovery of assets, with the aim of encouraging more spontaneous sharing of information among asset recovery practitioners.[51]

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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

The private sector represents the largest part of the economy in most countries. It is thus promising that a growing number of investors have expressed interest in taking social and environmental issues into account in their investment decisions. Yet, the impact of this growing interest in sustainable development is unclear, in part because of confusion regarding what sustainable investment means and a lack of consensus on how to measure its impact. ***Through its analytical work, the Inter-agency Task Force on Financing for Development could help create greater global consensus on the definition of sustainable investment and the measurement of investment impacts, building on both public and private efforts.***

Policymakers should capitalize on the growing interest in sustainable investing. Capital markets are a powerful vehicle for promoting alignment with sustainable development, provided the right incentives are in place for all market participants. The Addis Ababa Action Agenda underscores the role of capital markets and calls on Governments to design policies that "promote incentives along the investment chain that are aligned with long-term performance and sustainability indicators, and that reduce excess volatility".[1]

Many countries are making strides towards building sustainable financial systems; lessons learned can be shared through international platforms to find synergies and strengthen policy frameworks. ***Governments can help create incentives to foster greater sustainable investing, including by pricing externalities, requiring more meaningful disclosure by corporations on social and environmental issues, and clarifying fiduciary duty and asset-owner preferences (e.g., through incorporating sustainability preferences into required investor profiles). They can also promote long-term investing by supporting efforts to build longer-term indices or encouraging longer-term investment horizons in credit ratings, as well as through regulatory frameworks.***

The Addis Agenda also recognizes that public policy is needed to create an enabling environment that encourages entrepreneurship and a vibrant domestic business sector. Investments in sustainable and resilient infrastructure can further facilitate private sector development by providing essential services for the functioning of the economy. ***Governments should continue to strengthen the enabling environment, including by considering appropriate financing sources, assessing bottlenecks to investment, and prioritizing policy actions*** (see chapter II). For example, in infrastructure, this would help identify where private or public delivery and financing of sustainable infrastructure is the most cost-effective solution, and what type of infrastructure is most likely to deliver desired impacts.

The achievement of the Sustainable Development Goals (SDGs) is also dependent on investments in least developed countries (LDCs) and other vulnerable countries where capital markets are less developed and investment profiles riskier. ***Deliberate policy efforts are required to promote and facilitate investments that are linked to sustainable development. This also highlights the importance of international support to spur investment, for instance through carefully structured risk-sharing instruments, or through a greater role for development banks*** (see also chapter III.C).

The question of access to finance is central to private sector development. While access to financial services has improved in recent years, significant gaps remain across countries and for specific market segments. ***Financial sector strategies are instrumental to addressing financing***

gaps and tackling market failures in an integrated manner. As a first step, Governments can aim to build inclusive financial systems, for instance by supporting diversified types of financial institutions, depending on national contexts, and making greater use of financial technologies (fintech). They can also seek to further develop capital markets by first ensuring that the right conditions are in place. In addition, they can consider complementary solutions such as private equity markets, which deserve further research to better understand the associated benefits and risks.

Financial development has, however, its own limits and should not be pursued blindly. Over-financialization can harm growth and contribute to rising inequality. *Policy frameworks can help incentivize finance for productive investments, and effective regulatory environments can help minimize risks of financial volatility and maximize the benefits of financial sector development.*

Policies that promote private sector development also need to take into account impacts on income distribution. Over the last three decades, the share of wages in total income has declined versus the share of capital. Market concentration in certain sectors raises concerns for its role in worsening income distribution and *calls for competition policies that reflect the changing global environment and the growing role of technology, both at the national and the international levels, and for better monitoring market concentration trends.*

2. Advance sustainable capital markets

Mainstream investors, such as pension funds and insurance companies, are often looked to for investment in the SDGs due to the amount of their assets under management. These investors generally seek to maximize profits. Investment aligned with sustainable development is thus attractive to them to the extent that such investment enhances financial performance. At the same time, although it is difficult to quantify, there appears to be growing interest by individuals, especially among millennials, in how their savings impact the world. There are also investors (impact investors) who aim to maximize environmental and social impacts alongside financial returns, though while growing, these investors remain a small fraction of global capital markets.

Together, this has created interest in sustainable investing. Signatories to the Principles for Responsible Investing (PRI)—now over 2,100—represent $81 trillion of assets under management in 2018. The finance industry is also creating instruments to tap sustainability investing, as seen in the development of sustainability indices and the exponential growth of the green bond market (although this also remains a small portion of the bond market, at less than one per cent).

Nonetheless, the impact of such interest on investment behaviour and ultimately on sustainable development is unclear, in part because of confusion regarding what sustainable investment means and a lack of consensus on how to measure impact, as well as lingering questions of whether there is a trade-off between financial returns and sustainability impacts.

2.1 Unpacking the relationship between ESG and financial performance

There is a growing recognition in the finance community that the way corporates manage environmental, social and governance (ESG) factors—such as carbon emissions, standards on labour, and internal procedures to fight corruption—impacts financial returns.

Numerous studies have tried to assess the material impact of these factors on long-term financial performance of investments. While the lack of a harmonized definition of ESG factors or sustainability indicators makes comparing studies difficult, the majority of studies find a positive relation between ESG factors and profitability,[2] or that at worst, these factors have not had a negative impact on returns. Both aggregate levels and changes in ESG ratings are linked to future performance.[3] This implies that investors do not necessarily have to choose between profits and positive impact. They can use sustainability information to better manage long-term risks, and potentially enhance returns. Studies have also assessed bond performance in relation to ESG practices and found positive correlations, implying that ESG factors should be part of the overall credit risk analysis.[4]

There is a compelling case as to why companies with "sustainable" business practices may outperform those without. First, sustainable companies might be incorporating a wider range of risks into their business strategy, thus strengthening risk management, including by reducing exposures to natural hazards or anticipating regulatory changes. The latter is salient in the climate space, where it appears that potential policy measures to limit carbon emissions are being priced into some markets. Other factors could include operational performance (e.g., more efficient resource management and capacity to attract talent)[5] and market opportunities (e.g., a 2015 survey indicated that more than half of the respondents are willing to pay more for sustainable goods).[6]

However, the impact of ESG factors on financial performance depends on the time horizon of investors. Many of the studies referred above examine returns over a period (e.g., ten years) that is greater than the investment horizon of some investors, as well as that of most credit rating agencies. Most ESG elements do not have an immediate visible impact. For example, climate change and water scarcity related-risks may require several years to materialize. Likewise, poor labour practices could remain unnoticed for several years before leading to local unrest and negative brand reputation. Further incorporating these risks into investment decision-making requires a shift to a long-term investment horizon.

Empirical studies have also shown that the material impact of ESG or sustainability factors on long-term performance may depend on sector and industry specificities. While certain factors may affect all industries (e.g., processes to avoid conflicts of interest in corporate boards), the material impact of others varies across industries. For example, greenhouse gas emissions, if priced, are more likely to impact returns of airlines than fast food companies. Firms with good materiality ratings, based on the Sustainability Accounting Standards Board (SASB) materiality map, have significantly outperformed firms with poor ratings.[7]

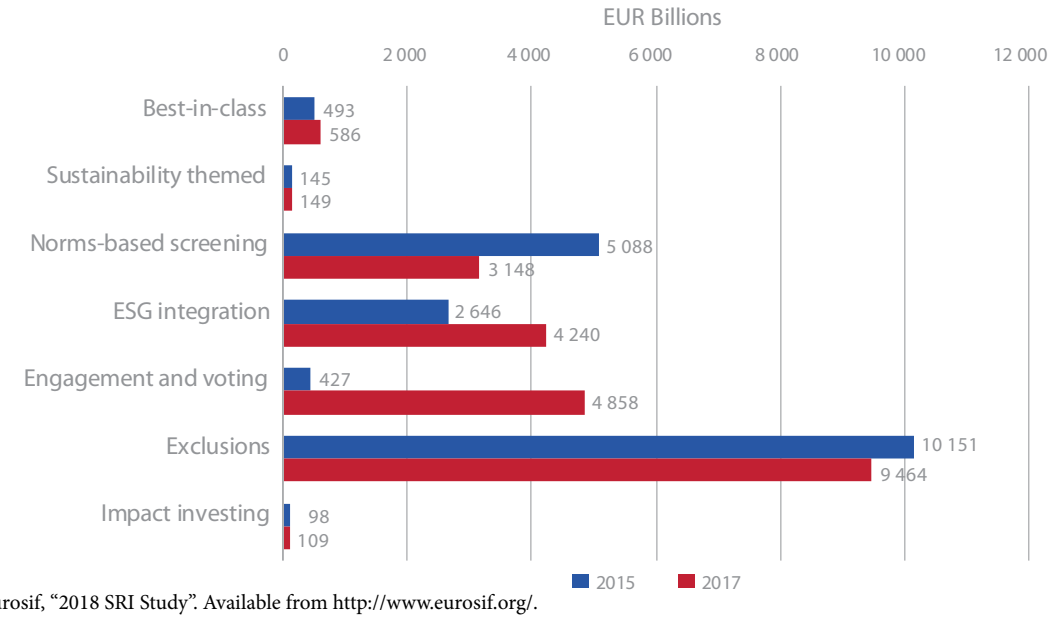
In addition, different ESG strategies have distinct characteristics that affect their risk/return profiles and development impact. It is therefore important to clarify what sustainable investment means.

2.2 Clarifying what sustainable investment means

There are a wide range of investment strategies used by portfolio managers, with different impacts and levels of sustainability, under the heading of "sustainable investments". While there is some overlap, these strategies can be broadly divided into three categories: (i) do no harm; (ii) use sustainability factors to maximize long-term value, with positive externalities; and (iii) do good as an explicit investment objective. Individual investment strategies include the following:

- ***Exclusion/negative screening*** excludes activities or industries with clearly defined negative impacts from an investment portfolio, such as tobacco, arms, or coal;
- ***Norms-based screening*** excludes companies that don't meet minimum standards of business practice based on international norms, such as the United Nations Guiding Principles for Business and Human Rights and the Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises;
- ***Positive screening/"best-in-class" selection*** involves selecting best performing companies across industries in terms of sustainability performance, for example by selecting companies ranked among the top 20 per cent in each industry;
- ***ESG integration*** entails incorporating ESG material factors into the core investment analysis and decision-making processes to lower risk and/or enhance returns. For example, investors may adjust company valuation models to include expected ESG risks, such as risks of stranded assets;[8]
- ***Engagement*** involves active ownerships through dialogue and/or voting rights to influence corporate behaviour on sustainability issues. For example, the 2018 voting guideline of Blackrock asks companies to review their reporting beyond regulatory disclosure requirements on environmental and social factors that influence companies' prospects over long horizons;[9]
- ***Sustainability themed investment*** aims to support the SDGs through buying instruments, such as green bonds or exchange-traded funds (ETFs), constructed around specific SDGs (e.g., water and gender).[10] One example is the ETF launched by the United Nations Capital Development Fund and Impact Shares in 2018

Figure 1
Overview of sustainable, responsible and impact investing (SRI) strategies in Europe
(Billions of Euros)



Source: Eurosif, "2018 SRI Study". Available from http://www.eurosif.org/.
Note: Strategies are not all mutually exclusive as investors could do both ESG integration and corporate engagement for instance.

that targets companies performing well on selected sustainability indicators while overweighting companies with a higher share of revenues generated in LDCs;

- ***Impact investing*** aims to achieve measurable social and environmental targets that are generally considered on equal weighting with financial returns.[11]

While sustainable investments historically started with exclusions, the latest data shows that ESG integration and engagement are gaining strong traction in some countries, while norm-based and exclusionary screening are on a declining trend, although the latter remains a dominant strategy in terms of assets (figure 1). The growing popularity of ESG integration is confirmed by a recent survey where 84 per cent of asset owners reported they were pursuing or actively considering pursuing ESG integration in their investment process.[12] The other strategies (i.e., best-in-class, sustainability-themed, and impact investing) are more limited in size although they are the ones with possibly the strongest impact on sustainable development. For example, impact investing remains relatively small, although the amount has been growing. Respondents to the annual survey of the Global Impact Investing Network (GIIN) manage $228 billion in impact investing assets, or 0.2 per cent of the assets under management by PRI signatories.[13]

These different investment strategies have distinct characteristics that influence their financial performance. For example, in general, ***ESG integration*** and ***best-in-class*** strategies appear to have lowered risks, as measured by volatility, and generated excess returns[14] in both developed and emerging markets.[15] One explanation could be that investors have been able to exploit information that is not yet fully incorporated into market prices. The outperformance could suggest that the market is beginning to price in some sustainability risks. On the other hand, some studies have found that ***negative screening*** has underperformed, with evidence that excluding stocks reduces financial performance.[16] For example, excluding so-called sin stocks may hurt performance because these are steady earners that pay dividends and hold up well during economic downturns. This supports traditional portfolio theory, which suggests that reducing the investment universe should lead to underperformance.[17]

The investment strategies also have distinct development impacts. For example, exclusions only affect companies in targeted sectors, while the realization of SDGs requires introducing changes in all industries. ESG integration is likely to help investors better pick stocks and reduce portfolio risks, but there are questions as to its impact on achieving sustainable development, for example: Does ESG integration create sufficient incentives for investee companies to change their business practices? How much weight is given in ESG integration to ESG elements compared to other factors? Likewise, can we quantify the influence that engagement has on companies? The high proportion of investors claiming to do ESG integration and engagement might imply that there is a relatively limited impact, given that corporate behavior still has not changed significantly. In terms of sustainability themed investments, questions include whether managers are simply tagging existing activities or creating new streams of funds for financing sustainable development needs.

Bundling these strategies together under "sustainable investment" can be misleading and creates the impression that capital markets are solving development issues on their own. For example, a recent report claimed that "sustainable, responsible and impact investing represents 1 in 4 dollars of the total US assets under professional management in 2018."[18] However, this raises the question of why trillions of dollars invested this way have not had a greater impact on corporate behaviour. A globally agreed definition of sustainable investments should help bring more clarity as well as a better understanding of investment impacts.

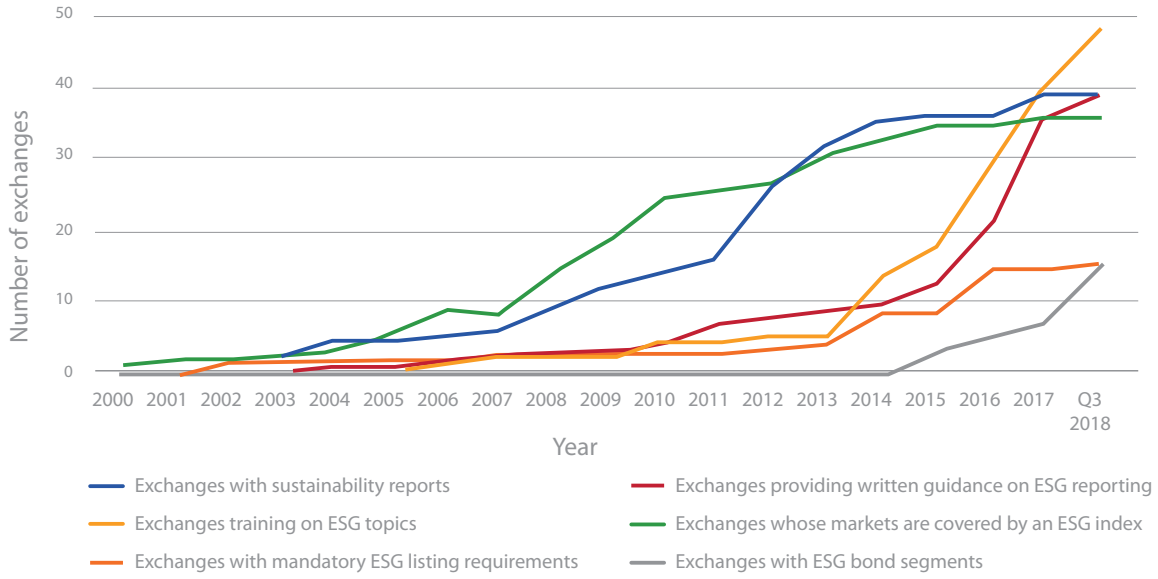
2.3 Making sustainability reporting more meaningful

Corporations have progressively incorporated sustainability elements into their reporting. According to a survey of about 5000 companies from 49 countries, 75 per cent now publish corporate responsibility reports and 60 per cent include some sustainability information in their financial filings.[19] Such wide adoption reflects a range of policy measures and regulations across countries.[20] Stock exchanges encourage ESG disclosure through a variety of incentives (figure 2), as promoted by the Sustainable Stock Exchanges Initiative, in which 75 exchanges have become official partners.

However, there is a lack of consistency in reporting metrics, reflecting the lack of internationally recognized standards in sustainability reporting. This is in part because, unlike financial reporting, which uses a common unit (i.e., money), many factors included in sustainability reporting (e.g., tons of recycled waste, use of natural resources, gender balance) are difficult to express in monetary terms. Sustainability reporting is largely voluntary. Companies can choose from a variety of different frameworks, which results in different information being disclosed. These inconsistencies create challenges (and costs) for investors and other stakeholders in interpreting and comparing data. A 2016 study found that 92 per cent of investors surveyed reported that ESG data disclosed by companies in which they invest is not comparable.[21]

Several agencies have developed guidelines to bring more coherence to corporate reporting, including the United Nations Conference on Trade and Development (UNCTAD) Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR),[22] the Global Reporting Initiative (GRI), and SASB. Private companies also analyse sustainability data and provide ratings and rankings of firms based on their sustainability performance. However, each sustainability rating company has its own proprietary methodology and data sources, and their

Figure 2
Stock exchange-related sustainability activities
(Number of exchanges)



Source: Sustainable Stock Exchanges (SSE) Initiative Database.

results do not necessarily converge, adding to the confusion. For example, Tesla is ranked at the top of the automobile industry by MSCI, due to low carbon emissions and green technologies, while FTSE ranks them as zero on the environment because of weak disclosure on emissions from its factories.[23]

Box 1

Women's Empowerment Principles

The Women's Empowerment Principles (WEPs), launched in 2010 by UN-Women and the United Nations Global Compact, guide businesses in promoting gender equality and empower women in the workplace, marketplace and community. The WEPs provide a gender lens through which businesses can analyse their current initiatives and tailor or establish policies and practices to realize gender equality and women's empowerment. Today, over 2,000 chief executive officers have committed to implementing the WEPs—twice the number in 2015. Women's Empowerment Principle 7 on corporate transparency and public reporting offers investors a tool to assess companies based on their performance against gender equality and women's empowerment criteria.

Source: UN Women.

Policymakers should consider whether there is a need to revise accounting and reporting rules to include key sustainability metrics per industry in mainstream corporate reporting. There are two elements to such reporting. The first is incorporation of those sustainability factors that have material impacts on financial performance. Information on these factors is critical to informing investors' risk and return analysis. The second is to also incorporate non-material sustainability factors to inform the public about the impact of companies on global goals. Defining key metrics internationally would bring benefits in terms of coherence and comparability.

2.4 Building consensus around impact measurement

To understand the impact of investment on sustainable development there needs to be more of a consensus around principles and norms to measure impact, not just at the corporate level, but also at the security and portfolio levels. There are a host of nascent initiatives within and outside the United Nations system to measure impacts of companies, securities, and investment portfolios:

- ***For companies***: several methodologies are being developed to assess to what extent individual corporates contribute to the SDGs, as discussed in the previous section.
- ***For securities***: several private firms have begun to offer services on branding investments as SDG compliant, but the methodologies are often not fully transparent and there is a risk that financial products are presented as sustainable when in reality they are not. Industry-led norms are also emerging to attest of the sustainability of investment products but often lack impact measurement elements.
- ***For investment portfolios***: some asset managers have begun to link their portfolios to the SDGs. For exam-

ple, APG and PGGM in the Netherlands have target figures for what they call Sustainable Development Investments. However, to date, these are firm-specific mappings, without agreed-on principles or guidelines.

Task-Force members have been active on this front. The International Finance Corporation (IFC) has recently worked on principles to create an impact management system for institutions managing investment portfolios for impact.[24] The United Nations Development Programme's SDG Impact initiative aims to develop standards for impact measurement across all asset classes together with a seal to authenticate adherence to the standards. The Positive Impact Initiative of the United Nations Environment Programme Finance Initiative (UNEP FI) explores solutions to the financing gap for sustainable development. The PRI Market Map gives a common definition of 10 thematic sustainability investments, with basic criteria to check compliance. The OECD is also working to establish a common lexicon and framework for measuring the impact of investments targeting sustainable development.

Private actors, sometimes in collaboration with public organizations, also work on impact measurement. For example, several sustainability rating companies provide SDG alignment scores for companies; the Impact Management Project aims to coordinate efforts on impact measurement; and the World Benchmarking Alliance intends to measure corporate SDG performance.

Regulations are also emerging. For example, in 2018 the European Commission presented legislative proposals that aim to establish a unified EU classification system of sustainable economic activities ("taxonomy"), requiring disclosures by institutional investors relating to ESG factors in their decision-making and advisory processes, and the creation of low carbon and positive carbon impact benchmarks.[25]

There is a need to take stock of these public and private initiatives and analyze their underlying assumptions, identify similarities and differences across methodologies, and lay out potential gaps.

2.5 Clarifying fiduciary duty and asset owner preferences

The growing evidence regarding the materiality of environmental and social factors on financial performance should encourage countries to make clear in their regulations that institutional investors need to take them into consideration as part of their fiduciary duties.[26] A 2016 study found that 23 of the 50 largest economies have, or are developing, some kind of rules regarding pension funds and ESG criteria (e.g., requiring funds to disclose their ESG policy), while 14 countries have, or are developing, guidelines on investor stewardship—for example to encourage asset owners to make formal commitments to active ownership in the pursuit of long-term, sustainable growth.[27] In this respect, a consultation was launched in 2019 in the United Kingdom of Great Britain and Northern Ireland on a draft Stewardship Code that makes explicit reference to ESG factors.[28]

It would also be important to ask what asset owners really want for their money. In a 2017 Morgan Stanley survey, 75 per cent of individual investors indicated an interest in sustainable investing, compared to 71 per cent in 2015 (with interest particularly strong among millennials and women, 86 and 84 per cent, respectively).[29] It would be interesting to know whether these investors are willing to give up return for sustainability impact. However, looking at the bond market, it does not seem that investors are yet willing to pay a premium for a more sustainable use of proceeds. To date, green bonds do not appear to be priced differently than conventional bonds issued by the same company. Pricing reflects issuer credit risk, which is the same for both sets of bonds (even though the proceeds are used for more sustainable activities in the case of green bonds).

Formal requirements to ask asset owners about their sustainability preferences (as part of know-your-customer rules) would foster more sustainable investment and raise interest in related financial products. Some countries are starting to implement this idea and others could follow. For example, the European Union sought feedback in 2018 on regulatory changes that call for including sustainability considerations in the advice offered to individual clients of investment firms and insurance distributors. Additional technical work may be needed to clarify how to practically ask these questions to customers (e.g., what, how and when to ask). The United Nations, through the Task Force, might help in sharing lessons learned from ongoing experiments at the global level.

2.6 Supporting sustainability relevance through policy measures

There are, however, sustainability issues/externalities that do not have a material impact on corporate profitability but do impact the public good, for instance the intensive use of plastic packaging. The market is unlikely to address these sustainability issues on its own without appropriate policies in place. Policymakers can encourage the use of sustainability factors and explore ways to make all ESG factors material through

- *Pricing externalities*: Most companies remain profit maximizers, and are not going to internalize costs if they are not the ones suffering from negative impacts. "Naming and shaming" and reputational risks can be used to put pressure on companies to change their actions, as can active voting by large investors. Nonetheless, even large investors who include board engagement as part of their sustainability process, generally do so in support of long-term valuations, not usually in support of the public good. Policies can thus complement voluntary actions. Pricing externalities—for example, through carbon pricing—can help address market failures. To date, Governments have implemented or are scheduled to implement 51 carbon-pricing initiatives, covering about 20 per cent of global greenhouse gas emissions. Most of these initiatives saw increases in carbon prices in 2018,[30] notably the European Union Allowance price that tripled.[31]

Yet, carbon prices remain significantly below international recommendations;

- ***Long-term horizon***: Regulators can encourage asset managers to take a long-term approach. This is necessary as certain sustainability factors only impact financial performance in the long-run. While shifting capital markets to a long-term horizon is challenging, certain steps can be taken, including calling for long-term horizons for asset owners with long-term liabilities, such as pension funds; demanding the disclosure of longer-term climate-related risks; developing long-term indices; and exploring whether credit rating agencies could publish ratings based on a longer period. This also calls for moving away from compensation packages in the finance industry that are disproportionally tied to short-term performance;
- ***Regulation***: Companies are likely to modify their practices (for instance, using resilient construction, reducing waste production and improving energy efficiency) if they are convinced that Governments will introduce and enforce regulation to realize their national sustainability objectives. By the same token, markets are likely to reward companies anticipating these regulatory changes;
- ***Procurement***: Governments and municipalities can challenge the private sector for proposals to deliver cost-efficient solutions to sustainable issues.[32] Pay-for-success approaches also have the potential to promote measurable development results, as do social impact incentives, which directly reward high-impact enterprises with premium payments for achieving social results. Ex-post evaluation of public initiatives is essential for Governments to assess what works and what doesn't.

If the positive impact of sustainable investment products can be demonstrated, then Governments should also consider how they could support these products, possibly through financial incentives such as tax breaks and subsidies to cover certification costs as well as via prudential regulation.

3. Build domestic enabling environment

To support private business's contribution to economic development and employment, public policy needs to set the enabling environment to encourage entrepreneurship and investment. Many developing countries have embarked on numerous reforms to make it easier for companies to do business. In 2017/18, 128 economies undertook 314 reforms—a record number.[33]

While not all reforms have the same impact (due, for instance, to inefficient design, poor implementation, or the quality of implementing institutions),[34] they do improve the business environment overall. For example, since 2005, LDCs have cut the time and cost of starting a business by factors of 2 and 4, respectively, with the absolute gap between developed and developing countries shrinking slowly but consistently over the years.[35] There is also empirical evidence that countries with better business regulations experience higher entrepreneurial activity (measured as new businesses per 1,000 adults).[36] Other elements of the enabling environment are infrastructure, political stability, and the macroeconomic environment. The IFC and the World Bank have jointly produced Country Private Sector Diagnostics to more systematically identify binding constraints to investments, as well as opportunities to create or expand markets, which can be helpful in prioritizing policy reforms (see chapter II). An enabling environment should support both domestic and foreign investment.

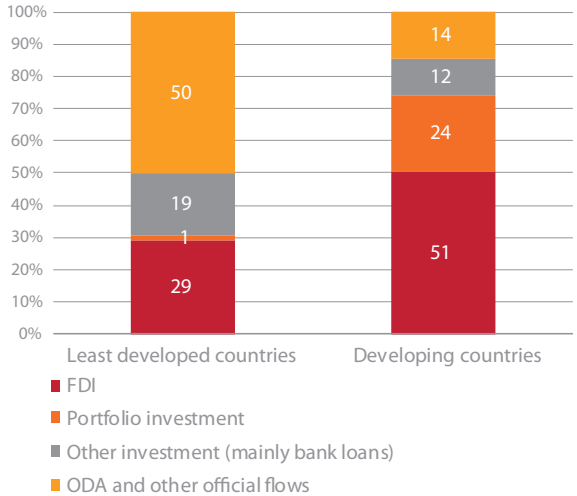
4. Facilitate direct investment in support of the SDGs

Stable long-term investment is necessary to support the long-term needs of sustainable development, such as investments in productive activity as well as resilient and sustainable infrastructure.

4.1 Foreign direct investment

Foreign direct investment (FDI) quadrupled over the last two decades, making economies increasingly interconnected. For many developing economies, FDI is the largest source of external finance (figure 3). It is also more stable than other cross-border financial flows, such as portfolio investment and cross-border bank loans. FDI can enhance productive capacity, transfer know-how and generate employment, particularly when it creates linkages with domestic suppliers and help local companies integrate into international value chains.

Figure 3
Selected sources of external finance, developing economies and LDCs, 2013-2017
(Percentage)



Source: Adapted from UNCTAD World Investment Report 2018.

FDI has been on a weak trajectory globally since peaking in 2015 at $1.9 trillion. By 2018, it had fallen to $1.2 trillion (figure 4), back to the low point reached after the global financial crisis. The drop in 2018 was concentrated in developed countries where FDI inflows fell by 40 per cent, mainly due to repatriation of profits held overseas by US companies following the 2017 corporate tax reform.

There are also structural factors behind this negative cycle, including a decline in rates of return on FDI[37] and the transformation introduced by the digital economy, which enables companies to operate with limited local investments—for example, digital multinational enterprises make about 70 per cent of the sales abroad with only 40 per cent of their assets based outside their home countries.[38] While a rebound is likely in 2019, as suggested by the 29 per cent increase in greenfield project announcements, the underlying trend remains weak. Policy uncertainties, lower growth prospects and trade tensions could cause multinational enterprises to cancel or delay investment decisions.

Flows to developing economies have been more resilient than to developed countries over the past several years, increasing slightly in 2018 to $694 billion, or 58 per cent of global FDI. Yet, flows within this subgroup remain uneven. Asia received about 66 per cent of the inflows, with Latin America and the Caribbean receiving 25 per cent in 2010–2017. Africa, LDCs, landlocked developing countries and small island developing States received small or negligible levels of FDI (LDCs as a group represented less than 2 per cent of global FDI flows in 2017).[39] Within each sub-region, there was also unevenness, with resource-rich, large market or more developed economies attracting higher FDI than others.

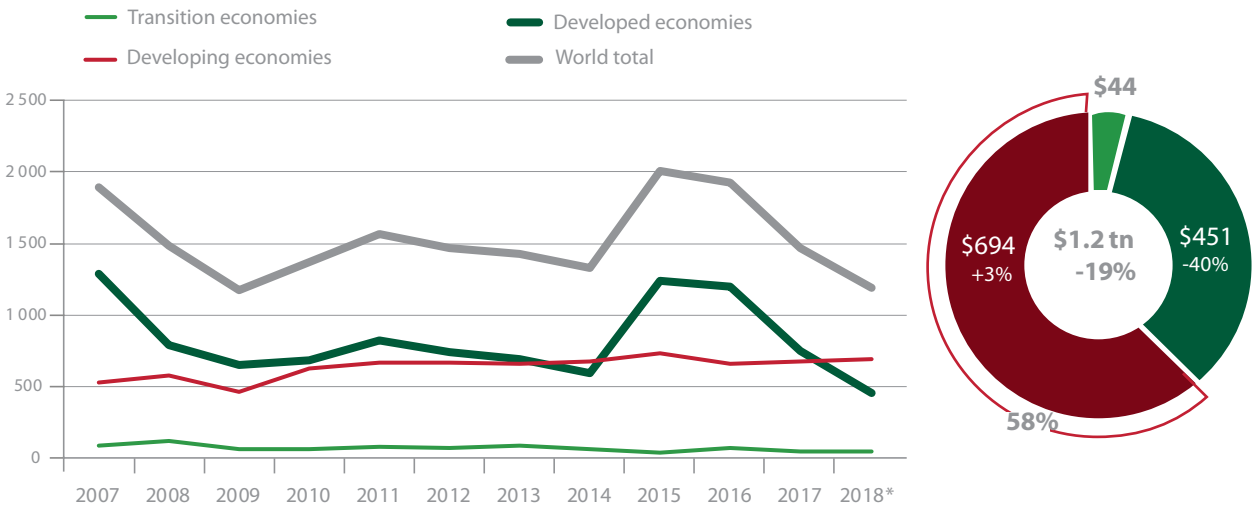
Countries have been actively promoting FDI, including through national laws, and bilateral and regional investment treaties. Most of the national measures in the last 15 years have been towards supporting liberalization and promotion of foreign investments—for instance, by opening up industries for investment, relaxing foreign ownership restriction, and granting incentives. Figure 5 highlights that, in 2018 (up to October), about 70 per cent of all investment-related policies were favourable to FDI.[40]

At the same time, there has been an increase in investment restriction measures introduced by countries in more recent years (particularly since 2017), manifested primarily by national security-related policies and review mechanisms, which have included regulations aimed at controlling acquisitions of local businesses. There has also been a decline in investment treaty making, despite some negotiations of megaregional agreements (e.g., the Regional Comprehensive Economic Partnership and African Continental Free Trade Area). This echoes a more protectionist trend observed in trade, but also reflects some policies that aim to better align foreign investments with national sustainable development objectives (see chapter III.D).

Not all investments have the same impact on sustainable development. Historically, FDI has often supported industrial development in labour-intensive sectors (e.g., the garment industry). However, over the last five years investment in greenfield manufacturing projects in developing regions has been lower than in the preceding period, in part due to transformations induced by the digital economy as noted above (see also chapter III.G).

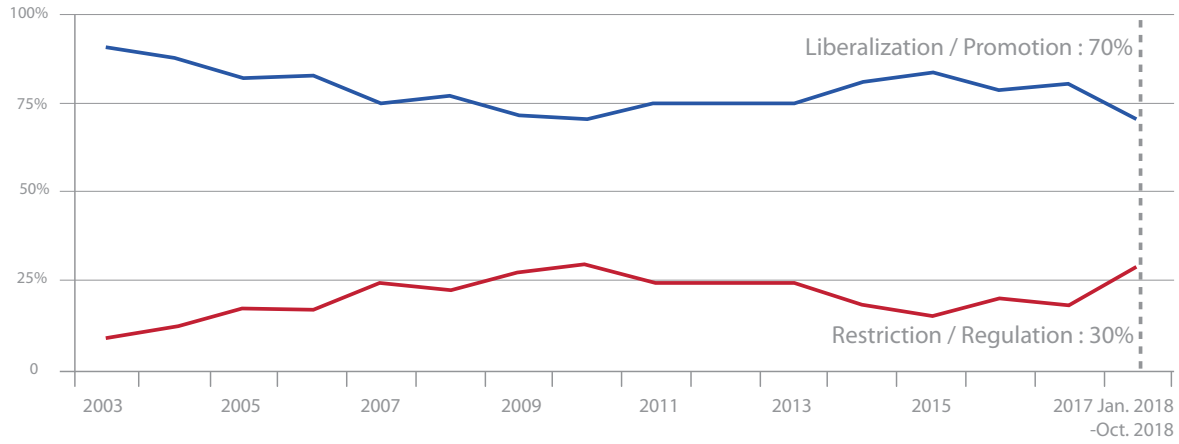
To align FDI with national sustainable development strategies, national investment promotion agencies, established in most countries to facilitate foreign investment, could (i) promote investment in sectors with high sustainable development potential, including through adjusting investment incentives; (ii) work with government partners to build a pipeline of SDG-related projects; and (iii) identify companies likely to be interested in these projects through, for instance, public-private dialogue platforms.[41]

Figure 4
FDI flows, by region, 2010-2018
(Billions of United States dollars)



Source: UNCTAD FDI database.

Figure 5
Changes in national investment policies, 2003 – October 2018
(Percentage of investment policies)



Source: UNCTAD.

4.2 Private investment in infrastructure

Well-functioning sustainable and resilient transport, water, energy and telecommunication services are key to business development, international competitiveness and the realization of the SDGs. Yet, in many countries, weak infrastructure impedes development. A majority of the world's population still lacks safe sanitation, 3 in 10 lack safe drinking water, and almost 1 billion people lack access to electricity.[42] Closing these gaps requires investment of trillions of dollars as well as more effective spending.[43]

In the context of constrained public finances and limited borrowing capacity for developing countries, there has been a growing narrative around the role of private investments in infrastructure. Development partners have launched several initiatives to address hurdles that prevent private investment in infrastructure through public-private partnerships (PPP). For example, the Global Infrastructure Hub and the PPP Knowledge Lab were created to disseminate tools and knowledge resources. Technical assistance facilities, such as the Global Infrastructure Facility, and an online infrastructure project preparation platform (SOURCE) have been set up to support the development of well-prepared investable projects.

The Global Infrastructure Forum, established by the Addis Agenda, has been particularly effective in bringing together multilateral development banks, which are engaging in joint work on infrastructure issues, including data, standard contractual provisions, project preparation and credit enhancement. In addition, collaborative platforms, such as the PPP and Infrastructure Financing Network of Asia and the Pacific launched by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) in 2018,[44] bring together expertise from various countries to leverage individual efforts.

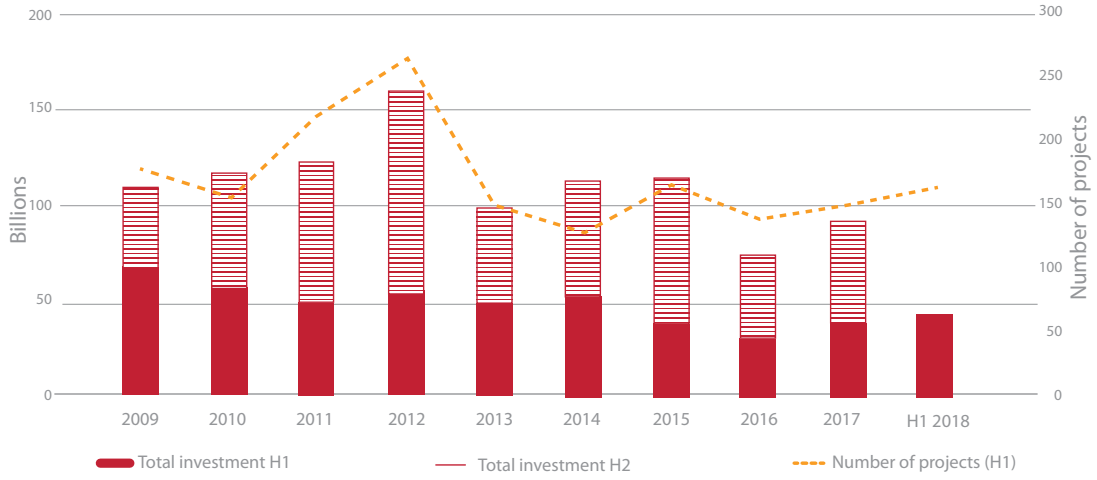
G20 leaders also endorsed a roadmap to infrastructure as an asset class, which includes useful steps for greater project standardization—although care needs to be taken in the next steps, particularly as such asset class would entail creating liquid instruments on illiquid assets, which could attract investors with short-term investment horizons, with the potential of creating short-term bubbles.

Despite these many initiatives, there has been no major uptake in private investment levels. In the first half of 2018, private commitments to developing countries in energy, transport, information and communications technology, and water amounted to $43.5 billion across 164 projects. While this represents a 7 per cent increase compared to the same period of 2017, these figures are well below the peak reached in 2012 and remain low in comparison with estimated infrastructure needs (figure 6).[45]

This relatively flat trend provides a reality check on expectations for private investments. To date, the public sector largely dominates infrastructure spending in low- and middle-income countries, accounting for 87 to 91 per cent of infrastructure investments.[46] To entice private investment, projects need to be sufficiently profitable to compensate investors for the risks they bear. Guarantees and subsidies can make more projects "investable," but policymakers need to consider when privately-delivered infrastructure services are likely to offer better value for people than the public alternative, as well as the appropriate role for the private sector—as an owner or lessee, service provider, or as a creditor through project finance (see the 2018 report of the Task Force).

There is also a need to ensure that private investments in infrastructure projects contribute to sustainable development and incorporate sustainability issues. While there is no agreed definition of sustainable infrastructure, there are certain elements that need to be incorporated, including both low carbon investment and resilience (box 2). In addition, investment in infrastructure should not exclude vulnerable users from basic services. In this respect, the United Nations Economic Commission for Europe has established Guiding

Figure 6
Investment commitments in infrastructure projects with private participation in emerging market and developing economies, 2009–H1 2018
(Billions of United States dollars and number of projects)



Source: World Bank Private Participation in Infrastructure (PPI) project database.

principles on People-first PPPs [47] to set the institutional requirements for a new model of PPPs aligned with the SDGs. The international community has a responsibility to better understand in which circumstances and conditions PPP mechanisms are most effective and only promote them in those cases.

Box 2

Mobilizing private sector financing for disaster risk reduction: a case study from Italy

The General Confederation of Italian Industry (Confindustria), identified disasters, including the impacts of climate change, as significant risks to private sector activities and proposed a National Resilience Plan to facilitate a transition from a focus on disaster response and recovery to a culture of prevention and resilience across the private sector. To implement this plan, Confindustria will engage (i) the Government to secure tax breaks for companies investing in resilient infrastructure; (ii) the insurance sector to create incentive mechanisms for companies investing in prevention; and (iii) the banking system to attribute value to investments in resilience during credit assessment. This approach demonstrates the importance of integrating disaster risk reduction into business models beyond business continuity and, more broadly, confirms the strategic relevance of disaster risk reduction as a business opportunity that reduces uncertainty and generates value. This approach could be tailored and replicated in different contexts.

Source: United Nations Office for Disaster Risk Reduction.

5. Support remittances

An important cross-border flow is remittances from migrant workers. Remittances are wages earned by migrants in their host countries transferred to families in their countries of origin, helping millions of people meet their basic needs and serving as a social safety net for the families who receive them.

In 2017, there were about 164 million migrant workers worldwide, 41 per cent of whom were women.[48] Money transferred by these workers to individuals in their home country grew by about 10 per cent from 2017 to 2018, reaching close to $690 billion worldwide, with $528 billion to developing countries. Remittances can be a large part of a country's economy: they represent more than 10 per cent of gross domestic product (GDP) in more than 30 countries.[49]

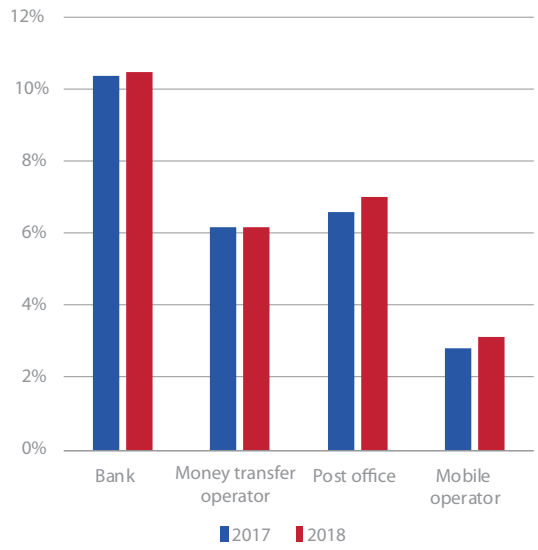
There is no consensus on whether remittances add to a country's long-term GDP growth (and whether this impact would be greater or less than the impact of domestic wages).[50] The impact most likely depends on characteristics unique to each country, including the poverty level of those receiving the remittances and the country's level of development.

There are several channels through which remittances could impact growth. For example, remittances are often spent on consumption, either for basic needs or for other purposes. These should have a multiplier effect on the economy, although to the extent that inflows are spent on imported goods, the impact could be limited. Remittances have a stronger impact when used for investments, generally in small businesses or entrepreneurship. Government policies to incentivize business formation could help stimulate such activity.[51] Promoting financial inclusion, which could increase the intermediation of savings throughout the economy and

increase access to credit, can strengthen the positive impact of remittances on the economy. Remittances are also often spent on education and contribute to building human capital. However, on the negative side, the lack of attractive job opportunities in the domestic market may foster young people to emigrate, thereby creating a vicious cycle.[52] And while remittances have a positive impact on the balance of payments, given the stable foreign exchange earnings they provide, in some countries, especially those where remittances are proportionally large, they have also caused the exchange rate to appreciate. This affects a country's international competitiveness, and can reduce opportunities for domestic production and lead to a cycle of more emigration.[53]

Remittances could have a greater positive impact if the transaction costs were reduced in line with the 3 percent target set by the SDG and Addis Agenda. This would result in savings of about $27 billion a year.[54] While the average cost of remittance transfer has declined by 2.7 percentage points over the last decade, there was no improvement in 2018, with the global average still about 7 per cent. Forty-one per cent of corridors surveyed do not have any services available for 5 per cent or less.[55] Bank and money transfer operator costs are significantly higher than services provided by mobile operators when they are available (figure 7). This highlights the role of fintech to accelerate progress. The latter can also help address the loss of correspondent banking, which impedes remittance flows (see chapter III.F and III.G).

Figure 7
Average cost by remittance service provider type
(Percentage)



Source: World Bank Remittances Prices Worldwide.

6. Design financial sector strategies

The primary role of the financial sector is to intermediate funds from savers to investors, so resources can be allocated where they are needed. By allowing savers to diversify risk, financial systems facilitate productive investment, which can boost growth prospects.

6.1 Trends

Considerable progress has been achieved regarding both financial sector depth (i.e., the size of the financial sector relative to the economy) and breadth (i.e., access of the population to financial services). However, significant gaps remain across countries and specific market segments, such as micro, small and medium-sized enterprises (MSMEs).

6.1.1 Financial sector depth

The relative size of the financial sector in the economy has increased significantly since 2000 across country groups. Financial sector depth more than doubled in LDCs and increased significantly in middle-income countries over the period, although it is still at relatively low levels, particularly in sub-Saharan Africa (figure 8).

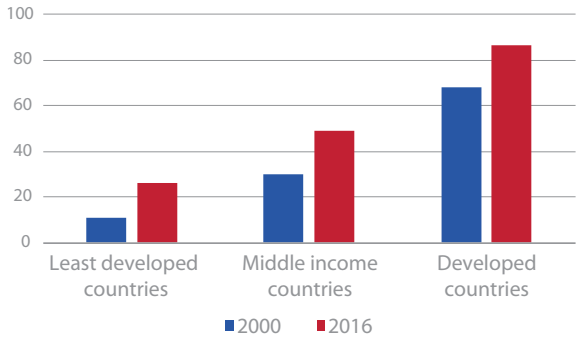
Box 3

Financial literacy, migration and remittances

There are a range of impediments to the use of financial services by migrants, pushing up remittance costs. Migrants may be unfamiliar with financial terms and features of financial products, and may not trust financial institutions. Undocumented migrants often worry that the information requested for access to financial services will be used to identify them and lead to deportation. Such mistrust is often the result of a lack of peer networks for advice on access to financial services. Lack of appropriate complaint channels is another key deterrent for migrants who may simply have no recourse if money is transferred incorrectly. A growing number of financial education initiatives are targeting migrants and their families at home, with the aim of improving their understanding of remittance channels and costs, including exchange rates and fees. These initiatives can also incorporate information on risk of fraud and privacy issues. Yet, to date, only one quarter to one third of adults are financially literate in the top remittance-receiving countries.

Source: UNESCO.

Figure 8
Domestic credit to private sector
(Percentage of GDP)



Source: World Bank, Global Financial Development database.

There has also been progress in capital market development, with local currency debt growing 70 per cent between 2011 and 2017,[56] along with a substantial increase in stock market capitalization, which rose from 33 to 58 per cent of GDP on average for a sample of 25 middle-income countries between 2000 and 2017.[57] However, progress has not been distributed evenly across countries. Beyond a limited number of large developing countries, capital markets remain underdeveloped in terms of size, liquidity and maturity, while more developed markets are often accessible only by a few large and reputable companies (figure 9).

6.1.2 Financial sector breadth

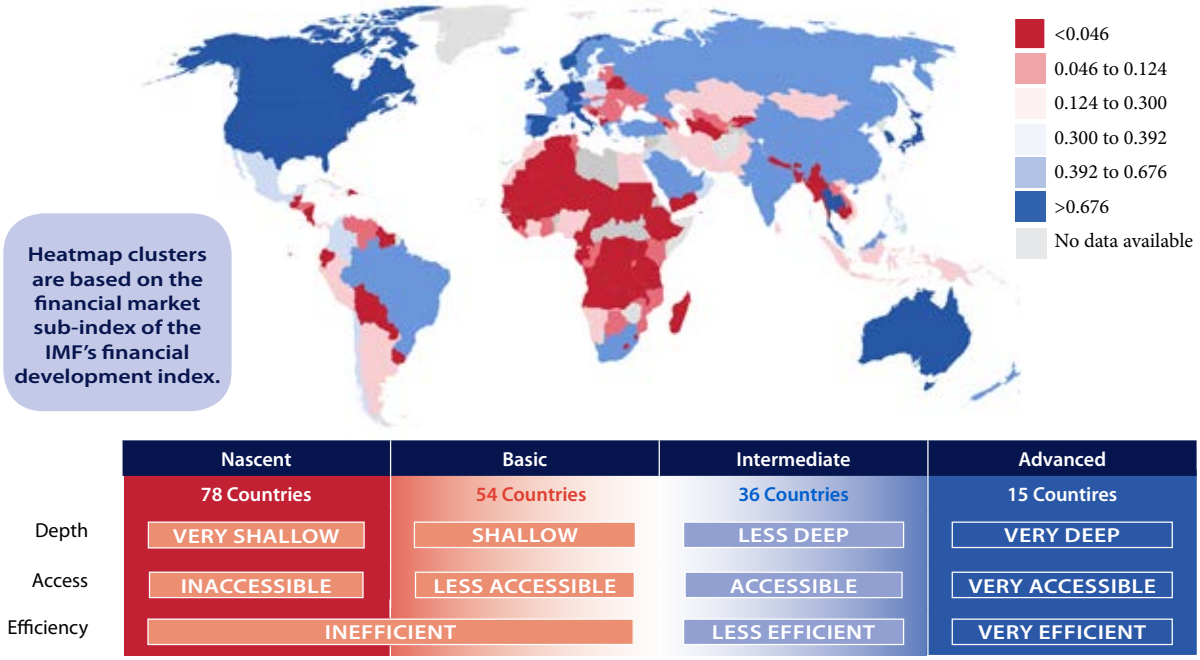
Since 2011, about 1.2 billion adults have obtained a bank account. Yet, there are still about 1.7 billion adults unbanked, 56 per cent of whom are women.[58] In many developing countries, people continue to borrow primarily from friends and family, while only half of savings are held in formal financial institutions (figure 10).

Financial services do not reach all market segments equally. For example, just over 45 per cent of small businesses are able to access credit provided by formal financial institutions in Latin America and the Caribbean compared to 68 per cent of large companies.[59] The MSME financing gap is estimated to be at more than $5.2 trillion[60] and, despite improvements, these enterprises continue to rank their lack of adequate financing as the biggest obstacle to growing their business (figure 11). Female-owned businesses (typically smaller than male-owned) account for an outsized share of the financing gap. They represent 28 per cent of business establishments and account for 32 per cent of the MSME financing gap.[61]

6.2 Financial sector strategies

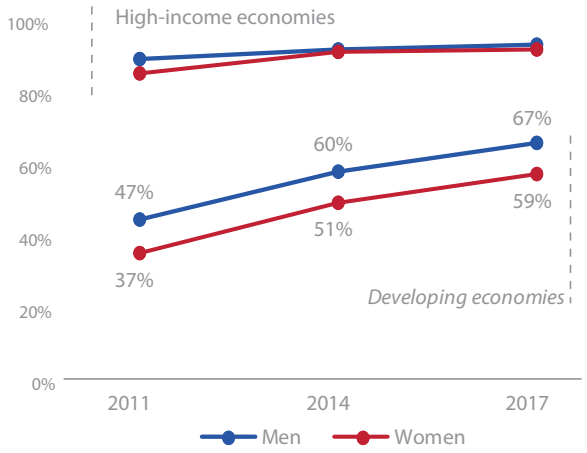
Financial sector strategies provide a mechanism for Governments to reflect on how to further develop the financial sector and come up with implementation plans and policies adapted to the local context. These strategies, which are an integral part of Integrated National Financing Frameworks (see chapter II), bring together all aspects of the financial sector, including both tradi-

Figure 9
World Map of Financial Market Development, 2016
(Financial Markets score)



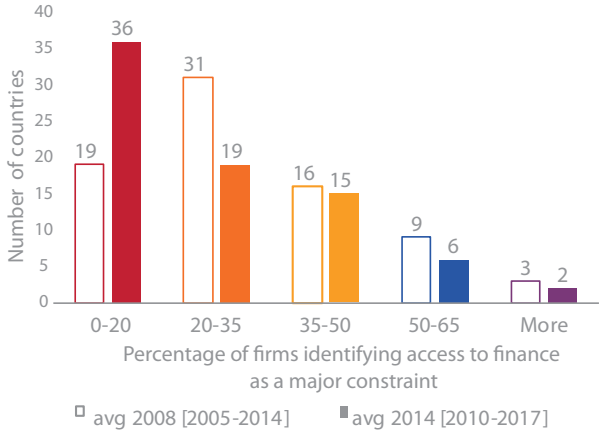
Source: World Bank based on IMF's Financial Development Index database.
Note: The boundaries and names shown and the designations used on the maps do not imply official endorsement or acceptance by the United Nations.

Figure 10
Account Ownership (2011-2107)
(Percentage of adults age 15 and above with an account)



Source: World Bank, Global Findex Database 2017.

Figure 11
Distribution of countries based on access to finance constraints for firms
(Number of countries)



Source: AUN/DESA based on World Bank Enterprise Surveys.
Note: The chart is based on 78 developing countries for which at least two surveys have been conducted. The latest year for which data were available was used for each country (ranging from 2010 to 2017) as well as the preceding one (ranging from 2005 to 2014).

tional financial institutions and new instruments, such as fintech, to enhance the contribution of the financial system to the realization of national sustainable development objectives—for instance, by promoting inclusive finance or by better aligning private sector activities with sustainable objectives as presented in the first part of the chapter.

Financial sector strategies are not new but also not widespread. From 1985 to 2014, roughly three fourths of countries surveyed did not have even one financial sector development strategy, which could be a stand-alone document or a dedicated section in a national development strategy document.[62] There has, however, been greater focus on financial inclusion, with another study finding that at least 58 developing countries have adopted or are in the process of developing financial inclusion strategies.[63] Countries have also developed financing plans targeting sustainability issues. In 2017, China approved the Guidelines for Establishing the Green Financial System; in 2016, Morocco launched a national road map for aligning its financial sector with sustainable development.[64] Policymakers are also increasingly using policy tools to promote impact investment, with an estimated 590 policies across 45 countries.[65]

There is evidence that financial sector strategies can be effective in supporting financial deepening, inclusion and stability. This could result from their influence on developing an effective regulatory framework, as well as from the dialogue they generate among the main institutions involved (including development partners).[66]

Overall, financial sector strategies try to answer a set of questions, such as

- What types of financial institutions are active in the country and do they fulfil their purpose?
- How could capital markets be further developed and better serve the economy?
- How can financial infrastructure be improved in a way that supports sector effectiveness?
- How can the benefits of technology be maximized in the financial sector while mitigating the associated risks?
- How can regulations balance development and stability goals, while protecting consumers?
- What is the best means for building adequate capacity within the sector?
- What tools could be used by policymakers to address market failures and development goals?

6.2.1 Institutions

In the Addis Agenda, countries made the commitment to encourage their commercial banking systems to serve all, and to support a wide range of financial institutions, including microfinance institutions, cooperatives, development banks, mobile operators and saving banks, where appropriate.

Different types of institutions bring different benefits and risks. For example, small firms have a better chance of building trust and a long-term relationship with a local banking partner.[67] Some local institutions—such as savings, cooperatives and development banks—also include a development mandate. Experience has shown it is possible to develop an economically viable decentralized system of financial institutions with a mission to support local development (box 4). However, in some countries, local financial institutions may suffer from a lack of economies of scale or technical capacity.

Box 4

Sparkassen (savings banks) in Germany

The institutional model of the German Sparkassen, while somewhat unique today, offers lessons for building national financial systems in other countries. Their business model, based on savings mobilization, is characterized by social as well as business objectives, with a goal of profitability but not profit maximization. Sparkassen have successfully followed a self-sustaining business model over two centuries in a highly competitive banking sector, and have the largest market share in both deposit and credit markets in Germany. The local government serves as its formal trustee. The Sparkasse conducts its business as an independent economic entity, subject to parameters set by related legislation. Sparkassen are authorized to operate only in their local region, which creates commonalities of interests between the Sparkassen and the local authorities as well as with the communities and economies they serve.

Of course, the operating methods of such large and sophisticated organizations cannot simply be adopted as a blueprint for developing countries, but there are several important constitutive elements of this model that could be suitable for adaptation in financial sector development. In particular, as public banks, the Sparkassen mandate is to serve the economy and people in the local region. Their mandate also includes pursuing economic viability rather than profit maximization. Similar to development banks, this mandate allows Sparkassen to align their business operations more closely with sustainable development. Other lessons learned include the importance both of local communities' knowledge and of dedication to making skilled and professional financial banking services and advice available at the local level to everyone, in particular small and medium-sized enterprises and startups.

Source: Axel Bertuch-Samuels, "The role of effective local banking structures" (2018), paper for the expert group meeting of the Inter-agency Task Force on Financing for Development on Financial Sector Development, October 2018, UN/DESA.

International banks bring capital, expertise and innovative ways to improve financial intermediation. They represented 39 per cent of banks in developing countries in 2013 compared to 19 per cent in 1995.[68] Yet, they have raised concerns as to whether they primarily serve large companies. In addition, they can sometimes create instability by transmitting crisis from abroad. There is evidence that foreign banks experiencing crisis in their home countries scaled back their lending by between 13 and 42 per cent.[69] However, the impacts depend on the bank characteristics, such as whether banks operate in foreign countries through local affiliates or cross-border lending. Indeed, since the 2008 financial crises, cross-border lending (which is more volatile) has declined, while lending by local affiliates has been more resilient. Larger international banks with deposit-taking activities, and those banks that are culturally closer to the community they serve, also seem to provide better access to households and SMEs and be less likely to serve only larger companies, relative to others.[70]

Financial sector strategies should help countries consider what types of financial institutions are more likely to meet their development needs, given the local circumstances and existing market structure, and whether they need to adjust regulatory frameworks (e.g., entry conditions, licensing policies and minimum capital requirements). However, encouraging the right type of institutions without causing distortions remains challenging.

6.2.2 Capital markets

Capital markets, including stock exchanges and bond markets, channel funds directly from savers to firms and governments seeking financing. Capital markets help match investment risk with those most able to manage it. They contribute to

- Increasing the availability of long-term and possibly cheaper financing than bank loans in local currency;
- Financing for risky activities that are necessary to firms' innovation and growth;
- Providing access to a wider investor base, since companies can directly access savings from retail, asset managers and institutional investors, both domestically (if an investor base exists) and internationally;
- Allowing investors to diversify their risks by spreading investments across different assets.

However, while countries have tried to harness these benefits, they have not always succeeded. In several countries where stock exchanges have been created, there are only a few companies listed. For example, a study of 20 middle-income countries found that the 10 largest companies represent more than half of the market capitalization in almost half the countries.[71]

Countries face multiple challenges in developing capital markets, such as inadequate market infrastructure, weak or inappropriate regulation and supervision, and the lack of reliable information on issuers. In addition, they also often face both limited demand and supply. To function, capital markets need a critical mass of investors, such as pension funds and insurance companies. These investors play a catalytic role in market development and add liquidity to the system. However, such an investor base remains limited in many developing countries. One study found that while pension assets account for about 50 per cent of GDP on average in developed countries, they account

for only 20 per cent on average in many developing countries, as of 2017.[72] At the same time, there is often limited supply of issuers. The number of issuers willing and capable of accessing markets is limited in many developing countries, with the cost and complexity of issuing securities restraining interest. Extremely low liquidity from insufficient supply and demand tends to lead to extremely high volatility, as there could be no demand when someone tries to sell a position, causing the price to collapse.

A financial sector strategy should take stock of existing challenges and map out actions to address them. This could include efforts to minimize the cost and obstacles for issuers without undermining trust in the market, as well as longer-term goals of supporting the emergence of a larger base of domestic investors (e.g., through developing pension funds or sovereign wealth funds). Solutions will differ depending on whether capital markets are expected to support the financing of, for example, large corporations, SMEs or infrastructure projects.

A strategy also has to consider the country-specific context and initial conditions, and adjust expectations accordingly. For example, certain preconditions are necessary for capital market development, such as a stable macroeconomic and political environment that reduces investment risk. Having a short-term interbank market and a government securities market developed first can facilitate corporate bond and equity market development. In addition, the size of the economy matters since a critical mass of investors and issuers is required for capital markets to function. While regional markets could provide a solution, previous experiences have shown the difficulties of capital market integration at the regional level.

A financial sector strategy could ponder other possibilities, such as offshore issuances, to mobilize international investors and leverage already developed markets. It could also explore whether private equity funds could be further developed as a complement to raising risk capital through public markets. The Task Force could conduct more research on these alternatives to provide further guidance in this area.

6.2.3 Financial infrastructure

Financial infrastructure provides the backbone of financial systems and includes credit information systems, collateral registries, corporate reporting rules, rating agencies, central securities depositories, and payment, clearing and settlement systems. Gaps or inefficiencies in these areas hinder financial services delivery.

For example, the Addis Agenda notes the importance of credit bureaus to strengthen the capacity of financial institutions to undertake cost-effective credit evaluation. These bureaus help address information asymmetries, which are particularly large for individuals and smaller companies active in the informal sector. However, coverage remains limited in many countries. While the percentage of adults covered either by credit registry or bureau exceed 75 per cent in developed countries, it falls under 10 per cent in LDCs.[73] Limited credit information could raise borrowing costs and hinder access to credit.

Financial sector strategies could investigate how to reduce information asymmetries through innovative means such as fintech or big data to speed up credit assessment (see chapter III.G). Improved corporate reporting could also reduce information asymmetries. However, maintaining proper accounts and financial statements is challenging, particularly for MSMEs. Regulators may need to develop simplified reporting guidelines tailored to these enterprises, such as those developed by UNCTAD-ISAR.[74]

Financial sector strategies could similarly review other components of the financial infrastructure and plan actions to address issues identified.

6.2.4 Fintech as new instruments

The relevance of financial sector strategies is heightened by the growing importance of non-traditional fintech players. Technology advancements disrupt the way financial services are provided and enable new actors, instruments and platforms. For example, mobile banking has enabled access to financial services to millions of people. Peer-to-peer platforms, such as crowdfunding, provide a channel for smaller companies to raise risk capital. They have experienced robust growth. For example, the transactions volume on these platforms across Europe (excluding the United Kingdom) more than doubled between 2015 and 2016 to reach €1.1 billion.[75] However, fintech requires adjusting legal and regulatory frameworks to cope with the risks and maximize the benefits associated with these new players (for an in-depth discussion, see chapter III.G).

6.2.5 Financial regulation and standards

Financial regulation is a core element of any financial sector strategy and underpins the functioning of financial systems. Robust regulatory frameworks for all institutions involved in financial intermediation and deposit taking are necessary to ensure the stability of the financial sector and protect consumers. For example, the exponential growth of microfinance without appropriate regulation and oversight led to major repayment crises in some countries in the 2000s.

Overall, the legal, policy, regulatory and supervisory frameworks need to balance the objectives of development with consumer protection, integrity and stability. Aligning regulation with international standards helps build confidence in capital markets, but must be proportionate, especially in the nascent phase of capital market development. There is also a need to better understand how social and environmental risks influence the credit quality and stability of the financial system[76] (see chapter III.F).

Financial sector strategies could also promote lending to sustainable activities by establishing national stan-

dards and encouraging private initiatives. Sustainable lending started with the assessment of environmental and social risks in the due diligence process of banks. The Equator Principles is a voluntary global framework that many banks have adopted to that end (box 5). This has helped some countries establish national standards.

Box 5

The Equator Principles: Fifteen years later

In 2018, the Equator Principles, which have become the most tested and applied global benchmark for sustainable project finance, marked their fifteenth anniversary. The Principles are based on the International Finance Corporation's Environmental and Social Performance Standards and require participating banks to apply a minimum of standards to reduce environmental and social risks in their project finance operations. Today, 94 banks in 37 countries adhere to the Equator Principles, covering over 80 per cent of project finance transactions in emerging markets. The Equator Principles are a unique example of financial market self-regulation. In countries that had no standards or had poor enforcement of existing ones, the banks who followed the Principles effectively set the local and national standards.

Source: International Finance Corporation.

While the equator principles set standards for environmental and social safeguards, there are also calls to better define sustainable lending in terms of lending with a positive impact on sustainable development. In 2018, the International Capital Market Association published a set of Green Loan Principles to bring further clarity on green loan products. China's Green Credit Guidelines is an example of a standard set by a financial regulator in this area. Banks should also be urged to integrate sustainability into their strategies and business models. Countries could, for instance, encourage local banks to better disclose their climate-rated financial risks—as promoted by the Task Force on Climate-related Financial Disclosures (see chapter III.F)—or to adopt the Principles for Responsible Banking that UNEP FI is developing to help banks align their strategy with global goals.

6.2.6 Capacities

Clearly, the human dimension cannot be overlooked in any development strategy. A financial sector strategy should therefore include a capacity-building component. Sufficient capacity is necessary at three levels, at least: regulatory bodies, financial institutions and financial consumers. Financial supervision and regulation depend greatly on the staff quality in the responsible bodies, while local financial institutions may need specific training to serve more frontier market segments and manage risks adequately. Basic financial literacy is also essential in order for financial services to benefit the poor and to help avoid abuse while also contributing to reduced loan defaults; this does not, however, obviate the need for consumer protection, as even financially literate people can end up being subject to fraud.

Box 6

Women's representation in finance

Women account for less than 2 per cent of financial institutions' chief executive officers and less than 20 per cent of executive board members. Contrary to common perceptions, many low- and middle-income countries have a higher share of women on bank boards and banking-supervision agency boards compared with advanced economies. Econometric analysis suggests that, controlling for relevant bank- and country-specific factors, the presence of women as well as a higher share of women on bank boards appears associated with greater financial resilience. A higher share of women on boards of banking-supervision agencies is also associated with greater bank stability. This evidence strengthens the case for closing the gender gap in leadership positions in finance.

Source: Ratna Sahay and Martin Cihak, "Women in Finance: A Case for Closing Gaps", IMF Staff Discussion Notes, No. 18/05 (September 2018).

6.2.7 Government tools

Governments can support the financial sector in enhancing access to finance, particularly for MSMEs, through a variety of tools, such as

- ***Guarantees***: the most commonly used government instrument is partial credit guarantees. These help address the lack of collateral that companies may have by providing banks with partial coverage in case of debtor default. However, their contribution depends on their design (e.g., extent of coverage, fee and eligibility criteria). Poorly designed schemes may not succeed in reaching firms that are credit constrained, and entail risks for public balance sheets that are difficult to assess;
- ***Subsidies***: the use of subsidies can incentivize lending to certain segments and be channeled through financial institutions. For example, the microfinance business model relies on subsidies to make up the difference between the cost of providing services to the poor and the revenues generated. A review of more than a thousand institutions found that the subsidy represents, on average, 13 cents per dollar lent, and also tends to be enduring rather than being phased out over time;[77]

- *Public investment*: equity financing is challenging for small companies that cannot access capital markets. Countries have set up mechanisms, such as public investment companies, to overcome this challenge, either through direct investments into SMEs, co-investment funds, or fund of funds, often alongside private investors. In Europe, for example, government agencies have contributed to 29 per cent of Venture Capital funds raised in 2017 (compared to 14 per cent in 2007).[78]

These types of interventions can be most effective when done through a specialized institution, such as a national development bank. The above-mentioned instruments are not fiscally neutral and need to be properly designed to achieve their goals, prevent inappropriate incentives (e.g., undermining the necessary discipline and prudence in the loan origination process) and limit market distortions (e.g., crowding out non-guaranteed lending). Risks to the public balance sheet also need to be managed. This is an important issue for national development banks (see chapter III.F).

7. Consider the impact on growth and inequality

It is often assumed that financial sector development automatically leads to economic growth and supports the SDGs. However, history shows that the impact of the financial sector on growth and inequality depends on a range of factors.

7.1 Finance, growth and inequality

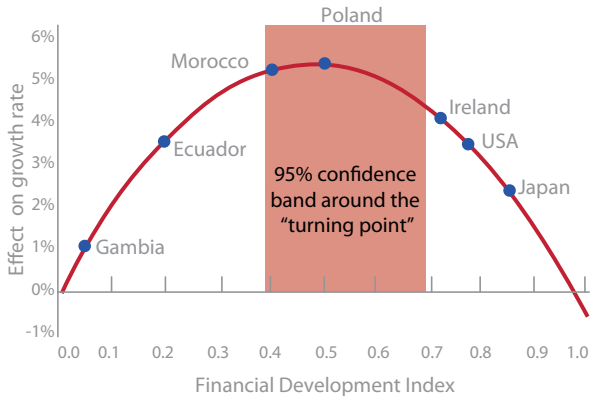
A financial sector strategy should consider how the financial sector impacts growth and inequality. The linkages between financial sector development and GDP growth have been established in the literature since the 1990s.[79] Since then, the size of the financial sector has grown significantly in both developed and developing countries, often much more rapidly than the overall economy.[80]

Recently, there have been questions about the negative effects that can result from an overly developed financial sector. In this context, there is a need to distinguish financial depth from financial breadth. While an improvement in access to financial services should benefit the poor, there are concerns over whether the benefits of greater financial deepening eventually level off. There are also growing concerns over whether high levels of financialization—defined as the increase in size and influence of financial markets and institutions in the overall economy—could exacerbate inequality.

Figure 12 illustrates this non-linear relationship between further financial sector development and economic growth,[81] while holding other growth determinants constant. Based on data from 128 countries in the period 1980–2013,[82] there is a bell-shaped relationship between financial development and economic growth. The results show that for countries at a low stage of financial sector development, further financial deepening is positively correlated with growth.

However, at higher stages of financial sector development, the gains in growth from further financial development reach a plateau, and eventually start to decline. Although there is not a single inflection point that applies to all countries, one study found that when private credit reaches about 100 per cent of GDP, the impact of further financial sector development on growth can turn negative,[83] alongside an increase in volatility.[84] Greater financial deepening, rather than financial access, has been identified as the driver of this weakening effect on growth. This can be in turn due to several factors: funds allocated to speculative bubbles instead of productive assets; financial crises preceded by credit booms;[85] or diversion of talent towards financial services and away from other economic sectors.[86] Financial development that occurs at a pace that is too rapid may also generate higher instability.

Figure 12
Relationship between financial development and economic growth
(Percentage)



Source: Ratna Sahay and others (2015).

The impact of financial sector development on growth depends on several factors, and particularly on the quality of a country's regulatory framework; high-quality regulation can help broaden access to credit without jeopardizing financial stability. Likewise, the composition of finance is important. Credit to businesses has been found to be more growth-friendly than credit to households,[87] particularly when household financing is used for consumption, such as of imported goods. Regarding businesses, the impact on growth and development is linked to the extent to which finance is raised for productive investment. For example, is money raised through initial public offerings (IPO) used to payback initial shareholders (which would simply be an ownership transfer) or to realize new investments?

The development impact might also be reduced if incentives in capital markets introduce a short-term bias where immediate financial performance by corporate executives is valued over raising long-run company value through investments (e.g., using earnings for share

buybacks to boost stock prices instead of reinvesting them in business development). According to Goldman Sachs, aggregate share repurchases (or buybacks) by S&P 500 companies rose by nearly 50 per cent to $384 billion in the first half of 2018, which is more than these companies spent on capital expenditures over the period.[88]

Financial sector development also affects income distribution, alongside many other factors, such as market concentration (see below), globalization (see chapter III.D) and technological change.[89] Empirical studies have, however, produced mixed results surrounding the nature of this relationship. On one hand, there is evidence that financial development, measured as the ratio of private credit to GDP, benefits the poor and reduces income inequality. This is because a more developed financial system can better address market imperfections, such as information asymmetry between lenders and borrowers. For the poor, this helps to alleviate credit constraints given their lack of collateral and credit history.[90] Better access to financial services also helps some people escape poverty by encouraging savings while lessening the effects of financial shocks, such as job losses and crop failures. Realizing these benefits, countries have tried to promote greater financial inclusion.

On the other hand, some recent studies have contested this positive relationship.[91] Financialization may contribute to income inequality by capturing a disproportionate share of profits and level of earnings. For example, the financial sector represents 7 per cent of the economy in the United States of America, and creates 4 per cent of all jobs, but takes 30 per cent of all private sector profits.[92] In Europe, financial sector workers make up 19 per cent among the top 1 per cent of earners, with the overall employment share of the financial sector at 4 per cent.[93]

Excess financialization can also generate higher instability and crises, which may widen inequality. For example, the global financial crisis caused wealth declines across all socioeconomic groups. However, the decline in percentage terms was greater for less-advantaged groups.[94] While top income earners experience a sharp fall in asset values, the impact of a crisis on the poor tends to be more painful as unemployment rises. In the aftermath of a crisis, lower tax revenues and policy interventions, such as measures to rescue too-big-to-fail banks, contribute to a decline in fiscal space and may prompt Governments to roll back on redistributive policies that aim to address income inequality.

Greater financialization can also coincide with some degree of regulatory capture.[95] A larger financial sector may be capable of influencing policymaking in its favour by, for example, weakening policies that impact financial sector profits and foster more equal income distribution (e.g., undermining regulations that protect financial consumers, promoting tax cuts and fiscal austerity, and limiting minimum wages).

The impact of financial development on inequality may also not be linear and depends on how finance is provided. A recent study found that more finance reduces income inequality, but only up to a point. Beyond that point, inequality rises if finance is expanded via market-based financing, but does not rise when finance grows via bank lending.[96]

Well-functioning financial systems are vital in supporting capital accumulation and productivity growth. Nevertheless, countries need to be cognizant of the risks of over-financialization as they progressively develop domestic financial markets. Since developing countries have relatively smaller financial systems compared to developed economies, the risks emanating from an oversized financial sector are likely to be more limited. These countries can reap significant growth and stability benefits from further financial sector development. More developed countries, by contrast, may benefit from a smaller financial sector.

Financial supervision and regulation must keep up with efforts to deepen or liberalize financial systems. Effective and appropriate regulation and supervision is critical for all countries, notably to identify and contain systemic risks. Investment incentives also need to change to avoid rewarding short-termism and speculation. Implementation, however, can be challenging, both for countries with limited capacities and for those with well-developed financial systems with well-established incentive structures.

In addition, policymakers need to have a deeper understanding of the linkages between inequality, financial stability and crisis to take appropriate measures. For instance, high income inequality may generate excess savings in the economy, as the wealthy tend to save proportionally more than low-income households. In the past, these savings have sometimes led to excessive risk taking. In periods of high liquidity coupled with stagnant wages, workers may also be willing and able to take on more credit to maintain or improve their standards of living.[97] This may result in an unsustainable build-up of debt, as well as a deterioration in the overall quality of financial assets, increasing the risk of a financial crisis. Addressing inequality could thus have positive spillovers on financial stability.

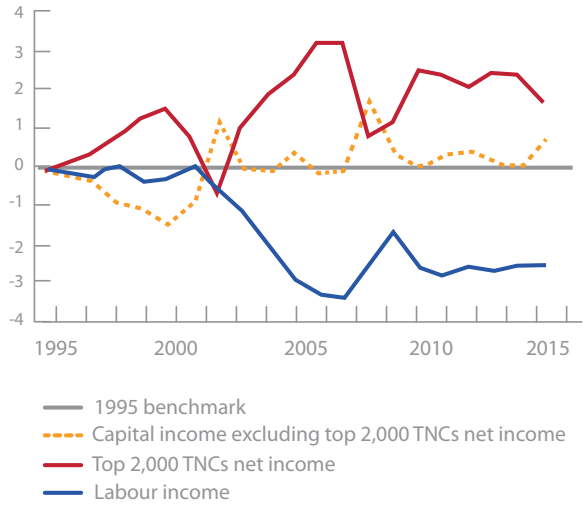
7.2 Market concentration and income distribution

Rising inequalities are also reflected in the falling share of wages in total income, which has been on a declining path for more than three decades. The average wage share has fallen from about 57 per cent of world gross product in 1990 to about 52 per cent in 2017, with market concentration identified as a cause of this fall.[98] As shown in figure 13, the deterioration of labour income has been more or less mirrored by the accumulation of profits of the top transnational corporations. The share of surplus profits by the top 100 firms (profits above a benchmark representing the median rate of profit) rose from 16 per cent in the period 1995–2000 to 40 per cent in the post-crisis period (2009–2015).[99]

Such market power is associated with income inequality, highlighting the broad importance of the

issue.[100] There are, for example, concerns that large firms with market power benefit from monopsony power in labour markets, contributing to the stagnation of wages.

Figure 13
Labour income and profits of transnational corporations
(Changes from 1995 measured as per cent of world gross product)



Source: *Trade and Development Report 2018*, p. 57.

A wide range of indicators suggests that, on average, market power has been increasing[101] in some countries, with global implications. This appears to be the case across a range of industries, including finance, and may have particular consequences for the evolution of the digital economy.[102]

The growth in market power is likely due to a range of factors, including changes in the structure of the economy due to growth of digital technologies. Digital super-firms are fast becoming the dominant firms not only in their countries of origin, but also globally, with impacts beyond the technology sector, such as in retail. For example, Amazon's profits-to-sales ratio increased from 10 per cent in 2005 to 23 per cent in 2015, and that of Alibaba went from 10 per cent in 2011 to 32 per cent in 2015. These developments have reinforced the distributional effects of technological change and globalization favouring capital and higher-level skills.[103] Digital technologies also bring new forms of anticompetitive conduct, requiring competition regulators to adapt to rapidly evolving markets.

To address the negative effects of market power and concentration, countries need to reconsider their policy tools in the areas of competition, education, finance and tax. They should also cooperate to address the challenge of rent seeking at the international level as these issues cannot be solved only with national policies. For example, international organizations could gather information on regulatory frameworks and monitor global market concentration trends and patterns, as a first step towards coordinated international best practices guidelines and policies.

Endnotes

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INTERNATIONAL DEVELOPMENT COOPERATION

Chapter III.C

International development cooperation

1. Key messages and recommendations

Development cooperation is adjusting to the new demands of the 2030 Agenda for Sustainable Development and the increasingly complex and diverse development landscape. However, stakeholders must do more in order to achieve the 2030 Agenda and its aim to leave no one behind.

While official development assistance (ODA) has grown steadily over the past decade, aggregate growth in real terms was flat in 2017. Flows to least developed countries (LDCs) increased by more than 10 per cent, but this rise mostly reflected humanitarian emergencies in a few countries. *ODA providers should continue to strengthen efforts to meet the commitments they have made—including by collectively redoubling their efforts—to ensure that ODA, as a critical source of development finance, can deliver on the transformational ambition of the 2030 Agenda.*

There is still limited data on allocation and use of ODA at the national and subnational levels. *More detailed reporting and disaggregation would help improve monitoring and guide policy interventions to ensure no one is left behind. In addition, mapping ODA flows to the Sustainable Development Goals (SDGs) can be a helpful monitoring tool and focus attention on areas that can accelerate the achievement of all SDGs.*

As humanitarian expenditure and in-donor refugee spending have risen, the share of ODA for country programmable aid (CPA) and budget support has decreased in recent years. There has been progress in untying aid, but informal tying remains. *There is an urgent need to address these challenges to the quality of ODA, which, taken together, pose a threat to hard-won gains in country ownership and leadership.*

Multilateral development financing has grown in volume, and multilateral development banks (MDBs) have taken steps to strengthen their collaboration. *Integrated reporting on the environmental, social and governance impacts of their lending, which some MDBs are already implementing or considering, would further support ongoing efforts to mainstream SDG considerations in all operations and help ensure that no one is left behind. This alignment should continue to be improved and refined to increase impact.*

South-South cooperation (SSC) is making a vital contribution to the implementation of the 2030 Agenda, as a complement, not a substitute, to North-South cooperation. As South-South cooperation continues to expand, *there is opportunity to further advance both South-South and triangular cooperation as high-impact modalities of international development cooperation, both financial and non-financial.*

Bilateral and multilateral providers have scaled up blended finance. To ensure that scarce concessional financing has the greatest development impact, *providers of blended finance should engage with host countries at the strategic level, to ensure that priorities in their project portfolios align with national priorities.* Integrated national financing frameworks, discussed in chapter II, can guide these discussions. *The international community should consider how blended finance principles are aligned with those laid out in the Addis Ababa Action Agenda, such as country ownership.*

Climate finance flows increased by 17 per cent from 2013–2014 to 2015–2016, but are still below the commitment by developed countries to jointly mobilize $100 billion a year by 2020 from a wide variety of sources to address developing countries' climate financing needs. To combat climate change and reduce risks from increasingly devastating and costly natural hazards, *efforts should*

be stepped up to realize existing commitments. Access to climate finance for the poorest and most vulnerable countries must be improved. To strengthen resilience in developing countries, more resources can be allocated to ex ante instruments for disaster risk reduction.

National development cooperation policies (NDCPs) put in place by many developing countries are proving effective in helping mobilize and align development cooperation with national sustainable development plans. *Going forward, these policies will need to continue adjusting to an increasingly diverse development cooperation landscape and strengthening the participation of a broader set of stakeholders, including a more effective citizen participation.*

2. Trends in official development assistance (ODA)

2.1 The state of ODA

In 2017, ODA provided by members of the Organization for Economic Cooperation and Development (OECD) Development Assistance Committee (DAC) amounted to $147.2 billion.[1] This represented a decline of 0.1 per cent in real terms over 2016. Five DAC members (Denmark, Luxembourg, Norway, Sweden and the United Kingdom of Great Britain and Northern Ireland) met or exceeded the United Nations target of 0.7 per cent of gross national income (GNI). However, on aggregate, DAC donors fell short of that target, providing 0.31 per cent of GNI on average.

ODA to the least developed countries (LDCs) increased 10.2 per cent in real terms in 2017. This increase mainly reflected growth in aid for humanitarian assistance to three countries to address crises brought on by violent conflict, war or drought. Overall, ODA to LDCs accounted for only 0.09 per cent of DAC members' GNI in 2017 (including imputed multilateral flows), below the United Nations target of 0.15 per cent, with five donors exceeding 0.20 per cent.[2]

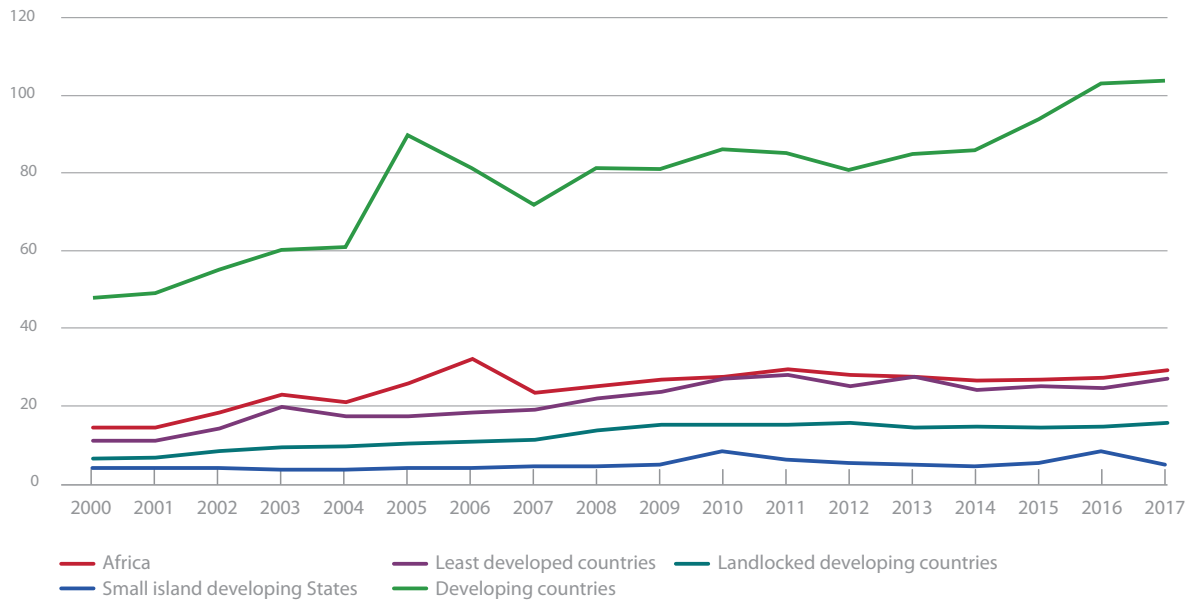
After the large increase of bilateral ODA to small island developing States (SIDS) in 2016, owing to the restructuring of Cuban sovereign debt, flows fell back to a total of $2.7 billion in 2017, in constant 2016 dollars (from $4.6 billion in 2016). ODA to SIDS has been fairly constant over time, with fluctuations around the occurrence of weather-related disasters and debt relief operations.[3] ODA to landlocked developing countries (LLDCs), which face specific logistical and infrastructure challenges, reached $15.9 billion in 2017 (figure 1).

ODA allocation

The 2030 Agenda has significantly broadened the set of global development priorities. There are many competing priorities for limited concessional finance, such as social sectors, infrastructure investment, climate finance, biodiversity, humanitarian aid, and blended finance. This underscores the need for country ownership and mechanisms for dialogue with donors, such as through national development cooperation policies embedded in integrated financing frameworks (see chapter II).

In-donor spending on refugees was the major source of the overall increase in ODA since 2014, although it fell in 2017, due to the declining number of new arrivals

Figure 1
Net bilateral ODA disbursements by DAC countries, 2000–2017
(Billions of United States dollars, 2016 constant prices)



Source: OECD/DAC data.

in DAC members. Nonetheless, about a quarter of bilateral ODA is now dedicated to humanitarian expenditure and in-donor refugee spending, compared to less than one sixth in 2010 (figure 3).

The share of country programmable aid (CPA)—which excludes items such as humanitarian aid, in-donor refugee costs and administrative costs and has proven to be a good proxy for aid recorded at the country level—increased from 46.9 per cent in 2016 to 48.3 per cent in 2017. While this partially reversed a longer-term declining trend, it was still 6.6 percentage points below the share of CPA in 2010. ODA provided as recipient-country budget support followed the same trend, rising from 2.5 billion in 2016 to 3.3 billion in 2017, in constant 2016 dollars (versus $4 billion in 2010). The recovery in CPA and budget support is particularly relevant to the availability of funds for financing national priorities expressed in national sustainable development strategies. Donors should maintain this momentum to reverse the previous declining trend. In this context, the adoption of integrated national financing frameworks discussed in chapter II will be an opportunity to strengthen ODA alignment with national strategies and plans.

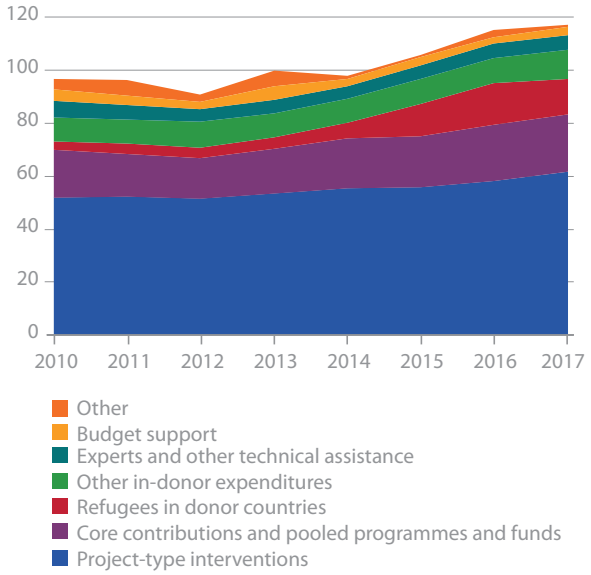
A breakdown of ODA by type of flows shows that funds for project-type interventions, which are the largest portion of ODA, increased in real terms in 2017 (figure 2), particularly in LDCs and Africa, reflecting the rise in CPA. Project funding declined in SIDS, along with the overall decline in ODA disbursements to SIDS since 2010.

In terms of a sectoral breakdown, social sectors remain the largest ODA category. However, social spending has fallen as a percentage of total ODA, from 40 per cent in 2010 to 35 per cent in 2017 (figure 3). The largest decline was in the share of spending on education, which fell from 8.8 per cent of total ODA in 2010 to 7.1 per cent in 2017. One response to the latter trend has been to seek to mobilize additional funds for international assistance to education through innovative funding mechanisms (box 1).

The decreasing share of assistance for social sectors, after growing rapidly in the first decade of the millennium during the era of the Millennium Development Goals, reflects a shift in donors' focus to economic aid and support for production sectors, in line with the broader focus of the SDGs. Assistance to economic infrastructure and services, the second largest category, has been growing in recent years (figure 3), particularly in the energy sector.[4]

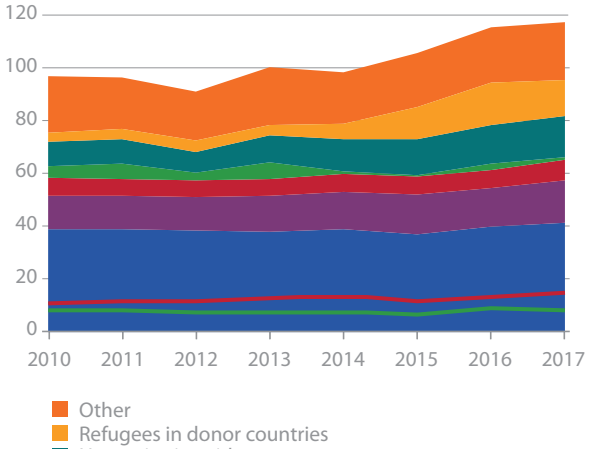
By country groups, ODA for the social sector decreased for LDCs between 2010–2013 and 2016–2017, while aid for economic infrastructure and services and production sectors increased in real terms over the same period. LLDCs also saw an increase in health and population services, but a decrease of ODA flows to infrastructure—particularly the transport and storage subsectors—which raises questions regarding alignment of ODA with these countries' logistical and infrastructure challenges (figure 4).

Figure 2
Gross bilateral ODA disbursements from DAC countries to developing countries by type, 2010–2017
(Billions of United States Dollars, 2016 constant prices)



Source: OECD/DAC data.
Notes: Other in-donor expenditures include scholarships and student costs in donor countries, in-donor spending on development awareness and administrative costs not included elsewhere; other aid consists mainly (from 2012, exclusively) of debt relief.

Figure 3
Gross bilateral ODA disbursements from DAC countries to developing countries by sector, 2010–2017
(Billions of United States Dollars, 2016 constant prices)



Source: OECD/DAC data.
Notes: Other includes multi-sector and cross-cutting aid, commodity aid and general programme assistance, administrative costs of donors, and unallocated aid.

Box 1

Education partnerships to achieve Sustainable Development Goal 4

Official development assistance for education received by developing countries from bilateral and multilateral donors has plateaued since 2009 at about $11 billion to $13 billion per year in constant 2016 dollars, after having doubled in the early 2000s. The share allocated to least developed countries (LDCs) fell from a peak of 47 per cent in 2004 to 34 per cent in 2016.[a]

There are several global mechanisms that support education. In 2017, the Global Partnership for Education (GPE) (established in 2002) disbursed $497 million, with $351 million going to LDCs and other low-income countries. In 2018, pledges worth $2.3 billion were made to replenish the fund for 2018–2020. However, this was below the replenishment target of $3.1 billion, which could jeopardize GPE plans to expand its activities to more partner countries.

Inspired by the success of innovative mechanisms to mobilize additional international resources for the health sector, momentum has grown around developing new mechanisms to mobilize additional financial resources for education, to complement earlier efforts. Education Cannot Wait was established in 2016 to support education in crisis settings. It pools funds for Governments, non-governmental organizations and donors, and aims to improve collaboration and coordination between humanitarian and development actors, and encourage national ownership of programmes, addressing both immediate and long-term needs.

To address the needs of lower-middle income countries, the International Commission for the Financing of Global Education Opportunity proposed an International Finance Facility for Education. The facility, whose scope and institutional set-up will be negotiated in the coming months, would invite donors to provide guarantees (or other forms of contingent commitments) that would encourage multilateral development banks to expand lending for education and provide grants to blend with education loans to lower financing costs.

One of the challenges of a debt-funded education system is that returns on education materialize only over the long term. Investment in education does not generally generate fiscal income to repay the debt, at least in the near term. This implies that the mechanism could be difficult for some countries, especially given the recent rise in debt burdens. In this respect, the level of concessionality is important.

Another overarching issue these mechanisms will have to address is how to support gender equality in education. Involving stakeholders can help ensure that plans include and adequately fund strategies and policies that advance gender equality. In addition, to avoid duplication and fragmentation, donors should coordinate across different funding mechanisms.

a Data of the Global Education Monitoring Report, based on the methodology that starts from DAC reported direct aid to education and adds a share of reported general budget support, to account for the estimated 15-25 per cent of budget support that typically benefits the education sector. See UNESCO, ***Global Education Monitoring Report, 2019: Migration, Displacement and Education: Building Bridges, not Walls*** (Paris, UNESCO, 2017).

2.2 ODA concessionality

Since 2010, the concessionality of bilateral ODA has declined, owing to an increased reliance on concessional loans and a decline in grants. In 2016–2017, loans made up 15.2 per cent of ODA, compared to 12.4 per cent in 2010–2012 (figure 5). This increase was even more pronounced in the case of LDCs, where the share of loans rose from 2.8 to 8.3 per cent. LLDCs, as well as the group of African countries, show similar trends. Only in the case of SIDS has the share of loans decreased over time. The latter may reflect increased humanitarian aid to these countries on the one hand, and a response to already high levels of indebtedness on the other.

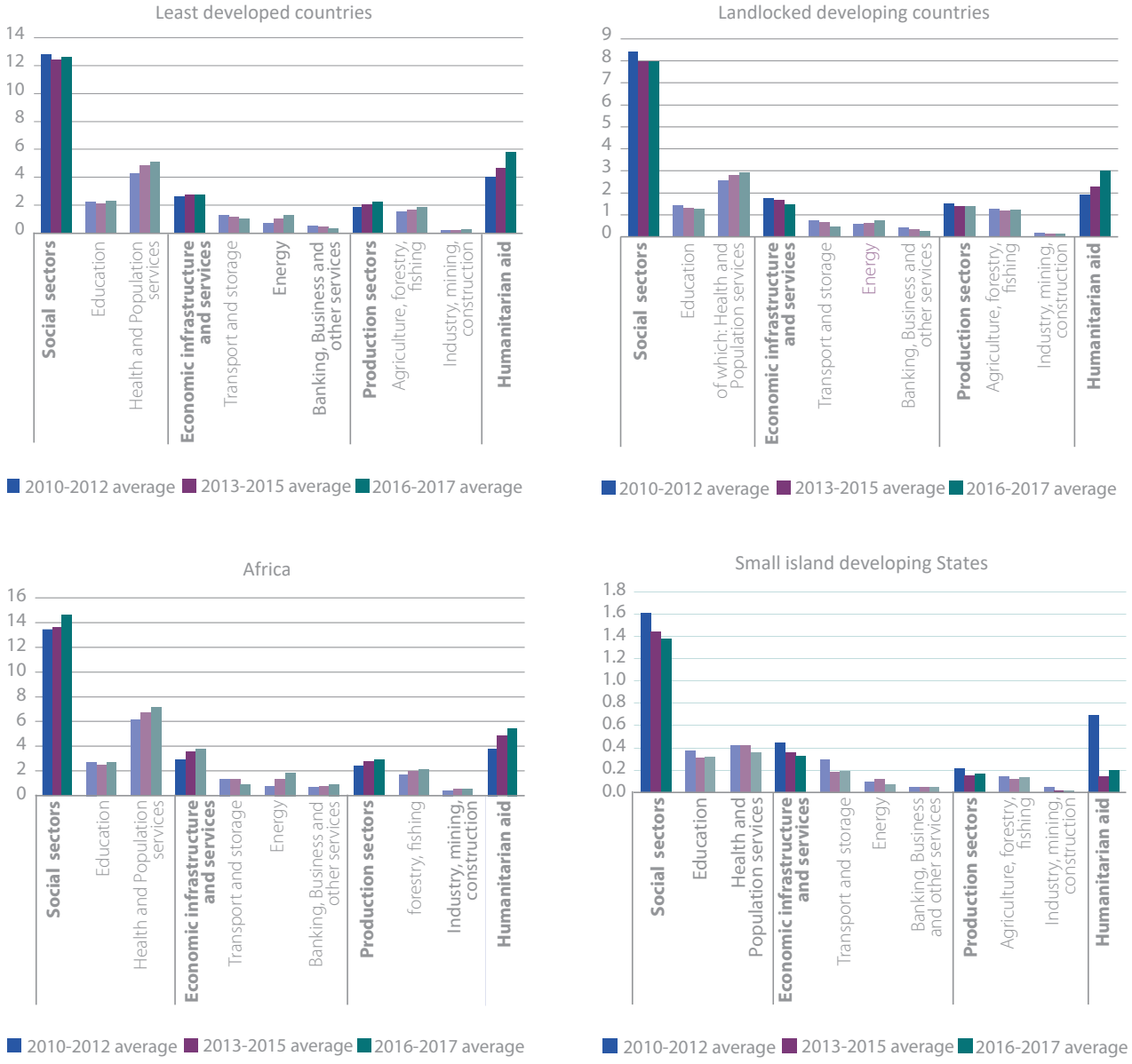
These trends also reflect the overall shift from social sectors to economic aid for productive investment noted above, as well as an increase in countries' per capita income. Whether ODA is provided as a grant, concessional loan or, in rare cases, as an equity investment generally depends on the nature of the project being supported. Projects that can be expected to generate their own revenue streams are more frequently financed through loans, whereas social sectors are more than 90 per cent grant financed, with an even higher percentage of grant financing in the education and health sectors, which do not usually generate near-term revenue streams that could be used for loan repayments (figure 6).

In turn, over 60 per cent of ODA financing for the economic infrastructure and services sector has been through loans, mainly in the transport and energy sectors. Projects in communications and banking and business were also financed to a significant extent through equity investments, which are negligible in almost all other sectors, except for industry, mining and construction. While these sectors in general have a higher revenue potential, the need for the recipient country to mobilize enough resources for loan repayments through tariffs and user fees must be carefully balanced with equity considerations—particularly in sectors such as water, where the SDGs commit countries to ensure affordable access for all.[5] The increase in loans also raises questions of whether ODA may be contributing to the build-up of debt in developing countries (see chapter III.E).

Figure 4

Gross bilateral ODA disbursements from DAC countries to country groupings by selected sectors, three-year averages, 2010–2017

(Billions of United States Dollars, 2016 constant prices)



Source: OECD/DAC data.

Continued access to concessional finance is also a key concern for countries that are graduating from the LDC category. In 2018, 12 countries met the graduation criteria and are now at various stages in the graduation process. This marks a significant advance, as only five countries had graduated before 2018.[6] However, nine of these countries remain highly vulnerable.[7] Impact assessments by United Nations Department of Economic and Social Affairs (UN/DESA) indicate that providers aim to continue providing similar amounts of ODA following graduation for six countries. However, modalities might increasingly shift from grants to loans or to higher interest rates in some cases, as also discussed in the 2018 report of the Task Force.[8] Box 2 presents an example of how development cooperation providers can help address some of these issues in graduating countries. In the context of an integrated financing framework that looks at all sources of financing, providers can take steps to strengthen external financing and facilitate a transition to sources beyond ODA in line with national priorities and needs,[9] as per capita incomes rise but vulnerabilities to socio-economic setbacks persist.

Box 2

Transition finance in Cabo Verde

Cabo Verde graduated from least-developed-country (LDC) status in 2007, yet remains highly dependent on official development assistance (ODA). A joint study[a] by the Organization for Economic Cooperation and Development (OECD) and the Government considered how development partners can support an integrated approach to financing, using the transition finance ABC approach (assessing, benchmarking and counselling) to assess challenges and identify recommendations for development partners:

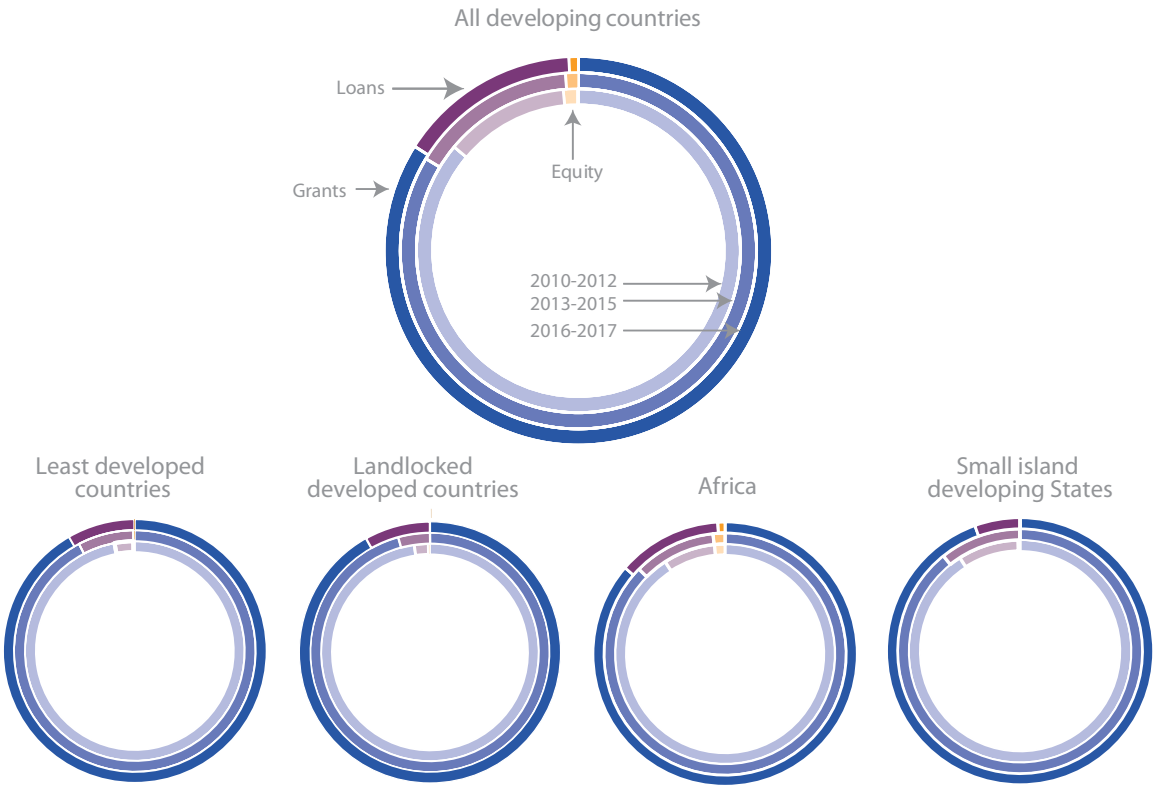
- **Assessing**: Following LDC graduation, ODA was phased out in key social sectors. Tied aid rose by 30 per cent, and the country lost access to climate finance. In 2016, it was also classified by the International Monetary Fund as at high risk of debt distress, creating further roadblocks to financing.
- **Benchmarking**: Cabo Verde shares characteristics with other small island developing States (SIDS), which can provide lessons for overcoming its vulnerabilities. Seychelles is considered an "aspirational peer," having successfully secured innovative financing instruments to harness the Blue Economy. OECD Development Assistance Committee members can support greater access to blended finance in SIDS through capacity-building and partnerships.
- **Counselling**: Effective transition finance strategies require a mixed ***cooperative*** and ***competitive*** approach. The cooperative approach calls for better support, including financing criteria beyond income per capita, to manage debt, build resilience and avoid socioeconomic setbacks. The competitive strategy focuses on support to build productive capacities. Development partners should strive to reduce tied aid to encourage local entrepreneurship, and infrastructure financing should be strengthened to ensure commercial viability to repay growing debt.

a Rachel Morris, Olivier Cattaneo and Konstantin Poensgen, "Cabo Verde Transition Finance Country Pilot", OECD Development Cooperation Working Papers No.46 (Paris: OECD, 23 November 2018).

Figure 5

Gross bilateral ODA disbursements from DAC countries to country groupings by instrument, three-year averages, 2010–2017

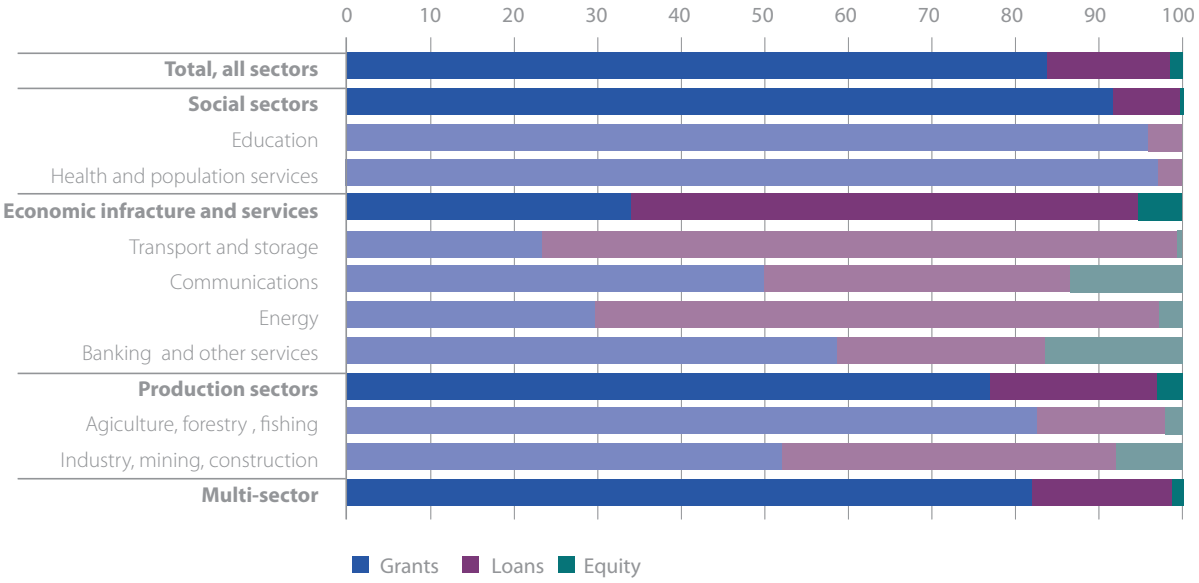
(Percentage of total)



Source: OECD/DAC data.

Notes: Inner circles represent averages for 2010-2012; middle circles represent averages for 2013-2015; outer circles represent averages for 2016-2017.

Figure 6
Gross bilateral ODA disbursements from DAC countries to developing countries by instrument and selected sectors, five-year average, 2013–2017
(Percentage of total)



Source: OECD/DAC data.

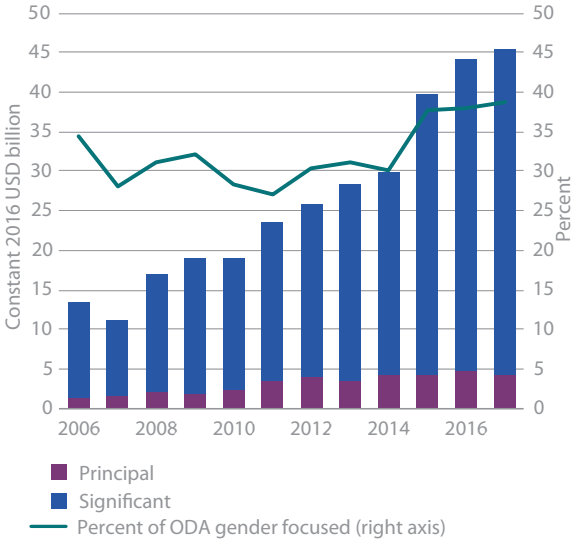
2.3 Further ODA disaggregation

The commitment of the 2030 Agenda to leave no one behind makes it imperative to better understand how development cooperation reaches different population groups at the national level and beyond. Accordingly, Member States of the United Nations committed to support developing countries, including LDCs and SIDS, to disaggregate ODA data, including by population group.[10]

The OECD has introduced a marker to track ODA that is focussed on gender equality and empowerment of women as either a significant or principal objective. This marker shows an upward trend, reaching 39 per cent of total bilateral allocable aid in 2017 (figure 7). While this is an improvement, only 4 per cent of bilateral aid was dedicated to gender equality as the principal objective. Regarding other population groups, efforts are currently under way to introduce a new marker on ODA for persons with disabilities.[11] Work is also ongoing to better match sectoral ODA flows to SDG outcomes. As the SDGs by their very nature can only be achieved through combinations of multi-sectoral interventions, it will be important to better align and trace sector financing strategies with SDGs and national development priorities for their achievement. In addition to ODA, such tracing could also include other official flows (OOF), to gauge the impact of all official development finance on SDG outcomes.[12]

Despite the importance of subnational entities in the delivery of the 2030 Agenda, data on development cooperation at the subnational level remains limited. Individual studies have been conducted to fill this gap. Some of these use mapping exercises to compare where ODA is invested at the subnational level to poverty indicators and other socioeconomic data. In the countries studied, the allocation of international donor funds by district is often not well matched to poverty levels. This raises questions about the allocation of aid—including between national projects and targeting the poorest—and whether indeed no one is left behind.[13]

Figure 7
Bilateral ODA to gender equality and women's empowerment, 2013–2017
(Billions of United States Dollars, 2016 constant prices and percentages)



Source: OECD DAC GENDERNET, "Development finance for gender equality and women's empowerment: A snapshot" (January 2019).

2.4 Funding for humanitarian emergencies

An estimated 87 per cent of people in extreme poverty reside in countries affected by fragility, environmental vulnerability or both. Financial requirements for humanitarian response plans coordinated by the United Nations reached $24.9 billion in 2018, a drastic increase from the $6.1 billion required in 2008. However, the 2018 plans received funding for only 60.5 per cent of requirements ($15.1 billion).[14]

Nearly three quarters of people targeted to receive assistance in 2018 were in countries affected by humanitarian crises for seven years or more. Recognizing that development is the most effective way to build resilience, a longer-term approach to addressing humanitarian needs should include development investments. Donors have increasingly adopted multi-year plans and funding, in line with Grand Bargain commitments.[15] In 2019, multi-year humanitarian response plans will be in place in 11 countries.[16]

In addition, partnerships with local and national actors have been strengthened to make humanitarian assistance as local as possible, and as international as necessary. Cash is more routinely used as a response modality. In 2016, cash transfer programming reached 10 per cent of global humanitarian aid.[17] Better tools are in place to enable more accurate measurement of how much funding is going to whom, including through a more transparent Financial Tracking Service for publishing financial data.[18] As at 1 May 2018, 44 out of 59 Grand Bargain signatories were publishing open data using the International Aid Transparency Initiative (IATI) Standard.[19]

The increasing focus of international public financing flows on humanitarian crises is a direct response to crises and shocks affecting progress and gains in sustainable development. The increasing intensity and frequency of extreme weather events and the protracted and complex nature of crises are heralding a shift towards linking development cooperation more closely to addressing such crises. These priorities are fully aligned with the 2030 Agenda and the SDGs, but changing aid-allocation patterns may create funding gaps in countries most in need of long-term support, such as LDCs, and in areas critical to leaving no one behind.

The Joint Steering Committee to Advance Humanitarian and Development Collaboration established by the Secretary-General as part of United Nations reforms has worked to strengthen the humanitarian-development nexus. The Committee provides ongoing support to country leadership in implementing the New Way of Working[20] to ensure that humanitarian assistance efforts and longer-term sustainable development programmes are more coherent and joined up with a view to achieving collective outcomes to reduce need, risk and vulnerability (see also box 3 in section 6.1).

A special focus is also needed on the differential impact conflicts and disasters have on women and girls, including in terms of mortality, health and education outcomes, as well as the prevalence of sexual violence.[21]

3. Lending by multilateral development banks

The ability of development banks to fund long-term productive investments makes them well suited to contribute to implementing sustainable development. In 2017, total lending by MDBs—including the World Bank, regional development banks, and other multilateral and intergovernmental agencies—reached $63.0 billion, out of which $22.5 billion was concessional (figure 8).

Two South-led development banks have joined the family of MDBs. The Asian Infrastructure Investment Bank (AIIB) and the New Development Bank (NDB) completed their second full year of operations in 2017, during which each entered into new loan commitments. Total AIIB loan commitments were $3.3 billion as of September 2018, up from $334 million at the end of 2016, with total disbursements of $1.2 billion.[22] NDB approved new loans worth $1.8 billion during 2017, and made its first disbursements, totalling $24 million.[23]

Shareholders have increased, or are considering increasing, their paid-in capital in some MDBs. In April 2018, World Bank Group (WBG) shareholders endorsed a $13 billion paid-in capital increase, comprising $7.5 billion for the International Bank for Reconstruction and Development (IBRD) and $5.5 billion for the International Finance Corporation (IFC). In May, African Development Bank shareholders authorized discussions on a capital increase.

The general capital increase of the WBG follows the December 2016 replenishment of $75 billion for the WBG International Development Association (IDA). That replenishment enabled IDA to access capital markets, with the first IDA bond issuance in April 2018 being oversubscribed, raising $1.5 billion. These funds will be blended with IDA concessional resources to support its borrowing countries. IDA negotiations for its next three-year replenishment, covering mid-2020 to mid-2023, began in November 2018.[24]

The Addis Agenda calls on MDBs to make "optimal use of their resources and balance sheets, consistent with maintaining their financial integrity".[25] Since 2015, MDBs such as the World Bank, Asian Development Bank, African Development Bank and Islamic Development Bank have taken steps to make better use of their balance sheets, including by allowing leverage on grant resources, cutting expenditure and increasing fees, and enhancing risk management.

Increasing the effectiveness of MDB financing was also raised by the G20 Eminent Persons Group on Global Financial Governance (see chapter III.F).[26] The report recommends that MDBs overcome fragmentation with particular emphasis on MDBs working together in countries. Integrated national financial frameworks, written by Governments, can help in setting strategies and priorities for how countries can engage different MDBs (see chapter II). Member States

Figure 8
Lending by multilateral development banks, 2000–2017
(Billions of United States Dollars, current)

Source: World Bank, World Development Indicators.
Note: Includes disbursements of loans and credits from the World Bank, regional development banks, and other multilateral and intergovernmental agencies. Concessional lending is defined as loans with an original grant element of 25 per cent or more.

can also discuss the role they see for MDBs and United Nations system entities in providing global public goods, and how to increase coherence and synergies of different institutions.

While cooperation among the MDBs was limited before 2015, it has been expanding since then, in particular in the area of infrastructure. The Global Infrastructure Forum, called for in the Addis Agenda, brought the MDBs together on this issue, and joint work streams have been established, such as on infrastructure data, standards, and project preparation.

MDB shareholders are considering additional actions to strengthen cooperation, including the WBG Partnership Fund for the Sustainable Development Goals. In response to a request by the Group of 7, a new joint platform on economic migration and forced displacement was launched in April 2018. In addition, in December 2018, MDBs announced a joint framework for aligning their activities with the goals of the Paris Agreement on Climate Change.

With 80 per cent of the extreme poor estimated to live in fragile and conflict-affected contexts by 2035, MDBs are also increasing their engagement in vulnerable, crisis and post-crisis contexts. IDA doubled financing for fragility, conflict and violence to over $20 billion from 2017–2020, including increased financing for private sector engagement in high-risk contexts. At the World Humanitarian Summit, the United Nations and the World Bank committed to a New Way of Working to accelerate the 2030 Agenda in crisis contexts, focusing on those furthest behind.

Several MDBs have also stepped up efforts to mobilize private investment. In 2017, MDBs directly mobilized $52 billion in long-term private cofinancing, up from about $50 billion in 2016.[27] Of this total, $2 billion was mobilized for least developed and other low-income countries (see also the discussion on blended finance in section 5).

For the most part, MDBs are also improving the gender sensitivity and gender impact of their lending, with increased monitoring of gender results. However, progress is uneven and not comparable across institutions as MDBs lack common indicators on gender outcomes.

To achieve the SDGs, MDBs will need to both achieve greater scale and ensure that social and environmental sustainability considerations are embedded in their lending, in particular for infrastructure investments that will lock in development paths until 2030 and beyond. This could include further aligning internal staff incentives with metrics relevant to achieving the 2030 Agenda and the SDGs, rather than focusing primarily on lending volumes. In the context of optimizing balance sheets, the Addis Agenda also included a call on development banks to use all tools to manage their risks, including through diversification, which warrants further study. Shareholders of the MDBs should continue to work towards a shared vision of the MDB system. More generally, there remains significant unrealized potential to further scale up development banks' contributions to the 2030 Agenda, including through incentives aligned with the SDGs, integrated reporting, and expanded local currency lending.

4. South-South cooperation

As evident in the preparations for the Second United Nations High-level Conference on South-South Cooperation (BAPA+40), South-South cooperation (SSC) and triangular cooperation continue to expand, becoming more diversified and identifying new partnerships and forms of cooperation.

Given the variance among reporting methodologies for SSC and triangular cooperation, and the focus on non-financial modalities as an important element of SSC, generating quantitative estimates remains challenging.[28] Apart from aggregated quantitative estimates, a number of data points offer insights on trends in SSC and triangular cooperation.

A survey by UN/DESA in 2017 found that 74 per cent of developing countries provided some form of development cooperation, up from 63 per cent in 2015. The survey also showed a marked rise in the share of developing countries that indicated the United Nations had undertaken activities to support South-South or triangular cooperation in their country, from 54 per cent in 2015 to 84 per cent in 2017.[29] While many countries reported modest expenditures on SSC, with only 16 per cent of countries reporting expenditures of $1 million or more per year,[30] several Southern partners have and continue to make major financial contributions to SSC. China's Belt and Road initiative (BRI) is expanding and now includes over 100 countries.[31] In 2018, as part of the BRI, China made a number of significant commitments, including an additional $60 billion to Africa[32] and over $20 billion to the West Asian region,[33] in addition to several bilateral commitments. As part of the International Solar Alliance, India approved nearly $28 billion in concessional credits, including about $10 billion for approximately 40 African partners, with special emphasis on partnerships with LDCs and SIDS.[34]

Triangular cooperation has also increased in scope. Recent OECD data show that, while most triangular cooperation projects have been in Latin America (51 per cent), multiregional projects (21 per cent) and projects in Africa (13 per cent) and in Asia-Pacific (11 per cent) also grew.[35] However, more evidence and analysis are needed on the scope, scale and impact of triangular cooperation to assess its contribution to achieving sustainable development objectives. The Global Partnership Initiative on Effective Triangular Cooperation is a multi-stakeholder platform with growing membership to exchange experiences and develop tools and voluntary guidelines for effective triangular cooperation, in addition to providing analysis.

Developing countries are enhancing national mechanisms and institutional capacities to engage with SSC and triangular cooperation.[36] In March 2018, China announced the establishment of an international development cooperation agency, to strengthen the strategic planning and overall coordination of its foreign aid. Southern partners are also making use of their relative advantages in their SSC. For instance, Brazil, Indonesia, and Turkey engage in areas of SSC in which they bring to bear particular expertise and capacity on entrepreneurial education, tropical agriculture and disaster prevention and response, while Cuba and Nigeria place emphasis on technical cooperation initiatives.[37]

While the contribution of South-South and triangular cooperation to sustainable development continues to grow, there is need for continued development of legal and institutional frameworks to foster effective multi-stakeholder approaches to create enabling environments and mobilize a broader range of actors.[38] Further efforts to mainstream regional and national experiences in South-South and triangular cooperation into national development cooperation plans and policies will also support building national ownership and enhance the quality of partnerships.[39] In this context, regional groups have taken actions to advance SSC, developing regional frameworks, identifying priorities for action, and working together towards shared evaluation procedures and standards (see section 7.2). The elaboration by development cooperation agencies in the South of their own conceptual systems and methodological approaches for impact assessment of South-South and triangular cooperation, with further efforts to improve transparency and strengthen accountability, would advance knowledge-sharing and peer learning towards better results for sustainable development.[40]

5. Blended finance

The Addis Agenda recognizes the role that blended finance, including public-private partnerships, can play in financing for sustainable development, while also acknowledging the importance of using blended finance appropriately and effectively.[41] By shifting some of the risk or cost of a project from the private to the public sector, blended finance can enhance risk-return profiles for private creditors or investors. Concessional and non-concessional public finance can thus help to "crowd in" commercial finance for SDG investments that would otherwise not have materialized. Blended finance can potentially also create demonstration effects that can incentivize commercial replication, thereby supporting the development of local financial markets.

At the same time, there are concerns about whether blending represents an effective use of public finance, since the concessional finance that is blended will not be available for other areas that require concessional financing, such as in the social sectors. When ODA is used for blended finance, it is thus important to maintain principles of development effectiveness, including country ownership.

It is often difficult for public authorities to properly price blending projects, meaning that there is a risk of using limited concessional resources for oversubsidizing the private partner. Another concern is whether mixing commercial with concessional financing raises the debt burden of the borrowing country by creating contingent liabilities "off budget" (see chapter III.E). There are also concerns about financial additionality (i.e., whether

blending is in fact mobilizing significant amounts of private finance for public-oriented projects). In addition, further evidence is needed to demonstrate development additionality (i.e., the impact of blended finance projects on SDG achievement).[42]

5.1 Blended finance flows

Member States defined blended finance as combining "concessional public finance with non-concessional private finance and expertise from the public and private sector" in the Addis Agenda.[43] However, not all international organizations use this definition. While global reporting efforts are based on different underlying definitions,[44] most measures find a rising trend in both blended financing volumes and number of deals. Recent data collections show that at least 23 out of 30 DAC members engage in blended finance. Donor Governments set up 167 dedicated facilities for blending between 2000 and 2016.[45] Between 2012 and 2017, their blending activities mobilized a total of $152.1 billion from commercial sources. Most of blending is in middle-income countries, with 8 per cent mobilized for LDCs (figure 9, and discussion on blending in LDCs below).[46]

The trend growth in blending is also reflected in activities of development finance institutions (DFIs). A working group of nine international DFIs reported that they financed over $8.8 billion of projects in 2017 through blending.[47] By a separate measure, 320 blending deals were registered by an initiative called Convergence in 2018, of which 95 took place in part or entirely in LDCs, and 38 (out of 95) took place wholly in LDCs.[48] On average, these deals mobilized $4 of commercial capital for every $1 of concessional capital. However, most of the commercial capital came from development finance institutions, rather than private investors.[49]

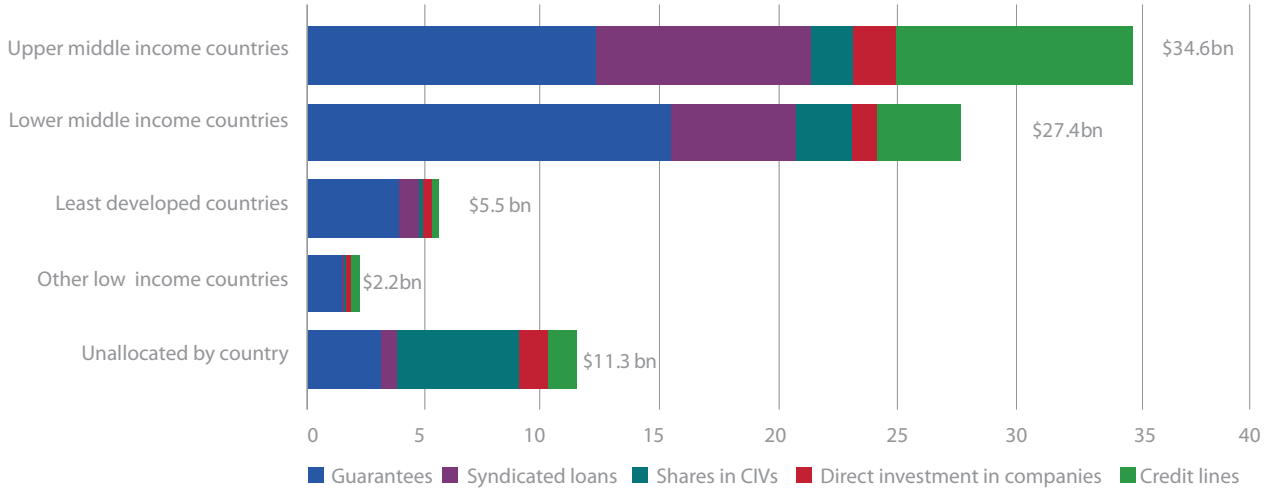
The European Union (EU), which is the single largest contributor to blended finance facilities, launched its External Investment Plan (EIP) in 2017, to address investment gaps in the European Neighbourhood and Africa by 2020. The European Fund for Sustainable Development, a key pillar of EIP, is expected to leverage €44 billion of investment through an EU input of €4.5 billion. Programmes that were in the pipeline at the end of 2018 were expected to mobilize €36.9 billion.[50] In 2017, the WBG IDA established a $2.5 billion private sector window to provide blended finance support through IFC and the World Bank's Multilateral Investment Guarantee Agency.

Blending is likely to advance some SDGs more than others: 84 per cent of blended deals are aligned to SDG 9 on infrastructure and industrialization, but only 7 per cent align with SDG 6 on clean water and sanitation (figure 10).[51] Indeed, most blended deals are concentrated in sectors with significant potential for economic returns. For example, projects in infrastructure and financial services accounted for 33 and 29 per cent, respectively, of all deals registered in the Convergence database. In the case of the former, this was mainly driven by the energy sector, and in the latter, by microfinance/retail banking and small business/corporate banking (reflecting a focus on financial inclusion). Social infrastructure sectors with less clear-cut revenue potential have received less funding. Health care accounted for 17 per cent of blended finance deals and education accounted for 9 per cent of deals.[52] Because of limited profitability of such investments, any further scaling up of blending needs to be accompanied by an international commitment to redouble efforts to mobilize additional public funding for those areas where blending is not appropriate.

Figure 9

Private finance mobilized by official development finance instruments, 2012–2017

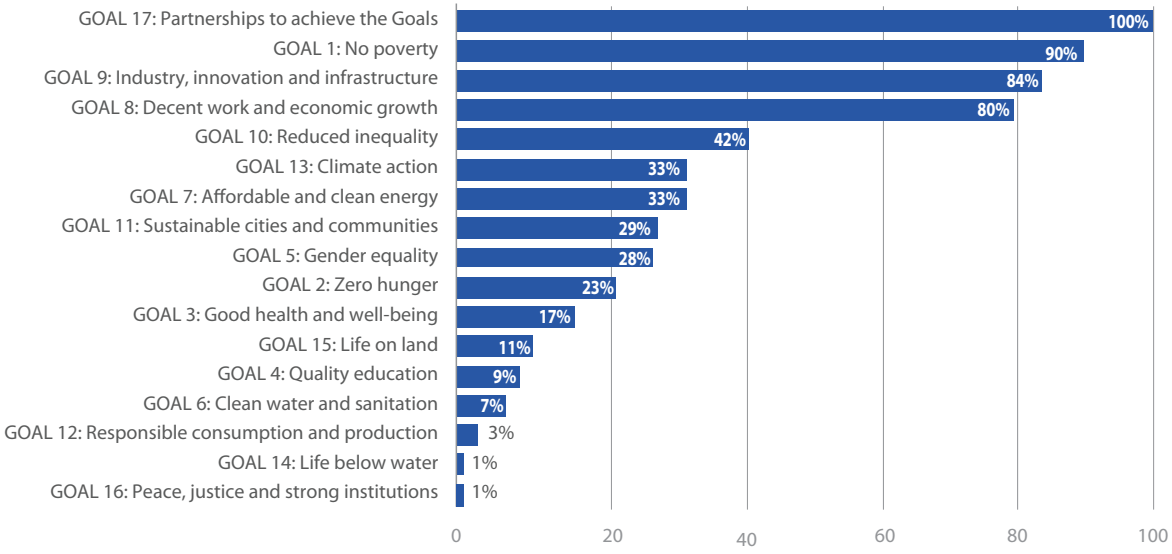
(Billions of United States dollars, current)



Source: OECD, "Amounts mobilized from the private sector for development." Available from http://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/mobilisation.htm.

Note: CIVs are collective investment vehicles in which investors pool their funds to directly invest in a project, in contrast to purchasing a security issued by a project or participating in a syndicated loan to it.

Figure 10
Blended finance: alignment of deals to SDGs
(Percentages)



Source: Convergence, "Blended Finance & SDG Alignment", Data Brief (November 2018).

Special blending challenges for LDCs

As was seen in figure 9, the use of blended finance instruments has so far largely bypassed LDCs. Between 2012 and 2015, according to OECD data, most private finance mobilized in LDCs originated from high-income countries other than the provider (almost $2 billion, or 36 per cent of the total amounts mobilized). The second largest source of private capital stemmed from the beneficiary countries themselves, suggesting that many deals involve domestic investors. But the average mobilization ($2.8 million) per deal with local counterparts was relatively small. During that same time period, on average about $7.9 million was mobilized per transaction in LDCs—less than 30 per cent of the global average—perhaps reflecting the smaller size of the transactions in LDCs and/or the higher use of concessional finance per transaction.[53]

One explanation for the low prevalence of blended finance deals in LDCs is the higher barriers to private capital mobilization, at both the enabling environment and at the project level. Barriers in the enabling environment include macroeconomic, governance, regulatory, market and other perceived risks. Barriers at the project level include operational and contract risks, difficulties in pipeline origination and project preparation, small deal size, untested business models, and information and data gaps. Some providers of concessional capital may also shy away from such markets for several reasons: low risk appetite, given the need to preserve their triple-A credit ratings; a lack of awareness of investable projects; or mandates that favour commercial returns.[54]

In some cases, it may be more cost effective to first use ODA to promote strengthening the enabling environment before investing in blended deals. In others, the investment could create demonstration effects and/or contribute to strengthening the enabling environment, and could be pursued in conjunction with other measures. At the project level, concessional finance providers can increase effectiveness by lending support over the entire project life cycle, from project preparation through deal design and execution, and to a more gradual phasing out of concessional support after successful project implementation.[55]

5.2 Towards principles for blended finance

The Addis Agenda spells out an overarching set of principles to improve the effectiveness and efficiency of blended finance in achieving the SDGs. It stresses the importance of national ownership and alignment with national priorities. It also highlights the need for blending to support sustainable development. The Addis Agenda calls for careful consideration of sectors and local contexts in the use of blending to ensure its use is appropriate. Recognizing the risk of oversubsidizing the private sector, it calls for a fair sharing of risks and rewards, as well as clear accountability mechanisms and transparency. It further recognizes the need to monitor the impact of blending on debt sustainability. In addition, it stresses the need for local participation in blended investments that affect their communities.[56]

Subsequently, other actors have agreed on sets of principles for their own activities. This includes the OECD DAC Blended Finance Principles, endorsed in October 2017, and the DFI Working Group's Enhanced Blended Concessional Finance Principles, agreed to in 2017.[57] In October 2018, Indonesia and the OECD, together with other partners released the Tri Hata Karana

Roadmap for Blended Finance,[58] which calls for coordinated efforts to ensure effectiveness and efficiency in the use and scaling up of blended finance operations.

These blended finance principles have many areas of overlap with the principles spelled out in the Addis Agenda. However, while they usually include guidance on the financial additionality of blended finance, only a few of them place strong emphasis on development additionality, which has proven more challenging to document. In addition, while most emphasize alignment with national priorities, the Addis Principles may put a stronger emphasis on the importance of providers of blended finance engaging with host-country Governments at the strategic level, to ensure that priorities are aligned. This underscores the usefulness of integrated financing frameworks as an instrument to guide discussions (see chapter II). Going forward, the international community should reflect collectively on how different sets of principles relate to respective commitments in the Addis Agenda.

6. Disaster resilience and climate finance

At least 61 million people across the world were affected and over 10,700 were killed by weather-related and seismic events during 2018.[59] Death tolls and economic impacts of such events are typically higher in low income countries than higher-income countries where there are greater resources to protect populations and critical infrastructure from the impacts of natural hazards.[60] Access to concessional finance for recovery and reconstruction will remain critical.[61] Several initiatives are also underway to prepare funds in advance in order to mitigate the impact of disasters (box 3). Insurance-type instruments, especially parametric insurance and state-contingent instruments that financially prepare for crisis response, can complement these.[62] To reduce existing risk and prevent the creation of new risk, it will be critical to build more resilience to disasters before they strike, and to incorporate disaster risk reduction in national sustainable development strategies.

6.1 Addressing disaster risk

In light of the growing frequency, intensity and economic impact of disasters, disaster risk reduction should be an integral part of sustainable development planning, as called for by the Paris Agreement and Sendai Framework for Disaster Risk Reduction.[63] This requires an increase in resilience, as the capacity of a society to cope and adapt, together with a reduction of its vulnerability to hazards.[64] While the level of disaster risk exposure can be reduced by regional and urban planning—through minimizing the location of people and tangible assets in hazard-prone areas, for example—the resilience of a society depends on physical, social and economic factors that are also foci of sustainable development strategies. Funding for climate and disaster resilience thus needs to be considered as part of the integrated national financing frameworks discussed in chapter II.

Box 3

International initiatives to lessen disaster impact

Early interventions can help save lives, mitigate suffering and significantly lower the cost of responding to the humanitarian consequences of shocks. With forecasting and communication of early warnings improving over the years, work has advanced on translating early warning into early action.[a]

The Central Emergency Response Fund (CERF) of the United Nations is developing a formal approach to finance anticipatory humanitarian action to help support early action at scale. This could include slow-onset emergencies such as droughts, as well as imminent sudden-onset disasters like cyclones and floods, and potentially also infectious disease outbreaks, with a focus on reducing or preventing humanitarian consequences. By providing a degree of assurance of access to early action funding, CERF could also incentivize domestic actors to invest in preparedness activities, such as collective risk analysis, contingency planning and other anticipatory actions.

The Contingency Fund for Emergencies (CFE) of the World Health Organization (WHO) was set up in 2015 in response to the Ebola outbreak in West Africa. It allows WHO to respond rapidly to disease outbreaks and health emergencies, often in 24 hours or less, saving lives and reducing long-term costs. Donors contributed $38 million in 2018, more than three times the level of 2017, which has allowed WHO to respond rapidly to 20 disease outbreaks, 6 disasters deriving from natural hazards and 2 complex emergencies in 2018 alone.

The Green Climate Fund (GCF), responding to calls from African countries, has invested in climate information services and early warning systems to help vulnerable communities, particularly farmers, choose the right crops and avoid a lost growing season and the risk of famine. For instance, in the Zambia, a joint GCF climate information services project with the United Nations Development Programme will help farmers who rely on rain-fed agriculture better plan as rainy seasons become more erratic. Monitoring stations will be combined with "last mile" communications to ensure crucial information reaches those most impacted by climate-induced seasonal variations.[b]

a United Nations, Report of the Secretary-General on international cooperation on humanitarian assistance in the field of natural disasters, from relief to development (A/73/343).
b Green Climate Fund, "Strengthening Climate Resilience of Agricultural Livelihoods in Agro-Ecological Regions I and II in Zambia." Available from https://www.greenclimate.fund/projects/fp072.

Through ex ante resilience building, Governments and their international partners can expect to save on large recovery costs, in addition to reducing human suffering and economic and social disruptions and environmental degradation. These savings can be substantial for small states with high vulnerability to natural hazards. Preliminary results from the International Monetary Fund (IMF) for six small island developing States find average savings—net of amounts spent on building resilience—of 10 per cent of initial GDP over a 20-year period, based on the historical frequency of disasters. These savings could increase to up to 14 per cent of recipient's base-year GDP if the frequency of disasters increases.

The international community, including multilateral financing institutions, can support countries in this effort through financial support and technical assistance in identifying, planning, sequencing and implementing measures embedded in multi-year disaster risk reduction strategies and plans. The Global Risk Financing Facility, set-up by Germany, the United Kingdom of Great Britain and Northern Ireland and the World Bank, and the Global Facility for Disaster Reduction and Recovery are initiatives in this regard. The IMF can help with the macrofiscal elements of a disaster risk reduction plan, including helping countries to generate fiscal revenues and improve public financial management systems. The joint IMF/World Bank Climate Change Policy Assessment currently being conducted on a pilot basis helps to identify key policy gaps in adaptation and mitigation policies.

The United Nations is moving towards a joint approach to environmental and social standards in its programming on climate change mitigation and adaptation and disaster risk reduction, among others. The joint approach aims to minimize greenhouse gas emissions from supported activities and ensure all programming is sensitive to and informed by climate change and disaster risk considerations.[65]

Tracking official cooperation geared towards disaster risk reduction is difficult, but efforts are being made to improve relevant statistics, focused on project and programme information captured in the DAC database (box 4).

6.2 Climate finance flows

Developed countries committed in 2009 at the Fifteenth Conference of Parties (COP15) of the United Nations Framework Convention on Climate Change (UNFCCC) in Copenhagen to jointly mobilize $100 billion a year by 2020 from multiple sources for climate action in developing countries. At the Paris Conference on Climate Change in 2015, developed countries agreed to maintain that target through 2025 and to consider raising it for ensuing years.[66] In December 2018, at COP24 in Katowice, Parties agreed to initiate deliberations on the new target in November 2020.

Box 4

Measuring cooperation for disaster risk reduction

While there are established reporting mechanisms and standards, however incomplete, for measuring public and private climate finance flows, it is harder to identify resources designated specifically for disaster risk reduction, including resilience building. In the past, it was only possible to estimate concessional flows for disaster risk reduction from Organization for Economic Development and Cooperation (OECD)/Development Assistance Committee (DAC) member countries by reviewing official development assistance (ODA) purpose codes and project descriptions on a case-by-case basis, which made it difficult to obtain reliable statistics and compare trends over time or between country groups.

One recent attempt to estimate these flows by the OECD and World Bank sought to identify ODA financing for climate and disaster risk reduction in small island developing States (SIDS) during 2011–2014. Concessional finance in support of climate and disaster risk reduction nearly doubled over the study period, representing 14 per cent of the total concessional finance for SIDS during this period. Resilience finance was dominated by investments in resilient infrastructure in just a few countries and tended to follow large disasters. Predictable, long-term financing was scarce,[a] making it difficult for SIDS to integrate flows into longer-term planning for disaster risk reduction, in the broader context of an integrated national financing framework.

In January 2018, the DAC approved a policy marker for aid projects that address disaster risk reduction, developed in collaboration with the United Nations Office for Disaster Risk Reduction (UNISDR).[b] By accurately tracking the incidence of disaster risk management projects and programmes in development cooperation, the policy marker can encourage the mainstreaming of disaster risk reduction into development planning. It can also provide a reliable means of gauging disaster risk reduction mainstreaming within development cooperation and, over time, provide an incentive to increase risk-informed development investments. The marker thus supports the achievement of target (f) of the Sendai Framework. Reporting on the disaster risk reduction marker will start in 2019, for spending in 2018.

a OECD and World Bank, "Climate and Disaster Resilience Financing in Small Island Developing States", pp. ix-xi. (Washington, D.C., World Bank, 2016).
b OECD, "Proposal to Establish a Policy Marker for Disaster Risk Reduction (DRR) in the OECD DAC Creditor Reporting System (CRS)", DAC Working Party on Development Finance Statistics (OECD, December 2017).

While the target has not yet been reached, climate finance has been growing significantly. According to the latest estimates from the Standing Committee on Finance of the UNFCCC, total climate financial flows from developed to developing countries—including public flows and mobilized private flows—reached $71 billion in 2016, an increase of almost 20 per cent over 2015. Both public and private flows increased, from $49 billion to $56 billion and from $11 billion to $16 billion, respectively. On a statistically comparable basis with earlier data collection, total global climate finance flows increased 17 per cent from 2013–2014 to 2015–2016, with public flows increasing 26.5 per cent.[67]

Public flows from bilateral, regional and other channels, as well as multilateral climate funds, increased from $31 billion in 2015 to $36 billion in 2016.[68] MDBs are another important source of public climate finance, with MDB climate flows from developed to developing countries of from $17 billion to $20 billion in 2016, up from $16 billion to $17 billion in 2015.[69]

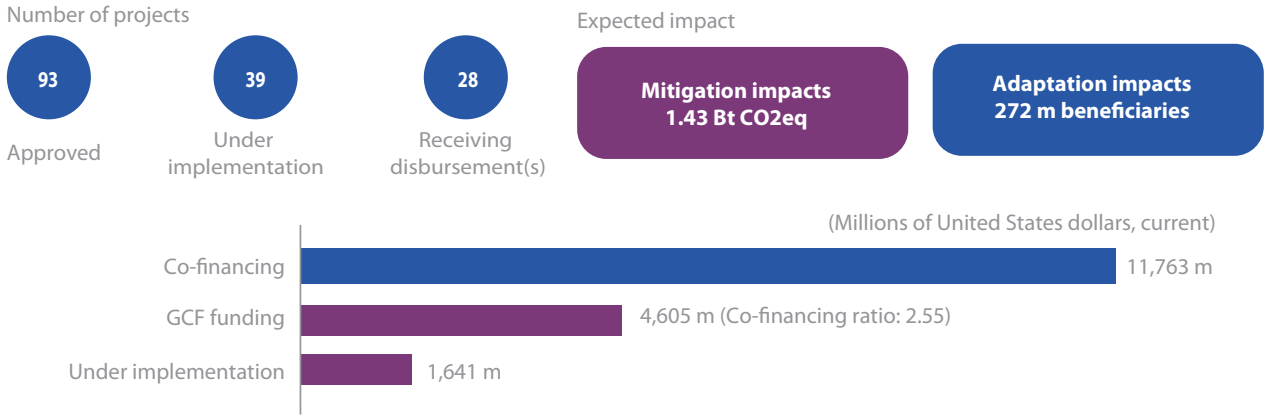
The 24 national and regional development banks of the International Development Finance Club (IDFC) made $220 billion of climate finance commitments in 2017, an increase of $47 billion over 2016.[70] Many of these investments were made domestically, including by the China Development Bank and Banco Nacional De Desenvolvimento Economico e Social (BNDES) of Brazil, as well as by Kreditanstalt für Wiederaufbau (KFW) in Germany. As IDFC members invest both nationally and across borders, it is difficult to identify the share of flows from developed to developing countries.

The UNFCCC Standing Committee on Finance finds that 24 per cent of bilateral climate flows went to LDCs and 2 per cent went to SIDS. For both country groups, which are among the most vulnerable to the effects of climate change, about half of these flows were allocated to adaptation projects, which can also have a developmental impact. Of the approved financing from multilateral climate funds, 21 per cent went to LDCs and 13 per cent to SIDS, and more than half of this was allocated to adaptation. Fifteen per cent of MDB climate finance went to LDCs and SIDS together, with 41 per cent of that total allocated to adaptation.[71]

The Green Climate Fund (GCF) was established in 2010 and serves as a primary operating entity of the financial mechanism of the UNFCCC and the Paris Agreement. In 2015, it received pledges for $10.3 billion, although only $7 billion has materialized. As of October 2018, GCF had approved $4.6 billion to 93 projects and programmes (figure 11). In October 2018, GCF launched its first formal replenishment process, to be finalized in 2019.

All developing-country parties to the UNFCCC are eligible to receive resources from the GCF. However, many developing countries have noted that the accreditation process is difficult to navigate and requested GCF to facilitate direct access. In response, GCF has included a readiness programme and preparatory support programme, engaging with 122 countries (as of February 2019). Of the $140 million approved for readiness support, just under 50 per cent was for the formulation of National Adaptation Plans (NAPs) or other adaptation planning processes.[72] GCF support for adaptation planning processes is also being used to design financing strategies for countries to implement adaptation priorities, including with private investment, public resources, and a pipeline of projects and programmes for consideration by GCF and other climate funds.

Figure 11
Project financing by the Green Climate Fund, 2015–2018



Source: Green Climate Fund, "Portfolio Dashboard". Available from https://www.greenclimate.fund/what-we-do/portfolio-dashboard.

7. Quality, impact and effectiveness of development cooperation

7.1 National development cooperation policies

Developing countries have adopted national development cooperation policies (NDCPs) to help mobilize and align development cooperation with their national sustainable development goals. According to recent Development Cooperation Forum (DCF) survey results, 39 of 58 responding countries reported they had NDCPs or a similar policy in place.[73] While NDCPs vary in form and scope across countries, they generally (i) set a vision on the role and use of development cooperation to achieve national sustainable development plans; (ii) establish guiding principles and policy guidelines; (iii) identify key policy objectives and commitments; (iv) outline partnership and dialogue arrangements; (v) set out the responsibilities of implementing institutions and mechanisms; and (vi) outline monitoring and evaluation arrangements. NDCPs have proven to be an effective tool to help ensure broad-based country ownership and leadership; improve the quality of development partnerships; and get better results from development cooperation, including through increased transparency and accountability. NDCPs are an integral part of developing countries' integrated financing frameworks (see chapter II).

In response to the changing development cooperation landscape, NCDPs have evolved. They are covering an increasingly diverse range of finance sources and development actors beyond ODA. For example, NCDPs increasingly integrate South-South cooperation and make linkages to domestic resource mobilization and the engagement of the private sector (figure 12).

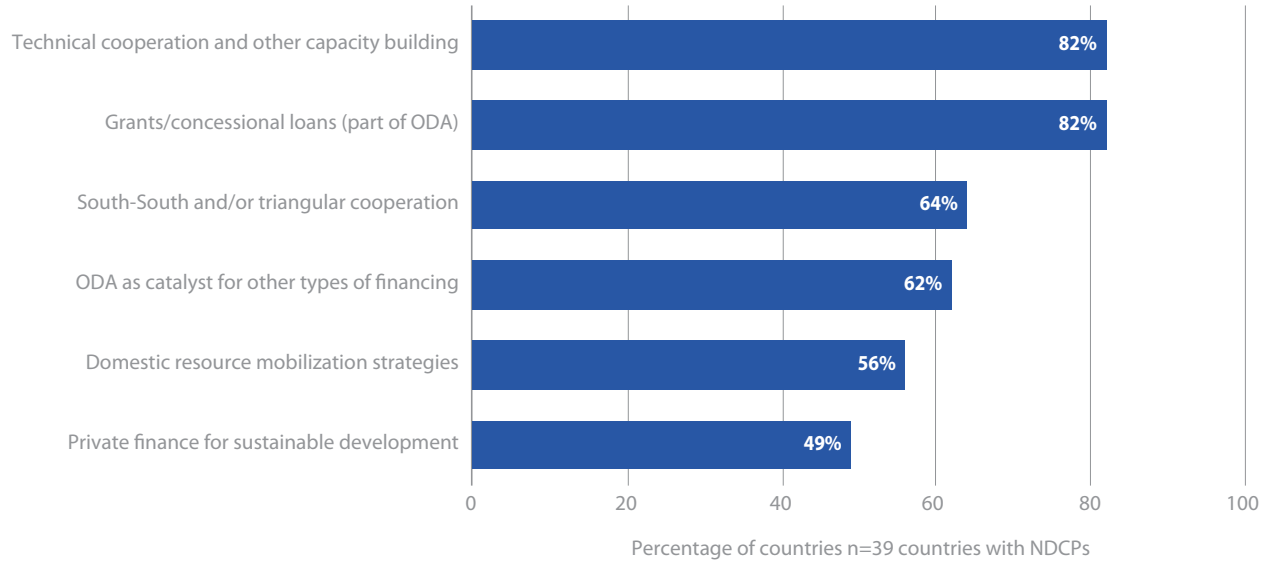
Most developing countries have also institutionalized policy dialogues as a platform for engaging a wide range of stakeholders, including those who will be directly affected by specific development cooperation projects.[74] In this spirit, a number of countries have taken or are currently taking steps to enhance the participation of stakeholders in their national policy coordination dialogues. For example, Kenya has reformed its multi-stakeholder dialogue platform to ensure inclusion of the full variety of partners, including county governments.[75]

Nonetheless, meaningful and effective participation of the private sector and community-based organizations at the subnational level remains limited, and discussions in national coordination bodies largely involve traditional Government partners.[76] Going forward, beyond reaching out to a broader set of development actors, it will be important to ensure a more effective participation of beneficiaries. The latter will be key for making sure the voices of the poor, marginalized and vulnerable groups, and minorities are heard and that their needs are understood and reflected in national development cooperation policies and priorities.

7.2 Monitoring and review of development cooperation

At the global level, more detailed and transparent information on development and humanitarian flows is being published. In 2018, over 250 additional orga-

Figure 12
Coverage of development cooperation instruments in NDCPs, 2018
(Percentages)



Source: UNDESA, "National mutual accountability and transparency in development cooperation: Study on the findings of the Fifth DCF Survey", p. 8.

nizations began reporting to the International Aid Transparency Initiative (IATI), bringing the number of publishers that regularly report data to more than 900 donor Governments, multilateral agencies, foundations, non-governmental and private sector organizations.[77] The number of published cooperation activities increased to well over one million.

Developing countries are reporting an increased use of IATI data to inform the planning and coordination of development and humanitarian resources. Despite this progress, they continue to face challenges in collecting, managing and using data and information on development cooperation, due in part to late or non-reporting of donor organizations. Additional work, including capacity-building, is also needed to generate improved data and make better use of existing data (see also section 2.3 above).

Over half of the developing countries participating in the 2018 DCF Survey had adopted country-led development cooperation results frameworks, to encourage use of their own country systems and to reduce the administrative burden caused by multiple donor reporting systems. Only 12 per cent of countries reported that development partners still had completely parallel results frameworks.[78]

Nonetheless, only 38 per cent of the countries that had country results frameworks in place reported that monitoring had "highly improved" the alignment of partners' activities with national priorities.[79] Moreover, while many developing countries have set targets for what information they need to provide in their national results frameworks, bilateral donors have adopted targets in less than a third of the countries that have these frameworks.[80] A rising challenge is also to monitor donor engagement with local private sector partners, the overwhelming majority of which do not include the national Government as a partner.

Efforts to strengthen the monitoring of the quality, impact and effectiveness of development cooperation are also ongoing as part of the Global Partnership for Effective Development Cooperation. Over 80 countries participate at the country level.[81]

Southern partners have stepped up their own cooperation assessment systems and processes. While they have stressed that a single definition and methodology for reporting on South-South cooperation is neither feasible nor desirable, a growing number of them are developing approaches to assess the quality, effectiveness and impact of their development cooperation, measured against their national circumstances and priorities.[82] Efforts are being made to share evaluation procedures and standards at the regional level, the most advanced example being that of the Ibero-American countries.

7.3 Progress in untying ODA

The DAC has long recognized that untying aid can allow countries to source more competitively priced inputs; support local or regional firms; generate local expertise and promote better alignment of ODA with the objectives and financial management systems of recipient countries.

In 2016, the share of untied aid reported by DAC countries accounted for 79.8 per cent of total ODA. For the countries covered by the 2001 DAC recommendation to untie ODA to LDCs and non-LDC Heavily Indebted Poor Countries (Untying Recommendation), this share was higher, reaching 88.3 per cent of ODA.[83] The reach of the Untying Recommendation was extended in October 2018, when the DAC agreed to add 10 countries to the list of covered countries.[84] It now covers 65 countries but still excludes many countries and key sectors.

Box 5

Total official support for sustainable development: progress in the methodology for measuring cross-border resource flows in support of the Sustainable Development Goals

Total official support for sustainable development (TOSSD) is a statistical framework initiated by the Organization for Economic Cooperation and Development to measure external officially supported finance for sustainable development and the Sustainable Development Goals (SDGs). TOSSD is a two-pillar framework that aims to track officially supported (i) cross-border resource flows to developing countries and (ii) global and regional expenditures in support of development enablers (e.g., global public goods) to address global challenges. It includes both official resources and resources mobilized from the private sector by official development finance interventions, regardless of their level of concessionality.

In response to the call of the Addis Ababa Action Agenda to develop TOSSD in an open, inclusive and transparent way, an International Task Force[a] was established in July 2017 to develop TOSSD Reporting Instructions, which define the main statistical parameters (definitions, measurement methods, taxonomies) of the two-pillar framework. In January 2019, the Task Force concluded the methodology to track cross-border resource flows to developing countries (pillar I). A data survey will be conducted in the first months of 2019 to start collecting TOSSD data at the activity level. The TOSSD Task Force has also started developing the methodology for pillar II and aims to complete it in 2019.

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DAC procurement statistics illustrate that "informal tying" remains a major challenge. In 2016, 51 per cent of the value of bilateral ODA contracts reported to the DAC flowed to firms in donor's own countries.[85] Development partners must take urgent action to remove barriers, to allow developing countries, including LDCs, to better tap into the important double dividend that local procurement can bring when economic conditions are right. This is particularly critical against the backdrop of ongoing efforts to scale up blended finance (see section 5). Without the appropriate regulatory or policy framework, increased reliance on blended finance poses a real risk of a proliferation of tied or "informally tied" aid.[86]

Endnotes

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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

The multilateral trading system has made a significant contribution to economic growth and development. Despite this contribution, the system is facing serious challenges. Following the positive trade momentum over the last two years, 2018 saw growing trade tensions and increasing threats to the functioning of the World Trade Organization (WTO) and its dispute settlement system. Trade growth is expected to slow in 2019 with significant downside risks associated with escalating trade tensions. These challenges present an opportunity to make the system work better, by finding solutions within the multilateral trading system, updating the WTO and revamping the trading system for a new century. In their communiqué at the Group of Twenty (G20) summit in Argentina, G20 leaders recognized the contribution of the multilateral trading system and committed to support the necessary reform of the WTO to improve its functioning. ***Governments can use appropriate intergovernmental meetings to accelerate progress on WTO reform.*** In addition, it is hoped that WTO members will complete long-standing work on the development agenda.

Strengthening trade's contribution as an engine for inclusive economic growth and poverty reduction is particularly important to least developed countries (LDCs), which remain far below the target of doubling their share of global exports by 2020. With a view to continually improving market access for LDC exports, ***WTO members should expeditiously implement the Ministerial Decisions on preferential rules of origin for LDCs and on preferential treatment of LDC services exports.***

Trade has income distributional effects, underscoring the importance of trade and supporting policies aimed at reducing inequality and empowering women, in both developed and developing countries. For example, trade patterns and challenges tend to present gender-based differences. ***New and existing trade and investment agreements are encouraged to address synergistic linkages between trade, investment and socio-economic and environmental policy (e.g., finance, taxation, competition, labour, gender, and technology) in order to enhance trade's contribution to the Sustainable Development Goals (SDGs).***

Actions are also required to allow micro, small and medium-sized enterprises (MSMEs) to better tap trade opportunities and integrate into international value chains. The persisting trade finance gap continues to affect them disproportionally. The increase in multilateral development bank (MDBs) provision of trade financing and guarantees is timely, but would need to be complemented by greater private finance, as well as potentially by national development banks. ***A greater focus needs to be placed on financial techniques that are less document intensive as well as on digital platforms and fintech that can help strengthen trade financing for MSMEs***, including by reversing the decline in correspondent banking, which is partly responsible for the trade finance gap.

E-commerce opens new trade opportunities for MSMEs. However, many developing countries, particularly in Africa, remain relatively underconnected to the internet and thus to e-commerce platforms. This underlines the importance of increasing investment in information and communication technology (ICT). ***The upcoming plurilateral negotiations on e-commerce at WTO should address the need for resources to enhance e-commerce readiness of MSMEs in developing countries.***

Improving trade facilitation, including improving efficiency in customs revenue collection and

sustainable and climate-resilient transport, presents immense potential in reducing trade cost and increasing pubic revenue. ***International assistance remains critical to making progress in these areas, notably through Aid for Trade.***

2. Developments in international trade

2.1 Trends in world trade

The value of total merchandise trade in 2017 increased by 10.4 per cent to $17.7 trillion, following two years of negative trade growth in 2015 and 2016.[1] The value in 2018 is estimated to have reached $19.6 trillion. This trade growth exceeded global output growth, bringing the export-to-output ratio back on an upward trend (figure 1). Key drivers included a rise in commodity prices particularly of fuel, minerals and non-precious metals. South-South trade remained strong, accounting for 28 per cent of global trade, particularly in East Asia. Following a slight increase in 2017, developing countries accounted for 45 per cent of world merchandise exports and 42 per cent of imports. Trade growth, however, is expected to decelerate in 2019, influenced by escalating trade tensions and slow growth in global demand.

World services trade in 2017 increased by 7.8 per cent to $5.4 trillion. Developed economies supply over two thirds of services traded internationally. Across country groups, particularly high growth in service trade was recorded in transition economies and African developing economies, which had a relatively low base.

2.2 Least developed countries in international trade

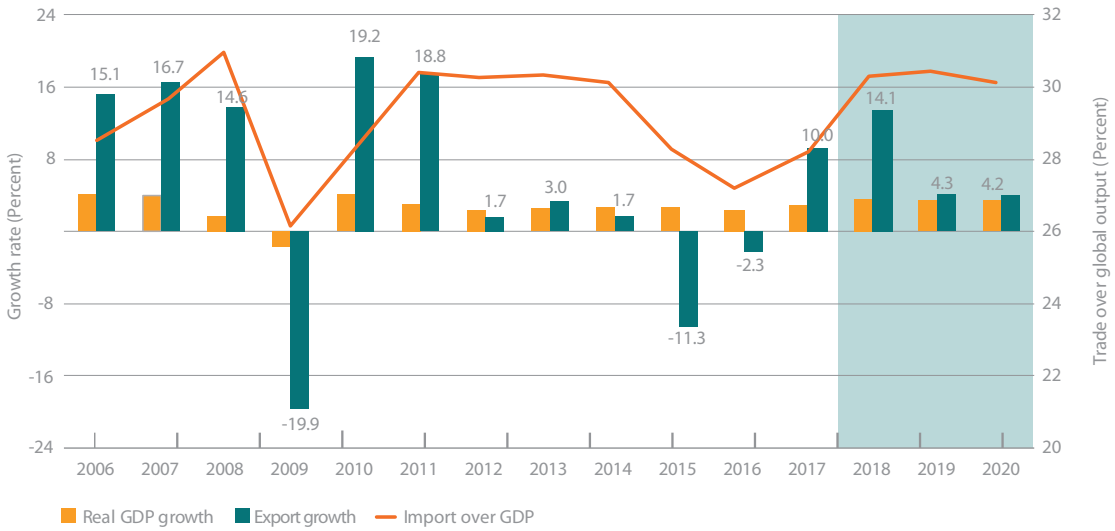
Merchandise exports of LDCs increased by 13 per cent in 2017 after three years of decline, on the back of higher commodity prices with fuels and mining products representing a high proportion of these exports.[2] Nonetheless, the share of LDCs in world exports in 2017 remained less than 1 per cent. This makes doubling the 2011 LDC share of global exports (1.1 per cent) by 2020—one of the targets in the Addis Ababa Action Agenda and the SDGs—highly unlikely. As regards services exports, the LDCs share has remained at just over 0.7 per cent since 2013, with tourism accounting for about half of their services exports (figure 2).[3]

Providing good market access conditions to LDC exports is essential to meeting the above target. In 2017, almost 66 per cent of LDC exports to the world (in terms of tariff lines) were admitted duty free, with an increase of 5.5 percentage points from the previous year (figure 3.a). This increase reflected an expansion of duty-free treatment to more industrial products and agricultural products. Duty-free treatment is rather limited in the clothing sector, despite improvements recorded since 2016. This may hamper the chance for LDCs to further participate in global value chains (GVCs) in this sector (figure 3.b).

The boost to LDC export competitiveness that is granted by duty-free treatment can be in part measured by the magnitude of the preferential tariff margin (i.e., the difference between the preferential tariff rate for LDCs and the non-preferential tariff rate (figure 4).

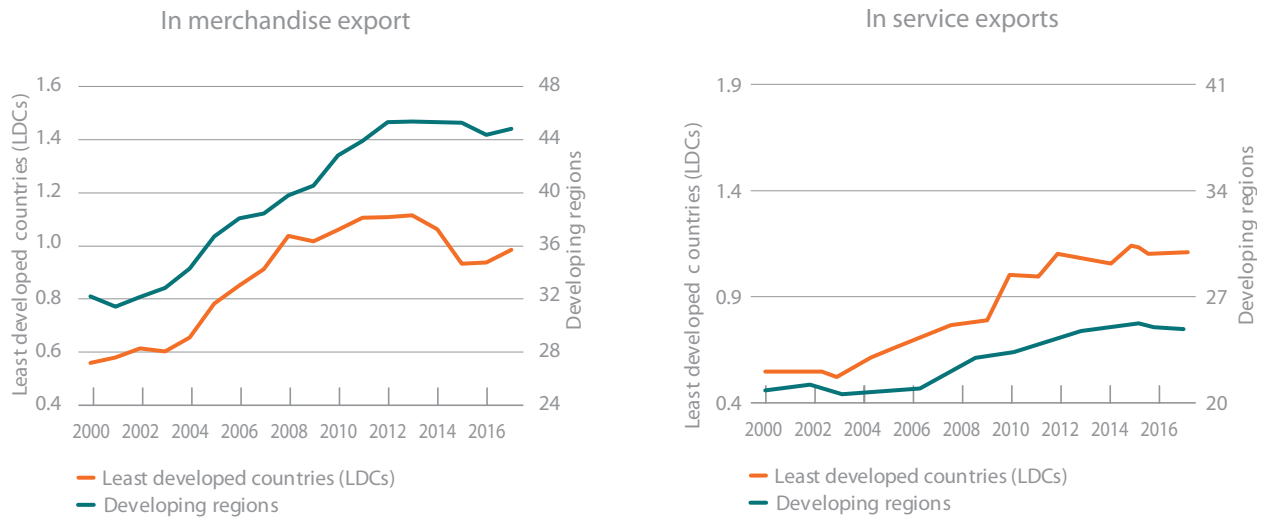
The effectiveness of preferential market access depends also on the rules of origin conferred to LDC exports (i.e., the criteria needed to prove that the prod-

Figure 1
World export growth (merchandise and services) versus output growth
(Percentage)



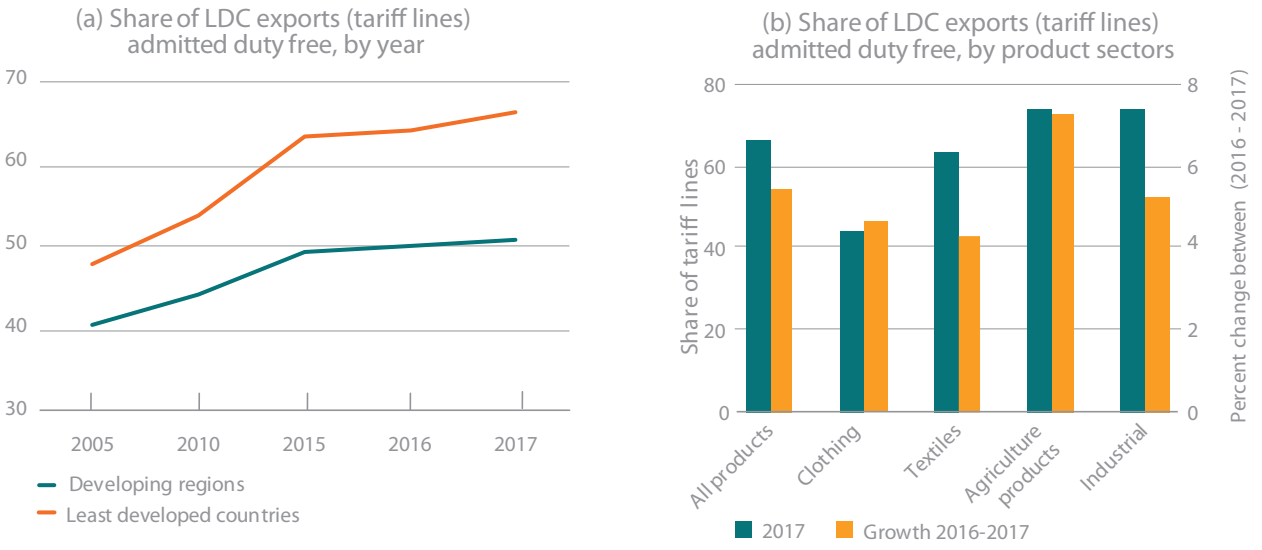
Source: UNCTAD (forthcoming), Key Statistics and Trends in International Trade 2018
Note: Remark: the blue-shaded area represents UNCTAD estimates for the years 2018-2020.

Figure 2
Share of LDCs and developing countries in World Trade, 2017
(Percentage)



Source: ITC/UNCTAD/WTO.

Figure 3
Share of least developed countries exports receiving duty-free treatment
(Percentage)



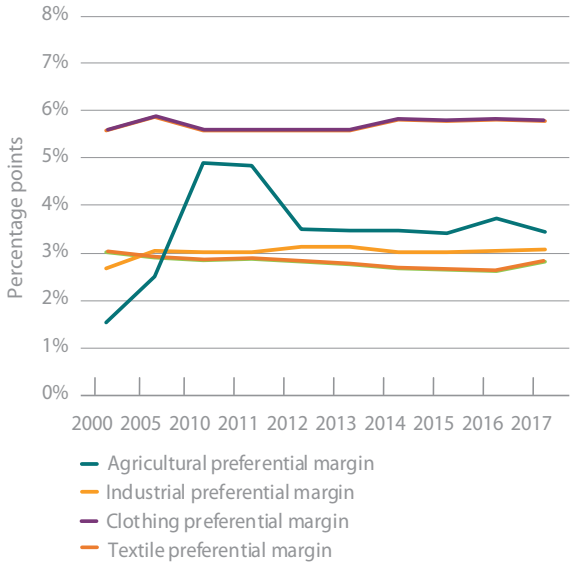
Source: ITC/UNCTAD/WTO.

ucts were sourced in LDCs). Certain preferential rules of origin remain restrictive by requiring a "substantial" degree of transformation of a product to take place within an LDCs. This may reduce the usefulness of preferential market access, particularly for products manufactured by LDCs. According to International Trade Centre (ITC) studies on non-tariff measures (NTMs) in over 60 countries, rules of origin and related certification requirements remain among the most recurring obstacles to trade faced by MSMEs.[4] With a view to improving transparency in preferential rules of origin, ITC, World Customs Organization and WTO launched the Rules of Origin Facilitator, which provides information on product-specific criteria, origin certification, cumulation, and other provisions that can allow businesses to reap the benefits of preferential treatment. [5]

In addition to preferential tariff treatment, NTMs such as product-labelling standards and sanitary and phytosani-

tary (SPS) measures exert a significant impact upon market access conditions facing LDCs. Technical assistance from development partners and value-chain managers to improve infrastructural, organizational, administrative and technical capabilities of LDCs would help them overcome the market restrictive impact of NTMs on their exports.

Figure 4
Preferential tariff margins for LDC exports in developed-country markets
(Percentage)



Source: ITC.

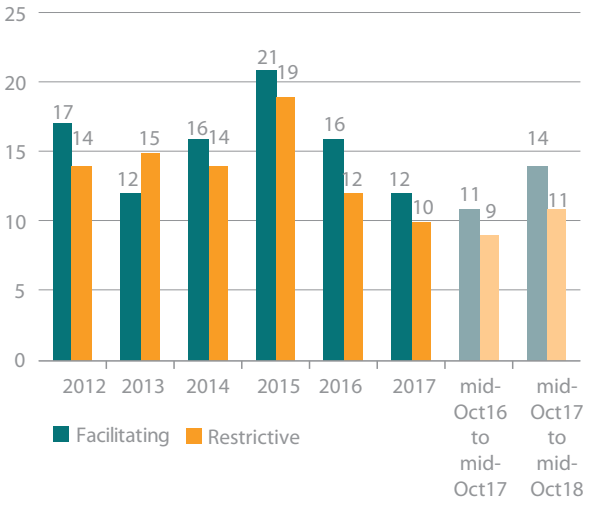
2.3 Trade restricting and facilitating measures

WTO members implemented an increasing number of trade restrictive measures (totaling 137 new measures, equating to 11 new measures a month) from October 2017 to October 2018.[6] Restrictive measures include tariff increases, quotas, import taxes and stricter customs regulations. The proliferation of trade-restrictive actions and the uncertainty created by such actions could place economic recovery in jeopardy. Further escalation would carry potentially large risks for global trade, with knock-on effects for economic growth, jobs and consumer prices around the world.

While WTO members implemented 162 measures aimed at facilitating trade during the period, the estimated trade coverage of import-facilitating measures ($295.6 billion) is half that of trade-restrictive measures, which amounts to US$ 588.3 billion—more than seven times larger than that recorded a year ago.

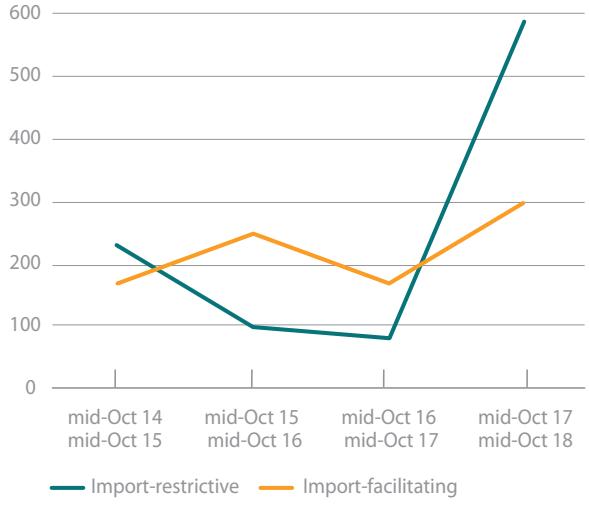
There is a similar trend in initiations and terminations of trade remedy investigations by WTO members. Trade remedy measures cover (i) actions taken against dumping; (ii) subsidies and "countervailing" measures to offset subsidies; and (iii) emergency measures to limit imports temporarily, designed to "safeguard" domestic industries.[7] They continued to be an important trade policy tool for members accounting for about 63 per cent of all trade measures captured in the annual report by the WTO Director General.[8] Initiations of anti-dumping investigations continue to be the most frequent trade remedy action. The recorded trade coverage of trade remedy initiations and terminations is estimated at $93.6 billion ($17 billion more than a year ago) and $18.3 billion ($6 billion more), respectively.

Figure 5
Trade-restrictive and trade-facilitating measures, excluding trade remedies 2012-2018
(Average number per month)



Source: WTO Secretariat.
Note: Values are rounded. Changes to averages of previous years reflect continuing fine tuning of, and update to, the Trade Monitoring Database.

Figure 6
Trade coverage of import-restrictive and import-facilitating measures
(Billions of United States dollars)



Source: WTO Secretariat.
Note: Values are rounded. Changes to averages of previous years reflect continuing fine tuning of, and update to, the Trade Monitoring Database.

3. The multilateral trading system

The multilateral trading system provides the constitution for global trade, establishing shared principles which underpin trading practices around the world. It provides a global forum for discussion and debate on trade issues, along with mechanisms for countries to monitor and review each other's trade policies and the means to settle disputes when they arise. Its current crisis put trade prospects at risk but presents an opportunity to emerge with a strengthened and reinforced system.

3.1 The multilateral trading system in crisis

The year 2018 cast doubt over the future of a sound multilateral trading system under WTO. The world faces a potential trade war among large economies. The fact that China and the United States of America agreed in December 2018 to halt their reciprocal tariff increase for 90 days is good news but falls short of eliminating the risk of a trade war. A continued escalation would risk a major economic impact, threatening jobs and growth in all countries, as well as the attainment of the SDGs. Just for Asia and the Pacific alone, estimates of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) show that, at a minimum, the region will face a net loss of 2.7 million jobs if the trade tensions are not resolved, with employment losses 66 per cent higher for unskilled workers than for skilled workers.[9]

Nonetheless, the current situation is putting a new focus on the multilateral trading system as a place where solutions may be found. Business associations are calling on Governments to refrain from putting up new barriers. A high-level conversation about WTO reform or modernization is beginning to emerge, which can address some of the trade problems that some members have identified. However, a conversation focused on technical issues is not going to provide a way out of the current political crises. A solution would require a political commitment and may require hard compromises.

As WTO members discuss these challenges, they will also have to address the threat to the dispute settlement system of the WTO. This system is the mechanism through which members hold each other to account for perceived infractions, and preventing trade disputes from escalating into more serious confrontations. Many disputes are resolved before they reach the litigation stage, in part because the rules and precedents of the dispute settlement system provide a framework within which parties can shape agreements. When disputes do proceed to the settlement system, compliance with rulings is very high, with about 90 per cent of the rulings already fully implemented.

Despite being effective and in high demand, the dispute settlement system may soon be paralyzed. The appointment process for the Appellate Body—the body of adjudicators which hears appeals to dispute cases—is currently blocked. As some of the Appellate Body judge's terms come to an end, the number of judges will soon fall below the minimum of three judges needed to hear an appeal.

These threads must come together in the conversations ahead about improving the WTO. The world needs the WTO and the multilateral trading system that it underpins. Members must use this moment of crisis to strengthen global cooperation on trade, which ultimately is in the interest of all and remains a crucial element in the attainment of the 2030 Agenda for Sustainable Development.

3.2 Progress on multilateral trade negotiations

While progress in many areas of trade negotiations has been slow, some major deals have been reached in recent years under the WTO, including the Trade Facilitation Agreement; the abolition of agricultural export subsidies; and the expansion of the Information Technology Agreement to cover additional products, for which trade is valued at over $1.3 trillion per year.[10] Acknowledging the importance of gender-responsive policies, WTO members and observers also endorsed in 2017 a collective initiative to increase the participation of women in trade - the Buenos Aires Declaration on Trade and Women's Economic Empowerment, which expresses ways of collaborating among countries to make trade and development policies more gender-responsive.

Nonetheless, the WTO Ministerial Conference in Buenos Aires in 2017 highlighted fundamental differences and divisions among the members, notably on certain issues under the agricultural negotiation pillar. Renewed efforts are required to move beyond these differences and make progress on a range of issues vital for growth and development.

In agriculture, a new model for advancing negotiations has been proposed, following a series of thematic sessions held in the second half of 2018, with the establishment of seven working groups for a trial period from January to April 2019. These working groups are expected to address Domestic Support, Public Stockholding for Food Security purposes, Cotton, Market Access, Special Safeguard Mechanism, Export Competition and Export Restrictions. An outcome in agriculture negotiations would notably contribute to SDG 2 (zero hunger) and SDG 17 (partnerships for the goals).

In negotiations on fisheries subsidies, three consecutive work programmes covering work from May 2018 to July 2019 were established. These aim at putting members in a position to meet the deadline of end-2019 as set out in target 14.6 of the SDGs and reaffirmed at the Ministerial Conference in Buenos Aires. This will require full engagement of all delegations and should contribute to SDG 14 (life below water) by reaching an agreement that prohibits certain forms of fisheries subsidies that contribute to overcapacity and overfishing and eliminates subsidies that contribute to illegal, unreported and

unregulated-fishing with appropriate and effective special and differential treatment for developing-country members and LDC members.

4. Bilateral and regional trade and investment agreements

4.1 Regional trade agreements

The slow progress in multilateral negotiations is partly responsible for the proliferation of bilateral, regional and interregional free trade and investment agreements, which have increased since the early 1990s. As of January 2019, 291 regional trade agreements are in force.[11]

Trade tensions and uncertainties about the multilateral system have given a new impetus to regional integration initiatives. For example, there is a clear trend in China and other Asian economies that appear to speed up the negotiation and implementation of trade deals with each other.[12] A number of trade agreements among major economies recently entered into force, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) (on 30 December 2018), the EU-Canada Comprehensive Trade Agreement (CETA) (provisionally on 21 September 2017), and the EU-Japan Economic Partnership Agreement (1 February 2019). Recently concluded negotiations include the African Continental Free Trade Area (AfCFTA) (21 March 2018) and the United States-Mexico-Canada Agreement (USMCA) (30 November 2018).

Regional and bilateral trade agreements can be aligned with sustainable development, including the environment, climate change, labour rights and gender (box 1).

Box 1

Gender and regional trade agreements

Regional trade agreements (RTAs) may ignite new trade flows, which can affect women's well-being and empowerment in their various economic roles as workers, producers, entrepreneurs, consumers and taxpayers. Recent United Nations Conference on Trade and Development (UNCTAD) studies on South-South RTAs found that the reduction of intraregional tariffs led to a "feminization of labour", i.e., an overall increase in women's employment share in manufacturing firms, but only for production (or manufacturing) workers, which tend to be lower-skilled and lower-paid than workers performing administrative or managerial tasks.[a]

These findings reconfirm the need to reflect gender specific impacts in RTAs. Today, an increasing number of RTAs contain chapters addressing the importance of gender mainstreaming in trade policy and the scope of gender-related provisions has expanded significantly (e.g., Chile-Uruguay and Chile-Canada free trade agreement). In 2018, the European Parliament adopted a resolution aimed at better accounting for gender equality in its trade agreements. It is also important to ensure the enforcement of gender-related provisions. The Canada-Israel Free Trade Amending Protocol, signed in 2018, makes the gender chapter subject to a dispute settlement mechanism, which increases its enforceability.

[a] UNCTAD country case studies include Angola, Bhutan, Cape Verde, Gambia, Lesotho, Rwanda and Uruguay. Regional studies include the Common Market for Eastern and Southern Africa (COMESA), EAC, SADC and Mercosur in Latin America. See East African Community Regional Integration: Trade and Gender Implications (UNCTAD/DITC/2017/2) and Teaching Material on Trade and Gender Volume 1: Unfolding the links, Module 4b: Trade and Gender Linkages: An Analysis of Southern African Development Community (UNCTAD/DITC/2018/1) for more detail.

4.2 Investment agreements

International investment agreements (IIAs) are originally meant to promote investment by reinforcing investor confidence through increased stability, predictability and transparency of host country regulatory actions.

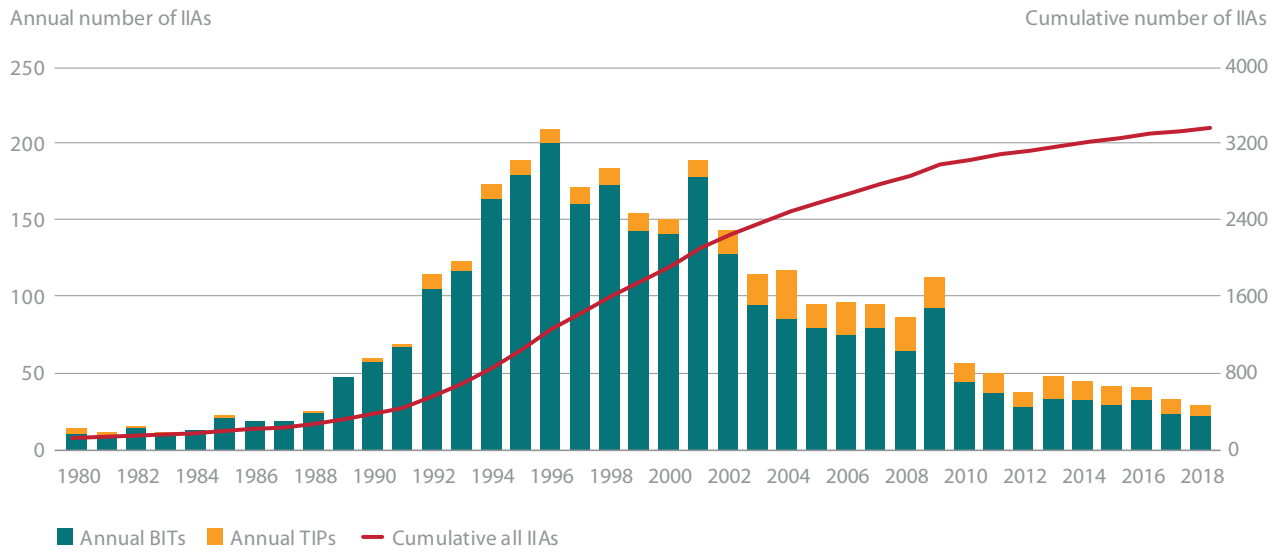
By reducing investors' risks—for example by offering international arbitration for the purpose of investor-State dispute settlement (ISDS)—IIAs aim to increase investment, especially in countries without strong rule of law. The most common type of these agreements is bilateral investment treaty (BIT), with close to 3,000 signed so far.[13]

As the increase in the number of ISDS cases during the last 15 years shows, there has been a concern that IIAs could restrict the regulatory space of Governments, including social and environmental regulation necessary to achieve the SDGs. Against this background, in the Addis Agenda, Member States committed to "…endeavour to craft trade and investment agreements with appropriate safeguards so as not to constrain domestic policies and regulation in the public interest".[14]

Recently, the pace of agreeing on a new investment treaty has been reduced, which may signal a period of reflection and review of international investment policies.[15]

Change is also underway regarding the treaty content. Since 2012, over 150 countries have undertaken at least one action in the pursuit of sustainable development–oriented treaty making, as set out in the UNCTAD Investment Policy Framework for Sustainable Development and its updated Reform Package for the International Investment Regime.[16] The Reform Package proposes three phases of reforms.

Figure 7
Number of signed international investment agreements (IIAs), 1980-2018
(Number of IIAs)



Source: IIA Navigator, UNCTAD (2018) (BIT stands for Bilateral investment treaties and TIPs for Treaties with investment provisions).
Note: Preliminary data for 2018. The cumulative number of all signed IIAs, independently of whether they have entered into force, is 3,339. IIAs for which termination has entered into effect are not included.

Phase I: Improving approaches to new IIAs

Countries have started to negotiate new and modern IIAs. These agreements typically include a sustainable development orientation (e.g., clarifying that IIAs should also aim to foster investment for sustainable development), preservation of regulatory space (e.g., including public policy exceptions) and improvements to or omissions of ISDS. This is in striking contrast to treaty making at the turn of the millennium. A comparison between 13 IIAs concluded in 2017 and a sample of 13 IIAs concluded in 2000 shows remarkable differences, as seen in figure 8.

In addition to the reform-oriented elements presented in figure 8, some recent IIAs contain innovative features that were rarely encountered before. These new features can help strengthen the SDG contribution of the investment protected under the treaty. These include

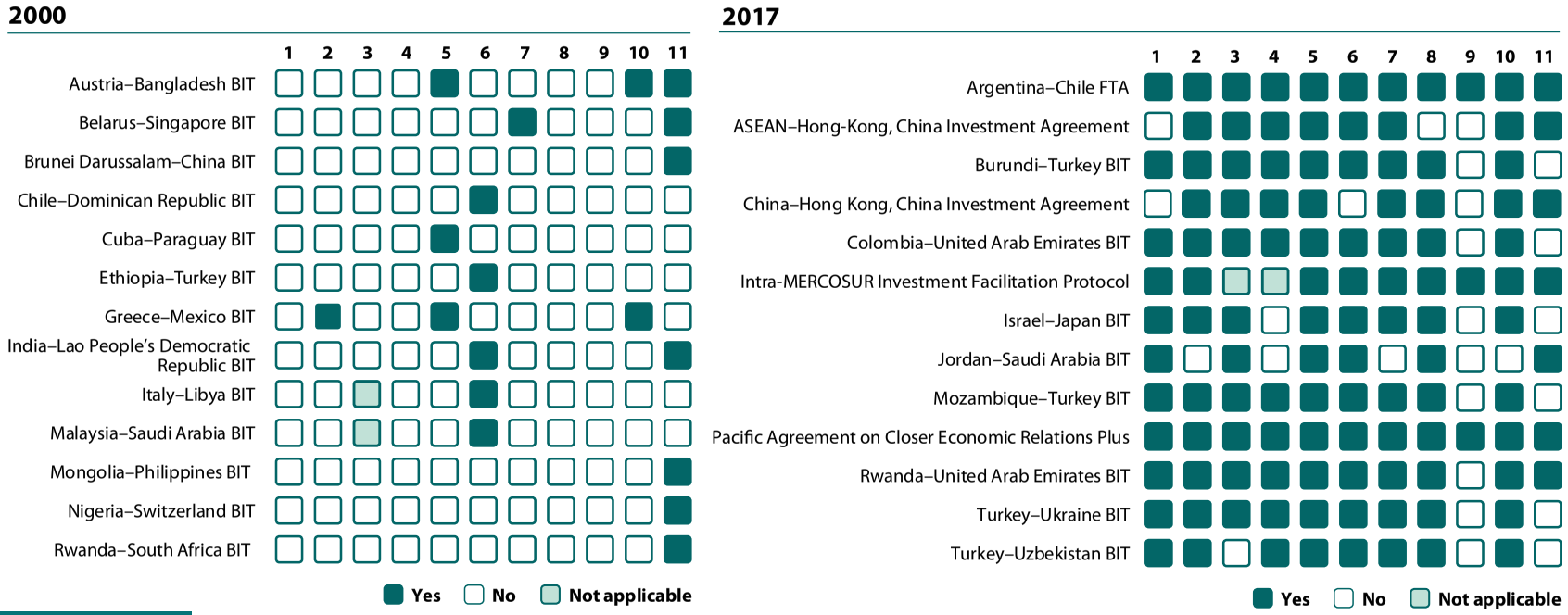
- ***Conditioning treaty coverage on investors' contribution to sustainable development***, requiring that covered investment contribute to the host state's economy or sustainable development;[17]
- ***Fostering responsible investment***, including a "best efforts" obligation for investors to respect the human rights of the people involved in investment activities and promote the building of local capacity and human capital (e.g., Intra-MERCOSUR Investment Facilitation Protocol 2017);
- ***Facilitating counterclaims by the respondent party against the claimant investor***, for instance by requesting the investor's consent for counterclaims when it submits a claim for dispute resolution (e.g., Colombia-United Arab Emirates BIT 2017).

Phase II: Modernizing the existing stock of IIAs

An increasing number of countries have also embarked on the second phase of IIA reform, shifting policy attention towards comprehensively modernizing the stock of outdated first-generation treaties. The UNCTAD Reform Package sets out 10 policy actions to this end. Examples include

- ***Jointly interpreting treaty provisions*** to clarify the content and narrow the scope of interpretative discretion of tribunals. Countries have not only developed and sometimes adopted joint interpretative statements of existing IIAs (e.g., Bangladesh and India Joint Interpretative Notes 2017), but have also strengthened the basis for binding interpretations in recently concluded treaties;[18]
- ***Amending treaty provisions***: Although amendments were used relatively sparingly in the bilateral context, they were used in important regional IIAs. For example, in the CPTPP, individual parties agreed through bilateral side letters to terminate existing BITs, exclude the application of ISDS provisions or provide for tailored ISDS provisions;
- ***Replacing outdated treaties***: Since 2012, some 30 outdated IIAs have been replaced by more modern treaties (e.g., in 2018, Turkey replaced three outdated BITs

Figure 8
Reform-oriented provisions in IIAs concluded in 2000 and in 2017



Selected aspects of IIAs

1. References to the protection of health and safety, labour rights, environment or sustainable development in the treaty preamble
2. Refined definition of investment (e.g. reference to charcter of investment; exclusion of portfolio investment, sovereign debt obligations or claims to money arising solely from commercial contracts)
3. Circumscribed fair and equitable treatment (with reference to customary international law (CIL), equated to the minimum standard of treatment of aliens under CIL or clarified with a list State obligations
4. Clarification of what does and does not constitute an indirect expropriation
5. Detailed exceptions from the free-transfer-of-funds obligation, including balance-of-payments difficulties and /or enforcement of national laws

The scope and depth of commitments in each provision varies from one IIA to another.

6. Omission of the so-called "umbrella" clause
7. General exceptions, e.g. for the protection of human, animal or plant life or health; or the conservation of exhaustible natural resources
8. Explicit recognition that parties should not relax health, safety or environmental standards to attract investment
9. Promotion of corporate and social responsibility standards by incorporating a separate provision into the IIA or as a general reference in the treaty preamble
10. Limiting access to ISDS (e.g. limiting treaty provisions subject to ISDS, excluding policy areas from ISDS, limiting time period to submit claims, omitting an ISDS mechanism)
11. Specific proactive provisions on investment promotion and/or facilitation.

Source: UNCTAD.
Note: BITs listed for 2000 are a sample of IIAs signed in that year. IIAs listed for 2017 are those concluded in that year for which texts are available; this list does not include "framework agreements" that lack substantive investment provisions. Available IIA texts can be accessed at UNCTAD's IIA Navigator at http://investmentpolicyhub.unctad.org/IIA.

with Kyrgyzstan, Lithuania and Serbia). A prominent example is the USMCA, replacing the North American Free Trade Agreement (NAFTA) with some changes (e.g., ISDS will be available only between Mexico and the United States with limited grounds for bringing claims and the necessity to resort first to local remedies and with time limitations applicable to it) and additions (e.g., a corporate social responsibility clause that recognizes the importance of promoting responsible business conduct);

- ***Referencing global standards:*** At least nine recent IIAs refer to specific global standards such as the SDGs (e.g., Morocco-Nigeria BIT 2016). Such referencing can help shape the spirit of the treaty and influence interpretation by arbitral tribunals. However, this does not necessarily create legal clarity;
- ***Engaging multilaterally***: There are several multilateral discussions on investment ongoing. Some have an IIA reform dimension, including the International Centre for Settlement of Investment Disputes (ICSID) proposal for amendment of its Rules,[19] the United Nations Commission on International Trade and Law (UNCITRAL) Working Group III Discussions on Possible Reform of ISDS,[20] and the Fourth Open-Ended Intergovernmental Working Group on Transnational Corporations and the Business Enterprises with Respect to Human Rights.

Phase III: Ensuring investment policy coherence and synergies

Striving for policy coherence does not necessarily imply legal uniformity. Inconsistencies and divergence may be intended. However, different policy areas and legal instruments should work in synergy. The UNCTAD Reform Package offers three prongs of action for improving overall policy coherence:

- Enhancing coherence within national IIA networks;
- Maximizing synergies between the IIA regime and the national legal framework for investment;
- Managing the interaction between IIAs and other bodies of international law that affect investment.

Investment policy makers have been sharing experiences and building consensus on sustainable development-oriented IIA reform at the UNCTAD Annual High-level IIA Conferences.

5. Facilitating international trade

5.1 Trade finance

Access to trade finance is a key enabler of international trade, with about 80 per cent of trade requiring short-term credit or a guarantee. This would imply that $14 trillion in trade finance is needed to finance $18 trillion in annual trade flows. The most well-known instrument, the letter of credit, typically serves to mitigate risks for both exporter and importer—for example, by guaranteeing that goods are shipped before the payment is processed. However, there has been a gradual shift in the conduct of international trade finance activity away from using paper-intensive products to payment and financing on open account terms. In this context, buyer and seller agree to payment at a specific stage in the trade transaction without verification of the documents involved in a documentary credit transaction. This has led to the development of what is referred as supply chain finance solutions. According to a survey of market participants, traditional trade finance, such as letters of credit, still represents the lion's share of respondent activities in this area—85 per cent versus 15 per cent in supply chain finance.[21]

Among supply chain finance solutions, the fastest-growing techniques is payables finance, whereby suppliers, often strategic, are asked to accept extended payment terms. At the same time, they are invited to participate in a payables finance programme and offered the option to secure immediate payment by discounting outstanding invoices at rates based on the credit standing of the large buyer; therefore the cost of finance is significantly less expensive than what the supplier could normally arrange. Payable finance is thus a promising option for making affordable trade financing available to small and medium-sized enterprises (SMEs).

Technology has facilitated the transformation in trade financing away from paper-intensive products, through data analytics and platform-based auctioning for instance. However, technology has yet to deliver its full potential to digitalize trade finance operations. For example, only 9 per cent of banks reported that the technology solutions implemented have so far led to a reduction of time and costs in trade finance transactions.[22]

The evolution of trade finance is timely. It is estimated that, as of 2017, the global trade finance gap is about $1.5 trillion.[23] This represents the amount of trade finance that was requested by importers and exporters but rejected. A significant share of existing trade finance is served by banks (about $9 trillion) the remainder is intercompany lending. In many developing countries, the alternatives to bank financing are scarce, so when rejected by banks, trade transactions are often abandoned.

The gap in trade finance has increased since the global financial crisis, as large banks traditionally active in trade finance reduced lending after the crisis and also cut their networks of correspondent bank relationships, particularly in developing countries (due in part to anti-money laundering regulations in a phenomenon called de-risking, discussed in chapter III.F). This severely affects the provision of trade finance in certain regions, such as some sub-regions of Africa, the Caribbean, Central and developing East Asia, the Middle East, and the Pacific Islands.

Table 1
Overview of the main trade facilitation programs (end 2017)

	EBRD	IFC	IDB Invest	ADB	ITFC	AfDB
Program title	Trade Facilitation Program (TFP)	Global Trade Finance program (GTFP)+other programs	Trade Finance Facilitation Program (TFFP)	Trade Finance Program (TFP)	Trade Finance Program (TFP)	Trade Finance Program (TFP)
Number of countries in operation	26	85	21	22	51	49
Program commencement	1999	2005	2005	2004	2008	2013
Number of transactions since commencement	21,000	57,000	1,770	16,700	602	1,650
Value of transactions/Trade Supported in 2017	$ 2.3 billion	$14 billion	$1 billion	$4.5 billion	$4.9 billion	$ 1.8 billion
Number of confirming banks	800+	1,400	100+	240	NA	14
Claims to date	2 – no losses	Zero	zero	zero	zero	1

Source: Information collected by the WTO from partner institutions and from reports of the International Chamber of Commerce (notably the 2017 ICC Global Survey on Trade and Finance, ICC Banking Commission, Geneva).
Note: ADB = Asian Development Bank, AfDB = African Development Bank, EBRD= European Bank for Reconstruction and Development, IDB = Inter-American Development Bank, IFC = International Finance Corporation, ITFC = International Islamic Trade Finance Corporation.

Trade finance gaps also disproportionately affect SMEs: 60 per cent of trade finance requests by SMEs are rejected, against only 7 per cent for multinational companies. Similarly, woman-owned firms face more frequent rejection for their trade finance proposals.[24] A survey of nearly 15,000 business executives in 141 economies indicates that lack of trade finance is among the top three obstacles to exporting for half of the countries in the world.[25]

To fill these gaps, WTO has led multilateral efforts to mobilize resources for trade finance and advocated in favour of larger support by MDBs, which have increased their activity in trade finance by almost 50 per cent in two years—up to $30 billion. However, this amount remains small relative to the estimated financing gap of $1.5 trillion. These efforts have benefited SMEs; for example, the Asian Development Bank supported trade transactions from more than 2,800 SMEs in 2017.

Trade finance facilitation programmes mostly provide risk mitigation capacity (guarantees) to both issuing and confirming banks, and allow for rapid endorsement of letters of credit. The MDB guarantee ensures that the bank (typically the bank of the exporter) agreeing to confirm a letter of credit (typically issued by the bank of the importer) will be paid even if the issuer defaults. Such guarantees are rarely activated but are valuable because they reduce the risk of conducting trade operations in low-income countries.

However, the long-term solution to filling trade finance gaps is to bring the private sector back into more challenging markets. One barrier to increased trade finance is the relatively high cost of capital on trade finance in Basel capital requirements for commercial banks. This in part reflects incomplete and limited data in the asset class, particularly for some countries in Africa, Central and South America, and the Middle East. Nonetheless, available data shows that default rates on trade finance are generally below defaults in other asset classes. Available data shows that the default rate on letters of credit is relatively stable over time, at 0.2 per cent, the majority of which is recovered through the sale of the underlying asset. Such a default rate is one of the lowest in the financial industry. While the average default rate on short-term import and export loans was 0.8 per cent, about four times as high as letters of credit, this rate is still lower than the average default rate on corporate loans. Further improving data on trade finance credit risks could help make it possible to lower the capital charge for these products.

Table 2
Risk characteristics of short-term trade finance products, 2008-2017

CATEGORY	Default Rate	Implied maturity (days)	Recovery Rate
Import and export letters of credit	0.22%	80	71%
Loans for import/export	0.8%	120	45%
Performance guarantees	0.36%	110	18%
Total	0.46%	90	52%

Source: WTO based on ICC Trade Register Reports' averages (2013, 2015, 2017)

To address capital requirement issues, one option that is also gaining traction is for trade finance banks to sell off assets, including trade loans, to create capacity to underwrite new business. Although this asset distribution market has historically been a bank-to-bank market, with financial institutions selling their loans or loan portfolios to other banks, recent years have reflected a steadily growing interest among non-banks in buying or investing in trade finance assets. Some non-banks, like hedge funds, have created pools of capital specifically aimed at investing in trade financing activity, thus

creating new global capacity to finance international commerce. However, the evolution of trade finance as an asset class is still in a relatively nascent state.

A second impediment to trade finance is the collapse in correspondent banking due to global de-risking, which can be attributed in part to the cost of know-thy-customer (KYC) and other anti-money laundering rules. For example, failure to complete adequate KYC and KYCC (know your customer's customer) checks was quoted as the reason for a drop in the provision of trade financing by 18 per cent of respondents to an international survey, while about 90 per cent of them mentioned regulatory and compliance requirements as a major obstacle to trade finance growth.[26]

Improving the capacity of local banks to comply with international norms could help address this and fill the trade finance gap. MDBs are committed to this objective, and trained nearly 2,600 professionals in 2017 across 85 countries. Efforts are also underway to see how to promote the standardization of KYC information in the trade finance space. Trade financing can be furthered with digitization and automation of transactions and due diligence. Electronic transactions can infuse efficiency, promote transparency, support better data collection, and enhance efforts to build security around data. Digital platforms and fintech can also reduce costs of due diligence and KYC processes, thus helping to reverse the decline in correspondent banking. WTO, the International Finance Corporation and the Financial Stability Board are working together to promote the use of tools, at the national level, to reduce the cost of compliance for trade finance providers and minimize negative effects—particularly those impacting developing and least developed countries and SMEs.

5.2 Implementation of WTO Agreement on Trade Facilitation

In December 2013, WTO members concluded negotiations on a Trade Facilitation Agreement (TFA) at the Bali Ministerial Conference. The Agreement entered into force in February 2017 following its ratification by two thirds of the WTO membership. It contains provisions for expediting the movement, release and clearance of goods, including goods in transit. It also sets out measures for effective cooperation between customs.

The Agreement includes unique special and differential treatment measures that link implementation modalities for developing and least developed countries to their respective capacities. As such, these countries have the possibility to self-select implementation dates and to indicate needs for technical assistance support for capacity-building.

The Agreement also recognizes the need for donor members to provide assistance and support for capacity-building to help developing and least developed countries comply with their commitments. Examples of such assistance include the World Bank Trade Facilitation Support Program and UNCTAD support for setting up Trade Information Portals and for building the capacity of National Trade Facilitation Committees (NTFCs), which are responsible for monitoring the implementation of TFA provisions. Gender consideration could be further mainstreamed into initiatives and structures related to TFA implementation as the intensity of trade barriers differs between men and women.

To date, there is a 60.5 per cent rate of implementation of commitments under the TFA. This figure represents all developed-country members commitments as well as commitments from developing-country members and LDCs already due for implementation.

Box 2

Reducing trade costs through digital trade facilitation in Asia and the Pacific

In Asia and the Pacific, trade facilitation and the digitalization of trade procedures have gained traction. There has been progress in the implementation of the World Trade Organization (WTO) Trade Facilitation Agreement (TFA), as well as a growing number of regional and subregional initiatives for facilitating the electronic exchange of information along international supply chains, including the ASEAN Single Window initiative and the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific.

Studies have found that full implementation of binding provisions under the WTO TFA would result in a trade cost reduction of about 9 per cent, while implementation of both binding and non-binding TFA measures would reduce trade costs by about 15 per cent. When digital trade facilitation is fully implemented, covering all measures of TFA and those concerning paperless trade, the average trade costs reduction across countries in Asia and the Pacific increases to 26.2 per cent. This highlights the need for countries to be as ambitious as possible in trade facilitation reform.[a]

Cross-border paperless trade offers immense potential for enhancing trade facilitation and further reduction of trade costs. Digitizing trade processes towards paperless trade would not only improve transparency, streamline formalities, support trade finance, and facilitate institutional cooperation and coordination among different domestic government agencies, but would also build the foundation for effecting cross-border paperless trade within the region and beyond.

Source: ESCAP.

a United Nations Economic and Social Commission for Asia and the Pacific, "Digital Trade Facilitation in Asia and the Pacific", Studies in Trade, Investment and Innovation No. 87 (Bangkok, 2017).

5.3 Information and Communication Technology and E-commerce

Information and communications technology (ICT) have been rapidly changing the way firms do business. E-commerce (i.e., commercial transactions conducted electronically on the Internet) has been growing as part of the broader digital economy. Worldwide e-commerce sales in 2016 reached $25.7 trillion, about 90 per cent of which were in the form of business-to-business (B2B) e-commerce and 10 per cent in the form of business-to-consumer (B2C) sales.[27] Cross-border B2C e-commerce in 2015 amounted to $189 billion, with some 380 million consumers making purchases on overseas websites.[28]

While these figures point to broad trends, e-commerce remains hard to measure, and few developing countries collect relevant e-commerce statistics. One tool for monitoring the evolution of e-commerce is the UNCTAD B2C E-commerce Index. The Index, which measures an economy's preparedness to engage in e-commerce,[29] finds that all but one of the top ten developing countries are from East or West Asia, and all are upper-middle-income or high-income economies. In Africa, the highest ranked country was Mauritius (fifty-fourth in the Index). Nine of the bottom ten countries in the ranking are African countries, reflecting the relative weakness of Africa in terms of e-commerce readiness.[30] UNCTAD e-trade readiness assessments of seven African countries finds that the main challenges for these countries are (i) the persisting infrastructure gap and digital divide; (ii) inadequate regulatory and institutional frameworks; (iii) a weak enabling environment; and (iv) limited skills of both producers and consumers of digital products. These challenges particularly affect the ability of MSMEs to effectively participate in international trade. Research by ITC in 2018 highlighted the need for an ecosystem with institutions that provide business support and skills training that allow MSMEs to benefit from technological changes.[31]

External support is needed to address these challenges. Currently, only 1 per cent of all funding provided by Aid for Trade is allocated to ICT solutions. MDBs are investing just 1 per cent of their total spending on ICT projects, with only about 4 per cent of this limited investment being spent on policy development.[32] Improving e-commerce readiness could attract additional investments. Several of the top ten developing countries in the Index saw inflows of foreign direct investment into their e-commerce sectors in 2017, amounting to at least $1.7 billion.

On 25 January 2019, forty-nine WTO members, including many developing countries, declared that they would start a plurilateral negotiation on e-commerce.[33] It is hoped that the negotiation, expected to commence in March 2019, will address issues important for enhancing equitable participation of developing-country businesses, particularly MSMEs, and woman to global e-commerce.[34]

5.4 Aid for Trade

In 2016, the most recent year for which data is available, Aid for Trade showed a slight decrease both in disbursements and in commitments, although the level is still significantly above the level in the base year of 2006. As called for in SDG (target 8.a), it is important to increase Aid for Trade support.for developing countries, in particular least developed countries.

The objective of the Aid for Trade initiative is to help developing countries, and in particular LDCs, build the supply-side capacity and trade-related infrastructure they need to implement and benefit from WTO agreements, and to expand their trade.

The Aid for Trade Work Programme for 2018-2019 seeks to further develop analysis on how trade can contribute to economic diversification and empowerment, with a focus on eliminating extreme poverty, particularly through the effective participation of women and youth. It addresses how Aid for Trade can contribute to these objectives by addressing supply-side capacity and trade-related infrastructure constraints, including for MSMEs, particularly in rural areas. Other issues to be developed during the Work Programme will include

Box 3

Sustainable and climate-resilient infrastructure for maritime transport

Rising sea levels and extreme weather will affect maritime transport, an artery of international trade carrying over 80 per cent of merchandise trade volume. Small island developing States are at immediate risk.[a] Coastal transport infrastructure are critical lifelines to them, facilitating imports of essential goods and tourism. According to a survey conducted by UNCTAD, hazardous impact of climate change has already been felt by many ports.[b] With respect to adaptation measures, many ports identified hard engineering measures rather than soft adaptation responses as the main course of action. But the cost of developing measures for 'climate proofing' a port could be as high as $500 million. Few respondents to the survey had received any financial assistance in the implementation of adaptation measures. This suggests a need for more external assistance in this area.

Source: UNCTAD.

a Isavela Monioudi and others, "Climate change impacts on critical international transportation assets of Caribbean SIDS: The case of Jamaica and Saint Lucia", *Regional Environmental Change,* 18:2211–2225 (2018).

b United Nations Conference on Trade and Development, "Port Industry Survey on Climate Change Impacts and Adaptation", UNCTAD Research Paper No. 18 UNCTAD/SER.RP/2017/18 (Geneva, 2017).

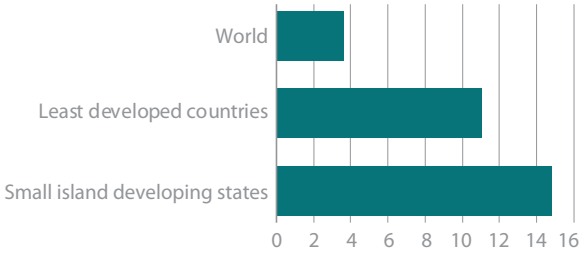
industrialization and structural transformation, digital connectivity and skills, as well as sustainable development and access to energy. In addition to addressing persistent challenges, aid for trade needs to address emerging challenges to developing countries, such as strengthening climate-resilient infrastructure for maritime transport (box 3).

The centrepiece of the Work Programme will be the Aid for Trade Global Review in July 2019, the results of which will be reported to the General Council and later on to the WTO Ministerial Conference.[35]

5.5 Trade as a source of public revenue

Taxes on international trade, such as customs duties and export taxes, are a direct linkage between trade and a country's development financing capacity. Income from trade taxes remains an important contributor to public revenue in countries such as LDCs and small island developing States (SIDS). Figure 9 presents a three-year average of taxes on international trade as a share of public revenue between 2014 and 2016. While taxes on international trade on average account for less than 4 per cent of public revenue globally, they account for 10 per cent in LDCs and about 15 per cent in SIDS. Trade taxes are most significant in some SIDS. For the Caribbean States, for example, trade-related taxes accounted for well over 25 per cent of total public revenue.

Figure 9
Taxes on international trade (3-year average, 2014-2016)
(Percentage of revenue)



Source: UNCTAD calculation based on World Bank Databank.
Note: World (2-year average: 2014-2015). Taxes on international trade include import duties, export duties, profits of export or import monopolies, exchange profits, and exchange taxes.

Raising taxes on trade to increase public revenue however can be distortional to domestic economies. Higher import tax, for example, lowers consumer welfare and export competitiveness. The focus thus has been placed not on raising trade taxes but on improving efficiency in customs duty collection. Many countries have improved custom efficiency by using the UNCTAD Automated System for Customs Data, or ASYCUDA. For example, Jamaica collected 17 per cent more revenues from the previous year, upon the full ins talment of ASYCUDA in 2016.[36] The customs revenue of Solomon Islands exceeded $1 billion for the first time in 2017, three years after installing ASYCUDA.[37] After 13 years of gradual roll-out of ASYCUDA in Afghan customs, the system covered more than 90 percent of international trade in 2018, and contributed to the increase in Afghanistan's annual customs revenue from $50 million in 2005 to almost $1 billion by 2018. Over 100 developing countries have installed ASYCUDA, which has brought transparency in customs management information, increased customs revenues and reduced trade costs facing the private sector (see box 3 on ASYCUDA in chapter III.G for more detail).

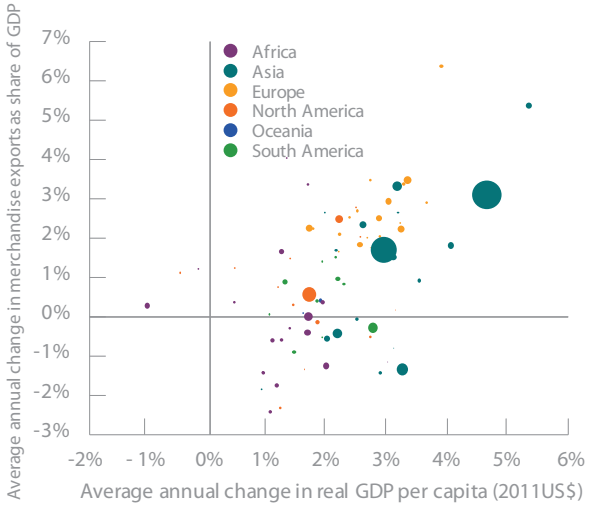
6. Promoting trade and investment in a manner consistent with the SDGs

Trade is an important means to achieving a range of SDGs.

6.1 Trade, economic growth, labour markets and poverty reduction

Over the last decades, economic growth has been accompanied by even faster growth in global trade, which enables more efficient resources allocation and supports the exchange of ideas and innovation. Countries with faster GDP per capita growth tend to have a high average annual growth in merchandise exports as a share of GDP (figure 10).[38] However, the correlation is less significant in countries whose average export growth as a percentage of GDP was below 2 per cent, including most countries in Africa and many in South America.

Figure 10
Growth of GDP and trade, 1945 to 2014
(Average annual change in merchandise exports as share of GDP versus average annual change in real GDP per capita)



Source: UN/DESA calculations based on data from the Maddison Project Database.

Historically, trade has proven to be an engine for developing countries' economic growth, development and poverty reduction. Higher demand for commodities, such as minerals, ores and fuels, resulted in higher prices in the 2000s, consequently boosting incomes in resource-exporting developing countries, including many LDCs. This rapid growth, fuelled in part by trade, contributed to an unprecedented reduction of poverty levels. Similarly, participating in apparel and textile GVCs has driven trade growth and job creation in many developing countries, including a number of LDCs such as Bangladesh, Cambodia and Lesotho.

Changes in trade and trade policy generate significant impact upon labour market and gender. There have been numerous efforts to delineate such impacts and to recommend policy option. The UNCTAD diagnostic tool is designed for assessing the impact of trade policy upon labour markets, while accounting for informal employment, a common and important phenomenon in developing countries that particularly affects women. ITC and the International Labour Organization (ILO) have used the ITC export potential assessment methodology to estimate the job-creating impact of a country's untapped export potential. Preliminary findings from five countries (i.e., Ethiopia, Jordan, Morocco, Lao People's Democratic Republic and the Untied Republic of Tanzania) showed that for $22.7 billion of additional exports, 25.3 million of new jobs could be created. UNCTAD has developed the Trade and Gender Toolbox for an ex-ante gender impact assessment of trade reforms, which has been adopted in Sustainable Impact Assessment of the European Commission (box 4). Gender equality and women's empowerment are critical for economic growth and development.

6.2 Trade and inequality

While trade and economic growth have followed similar trajectories, there is a growing perception that benefits from international trade have not been shared equitably and have required costly adjustments from some groups of workers. While manufacturing jobs in developed countries grew in aggregate, specific sectors or regions lost jobs without sufficient policies to speed adjustment and cushion shocks, as some manufacturing facilities and jobs moved away from some regions and other jobs were created in other regions. This was perceived as leading to higher inequality in some developed countries and fuelled criticism against the current multilateral trading system. Evidence on the impact of trade on a country's aggregate labour markets indicates that trade tends to increase real wages and overall employment, though the impact varies according to country specific factors.[39] Trade has also been shown to disproportionately benefit high-skilled employment and high-wage earners. For example, one study found that globalization has induced changes in labour income tax in developed countries that benefited the top 1 per cent of workers but resulted in higher tax burden for the relatively less mobile middle class.[40] However, data shows that trade only explains a small portion of the growth in wage inequality.[41]

The dominance of global value chains (GVCs) in international trade, which distribute production of a final good across countries, and the way the revenue is distributed within value chains, may have deepened within-country income inequality, in both developed and developing countries.[42] Figure 11 shows that, among high-income countries, the share of workers' income at the fabrication stage in 2014 fell by 3.7 percentage points from the level in 2000. On the other hand, the share of income received by professionals with the "headquarter" functions such as management, research and development and marketing, increased by 1.7 percentage points.

This deepening inequality across different tasks and functions, and the declining of labour income share—increasingly observed in middle-income countries as well—has in part been facilitated by growing market concentration, which has strengthened the bargaining

Box 4

Gender impact assessment and trade

Carrying out ex-ante and ex-post gender impact assessments of trade reforms makes trade policy more gender-responsive. Ex-ante gender impact studies, which analyse the gender effects of trade reforms before the reform takes place, allows policymakers to design compensatory measures for expected negative impacts, or introduce complementary measures to scale up expected positive impacts.

The European Commission has been carrying out Sustainability Impact Assessments (SIAs) of trade agreements under negotiation since 1999. In most cases, the gender assessment was limited to possible employment effects in specific sectors that traditionally attract a large female work force.[a] Recently, the European Commission started to apply the United Nations Conference on Trade and Development's Trade and Gender Toolbox methodology in the SIA. For example, the SIA in support of the Modernization of the European Union-Chile Trade Agreement includes an assessment of the possible impact of the agreement on women in their different roles as employees, entrepreneurs, traders and consumers.[a]

a BKP Development Research & Consulting, Sustainability Impact Assessment in Support of the Negotiations for the Modernisation of the Trade Part of the Association Agreement with Chile: Interim Report (Brussels, European Commission, 2018).

power of a limited number of large firms that dominate trade. For example, the top 1 per cent of exporters accounted for 57 per cent of country exports on average in 2014, up from about 52 per cent in 2000.[43] This growing market concentration has also exacerbated downward pressure on labour costs and effective corporate tax rates, as well as weakening of regulation and competition policies in some countries (see chapter III.B).[44]

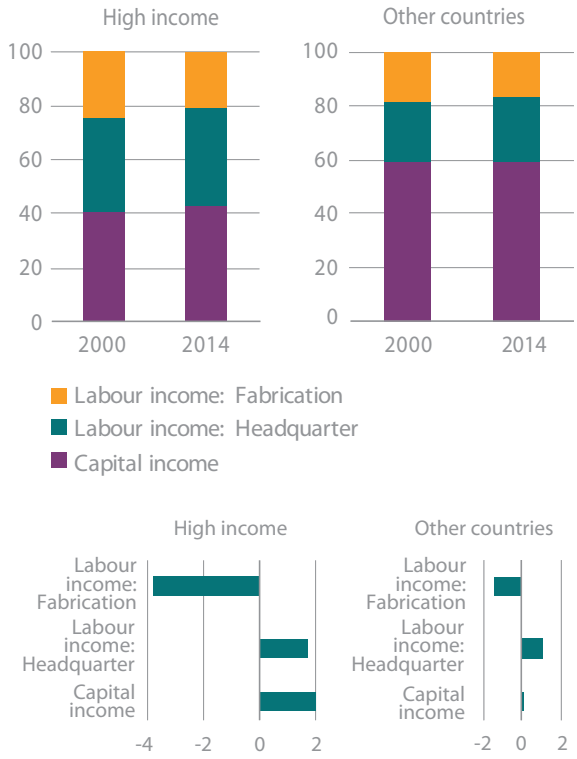
To increase trade's contribution to sustainable development, and ensure it does not deepen inequality, trade policies and agreements should be crafted with global goals in mind. Trade and investment policies should not only align with the 2030 Agenda for Sustainable Development but should also be designed to be synergistic with policies related to finance, taxation, competition, labour, gender, and technology (see chapter III.F).

The issue of trade and inequality is compounded by the transformation that technology is bringing to the labour market (see chapter III.G). For example, evidence suggests that trade may explain up to 20–25 per cent of the recent decline in US manufacturing jobs, while other factors such as technological change accounts for the rest.[45] Through policy responses, Government can influence how these changes ultimately impact inequality. This requires, for instance, investment in education and training to provide workers with skills that are in high demand. It also necessitates social protection policies to financially support those who have lost their jobs and ensure minimum wages. Investment in transport, telecommunications and energy also allow countries and people to better participate in international trade while rural infrastructure development creates more inclusive economic opportunities. This broad set of policies required to address inequality needs to be incorporated into national sustainable development strategies.

Figure 11

Changes in the share of income in exported value added in manufacturing GVCs

(Percentage points)



Source: UNCTAD, Trade and Development Report 2018.
Note: "High income" covers 34 countries, including the high-income developing economies of the Republic of Korea and Taiwan, Province of China. "Other countries" includes two developed countries (Bulgaria and Romania) and six developing countries and transition economies (Brazil, India, Indonesia, Mexico, the Russian Federation and Turkey). All manufacturing sectors are included.

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18 For example, see Rwanda–United Arab Emirates BIT (2017); Australia–Peru FTA (2018); Republic of Korea–Republics of Central America FTA (2018); and Lithuania-Turkey BIT (2018).
19 Objectives of the process include modernizing the rules based on case experience, streamlining the process and making it more efficient, enhancing the contracting parties' control over the interpretation of their treaties and enhancing the legitimacy of the ISDS system. Topics under consideration include the appointment and disqualification of arbitrators, third-party funding, consolidation of cases, transparency and non-disputing party participation. See webpage on ICSID Amendments and statement by the SG of ICSID at the UNCTAD High-level International Investment Agreements Conference 2018 for more details.
20 Delegates at the UNCITRAL WG III meetings discussed three broad categories of concerns with respect to ISDS: 1) inconsistency and incorrectness of arbitral rulings; 2) concerns about arbitrators and decision makers who currently resolve disputes; and 3) concerns about the cost and duration of the process. Delegates agreed on the desirability of development reforms in UNCTIRAL with respect to those concerns. On 18 January 2019, the EU and its Member States submitted a paper to the working group, which sets out the EU's proposal of establishing a permanent multilateral investment court.
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DEBT AND DEBT SUSTAINABILITY

Chapter III.E

Debt and debt sustainability

1. Key messages and recommendations

Countries face pressing demands for additional public investment in the Sustainable Development Goals (SDGs), but high debt burdens may threaten their ability to raise sufficient financing. Public debt levels have continued to rise since the publication of last year's Task Force report, with some middle-income countries experiencing debt levels last seen during the debt crises of the 1980s. Debt vulnerabilities in developing countries exist due not only to higher levels of debt, but also because of increased risks from a shift in debt composition. A rise in external debt that carries variable interest rates and greater reliance on commercial debt have increased refinancing risks. A more prominent role of non-traditional creditors and market-based financing also presents new challenges for debt crisis resolution.

The rise in public debt has been accompanied by an increase in corporate debt, particularly in middle-income countries, as many large companies took advantage of the long period of unusually low international interest rates. Further increases in global interest rates could create concerns for financial stability, and in many cases, for public debt sustainability as private liabilities often become public during crises. While debt levels in the majority of developing countries remain sustainable, the rise in the number of countries in or at high-risk of debt distress demands the attention of global policy makers.

To retain fiscal space for SDG-related investments in this challenging context, multipronged policy action is needed, at both the national and global levels. This includes measures to improve debt management, debt transparency, and debt sustainability assessments. It can include differentiating how debt financing is used, and prioritizing borrowing for productive investments that can create fiscal space (see chapter II).

The international community is stepping up its work to help countries reduce debt vulnerabilities. Updating analytical tools — such as the International Monetary Fund (IMF) and World Bank's recently revised framework for debt sustainability analysis in low-income countries — can help countries identify risks, make policy corrections, and better understand the relationship between public investment, growth, and debt sustainability. *Debtors and creditors are encouraged to use newly available tools to help inform sustainable borrowing and lending.*

The rise in floating rate debt issued in a low interest rate environment may indicate that some governments have not adopted a sufficiently risk-informed perspective in their debt management. *Governments need to carefully monitor the growth of debt, including contingent liabilities and debt of their private sectors, through a risk-based approach. To address systemic risks posed by private borrowing, governments should aim to adjust regulatory policy frameworks during periods of rising risks. Strengthening debt management through technical assistance and training will help countries deal with existing debt more effectively.* At the same time, there is also a need for complementary actions on the global level in other action areas of the Addis Ababa Action Agenda, including strengthening international tax cooperation, providing reliable sources of concessional development finance, and strengthening macroeconomic policy coordination and the global financial safety net.

The full effectiveness of efforts to improve analytical tools and debt management will require greater debt transparency. *While the primary responsibility for debt transparency lies with debtors, the international community and creditors also have an important role to play. Creditors share the responsibility for making the terms and conditions of lending public, straightforward, and easy to track*. Creditors should also strive for simplified lending terms and avoid onerous conditions on sovereign borrowing. International institutions can update data standards and provide technical

support to improve the capacity to record, monitor, and report debt.

Efforts to provide clear guidance for responsible sovereign lending and borrowing should also be reinforced, building on existing efforts such as UNCTAD's Principles to Promote Responsible Sovereign Lending and Borrowing and the Group of Twenty (G20) Operational Guidelines for Sustainable Financing. *There is merit to exploring how these approaches can complement each other and to work towards global consensus guidelines for debtor and creditor responsibilities, in line with the mandate in the Addis Agenda.*

There continues to be a role for innovative mechanisms to reduce risks to sovereign balance sheets. Although their use so far has been limited, there has been increasing interest over the last year in state-contingent debt instruments (SCDIs), which allow a country's debt service obligations to be linked to its ability to pay. Following the severe hurricane season of 2017, there has been particular interest in developing climate resilient instruments for Caribbean economies susceptible to disasters. The international community can continue to support these efforts, including through technical work to consider appropriate design options for state-contingent debt instruments. *Official creditors should consider increasing the use of state-contingent instruments in their own lending.* The Economic Commission for Latin America and the Caribbean (ECLAC) has proposed a swap of some of the region's external debt for debtor country commitments to make annual payments into a new Caribbean Resilience Fund. *Piloting implementation of this or similar proposals in a limited number of countries of the region should be considered.*

While the evolution of private and public cross-border financing modalities and sources of credit have increased the variety and scope of international financing for development, they have also raised concerns that decentralized debt workout processes no longer serve their function well. Changes in the creditor landscape and the increase in collateralized lending have raised new restructuring challenges and brought new salience to the issues of creditor coordination and long-standing challenges in the existing architecture. *It is thus time to revisit existing mechanisms for debt workouts to determine ways to improve their efficiency. Areas ripe for progress may include exploring ways to strengthen creditor coordination, and creditor and debtor dialogue, along with specific elements of debt workouts, such as standstills.*

2. Growing debt, increasing risk

Global debt levels continue to hit new record highs. The Institute of International Finance (IIF) estimates that by the end of March 2018 global debt stocks had reached $247.2 trillion, having risen by nearly $25 trillion from a year earlier, and up from $168 trillion at the onset of the financial crisis.[1]

2.1. Public debt

Public sector debt levels in developing countries have risen since 2010, not only in terms of the total value of their obligations but also relative to gross domestic product (GDP) (figure 1). Public debt ratios have largely remained flat in advanced economies in aggregate, albeit at elevated levels compared to before the crisis, and with large increases in some countries (see also chapter III.F.).

Over the past five years, public debt of developing countries rose by 15 percentage points of GDP, from 36 per cent in 2013 to 51 per cent in 2018. While debt levels fell significantly in least developed countries (LDCs) following debt write-offs in the mid-2000s, they have been rising since 2012. Public debt reached 46 per cent of GDP in 2018 on average. This increase reflects adverse shocks and sluggish policy adjustment in some cases, and sustained expenditure increases in others. Data coverage and governance issues also contributed to debt surprises. Debt levels in small island developing States that are vulnerable to natural disasters remain high. Debt increases were also significant among countries in fragile and conflict-affected situations.

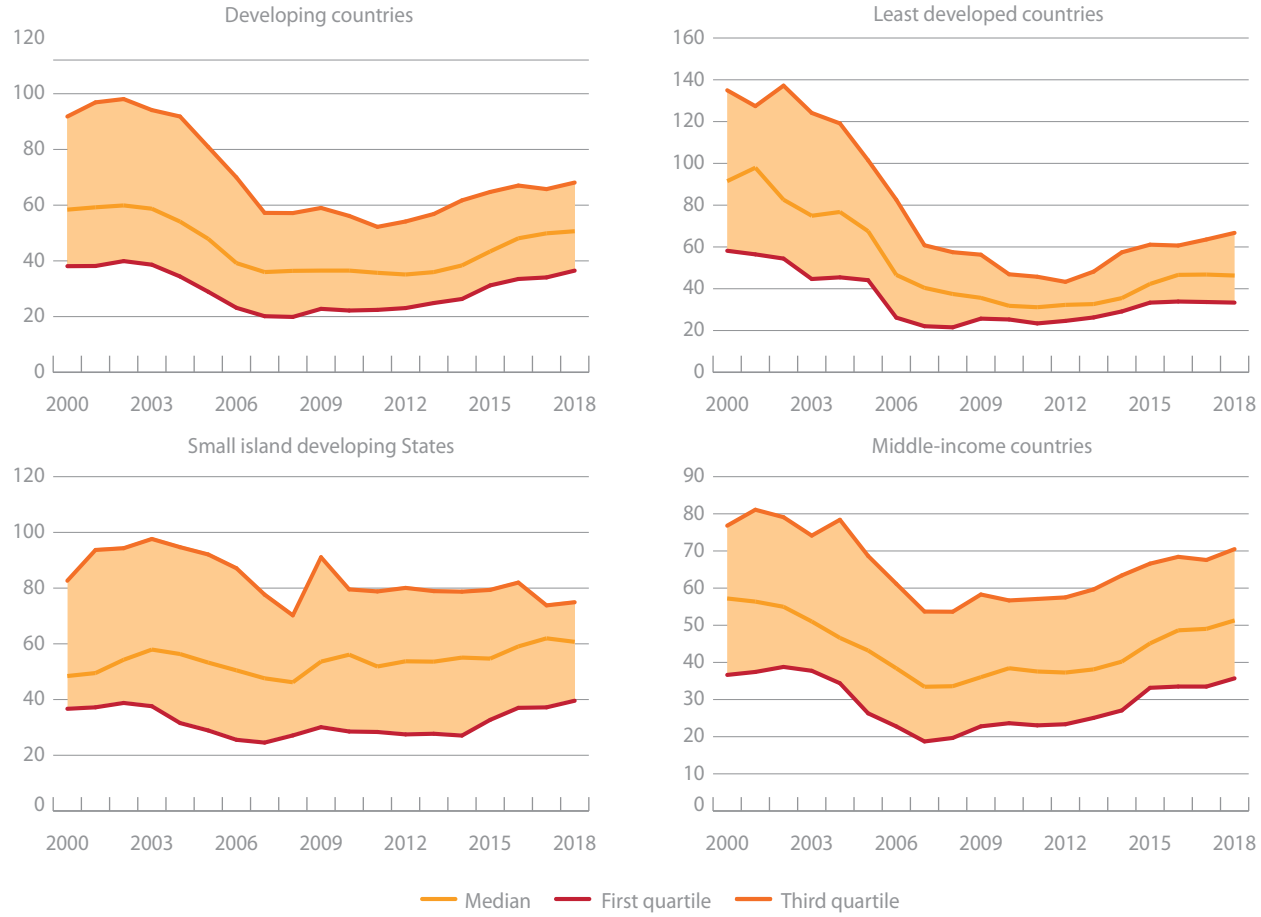
Overall, 40 per cent of LDCs and other low-income countries were assessed as being at a high risk of or in debt distress according to the IMF-World Bank debt sustainability analyses (figure 2). Safety margins for countries at moderate risk of debt distress have also eroded.

The heightened vulnerabilities reflect both higher public debt levels and increased risks from the shift in debt composition toward more financing on commercial terms, leading to higher debt servicing costs as well as increased refinancing, interest rate, and capital flow reversal risks. External debt carrying variable interest rates has increased significantly in recent years. In LDCs, variable interest rate debt now amounts to one third of total external debt, making them much more vulnerable to changes in international interest rates (figure 3). Furthermore, rising exposure to non-traditional creditors has complicated debt resolutions in recent stress events.

The associated rise in debt-servicing costs is an immediate concern, particularly in LDCs, not least because they face serious challenges in implementing the SDGs. Given that these economies are characterized by shallow domestic financial and banking systems, as well as limited access to international financial markets, their options to re-finance maturing debt obligations are limited. Debt service obligations compete directly with other public expenditure for available resources. Indeed, public debt service in LDCs increased from 3.4 per cent of GDP in 2015 to 4.3 per cent in 2017. Over the same period, public expenditure on health care and education, also as a share of GDP, has remained stable, albeit with a slight decline in 2017 (figure 4). Further increases in external debt-servicing costs may induce declines in government expenditure in these areas.

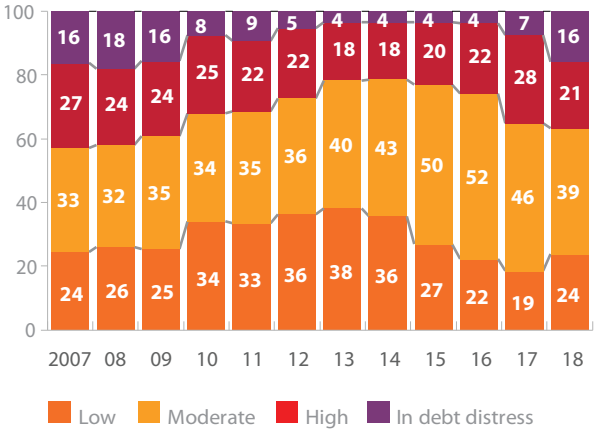
Some of the most pronounced increases in debt were experienced in middle-income countries. Together with changes in the composition of debt, they have resulted

Figure 1
Public debt, 2000-2018
(Percentage of GDP)



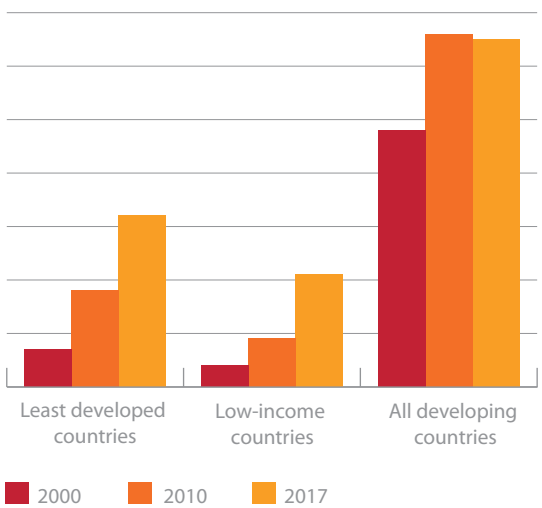
Source: IMF World Economic Outlook, DESA calculations.

Figure 2
Debt risk classification of low-income countries, 2007-2018
(Percentage of total)



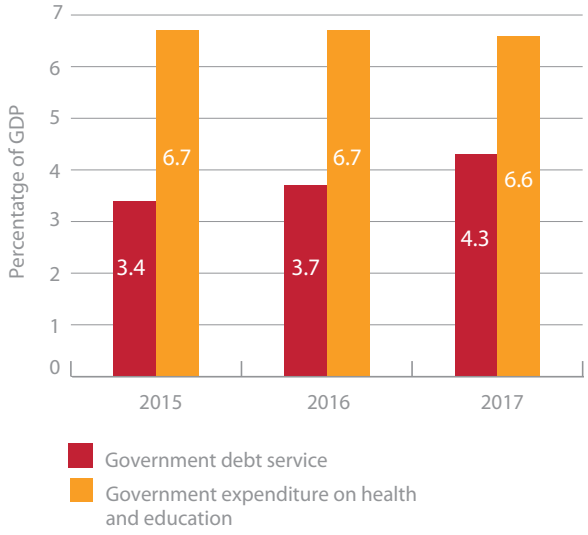
Source: IMF (DSF database).
Note: Published debt sustainability analyses, latest available year. Coverage is of low-income developing countries eligible to draw from the Poverty Reduction and Growth Trust at IMF.

Figure 3
External debt with variable interest rates 2000-2017
(Share of total external debt)



Source: World Bank International Debt Statistics, DESA calculations.

Figure 4
Government expenditure on public debt service, education and health care in LDCs
(Percentage of GDP)



Source: UNCTAD secretariat calculations based on based on World Development Indicators (World Bank) and DSA LIC country reports between 2015 and 2018 (IMF)

Notes:

1. Government debt service is defined as the sum of interest and the amortization of medium- and long-term debt. Figures for LDCs were obtained from the latest IMF DSA country reports. For countries for which official data on debt service was not yet available for the 2015-2017 period, IMF estimates for relevant country reports were used.

2. Estimates for public expenditure in LDCs is constrained by the availability of data. Where official data on government expenditure for education and/or healthcare was not available for the 2015-2017 period, the latest available data were used. The main implication is that the impact of rising external debt service burdens on this expenditure will be underestimated, where increased external debt service costs rose after the allocation of public expenditure to public investment in education and health.

in elevated debt risks. In many cases, the increase in public debt levels reflected understandable policy responses: several countries took advantage of very low interest rates to finance public investment and smooth consumption following the 2014-15 collapse in commodity prices. However, in a number of cases, delayed adjustment to the persisting trend of lower commodity prices, and weaknesses in macro-policy frameworks played a role in driving up debt to potentially unsustainable levels.

In addition, non-resident holdings of domestic currency debt have risen, while external debt that carries variable interest rates rose in line with overall external debt increases. Contingent liabilities have also been on the rise. Public private partnerships (PPPs) — where debt-like obligations can be difficult to disentangle in complex payment contracts — and guarantees are growing in usage. According to the World Banks Private Participation in Infrastructure (PPI) database, PPI was up 7 percent over the year in the first half of 2018, totalling $43 billion. Implicit liabilities within complex structures may continue to grow as blended finance is scaled up. Nonetheless, several countries have strengthened their resilience to debt-related risks through macro-fiscal policies and building external and fiscal buffers, such as increased foreign and fiscal reserve coverage.

2.2. The growing importance of private sector debt

The rise in public debt has been accompanied by a rise in corporate debt. This is the case particularly in middle-income countries, where companies took advantage of the long period of unusually low international interest rates. Corporate debt now significantly exceeds historic levels. Figure 5 illustrates the upward trend in developing country private external debt over the last two decades.

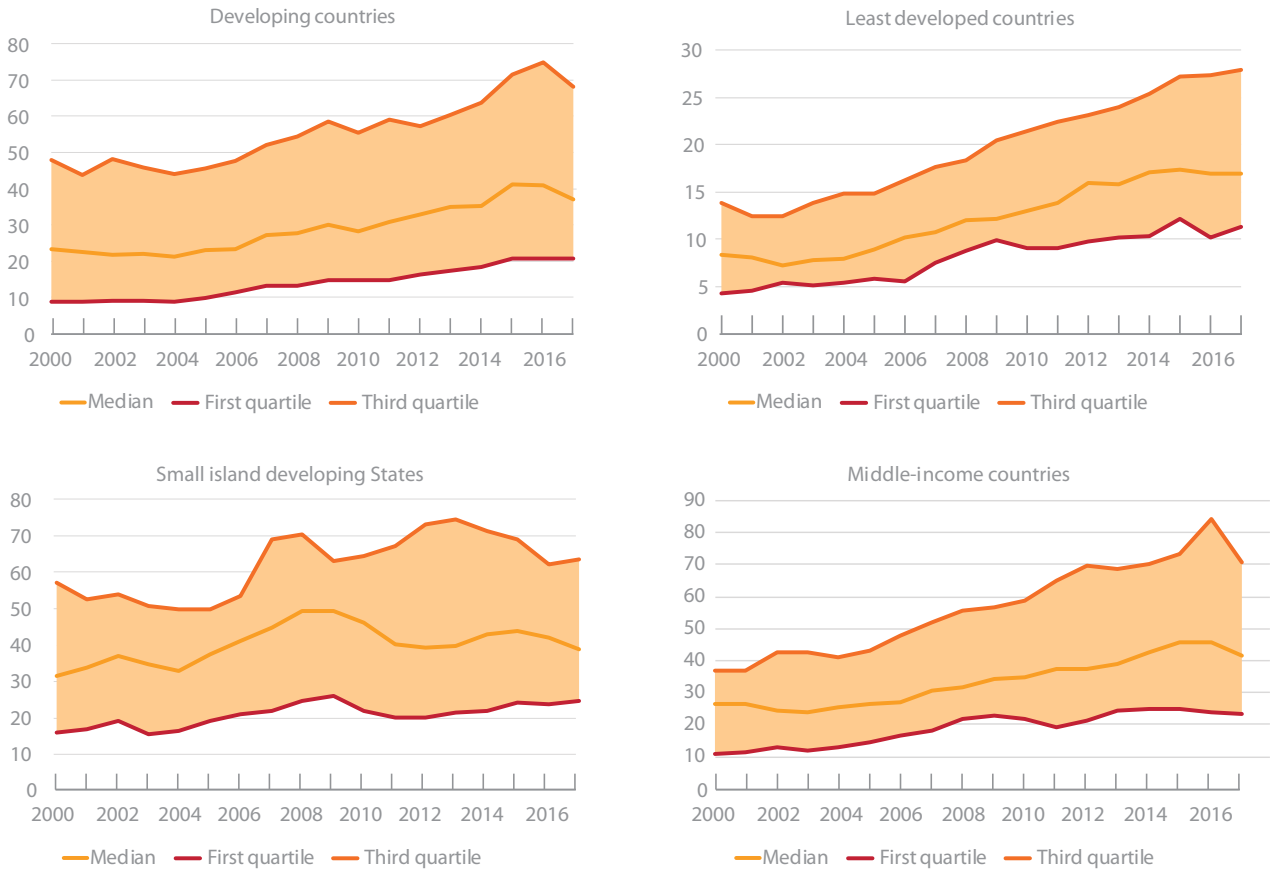
Overall, private external debt of developing countries increased from 23 to 37 per cent of GDP in 2017. This trend is mirrored across developing country groups; in LDCs for example it increased from 8 to 17 per cent. Private debt levels are higher at the upper end of the distribution within each grouping.

The composition of private debt holders has also changed, initially in South and South-East Asian economies, although this is now also evident in other regions. For example, in Latin America and the Caribbean, the share of the private sector borrowing in external bonds and bank loans rose from 29.2 per cent of the total during 2000-2007 to 60.2 per cent in 2017. Non-financial corporate debt shows the most significant increase, from $41 billion in the pre-crisis period to $289 billion in 2017.[2] Financial sector foreign borrowing grew from $47 billion in the pre-crisis period to $241 billion in 2017. In Sub-Saharan Africa, the level of private non-guaranteed debt in total long-term external debt stocks increased sevenfold in the first 15 years of the millennium, from $10 billion to $70 billion.[3]

Outside China, where corporate bonds are predominantly domestically owned, large developing country corporates are ra hrough assets held abroad. Further increases in global interest rates will lead to rising debt-servicing costs, raising concerns for financial stability and ultimately public debt sustainability.

The increase in non-financial corporate debt does not always seem to have translated into productive investments, with growth of non-financial corporate debt outpacing the speed of private capital formation in many emerging economies (figure 6). This could be due in part to growing demand for carry trade operations. Instead of investing in productive capacity, resources raised through issuance of bonds in international markets are used to finance short-term and speculative investment in domestic markets to take advantage of high local interest rates.[4]

Figure 5
Private external debt, 2000-2018
(Percentage of GDP)



Source: UNCTAD secretariat calculations based on IMF Global Debt Database.

3. Sustainable and responsible borrowing and lending for sustainable development

Countries face pressing demands for additional public investment in the SDGs (see chapter II). While public debt can support investment needs when the capacity to mobilize other sources of financing is limited, prudent and efficient use of borrowed resources is essential. To meet large investment demands in an environment where constraints on further debt financing will likely become more binding, a multipronged approach to safeguarding debt sustainability is needed. This approach could include strengthening debt sustainability assessments, strengthening debt management, and improving transparency and data quality (box 1).

To avoid a further deterioration in the debt sustainability of developing countries, such policies directly targeting improved debt sustainability and debt transparency need to be supported and complemented by national, international and regional macroeconomic policy coordination designed to facilitate stable international liquidity provision and measures to strengthen developing countries' ability to manage capital flows (see chapter III.F) as well as provision of reliable sources of development finance (see chapter III.C). Rising debt risks also call for renewed attention to commitments made in the Addis Agenda to work towards global consensus on guidelines for debtor and creditor responsibilities, building on existing initiatives.

3.1. Strengthening tools to assess debt sustainability

Debt analysis helps countries assess risks in their fiscal and financing plans, and identify vulnerabilities for policy corrections. In 2017, the IMF and World Bank strengthened their joint framework for assessing the sustainability of public and external debt of low-income countries (LIC-DSF), or debt sustainability assessment. The new framework became operational on 1 July 2018. It was deployed by 17 countries by end-2018 and 17 train-

Figure 6
Growth rates of non-financial corporate debt and private capital stock, selected deveoloping countries, 2008-2015

Source: UNCTAD secretariat calculations, based on IMF Global Debt Database and IMF Investment and Capital Stock Data.

ing sessions have been provided for country officials. The new framework allows for more granular debt analysis, taking better account of country-specific circumstances and the evolving landscape. It also makes stronger requirements on debt data coverage and disclosure, responding to growing concerns on debt transparency among the international financial community.

The new LIC-DSF also introduced a "realism tool" for the investment-growth nexus to allow users to better understand the potential impact of public investment and growth dynamics on debt sustainability. As noted in last year's report, well-designed public sector investments that boost the productive capacity of an economy can result in higher income for the Government and help offset the associated debt service. In the outcome document of the 2018 ECOSOC Financing for Development Forum, Member States of the United Nations encouraged "further work in this regard, including how this could be incorporated into public debt analysis, notably through the use of tools for quality assessment, while ensuring that risks of debt distress are flagged consistently and in a timely manner". While a full model of investment, growth and debt dynamics is challenging, the new 'realism tool' is a helpful step in better understanding the relationship among public investment, growth, and debt sustainability.

In addition, the IMF has started to review the framework for assessing debt sustainability in countries with significant access to international debt markets (MAC DSA). Based on backtesting analysis and consultations with IMF stakeholders, the review will seek to propose consistent coverage of the main fiscal risks facing countries; incorporate relevant country-specific factors; improve the framework's capacity to identify stress episodes; better capture uncertainty around baseline assumptions; and provide more structure for determining when to exercise judgment in the assessment. It is expected that a final set of proposals will be considered by the IMF Executive Board during 2019 and introduced in country analyses during 2020.

Undertaking and publishing debt sustainability analyses can help enhance debt transparency. The IMF also uses assessments from the LIC-DSF and MAC-DSA frameworks to help inform whether public debt conditionality may be needed in IMF-supported programs. Under the current Debt Limits Policy, public debt conditionality should normally be included in IMF programmes when a member faces significant debt vulnerabilities, or when there are merits to using debt targets instead of, or as a complement to, "above-the-line" fiscal conditionality.[5] A periodic review of the Debt Limits Policy is underway, examining whether the policy has been implemented as envisaged, is effective when used, and whether rising debt vulnerabilities and

the changing financing landscape and instruments have revealed weaknesses in the existing policy.

3.2. Improving public debt management

The primary objective of debt management is to raise required funding at the lowest cost over the medium term, consistent with a prudent degree of risk. In an evolving and more complex financing landscape, greater capacity to manage the cost-risk trade-offs in public debt management is essential to enable countries to address rising debt vulnerabilities. The recent rise in debt vulnerabilities due to the shift in debt composition suggests that these trade-offs may not have always been fully considered in borrowing decisions. For example, the increase in floating rate borrowing during the period of extremely low interest rates could have indicated incomplete risk analysis of floating- versus fixed-rate borrowing.

In some cases, borrowing constraints have been relaxed, as even countries with heightened debt vulnerabilities have now been able to access financing. Some of these borrowers have relied on financing that includes greater protection for some creditors in case a debt resolution is needed, such as through collateralized borrowing. The increased prevalence of domestic debt and private debt, extra-budgetary debt and subnational debt, and the growing importance of PPPs and other contingent liabilities exacerbate the problem.

In this context, the international community is stepping up its capacity building efforts. Through the Debt Management Facility (DMF), a multi-donor trust fund that funds technical assistance to 84 countries, the IMF and the World Bank funded 83 capacity development activities in 2018, with a further 92 planned for 2019. A third phase of the DMF will be launched in 2019 to increase funding. Planned areas of support will include helping countries to develop debt management reform plans, formulate and implement medium-term debt management strategies, and build capacity to develop domestic debt markets. In light of the strong linkages between debt management strategies and other financing policy objectives, such as financial sector development and macrofinancial stability, such efforts can also support strengthening of integrated national financing frameworks (see chapter II). In response to changes in the financing landscape, the focus of technical assistance will be adapted by broadening the institutional coverage, and addressing risks arising from non-traditional financial instruments and non-debt liabilities, including instruments that may not be statistically or legally defined as debt.

The UNCTAD's Debt Management and Financial

Box 1

The multipronged approach to addressing emerging debt vulnerabilities

In response to calls by the international financial community, IMF and World Bank staff developed a multi-pronged work programme to address emerging debt vulnerabilities. The work programme, which was presented to the Executive Boards of the IMF and the World Bank in November 2018, comprises four key work streams:

1. ***Improve debt analysis and early warning systems***. The work programme seeks to buttress the existing IMF/World Bank tool set for fiscal and debt risk assessment through: (i) a steadfast implementation of the new LIC DSF with enhanced features to better capture evolving debt vulnerabilities; (ii) a review of the MAC DSA framework to improve its crisis predicting capacity and ensure transparent and robust risk analysis; and (iii) the continued provision of needed training and technical assistance to support the implementation of these initiatives.

2. ***Enhance debt transparency***. Debt transparency is critical to ensuring effective risk assessment to support sustainable borrowing and lending. IMF and World Bank staff will build on the existing data dissemination standards and initiatives for improving the availability and timeliness of comprehensive and reliable debt data. Under the work programme, staff will also explore different options for improving access to IMF/World Bank debt data and analysis and for promoting debt transparency through enhanced outreach to both traditional and non-traditional lenders.

3. ***Strengthen debt management capacity***. Continued technical assistance is needed to support borrower countries' capacity development against the backdrop of an evolving creditor and instrument landscape. Important weaknesses have been identified in the areas of legal and institutional frameworks, human resources, governance, and audits and internal controls. Against this backdrop, IMF and World Bank staff will scale up support for debt transparency and fiscal risk analysis, including in the context of the Phase III implementation of the Debt Management Facility, and develop better targeted reform plans tailored to country specific needs as identified by enhanced and expanded diagnostic tools.

4. ***Review debt policies***. Debt policies need to adapt to current and new debt challenges, set incentives for sustainable borrowing and lending, and support the debt resolution architecture. In this context, IMF and World Bank staff will undertake a review of their respective Debt Limits Policy and Non-Concessional Borrowing Policy in close consultation with all important stakeholders in the coming months. The IMF also plans to resume the Lending into Arrears Policy Review in late 2019.

Analysis System (DMFAS) Programme also reinforced its efforts. DMFAS shapes its assistance around the growing importance of domestic financing, the need to integrate debt management into the larger public finance management (PFM) framework, and to support the international focus on improving debt data transparency. In 2018, the programme supported 84 institutions in 57 countries (mainly low-income and lower-middle income) in strengthening their capacity to record, process, monitor, report and analyze public debt. It paid particular attention to helping countries produce clearly identifiable outputs through tailor-made technical assistance projects for strengthening debt management systems and the quality and reporting of debt data. Assistance provided led to improved debt coverage, enhanced transparency and reporting, improved operational risk management and greater integration with other PFM systems.

There is nonetheless a continuing need for technical assistance, not only because the sources and debt instruments continuously evolve, but also because countries often employ too few staff in relation to the workload; not enough of them are well-prepared, and turnover can be high. In light of the growing number of initiatives to scale up technical assistance in public debt management, continued coordination efforts among providers help reinforce the overall effectiveness and efficiency of the various initiatives, promote synergies and minimize overlap and duplication.

3.3. Enhancing data quality and transparency

One common challenge in public debt management is debt data quality and transparency. Strengthening debt data quality and transparency helps countries have a more complete picture of their debt, guiding borrowers, informing creditors' decisions on the appropriate magnitude and terms of lending, and enabling a broader community of stakeholders to monitor emerging risks. In a number of countries, there are significant gaps both in the data collected on public sector debt and the public availability of that data—gaps which have contributed to unfavourable surprises when unrecorded debt is ultimately exposed.

These gaps can take the form of off-budget activities such as sovereign guarantees of private investments and state-owned enterprise debt. Confidentiality requirements may cloud the terms and conditions of loans, particularly collateralized debt. Moreover, in countries that only record debts when disbursed, contracted but undisbursed government borrowing will be hidden. In addition, the contingent liabilities built into PPP contracts are rarely recorded, despite their potential to generate public debt in the event the projects fail.

Only the borrower can possess all the data and information on its borrowing activities; the borrower thus has responsibility for ensuring debt transparency. The average quality of debt management in institutions in developing countries has been improving only slowly however, leading to a lack of comprehensive debt data reporting. Results from the World Bank's Debt Management Performance Assessment in 37 countries that have received at least two assessments over 2008-2015 point to uneven improvements in core debt management functions, particularly in areas central to debt transparency. Although there were some improvements in areas such as coordination with monetary policy and managerial structure, progress in, for example, debt evaluation and reporting, debt administration and data security, and operational risk management has been limited. Moreover, performance in the areas of audit and coordination between debt management and fiscal policy declined.

Greater efforts are therefore needed in the area of capacity development in recording, monitoring, assessing, and adequately reporting debt, and the associated vulnerabilities and fiscal risks, supported by targeted training and technical assistance. In this context, the IMF launched the Data for Decisions Fund in June 2018, a trust fund to support capacity development in national statistics, which has identified improving the quality of debt data as an immediate priority. UNCTAD has also launched new initiatives in this area, as described in box 2. These efforts should be complemented by reforms to enhance governance in public financial management, as well as a strengthening of the legal framework for monitoring the borrowing of off-budget entities/funds and state-owned enterprises.

3.4. Creditor responsibilities

Creditors can also improve public debt information, and their data on loans can complete and be compared with the data on borrowing recorded by debtor Governments. To this end, the IMF, the World Bank, the Bank for International Settlements, the Organization for Economic Cooperation and Development (OECD) and the Paris Club have prepared creditor as well as debtor-generated data sets in the Joint External Debt Hub that they make public and continually seek to upgrade.

The IMF and World Bank also promote debt transparency and sustainable lending through direct outreach to both traditional lenders (through the established OECD/Paris Club frameworks) and non-traditional lenders (through tailored advice and technical support). Outreach to non-traditional creditors will scale up, with a new training course for emerging creditors on debt sustainability analysis to be offered starting in the spring of 2019.

The private sector Institute of International Finance has put forward an initiative for a coordinated information-sharing platform to encourage greater—albeit voluntary—disclosure among private lenders. It will be important to secure disclosure of the right information, and for lenders in all G20 members to participate. All types of creditors should strive for simplified lending terms and avoid onerous conditions on sovereign borrowing. For example, in several recent distress cases, collateralized lending has complicated debt resolution.

Efforts to define and guide responsible sovereign

Box 2

Improving high quality debt recording and reporting

UNCTAD, through the the Debt Management and Financial Analysis System (DMFAS) Programme, has launched initiatives that are specifically designed to support countries in their efforts to improve capacity for high quality debt recording and reporting. The Debt Data Quality Assessment Methodology, developed in a joint initiative by UNCTAD and the Commonwealth Secretariat, is a framework to systematically assess the quality of databases recorded in debt management systems. It complements existing tools by adding granularity to those initiatives as it specifically targets countries' databases.

The development of DMFAS 7, the seventh major version of UNCTAD debt management software, has been launched. The new software will provide comprehensive support for the recording, monitoring and analysis of external and domestic debt and respond to meet major challenges and new practices in debt management. It will expand coverage of external and domestic public debt to include detailed and aggregated debt data for different institutional sectors, and a wider range of debt instruments and other types of liabilities. A redesigned debt securities module will be developed to improve the recording of related transactions and reports.

UNCTAD will also scale up its capacity-development support to countries in debt data recording, monitoring and reporting. In addition to its current focus on debt data validation, debt statistics and the production of statistical bulletins, it will include training on the development of procedures manuals. The traditional classroom and hands-on training will increasingly be complemented by new delivery methods such as e-learning and self-learning.

lending should also be reinforced. Rising debt risks call for renewed attention to commitments, made in the Addis Agenda, to work towards global consensus on guidelines for debtor and creditor responsibilities, building on existing initiatives. They include the UNCTAD Principles to Promote Responsible Sovereign Lending and Borrowing (2012), which provide a comprehensive normative framework to guide best practice in sovereign lending and borrowing. The G20 Operational Guidelines for Sustainable Financing (2017) aim to enhance access to sound financing for development, while ensuring that sovereign debt remains on a sustainable path, by fostering information-sharing and cooperation among borrowers, creditors and international financial institutions, as well as learning through capacity-building. The differences in emphasis between these approaches suggest that there is merit in exploring their complementarities and possible incongruities, in line with the mandate in the Addis Agenda.

4. Innovative and risk-reducing borrowing instruments

There are several types of innovative debt instruments that can help policymakers better manage risks and/or give countries room for SDG-related investments. One category, state contingent debt instruments (SCDIs), aims to reduce debt payments during periods of low fiscal revenue—for example, by tying debt payments to GDP, commodity prices, or catastrophic events—thus creating counter-cyclical liabilities. A second category, which aims to swap debt payments into SDG-related investments, can be particularly useful for countries with limited fiscal space for SDG-related investments.

4.1. State-contingent debt instruments

State-contingent bonds linked to commodities, such as oil, have been on the agenda since the 1970s, with SCDIs discussed more broadly since the emerging market crises of the 1980s and 1990s. More recently SCDIs have received increased attention. SCDIs link debt service to a measure of the sovereign's capacity to repay. They could help preserve fiscal space in bad times and reduce the number and cost of sovereign debt crises. In the context of risking debt risks and increased volatility, interest in an increased role for SCDIs has continued to develop.

The Paris Club launched a "resilience workstream" in 2018, and the finance ministers of the Group of 7 endorsed work towards drafting a term sheet that could be used as a model for "climate resilient instruments" (CRIs) that could be attractive to developing country issuers susceptible to disasters. Such instruments can complement ex-ante financing mechanisms, which enable governments to invest in disaster risk reduction and resilience.

Following the severe hurricane season in 2017, there has been particular interest in developing CRIs for Caribbean governments. The Caribbean is among the most disaster-prone regions in the world, with average annual damage of about 2.4 per cent of GDP from 1990 to 2014, and extremely severe damage of about 200 per cent of GDP in the worst cases. In May 2018 the Governor of the Eastern Caribbean Central Bank (ECCB) requested the collaboration of the World Bank and the IMF in exploring the potential use of state-contingent instruments.

A World Bank/IMF technical working group was set up and has focused on two broad designs for CRIs. The first CRI is a form of insurance, which could be purchased to cover a specified amount of debt service payments following disasters, allowing countries to reallocate budgetary funds towards recovery and re-

silient investments. The second option would build on the "hurricane clauses" introduced in Grenada's debt restructuring and would embed automatic maturity extensions following disasters directly into debt contracts. In the latter case, the International Capital Markets Association (ICMA) have developed draft "term sheets" and sought feedback in early 2019 from key stakeholders.

SCDIs have also featured in debt restructurings, where the creditors are in any case facing potential losses on their defaulted credits. Thus, two sovereign debt restructurings in 2018 introduced state-contingent features that will provide downside protection to the issuers. In Chad, the restructuring of debts owed to a private oil trader introduced mechanisms that will accelerate or slow principal repayments depending on the availability of oil receipts. Given Chad's dependence on oil revenues to pay debt service, this should reduce the likelihood of costly repeat restructurings in coming years. Barbados introduced "hurricane clauses" in its comprehensive debt restructuring of both domestic and external claims, with the domestic exchange completed in November 2018.

Nonetheless, despite their potential, complications such as novelty and liquidity premia demanded by investors, adverse selection and moral hazard risks, and adverse political economy incentives have hindered wider market development of SCDIs to date. Efforts by public institutions to underwrite or subsidize SCDI issuance, incorporate SCDIs into their own lending portfolios, or to act as market makers for SCDIs issued by sovereigns could help further realize the potential of this market.

4.2. Debt swaps

Debt conversion or debt swap mechanisms cancel part of a country's debt in order to release resources that would have been used for debt servicing for investments in sustainable development priorities. Debt swaps have a long history, and have been used both to purchase commercial debt in secondary markets and to swap bilateral debt. Examples include debt-for-nature swaps and debt-to-health swaps. More recently, the Seychelles converted some of its sovereign debt to the Paris Club for marine conservation efforts and climate adaptation programming.

The Economic Commission for Latin America and the Caribbean has proposed debt swaps to reduce the debt burden of participating countries while channelling more funds into green investments in the region (box 3). Debt conversion mechanisms have generated substantial resources for sustainable development investments over their history;[6] because they tie freed resources to a specific end use, they are not an appropriate instrument to address countries facing debt distress.

Box 3

A Caribbean debt swap for climate adaptation investment

The Caribbean region is heavily indebted and periodically exposed to devastating hurricanes, as in 2017. High debt has brought about a period of fiscal consolidation which continues to restrict the capacity of Governments to sustain social spending and invest in much needed climate-resilient infrastructure, while not relieving the debt burden. In this context, the Economic Commission for Latin America and the Caribbean (ECLAC) has proposed a swap of some of the region's external debt for debtor-country commitments to make annual payments into a new Caribbean Resilience Fund. The proposal is being developed by a regional task force that is now seeking to engage three countries of the region in a first phase of the project.

ECLAC proposes that the Green Climate Fund (GCF) buy up some of the external private debt of participating countries at a discount reflecting financial market sentiment about the debt, and that it also negotiate a discounted value of the country obligations to certain bilateral and official creditors. GCF would then pay down the discounted country obligations to those creditors over a period of years. For their part, the Caribbean countries would commit to pay into the new Caribbean Resilience Fund the amount that they would have paid as debt servicing to its former creditors.

The participating countries would thus exchange the affected debt obligations for an obligation to pay an amount annually into the new regional fund – an amount that would have otherwise been used to pay the debt servicing on the discounted debt. Annual payments would possibly be bolstered by donor contributions of various donors. The fund would be used to finance green investments in the participating countries.

5. Resolving unsustainable debt situations

The growing complexities of creditor compositions and structure poses formidable challenges to ensuring that resolution of unsustainable debt situations is timely, orderly, effective, fair and negotiated in good faith, as called for in the Addis Agenda. With debt vulnerabilities increasing in many developing countries, upcoming restructurings will have to address new complications, including the increased importance of non-traditional official creditors, uncertainties around the claims covered by restructuring, and the growth of collateralized borrowing (box 4).

There is no one-size-fits-all solution to these issues under the current international architecture for sovereign debt resolution, and in the absence of a more systematic multilateral solution to this question. Borrowers have sought the help of legal and financial advisors to develop appropriate incentives and penalties to encourage creditors to accept a proposed restructuring and to minimize problems with holdouts.

The IMF has been reviewing its policy on lending into arrears to strengthen incentives for debtor-creditor engagement and timely resolution of debt problems. An ongoing review of that policy with respect to private claims is expected to resume. The policy with respect to official arrears was reformed in 2015, and set up to work in tandem with Paris Club processes. However, it does not provide the same incentives towards resolution when the bulk of creditors are not members of the Paris Club. Options to use the Paris Club as an ad hoc coordinating mechanism for official creditors, or for a large creditor to take this role, have not gained traction versus the use of advisors to coordinate.

The growing importance of official creditors outside the Paris Club and the proliferation of debt-creating financing instruments and modalities, such as collateralized lending, have raised challenges in debt restructurings. The complexities of resolving unsustainable debt situations have brought new salience to the issue of creditor coordination and long-standing challenges in the existing architecture. It may be timely to review whether a path towards a consensus on these issues might be forged, including on specific elements such as creditor coordination, debtor-creditor dialogue, or temporary standstills, in line with the Addis Agenda, which recognized scope to improve the arrangements for coordination between public and private sectors and between debtors and creditors.

Box 4

Challenges to the resolution of unsustainable debt situations

In the Gambia, public debt was determined to be unsustainable in 2018, following sharp increases in debt resulting from fiscal slippages and governance issues. A large share of the Gambia's external debts are owed to non-traditional official creditors, including a dispersed set of non-Paris Club official bilateral creditors and plurilateral institutions. The restructuring is ongoing, with coordination issues slowing progress.

In the Republic of the Congo, a delayed policy response to sharp falls in oil prices in 2014 prompted a deterioration in the fiscal position, ultimately pushing the country into external default. Resolution of this situation has been complicated by the existence of substantial collateralized debts, the extent of which was not fully revealed until the country had already fallen into debt distress. In essence, this makes the collateralized creditor senior to other creditors, since in the case of default, it is more likely to be repaid. In addition to making it more difficult to restructure the obligations, these collateralization arrangements exacerbated the liquidity pressures that precipitated default.

Venezuela is currently experiencing a severe economic crisis and has defaulted on selected external debts. The restructuring will have to deal with multiple complications. First, the creditor base is extremely heterogenous, including private creditors, official bilateral lenders (including non-Paris Club members), and multilateral agencies, and will pose major co-ordination challenges. Second, the debt structure is complex, including significant amounts of collateralized debt.

In Mozambique, the authorities have been in ongoing discussions to restructure their debt since 2016 after a combination of delayed fiscal policy responses and large amount of previously unreported debt left the country in debt distress. While discussions are still in progress in November 2018, the Government announced recent agreements with some of its creditors to restructure one its Eurobonds through a combination of reprofiling and sharing future revenues from offshore gas projects.

Endnotes

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ADDRESSING SYSTEMIC ISSUES

Chapter III.F

Addressing systemic issues

1. Key messages and recommendations

The global economy is facing heightened risks and financial volatility, with global growth likely to have peaked, as discussed in chapter 1. Geopolitical factors, trade disputes, financial market volatility and non-economic factors, such as climate change, risk further impeding growth, stability, and development, as well as worsening poverty, inequality and vulnerabilities. There is increased urgency to address the systemic economic and financial risks and architectural gaps that threaten implementation of 2030 Agenda for Sustainable Development.

Weaknesses in the global financial system could pose heightened risks to achievement of the Sustainable Development Goals (SDGs). These risks include: the volatility of international capital flows, resulting from the short-term nature of many elements of international capital markets; persistent global imbalances; debt sustainability challenges in the public and private sector (see chapter III.E); and growing monopoly power and less effective competition policies (see chapter III.B). High debt levels in public and private entities—including through highly leveraged financial market derivatives—raise vulnerabilities and feed boom-bust cycles. The compression of the wage share of income has exacerbated inequality. The rapid pace of technological change, while possibly providing new remedies, can also exacerbate global systemic risks.

To achieve sustainable development, *the international community should continuously examine whether its institutions are sufficient and remain fit for purpose*. This reflection has begun—for example, within the Group of Twenty (G20)—but the global implications warrant wider, open and inclusive discussions. As noted in the Addis Ababa Action Agenda, this should be complemented by efforts to increase the coherence of the global system and improve the inclusivity of global economic governance.

While implementation of financial sector reforms in the aftermath of the 2008 global financial and economic crisis (hereafter, 2008 crisis) has reduced risks in the regulated financial system, there are growing risks in areas beyond such reforms, including outside of the regulatory framework. Governments can aim to better manage capital flow volatility with policy actions that maintain the benefits of long-term investment in developing countries while reducing the risk of financial crises. *The international community should be mindful of spillovers from domestic policy choices including on the volatility of private capital flows to developing countries. Efforts to incentivize long-term investment to facilitate SDG achievement can contribute to this objective.* The International Monetary Fund (IMF) has developed an Institutional View on the liberalization and management of capital flows, which guides IMF advice to and assessments of its members. *At the national level, countries should incorporate strong macro-prudential regulations—and capital account management techniques when needed—into integrated national financing frameworks, as called for in the Addis Agenda, to ensure coherence across national policies* (see chapter II).

In the medium to longer term, shifts in the international monetary system, including those related to external adjustment and global imbalances, could increase financial volatility, particularly in a period of political uncertainty. This underscores the importance of strengthened international cooperation and of *ensuring adequate resources and comprehensive coverage in the global financial safety net.* Under the current financial architecture, currency risk associated with welcome international financing is often borne by those in developing countries least able to manage it. *The international community should develop better mechanisms to help address currency risk in developing countries, including through a greater use of currency risk diversification, as called for in the Addis Agenda. Similar to some other insurance mechanisms, international entities are well placed to manage such risks globally.*

Agreed regulatory reforms need to be fully, consistently and transparently implemented, but they alone are not enough to create sustainable and stable financial systems. Outside the traditional regulatory perimeter, technology companies and non-bank financial institutions are intermediating growing shares of credit. Technology companies often blur the lines between software, settlement, and financial intermediation. There are concerns about increasing risk-taking in credit markets with deteriorating underwriting standards, such as leveraged loans packaged into collateralized loan obligations. *To effectively manage risks arising outside the regulatory perimeter, financial regulators will need to increasingly shift to looking at the underlying risks associated with the financial activity rather than the type of financial institution providing financial services, with international regulatory standards also needing to adapt to the new landscape.*

Given the complex and ambitious set of transformations needed to deliver on the 2030 Agenda, coherence across policy areas is critical. There is a growing understanding of how financial regulations are impacting incentives for sustainable development investment. There is less understanding of the impacts of social and environmental risks on credit quality and the stability of the financial system. Policies and regulations need to act together in order to create a sustainable financial system. *The regulatory system needs to be congruent with the measures to boost the sustainability of the private financial system, such as sustainability reporting and impact measurement* (see chapter III.B).

Well-run national development banks (NDBs) can help countries develop financing options for SDG-related investments. *NDBs should be aligned with the SDGs in a holistic way and be considered in integrated national financing frameworks. Collaboration of NDBs and multilateral banks, through cofinancing or on-lending arrangements, can enhance SDG-related finance through the complementarity of international resources and local market knowledge.* Member States of the United Nations and the international community can work together to strengthen NDB risk management. Research is needed to better understand how the regulatory frameworks applied to NDBs can be tailored to protect their financial sustainability while incentivizing the sustainable development effectiveness of their investment.

Concern remains over the decline in correspondent banking, which is driven by cost—including maintaining important anti-money laundering and related standards—and risk considerations. Well-managed technological solutions have the potential to address the costs and risks of operating correspondent banking relationships. *Member States can work together to incentivise or require the adoption of know-your-customer utilities and the Legal Entity Identifier (LEI).*

As the 2030 Agenda makes high demands of maximizing synergies and breaking down silos, coherence of financial and economic systems with sustainable development is critical. Member States have aimed for economic, financial and trade policy coherence since the Monterey Consensus. The deeper coordination that is now needed extends across a broader set of international policy areas and institutions including tax, investment, competition and non-economic issues which have previously been excluded, such as climate change, disaster risk, human rights, gender and migration.

Global governance must be enhanced to support the ambitious 2030 Agenda. Throughout this report, there are many calls for deepening international cooperation, strengthening global governance and improving inclusive international norm-setting. Across these areas, *more work is needed on broadening and strengthening the voice and participation of developing countries, as was committed in the Addis Agenda.*

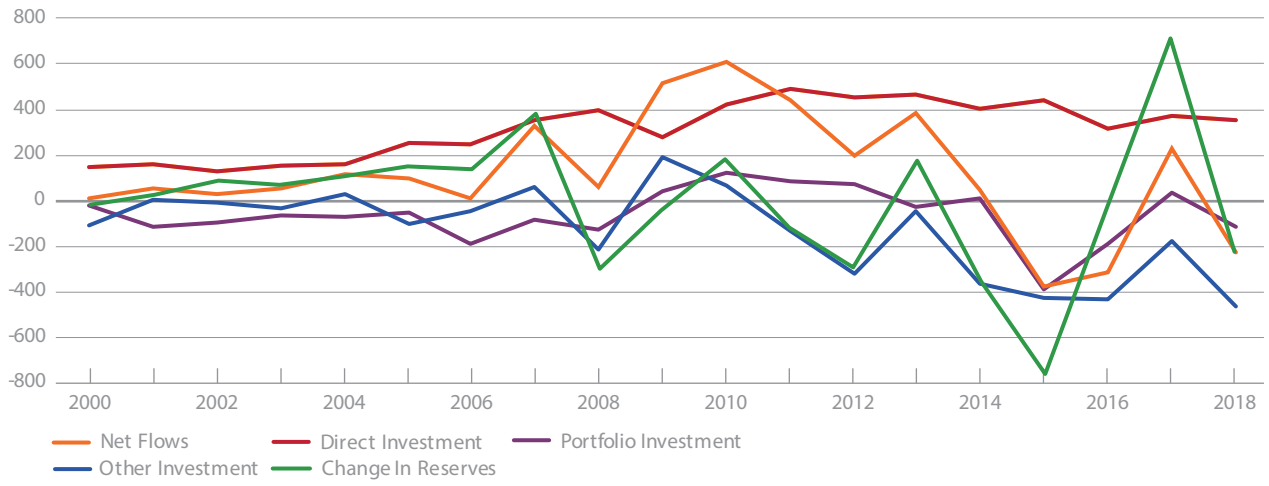
2. Macroeconomic stability and the international architecture

In recent years developing countries have seen capital outflows and bouts of heightened volatility, reflecting rising interest rates in developed economies and growing investor risk aversion due to heightened geo-political uncertainty. In particular, portfolio flows, which are primarily driven by institutional investors, cross-border bank loans and other debt instruments,[1] have remained highly volatile, with aggregate negative net flows to developing countries since 2014 (figure 1).

The volatility of capital flows can, in part, be linked to the short-term focus of international financial markets, as discussed in chapter III.B. Volatility of capital flows can be decomposed into debt and equity flows and into the flows of residents and non-residents, each of which may move independently based on risk perceptions and market conditions. At the same time, financial markets have increasingly differentiated across countries with outflows and pressures on exchange rates more acute in countries with weaker fundamentals or higher political risk, as can be seen by the rising dispersion of emerging market currency volatility to levels not seen since the financial crisis (figure 4). An IMF study of the 2008 crisis found that countries with stronger pre-crisis fiscal positions and macro-prudential frameworks, and those with more flexible exchange rate regimes, experienced smaller losses, underscoring the importance of national policies and plans.[2] Such countries had greater policy space to enact countercyclical measures to help address the effects of the crisis.

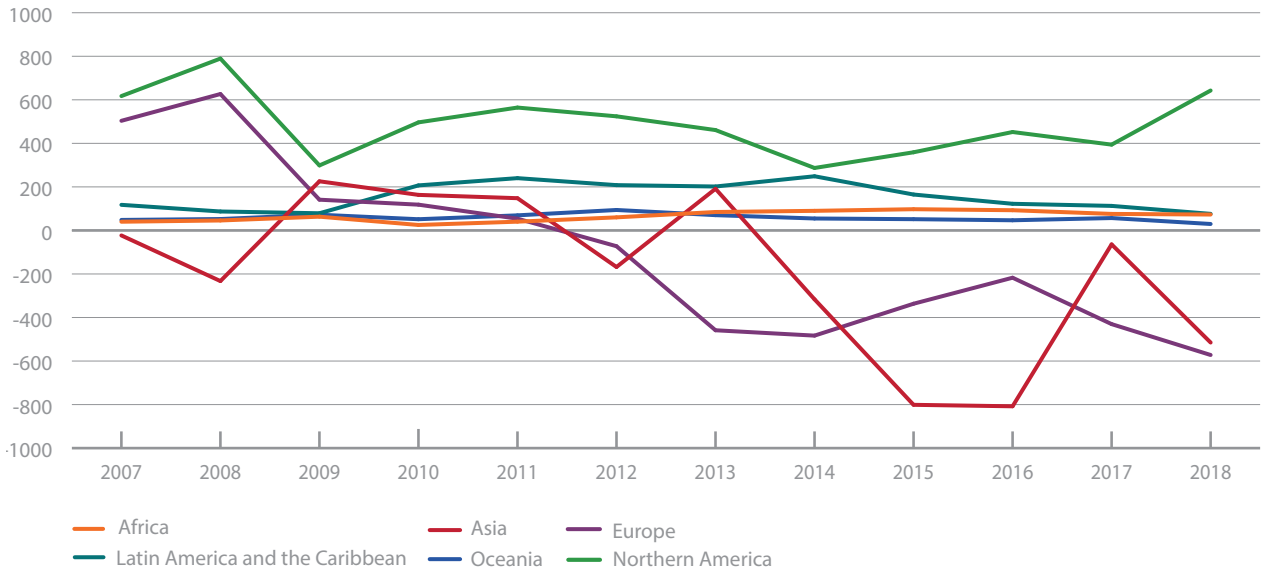
The direction of capital flows also varies by region, as shown in figure 2, with Asia and Europe currently being the prime suppliers of capital to the rest of the world and North America, the largest recipient. The global imbalances in capital flows are the inverse of the imbalances in the current account (largely trade in goods and services) and movements in international reserves, which have been a feature of the international financial system for several decades. Risks from these imbalances could be elevated during periods of uncertainty.

Figure 1
Net financial flows to countries in developing regions, 2000-2018
(Billions of United States dollars)



Source: IMF World Economic Outlook, October 2018.
Note: Positive values denotes a net inflow of capital and an increase in reserves. A negative value indicates a net outflow of capital and a decline in reserves. 2018 value is a projection.

Figure 2
Net financial flows, by region, 2007-2018
(Billions of United States dollars)



Source: IMF World Economic Outlook, October 2018.
Note: Positive values denotes a net inflow of capital. A negative value indicates a net outflow of capital. 2018 value is a projection.

2.1 Capital account management

While capital inflows can deliver substantial benefits to countries by supplementing domestic savings and investment, large and volatile capital flows can also give rise to macroeconomic and financial stability risks, often impacting the real economy. There is little systematic evidence that liberalization of the capital account on balance raises welfare, highlighting the importance of long-term capital flows invested in sustainable development.

The Addis Agenda notes that when dealing with risks from large and volatile capital flows, necessary

macroeconomic policy adjustment could be supported by macroprudential and, as appropriate, capital flow management measures. In 2012, the IMF developed an Institutional View on the liberalization and management of capital flows, which recommends that recipients of capital flows should primarily use macroeconomic policies to manage capital flows, and notes that capital flow management measures can be appropriate in certain circumstances, although these should not substitute for warranted macroeconomic adjustment. In 2018, the IMF published a study and taxonomy of capital flow management, which can serve as a useful reference for peer learning.[3] It examined case studies of capital account management methods, analysed their appropriateness and assessed whether alternative macroeconomic measures could have been taken.

One lesson from the study is that national capital account management policies need to be coherent with macroeconomic and macroprudential policies. Indeed, to achieve the SDGs, measures should also be coherent with the full range of policies across the different action areas of the Addis Agenda, such as international investment agreements (see chapter III.D) and financial and capital market development policies (see chapter III.B). To be most effective, capital account management policies should therefore be incorporated into integrated national financing frameworks (see chapter II).

It could be helpful to develop a better understanding of how source countries of capital flows can meet domestic objectives while avoiding large international spillovers in the form of volatility. Developed countries should continue efforts to incentivize longer time investment horizons for international investors. This would not only help to achieve sustainable development, it could have the added benefit of potentially helping reduce capital market volatility.

2.2 Multilateralism, surveillance and macroeconomic coordination

With risks shifting to the downside, there is greater urgency for coordinated policies that can enhance prospects for strong and inclusive growth. However, the current geopolitical landscape points to weaker coordination, not more.

The IMF External Stability Report shows that global current account balances — defined as the absolute sum of surpluses and deficits — stand at about 3.25 per cent of global gross domestic product (GDP) as of 2018. Of this, 40 to 50 per cent are now deemed excessive (i.e., some countries are saving too much, and others are borrowing too much).[4] International reserve accumulation by some developing-country monetary authorities increased dramatically following the Asian financial crises of the late 1990s, with reserve accumulation rising to a peak of 15.2 per cent of world gross product in 2013 (figure 3). This policy provided self-insurance against sudden stops in capital flows and, in so doing, reduced the likelihood of a recourse to sharp procyclical adjustment, should such a sudden stop occur. The policy also precipitated an increase in the demand for US-dollar-denominated assets, thus contributing to widening global imbalances, and paradoxically the flow of resources from developing countries as a group to the developed world.

Since 2001, the share of international reserves held in US dollars has, however, been steadily falling. US-dollar-denominated reserves accounted for less than 62 per cent of the total at the end of the third quarter of 2018, down from a peak of 71.5 per cent in 2001, with a relatively constant decline throughout the 2008 crisis and other economic events. In 2018, euro-denominated assets account for 20.5 per cent of the total, and Chinese renminbi-denominated assets, which were reported for the first time in 2016, for 1.8 per cent.

At the same time, while global imbalances in aggregate have remained broadly unchanged in recent years, they have become increasingly concentrated in developed economies (figure 2). This reflects several factors, including commodity-price developments, the gradual tightening of global financial conditions, and asymmetries in demand recovery in developed countries. Given the challenging external environment, policymakers in developing countries should be prepared for further capital outflow pressures, which could result in sharp and disruptive currency and asset price adjustments.[5]

Such large and sustained excess external imbalances in the world's key economies pose growing risks to global stability, especially in periods of policy uncertainty. In the near term, these imbalances risk aggravating trade tensions. Over the medium term, sustained deficits would lead to further widening of debtor positions in key economies. Indeed, persistent global imbalances and elevated sovereign debt have been sustained to date in large part because capital markets trust that large developed economies will repay their debt. Sovereign debt is now near or exceeding 100 per cent of GDP in nine developed economies. While it is difficult to know at what level debt becomes unsustainable, geopolitical risks and policy uncertainty can lower the ability of some countries to maintain excessive debt. Financial market actors are already discussing that a sudden shift of risk perception and the willingness of international investors to hold debt of some advanced countries is possible. Mere discussion of this among analysts raises the risk of such a sudden shift occurring.

International coordination to address global systemic risks uses several channels: IMF multilateral surveillance involves monitoring global and regional economic trends and analysing spillovers from members' policies onto the global economy; the IMF and FSB conduct an Early Warning Exercise to assess economic, financial, fiscal, and external risks, integrating macroeconomic and financial perspectives; the FSB Plenary assesses vulnerabilities affecting the global financial system; and the G20, with the help of the IMF, conducts a mutual assessment process to evaluate how policies fit together.

The IMF continues to undertake efforts to enhance its surveillance. The 2018 IMF Interim Surveillance Review found that bilateral and multilateral surveillance

discussions are underpinned by a shared and deeper understanding of global interconnectedness and linkages across sectors.[6] There has also been progress in core areas of Fund work such as risk analysis, fiscal and external sector analysis, integration of macro financial analysis, and macrostructural policy work. Looking ahead in 2020 there will be a Comprehensive Surveillance Review and a review of the Financial Sector Assessment Program. In January 2019, the FSB decided to review its framework for assessing financial stability vulnerabilities to ensure that it is flexible enough to handle a financial system that will continue to evolve over time.[7]

2.3 The global financial safety net

Given rising global risks, building resilience to shocks can save money and improve welfare. Chapter III.A discusses finance for social protection floors that can act as automatic stabilizers during a shock. Internationally, a strong global financial safety net (GFSN), which is designed to help cushion countries when they experience crises, can help bolster resilience. Yet, the adequacy of resources in the GFSN remains an open question.

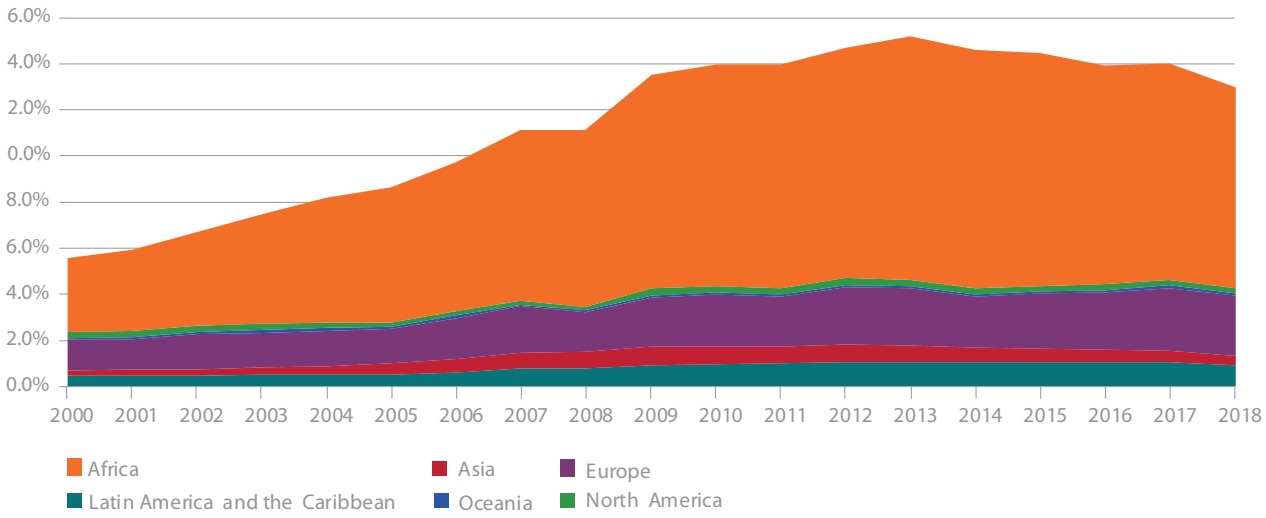
The GFSN comprises international reserves, central bank bilateral swap arrangements (BSAs), regional financing arrangements (RFAs), and the resources of the IMF. As noted, the GFSN has become multilayered, and has uneven coverage with sizeable gaps.[8] Many countries, including large developing countries and those that could act as transmitters of shocks, continue to lack adequate access to predictable and reliable funding. The size and structure of the GFSN has not changed appreciably since the 2018 *Financing for Sustainable Development Report*. At that time, the Inter-agency Task Force on Financing for Development inventory of quick-disbursing international instruments mapped out the different components of the GFSN, showing a wide array of instruments, but highlighting gaps in coverage and the need to increase GFSN flexibility and countercyclicality, reinforcing the IMF analysis.

IMF non-concessional financial commitments from its General Resources Account to 16 countries amounted to $191.4 billion at end-September 2018. In fiscal year 2018, $91 billion in arrangements were approved, leaving the IMF with a forward commitment capacity of $262.5 billion at the end of 2018. For low-income member countries, the IMF committed concessional loans amounting to $2.4 billion at end-April 2018. A comprehensive review of the concessional lending facilities and a review of conditionality and of the design of Fund-supported programmes will be conducted in 2019, while the adequacy of IMF resources overall is being discussed in the context of the IMF Fifteenth General Review of Quotas (box 2).

With a multilayered structure, coordination of the different components of the GFSN is important. In 2018, a review of implementation of G20 principles to strengthen the coordination of policy-based lending for countries requesting financing while facing macroeconomic vulnerabilities found that the IMF and the MDBs had strengthened coordination and deepened their dialogue at the staff and managerial level.[9] Regional financial cooperation and integration can play an important role complementary to the global financial architecture, including in shocks response, development finance and promoting regional trade (box 1). Regional institutions have the credibility and legitimacy to play a more active role in supporting financial system stability. Use of the principle of subsidiarity can promote regional and global institutions serving as complements rather than competitors.

One additional option that could increase countries' re-

Figure 3
International reserves, by region, 2000–2018
(Percentage of world gross product)



Source: Task Force calculations based on IMF International Financial Statistics, World Economic Outlook.
Note: Total reserves, excluding gold; 2018 data from end September for those countries without 2018 year-end data.

serve buffers involves allocations of IMF special drawing rights (SDRs). For example, a previous allocation of SDRs was made in the wake of the 2008 crisis. In March 2018, the IMF executive board discussed whether a broader role for SDRs could contribute to the smooth functioning and stability of the international monetary system. However, political support for strengthening the role of SDRs remains weak; most IMF Executive Board members were uncertain or unconvinced that there is a role for the SDR in addressing the weaknesses in the international monetary system. IMF board members supported further analysis of how economic and technological transitions—such as a potential move towards a multipolar global economy and adoption of financial technologies—could reshape the monetary system.

Box 1

Reinforcing the financial safety net in Latin America

The regional financial architecture of Latin America and the Caribbean is one of the most extensive in the developing world. Regional institutions can play a significant role in providing countercyclical funding and supplementing the resources that countries receive from institutions such as the International Monetary Fund. With few exceptions, regional financial cooperation in Latin America and the Caribbean has been related to agreements on trade integration. Its financial architecture and institutions have been organized around the need to support liquidity and balance-of-payments financing, an effort now centred in the Latin American Reserve Fund (FLAR) for its eight member states.

Six of the FLAR members have made timely and expeditious use of the FLAR credit facilities. In many instances, balance-of-payments challenges in the region are not simultaneous, so the fund can operate effectively to counter crises without countries resorting to global facilities. A regional reserve fund with a larger membership and more capital would contribute even more to regional financial stability. Regional development banks can also supply countercyclical financing, as can national development banks (see main text).

Other issues to explore in regional cooperation include (i) exploring the use of regional currencies for bilateral trade settlement; (ii) understanding how an expansion of the regional development banking system can contribute to sustainable development; (iii) investigating the possibilities for currency swaps lines among regional trading partners; and (iv) examining a possible role for regional institutions to facilitate exchange-rate insurance in contexts where volatility is driven by speculation.

Source: ECLAC.

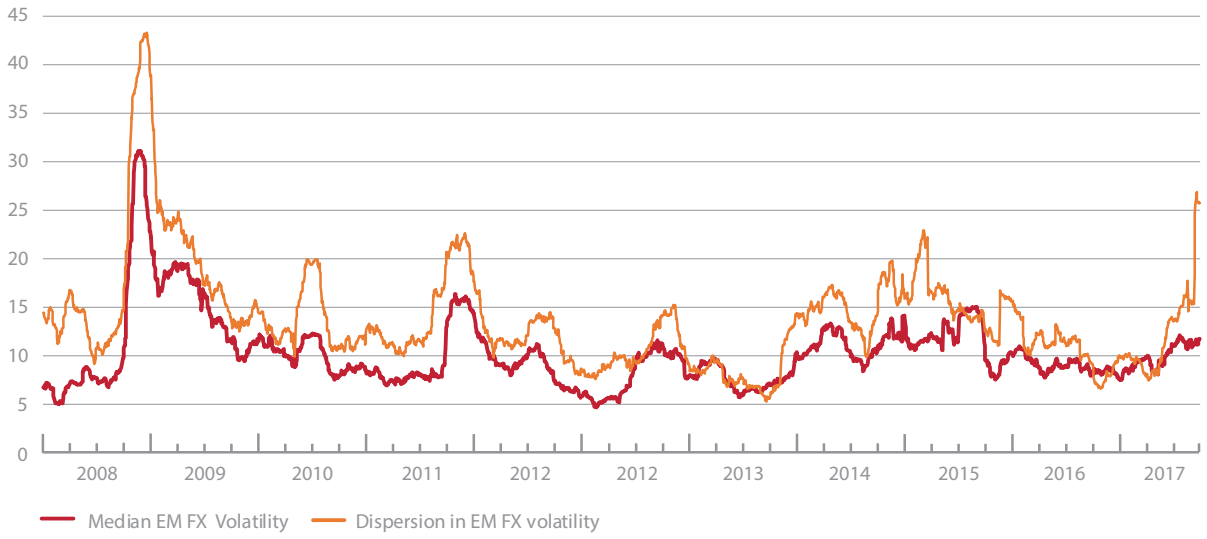
2.4 Currency risk management

Currency mismatches have also been at the core of many developing-country, as well as developed-country, financial crises. This problem may worsen in two ways: The transition to multi-polarity in the international reserve system may further heighten volatility of exchange rates. In addition, new instruments being developed to achieve the SDGs—such as platforms to use blended finance to increase foreign-currency-denominated investment or lending to domestic enterprises, which generally have assets in local currency (see chapter III.C)—can create currency mismatches, which the domestic entity is often least well placed to manage.

Currency risk is also a significant impediment to sustainable, long-term investment in developing countries. For example, financiers responding to an FSB consultation cited currency risks as the most relevant factor constraining the supply of infrastructure finance. These costs constrain SDG-related investment. Currency risk is particularly difficult to manage, since the cost of hedging is tied to local interest rates, which can be higher than the expected return on the investment. While market instruments exist to hedge currency risk, these are generally costly and relatively short-term. As shown in figure 4, at times, there is dispersion in volatility of currencies, with currencies reflecting idiosyncratic domestic risks, which are not necessarily correlated with global risk aversion. At other times, the volatility of most emerging-market currencies increases synchronously; these episodes correspond to global macroeconomic and liquidity conditions. In general, however, domestic interest rates compensate for the volatility, on a diversified basis. For example, a basket of 22 developing countries outperformed the market, with positive returns, even throughout the emerging-market crises of the 1990s and early 2000s.[10]

Given the high cost of hedging, one of the tools for managing currency risk could be greater use of diversification by international actors. This was recognized in the Addis Agenda, which calls on MDBs to lend in local currencies, making "use of all risk management tools, including diversification".[11] More recently there have been proposals for regional institutions (box 1) to offer hedging mechanisms. While this has a benefit of adding some diversification, to get the full benefit of risk management more currencies and regions should be incorporated. The Currency Exchange Fund (TCX) is an example. It was founded in 2007 by a group of development finance institutions to act as a market-maker in currencies and maturities not covered by the private sector. TCX pools the currency risk related to the lending activities of multiple institutions, operates in 70 currencies, and through about 3,000 transactions has taken on currency risk for $6.5 billion in lending. Scaling up this approach could be achieved by some type of global re-insurance, exchange of exposure, or increasing the capital base of TCX or other international financial institution.

Figure 4
Emerging market currency volatility
(Percentage)



Source: IMF Global Financial Stability Report October 2018.
Note: 60-day realized volatility for 20 selected currencies, dispersion is calculated as the difference between the 90th and 10th percentiles.

3. Financial regulation and the Sustainable Development Goals

The 2008 crisis forced an overhaul of the global financial regulatory architecture to address risks in the financial system. New standards, tools and practices were developed following the crisis, including the Basel III capital and liquidity accords and widespread adoption of stress testing for the banking sector. These reforms are in line with the recent IMF study on the 2008 crisis, which found that countries with greater financial vulnerabilities in the pre-crisis years suffered larger output losses after the crisis.[12]

The reform agenda agreed at the G20, although still incomplete, has been largely implemented and has strengthened the resiliency of the financial system in key areas. Nonetheless, there is a risk that a renewed push for deregulation in some countries could reverse gains. At the same time, new risks continue to arise, and the application of new technologies to finance is complicating traditional models of regulation and oversight, thus emphasising the importance of regulation which focuses on the risks associated with financial activity rather than on the type of financial institution.

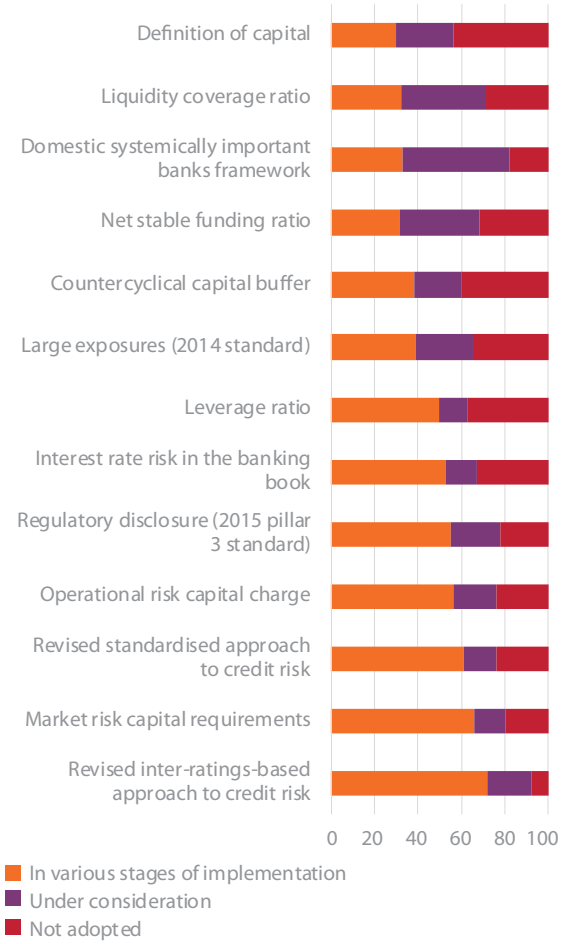
Risk-mitigating measures, while strengthening the resilience of the financial system, may also have unintended consequences on access to credit for investments needed to achieve sustainable development, and on environmental and social factors. The international community is making efforts to evaluate the effects of reforms to better understand the impact they may have on the SDGs, including lending to developing countries, long-term lending, and lending to sectors crucial to sustainable development (such as small- and medium-sized enterprises (SMEs) and trade finance).

Ultimately, however, stability and sustainability are mutually reinforcing; without a stable financial system, the 2030 Agenda risks being derailed by future financial crises. The challenge is to design policy and regulatory environments that support financial market stability and promote investment aligned with the SDGs and financial inclusion in a balanced manner, with appropriate consumer protection, as called for in the Addis Agenda.[13]

3.1 Implementation of regulatory reform

The reform agenda has focused on reducing risks through four channels: (i) strengthening financial institution resiliency; (ii) ending systemic risks posed by too-big-to-fail financial institutions; (iii) making derivatives markets safer; and (iv) enhancing the resilience of non-bank financial intermediation.[14] In November 2018, the FSB concluded that the new regulatory framework is largely in place.[15] In addition, although the Basel III standards were agreed among the Basel Committee's members and designed for relatively complex financial systems, they are increasingly being adopted worldwide (figure 5). However, the FSB also reported that implementation of reforms is not complete and remains uneven (figure 6). It calls for its members[16] to maintain momentum and avoid complacency, as there is a risk that uneven implementation or a rollback of reforms in one jurisdiction could spawn opportunities for regulatory arbitrage and lead to a race to the bottom in regulation and supervision. This could jeopardize financial stability and thus achievement of the SDGs.

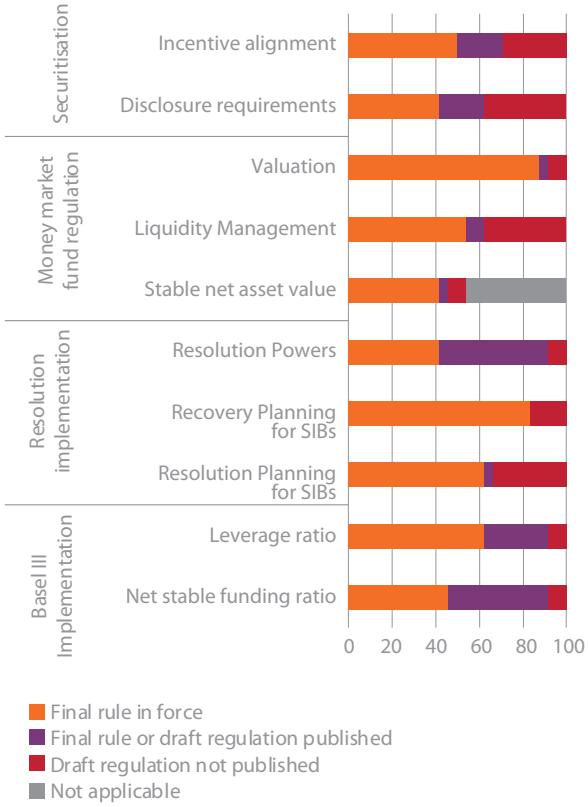
Figure 5
Adoption of Basel III standards outside of Basel Committee memship, 2018
(Percentage of jurisdictions)



Source: BIS.
Note: 100 countries were surveyed, for a full list see BIS (2018) "The Basel framework in 100 jurisdictions: implementation status and proportionality practices", FSI Insights on policy implementation No. 11, November, available from: https://www.bis.org/fsi/publ/insights11.htm. Countercyclical capital buffer (CCyB); Interest Rate Risk in the Banking Book (IRRBB); standardised approach for credit risk (STA); internal ratings-based approach (IRB).

Implementation of reforms has been particularly strong with regard to strengthening financial institution resiliency, through capital adequacy and liquidity coverage. Addressing risks associated with financial institutions being too big to fail is also advancing. This includes the establishment of effective resolution regimes to make it possible to resolve financial institutions in an orderly manner without severe systemic disruption or exposing taxpayers to the risk of loss. Resolution regimes seek to enable regulators to close non-viable financial institutions while protecting the firm's functions that are critical to the financial market or the real economy, ensuring that losses are borne by shareholders and creditors, and protecting the payments system and insured depositors. Furthermore, bank supervision has become more intensive, especially at large banks, with the expectation of government bailouts

Figure 6
Progress of regulatory reform implemention, 2018
(Percentage of jurisdictions surveyed)



Source: FSB.
Note: Systemically important banks (SIBs). The six EU members of the FSB are presented as separate jurisdictions.

appearing to have diminished, as measured by the decline in the funding advantages of the largest banks.[17]

Countries hosting the largest derivatives markets have implemented stronger reporting, clearing, trading and margin requirements. Reforms to non-bank financial intermediation (often referred to as shadow banking) have also been implemented. Regulations have been introduced in almost all jurisdictions on money market funds, repos, and other instruments that contributed to the 2008 crisis. The largest gap in implementation progress is for liquidity management rules for money-market funds, with nine jurisdictions not yet publishing draft rules. Most countries also now have macroprudential authorities and some tools with which to oversee these systemic risks.

The key priorities of the international standard setters include completing implementation of the leverage ratio, which seeks to constrain excessive risk-taking, and the frameworks for the cross-border resolution of banks and insurer solvency (figure 6). The net stable funding ratio—which is designed to ensure banks have sufficient liquid assets to cover long-term liabilities to withstand a crisis—is also lagging in implementation in 13 jurisdictions, accounting for 65 per cent of the banking market having not yet implemented this reform.

3.2 Impact of regulatory reforms on resilience and credit growth

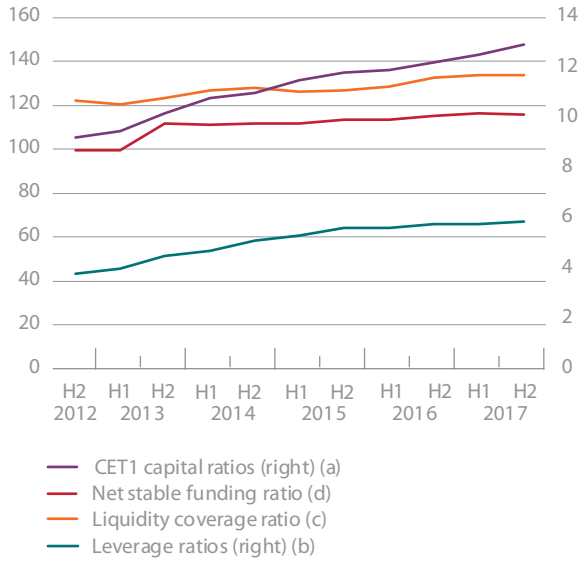
The Addis Agenda acknowledges the possibility of risk-based regulatory reforms having unintended consequences by constraining credit in areas where credit expansion is necessary. Countries committed to ensure that policies and regulations support financial market stability and financial inclusion in a balanced manner. It also notes that exceptions to financial regulations may be needed to achieve global goals. Stability and sustainability can be mutually reinforcing, and failure on either front can increase financial crisis risks.

Overall, implementation of reforms has led to banks being better capitalized, less leveraged and more liquid than they were before the global financial crisis. Figure 7 shows that the largest internationally active banks have improved their buffers, making the banking system more resilient to economic shocks. In addition, most risks posed by the specific types of non-bank financial intermediation that contributed to the 2008 crisis have been significantly reduced.[18]

To date, there is evidence that the changes in financial sector regulation have been achieved without impeding the overall provision of credit to the global economy. While international banks deleveraged after the crisis, since 2014, bank lending and total credit to non-financial firms and households has grown relative to GDP (figure 9). Total credit growth in emerging markets and developing economies[19] has grown faster than in advanced economies relative to GDP, with a dip only in 2008. This in part reflects the low cost of bank credit and bond finance in recent years, supported by exceptionally accommodative monetary policies. The greatest growth has been to non-financial corporations (versus households), which shows that, in general, lending is more likely to be supporting economic activity, although there is concern that the credit has not increased real investment (see chapter III.E).

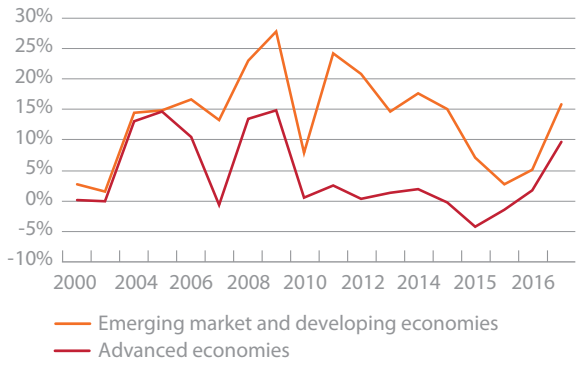
Evidence to date suggests that the financial crisis slowed, but did not necessarily reverse, the long-term trend towards higher global financial integration. While total gross cross-border bank claims dipped between 2010 and 2016, following initial deleveraging after the fi-

Figure 7
Bank capital and liquidity positions
(Ratio, percentage)



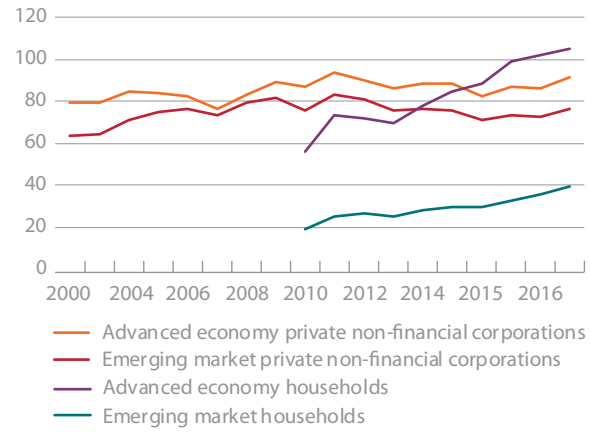
Source: BCBS.
Note: (a) 84 banks, (b) 66 banks, (c) 68 banks, (d) 91 banks.

Figure 8
Credit growth to the private non-financial corporate sector, 2000-2017
(Percentage)



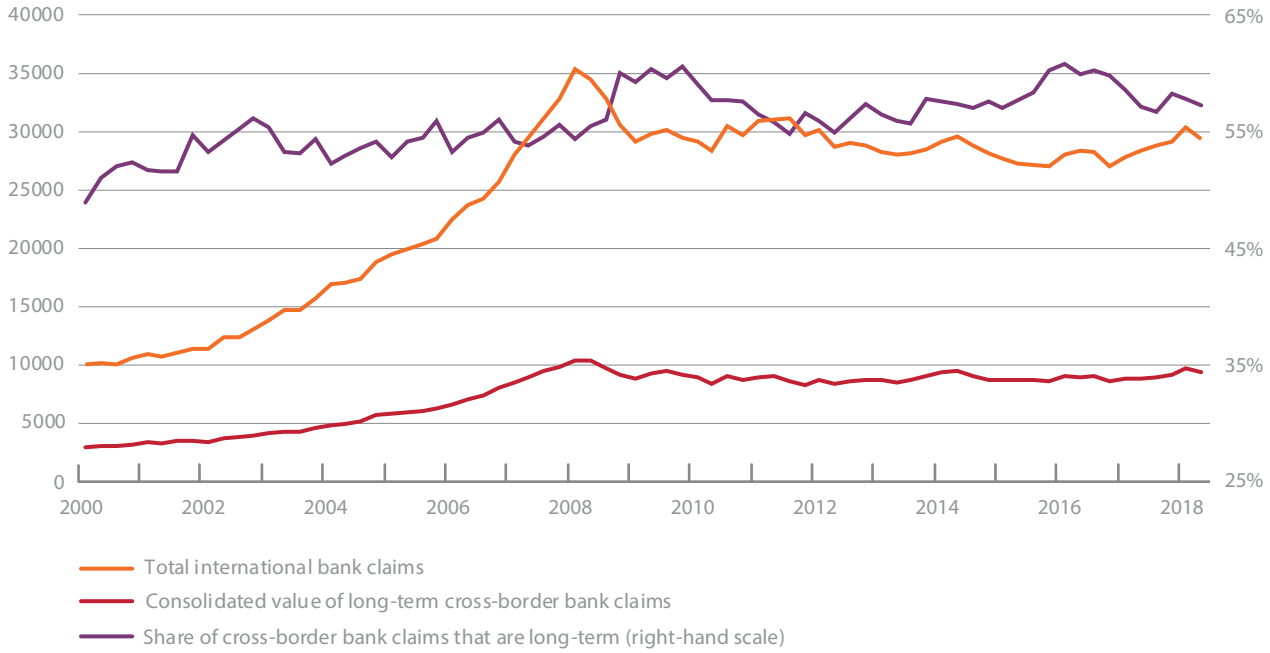
Source: BIS.
Note: year-on-year growth of total outstanding credit to the private non-financial sector, data as of Q4, weights based on 2016 data.

Figure 9
Credit growth relative to economic output, by development status, 2000-2017
(Percentage)



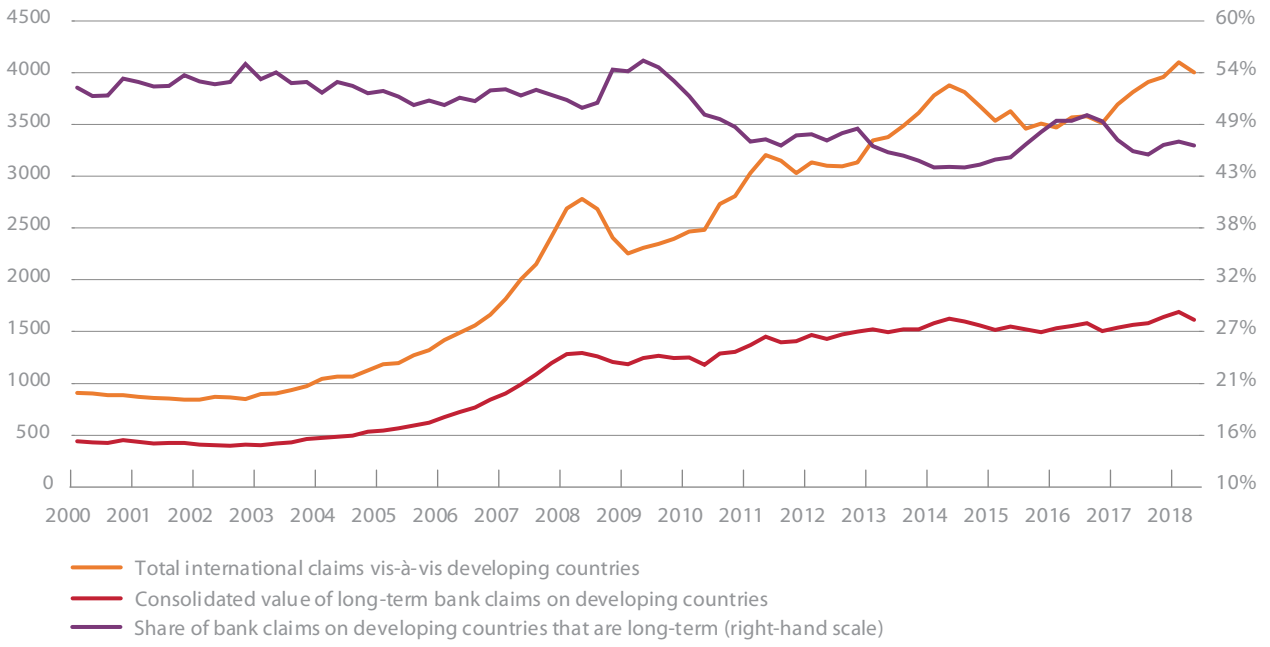
Source: BIS.
Note: Households includes non-profit institutions serving households.

Figure 10
Cross-border banking exposures, 2000-2018
(Billions of United States dollars, percentage)



Source: BIS.

Figure 11
Cross-border banking exposures to developing countries, 2000-2018
(Billions of United States dollars, percentage)



Source: BIS.

nancial crisis (figure 10), total cross-border bank lending to borrowers in emerging markets has grown since 2009 (figure 11), despite volatility over the years. However, much of this increase has been short-term, with long-term lending growing more slowly, underscoring some of the challenges for policymakers in developing countries in ensuring the quality of borrowing, and in managing debt and capital account risks. Chapter III.E discusses the potential for private sector debts to end up on the sovereign balance sheet in the event of a financial crisis.

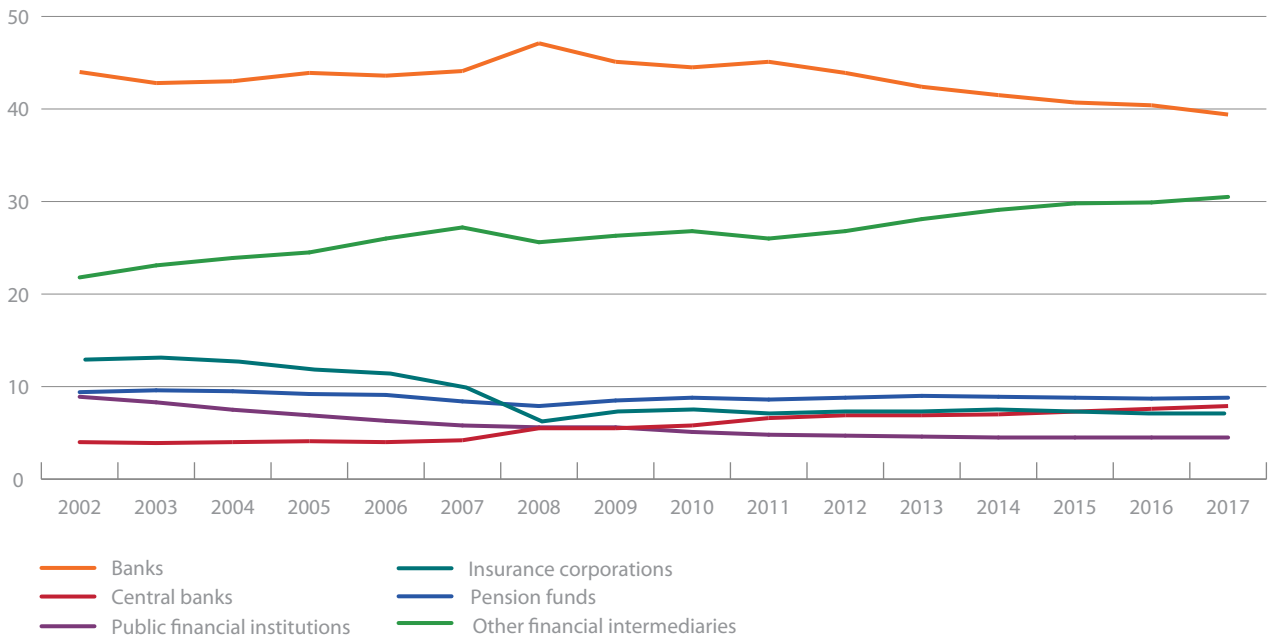
3.3 Emerging risks and opportunities

As the financial system continues to evolve, new threats to financial stability may emerge. For example, the supply of financial services has become more diversified, including through the growth in non-bank financial intermediation. Assets held by non-bank intermediaries have continued to grow faster than the global economy, and now make up a larger share of all financial assets (figure 12). Assets of institutions that may pose bank-like financial stability risks, such as collective investment vehicles, now make up about 14 per cent of the total global of financial assets (see "narrow measure" in figure 13).[20]

Effective financial regulation needs to address systemic risks from financial intermediation, both bank and non-bank, as well as the full spectrum of other risks, such as settlement risk and fraud. Regulations will vary by the type of risk; for example, consumer protection would not be effectively addressed through capital requirements. Indeed, this approach is consistent with FSB efforts to set regulatory norms to address financial stability risks associated with non-bank financial institutions that were highlighted in the 2008 crisis.

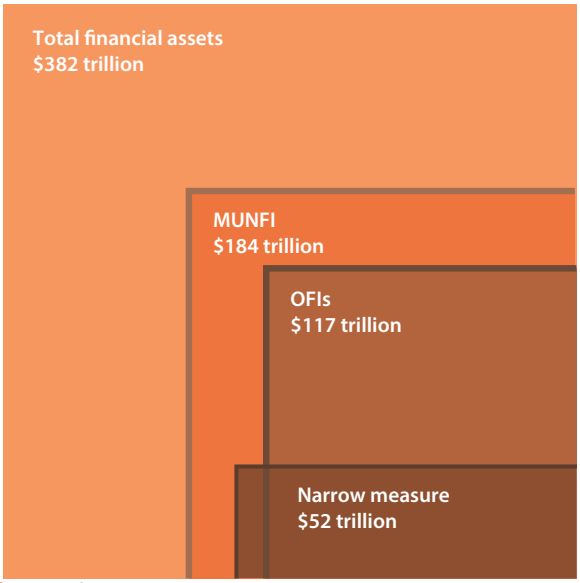
In addition, rapid advances in financial technology (fintech) are transforming the economic and financial landscape. As discussed in chapter III.G, fintech can support potential growth and poverty reduction by strengthening financial development, inclusion and efficiency, but may also pose risks to consumers and investors and, more broadly, to financial stability and integrity. Most new fintech companies are not banks, and some are outside of the traditional regulatory framework. Yet, while some of these operators offer purely payments services or technology solutions (e.g., software), others have begun to intermediate credit and to blur the lines between software, payments and intermediation. A particular case is that of large technology companies, which may directly offer financial services or become important third-party providers to financial institutions.[21] To date, the application of these new technologies to the financial sector does not appear to have had systemic implications. As these operators grow in importance, regulation may need to better cover these risks, while not stifling innovation. This could entail a shift from looking at the type of financial institution providing financial services, to the underlying risks associated with the financial activity.

Figure 12
Assets of financial intermediaries, 2003-2017
(Percentage of global financial assets)



Source: FSB.
Note: Covering 21 jurisdictions plus the euroarea; some exchange rate effects have been netted out by using a constant exchange rate from 2017.

Figure 13
Composition of non-bank financial intermediary assets, 2017
(United States dollars)



Source: FSB.
Note: Monitoring universe of non-bank financial intermediation (MUNFI) comprises insurance corporations, pension funds, other financial institutions (OFIs), and financial auxiliaries. Narrow measure includes non-bank financial entities that are involved in credit intermediation activities that may pose bank-like financial stability risks.

3.4 Impact of regulatory reform on infrastructure finance

A November 2018 FSB evaluation of the effects of financial regulatory reforms on infrastructure finance concluded that, overall, private infrastructure finance has grown in recent years after a temporary drop during the financial crisis. This growth has been mainly due to growth in non-bank finance, with bank infrastructure finance having been relatively flat after falling in the wake of the 2008 crisis.[22] Infrastructure financing provided by the financial sector accounts for a relatively small share (about 5 to 10 per cent) of the global spending on infrastructure investments, while the bulk is provided by the public sector (see chapter III.B).

A broad range of financial regulations can potentially affect infrastructure finance, along with a range of other factors such as monetary and financial conditions and adjustments to the structure and business models of large financial institutions operating globally. While it is difficult to precisely disentangle the changes to infrastructure finance due specifically to regulatory reforms, the FSB analysis does not identify a significant effect of the initial Basel III reforms on volumes or prices across different groups of institutions (e.g., banks with weaker solvency and liquidity profiles versus stronger banks, global systemically important banks versus other banks). In addition, bank-provided infrastructure finance does not seem to have been affected disproportionately compared to other types of bank lending. The FSB does find that regulatory reforms have contributed to shorter average maturities of infrastructure loans by global systemically important banks, which is in line with the goal of the reforms to reduce banks' maturity mismatches.

Within the small percentage of infrastructure finance provided by the financial sector, developing countries, many of which have large infrastructure financing needs, have historically relied more heavily on bank loans for financing projects. Some countries that are not able to raise sufficient levels of long-term financing at affordable rates from banks may look to market-based finance, but others lack market access. These countries may need long-term financing from MDBs and other sources of international public finance. This need has contributed to increased focus on new instruments, such as blended finance for infrastructure projects (see chapter III.C).

The evaluation on infrastructure finance is the first part of the broader evaluation of the effects of reforms on financial intermediation by the FSB. The second part, focusing on the effects on the financing of SMEs, will be the subject of a public consultation launched ahead of the June 2019 G20 Summit. As reported in the 2018 Financing for Sustainable Development Report, The Basel Committee agreed in late 2017 to phase in lower risk weights for SME loans. An evaluation on the effects of the too-big-to-fail reforms will also be launched in early 2019 and completed in 2020.

3.5 Interaction of financial regulation with environmental and social goals

Financial regulation, which has been designed to address financial stability, does not incorporate environmental, social and governance risks. Yet, regulations create incentives in the financial system, including for lending and investments that advance, or hamper, achievement of environmental and social goals. For example, higher capital charges for borrowers with higher credit risk are essential for banks to manage balance sheet risks, but financial authorities should also ensure that there are not unintended consequences for access to affordable credit among excluded populations such as women or the poor, impacting inequality and achievement of the SDGs. Similarly, the modalities of financial sector development, which are strongly influenced by the regulatory framework, have important implications on inequality (see chapter III.B).

Long-term environmental and social risks can also have material impacts on financial sector returns, risks, and stability. These include questions such as how climate risks affect the insurance industry, the impact of environmental and social risks on the long-term credit quality of borrowers, or the impacts of worsening social stability, climate and disaster risks on the stability of the financial system. The financial industry is just beginning to understand how to incorporate the impacts of non-financial factors—for instance from climate-related

risks—into financial risk analysis, and policymakers could help to set norms in this area.

Such risks are becoming clearer in relation to climate change, as the private sector has begun to take voluntary action to disclose climate risks embedded in investments. The Task Force on Climate-related Financial Disclosures (TCFD)[23] announced that the number of firms supporting the TCFD recommendations[24] has grown to over 590, representing market capitalizations of over $8.8 trillion, and including financial firms responsible for assets of nearly $107 trillion. In September 2018, the TCFD published a status report, which provides an overview of the extent to which companies in their 2017 reports included information aligned with the core recommendations. The majority of the over 1,700 firms surveyed disclose information aligned with at least one of the TCFD recommended disclosures, although few disclose the financial impact of climate change on the company. A minority of companies disclose forward-looking climate targets or the resilience of their strategies under different climate-related scenarios. Even fewer companies assess and disclose the extent to which their investments expose the communities within which they operate to disaster and climate risk. Financial companies were more likely than non-financial companies to disclose how they had embedded climate risk into overall risk management, but they were less likely to report their climate-related metrics and targets. The absence of consistent reporting requirements from regulators means that the disclosure of such risks and targets will continue to be uneven across companies and jurisdictions (see chapter III.B).

Credit ratings agencies (CRAs) also play an important role in the functioning of capital markets and influence the flow of finance towards countries, companies and projects. The increase in investors demanding that businesses disclose environmental and social risks, including climate and disaster risks, has also led to changes in how CRAs address these risks. There are two distinct, but related issues: risks that are material to a company's financial returns, and externalities that impact global goods more broadly (see chapter III.B). CRAs are increasingly factoring material risks into their analysis, although this is not yet systematic.[25] As discussed in the 2018 Task Force report, a longer-term outlook would likely increase the impact of sustainability considerations on performance, since many environmental and social risks are relevant only on time horizons longer than five years. CRAs could, as a first step, publish longer-term ratings alongside traditional ratings. Some new firms have emerged to give sustainability ratings, although these have a range of methodologies, which can result in contradictory ratings for the same firms (see chapter III.B). With the three largest CRAs still holding a 95 per cent share of the credit ratings business in the largest financial markets, there also remain concerns about competition and oligopolistic practices, which could impede progress in this and other areas.

4. National development banks

National development banks (NDBs) are a main source of long-term credit in many middle-income countries, and also successfully play an active role in many developed economies. Together they hold approximately $5 trillion in assets, making them an important contributor to local financial systems and financing sustainable development.[26] There are many financially sustainable and well-governed NDBs, such as the German development bank KfW Group and the Dutch development bank FMO, with clear mandates to maximize development and a track record of effective financing of SDG-related investments. On the other hand, there have also been NDB failures, underscoring the importance of monitoring NDB risk, if they are to play a greater role in financing sustainable development. Policymakers should consider NDBs interlinkages with private banks and their potential to generate systemic risks, although on balance NDBs also contribute to the diversification of risk and thus to financial stability. NDBs can also link to multilateral development banks (MDBs), borrowing from them to mobilize resources for the domestic financial system (see chapter II).[27]

4.1 Assets and liabilities

NDBs generally have a development mandate, and as such, can play a variety of roles in the development process, including promoting (i) financial inclusion and deepening of domestic financial markets; (ii) innovation and structural transformation; (iii) infrastructure investment; and (iv) the provision of other public goods, such as supporting climate change mitigation and adaptation. In addition, they can counteract procyclical behavior of private finance.[28] While NDBs differ in the details of their mandates, governance structures and business models,[29] they are typically active in sectors relevant for the SDGs, such as agriculture, infrastructure and SMEs, and often operate in market segments that commercial banks eschew. According to a World Bank Survey, nearly 90 per cent target lending to micro, small and medium-sized enterprises (MSMEs), 78 per cent lend to large corporations, 64 per cent support private financial intermediaries, 58 per cent lend to state-owned enterprises and over 40 per cent lend to local governments.[30] About half of NDBs provide subsidized lending using budget transfers from the government, cross subsidization from other profitable business lines, or low-cost lines of credit from international donors or multilateral development banks. NDBs typically engage in longer-term lending than private banks, with an estimated 54 per cent of NDB loans having maturities over 10 years. In Latin America, 49 per cent of NDB assets finance productive lending activities, compared to 20 per cent of private bank assets.[31] While asset quality has historically been a recurrent problem in some NDBs, in the Latin America and Caribbean region, NDBs have exhibited lower non-performing loan ratios than their private counterparts.[32]

NDBs are generally capitalized with public funds, but they often leverage their balance sheets. While 89 per cent of NDBs borrow from other financial institutions or issue debt on local capital markets, 64 per cent receive government guarantees, and 40 per cent receive budget transfers. In general, NDBs have more stable sources of funding than private banks (with a long-term funding ratio of about 36 per cent versus 7.4 per cent for commercial banks),[33] due to a lower dependence on short-term deposits. Their liabilities are ultimately contingent liabilities of the State, but for those that borrow from markets, creditworthiness and financially sustainability need to be maintained to have a successful business model.

4.2 Risk management

NDBs need effective risk management, both to ensure effective operations and protect government resources and to minimize spillover risks to the domestic banking system. Management at many NDBs cite improving risk management capacity as their most important challenge, with becoming financially self-sustainable the second most frequently cited challenge. Pricing risk appropriately across the NDB balance sheet is crucial, because failure to do so could result in lack of financial sustainability and the need for repeated recapitalization to compensate for poor financial performance.

However, there is a lack of clarity on how to best price risk in the presence of market failures and externalities, and thus how NDB balance sheets should be evaluated. One view is that risk at NDBs should be evaluated the same way as commercial banks, ignoring the mandate of the institution concerned. Indeed, as noted above, financial regulators should consider risk exposures, not institutional type. This view is reflected in the way many NDBs are currently regulated and supervised. In 2017, 72 per cent of NDBs responding to the World Bank survey were regulated like private banks, with two thirds of those needing to comply with Basel II or Basel III capital adequacy standards.[34]

An alternative view is that NDBs have a different risk profile because of their liability and asset structures, particularly due to longer-term liabilities. Thus, applying the standardized approach to risk weighting from the Basel framework, which was written for deposit-taking banks with shorter-term liabilities than NDBs, may not be appropriate. As noted above, the FSB has found that banking sector regulatory reforms have contributed to shorter average maturities of infrastructure loans, in line with the goal of the reforms to reduce banks' maturity mismatches.

Furthermore, the newest Basel III standards, which countries are increasingly moving towards, contain additional rules that can impact NDB operations, such as higher risk weights for concentrations of risk, and higher risk weights for the early stages of project finance investment, which decline as projects move into operational phases. Each of these rules could shift incentives for NDB operations and potentially hamper their alignment with national sustainable development priorities.

Governments can thus also explore other methods to manage risk, including on a portfolio basis (for example, higher overall capital ratios without risk weightings). Risk concentration can also be managed by merging sector-focused NDBs in a single NDB with a broader mandate. Or the Government, as the ultimate owner, can try to embed a portfolio approach to risk across different NDBs into an NDB regulatory framework. Additional research is needed to better understand how the regulatory frameworks applied to NDBs can be tailored to protect their financial sustainability while incentivizing the sustainable development effectiveness of their investment.

4.3 Governance challenges

Governance issues at NDBs, particularly political clientelism, have historically been challenging and have been a major driver of poor performance. Management of NDBs must remain close enough to policymakers to be responsive to national development priorities, while maintaining operational independence in their lending decisions to protect against corruption or other operational risks. Well-designed governance mechanisms can aim to generate this responsiveness while insulating the bank from excessive interference. Depending on ownership and national structures, measures that have proven effective include diversification of directors on the board, the board appointing NDB senior management, engagement with CRAs, oversight by independent supervisory authorities, adherence to prudential guidelines,[35] engagement with parliaments and civil society, and transparent reporting of strategies, investments and results.

Rigorous development impact assessment can further promote the effectiveness of NDBs. Monitoring and evaluation frameworks should focus on the achievement of mandated development goals, not on lending volumes. Policies need to align NDB board, management and staff incentives with these development impacts. NDBs can learn lessons and good practices from each other and from MDBs.

5. Correspondent banking linkages

Correspondent banking is another area where there have been unintended consequences of changes in the regulatory framework (in this case, anti-money laundering and related rules), with financial institutions terminating business relationships with entire regions or classes of customers, in a process called de-risking. Correspondent banking relationships (CBRs) impact the ability to send and receive international payments, with potential consequences on the cost of remittances, financial inclusion and international trade, among other areas, and thus on achievement of the SDGs. For

example, de-risking can have the effect of reducing competition in remittances channels, just at a time when there is a call to increase such competition to lower the cost of remittance transfers. In the intergovernmentally negotiated conclusions and recommendations of the 2018 ECOSOC Forum on Financing for Development, Member States invited this Task Force to continue to monitor the decline in correspondent banking and its effects.

The decline in the number of active CBRs continued in 2017, with a year-on-year reduction of 4.1 per cent and a drop of 15.5 per cent since 2011,[36] with all continents or subcontinents experiencing declines (figure 14). The number of active corridors between countries, where at least one relationship exists, also continued to decline, falling 2.4 per cent in 2017, and 7.3 per cent since 2011. [37] The status of CBRs also varies by region. For example, in October 2018, the IMF organized a Caribbean roundtable to take stock of progress on CBRs in the region. Participants noted there has been no further erosion in access to CBRs in the last year, and that most banks have secured access to foreign currency clearance through alternate arrangements.

The decision to establish or break a CBR is taken by private banks. It can be driven by several factors, but is generally related to the cost of maintaining a CBR versus the associated risks. In particular, fixed costs associated with opening and maintaining a correspondent banking relationship can be high, in large part due to compliance with anti-money laundering and combating the financing of terrorism (AML/ CFT) standards. This can be particularly problematic when there is not sufficient volume of business to compensate for these costs.

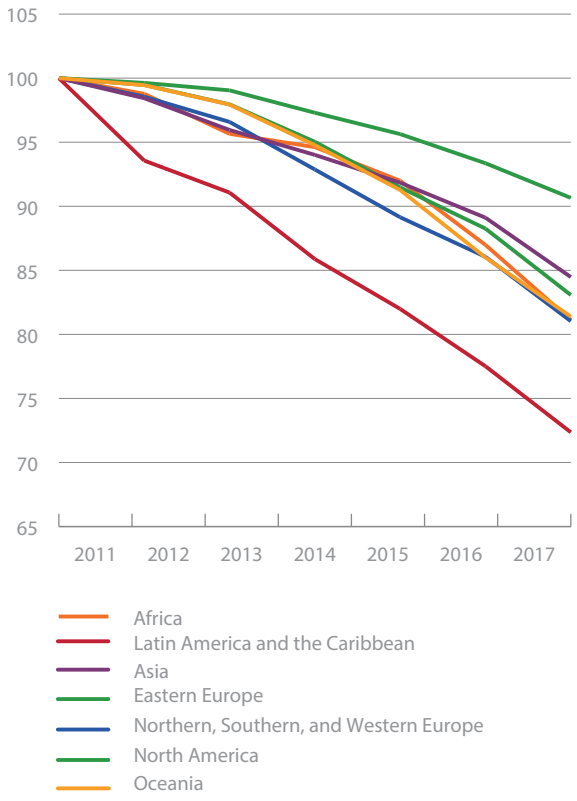
The FSB established an action plan in 2015 to address the decline in CBRs, including four focus areas: (i) research and analysis; (ii) clarifying regulatory expectations; (iii) capacity-building; and (iv) strengthening tools for due diligence by banks. To implement this plan, the Financial Action Task Force (FATF) clarified regulatory expectations by releasing guidance on CBRs in 2016.[38] A recent survey found that a large proportion of the private sector entities have been informed of the new guidance, although in some countries more can be done by regulators to inform their financial institutions.[39] The IMF also supports efforts by analysing risks and developing policy responses in its surveillance; assessing the implementation of standards; and building capacity to help strengthen legal, regulatory and supervisory frameworks. The FSB, FATF, Global Partnership for Financial Inclusion, IMF and World Bank will report to the G20 in June 2019 on remittance service providers' access to banking services.

Strengthened tools for sharing standardized due diligence by correspondent banks, which can reduce the costs of operating a CBR, are an important part of the FSB action plan. In February 2018, 13 large banks constituting the Wolfsberg Group published a new Correspondent Banking Due Diligence Questionnaire, to be used with their own existing respondent banking institutions and any new respondent banks by end-2019. It is unclear how many banks outside the Wolfsberg Group will adopt the standardized questionnaire. Extensive use of the questionnaire will reduce the duplication in the collection of information and save costs, especially if responses are collected through know-your-customer utilities and thus able to be reused.

Figure 14

Number of active correspondent banks in each region, 2011-2017

(Index, 2011 = 100)



Source: FSB.

Note: Correspondents are counted multiple times across corridors, but not across message types and months.

Technological development related to advances in fintech could also present opportunities to reduce costs, if risks are well managed. The payment chain for CBRs currently has high barriers to entry, sunk costs, and inefficiencies. New technologies that enable automation, payment tracking and point-to-point settlement, can potentially lower the cost of payments and address some risks associated with payment failure. Distributed ledger technologies are being implemented in new global payments settlement systems as well as being adapted for linking into the existing SWIFT payment system operated by banks.[40] As recently noted by IMF staff, there are three areas where distributed ledger technologies could be used: back-end processes; compliance; or means of payment.[41] However, more work would be needed understand risks and potential unintended consequences related to different technologies. For ex-

ample, some technologies can increase transparency if used effectively, but can also be used to evade regulation. In this regard, there is a need for global standards for fintech more broadly (see chapter III.G). Additional policies that have been recommended include a global, tech-neutral standard for cross-border payments;[42] the use of central bank digital currencies;[43] and use of Legal Entity Identifier (LEI) in payment messages.

The use of LEIs in payment messages would facilitate the unambiguous identification of the originator and beneficiary of payments, and a more reliable screening of payment messages as due diligence accompanies the issuance of an LEI. As at end-2018, over 1.3 million legal entities have been issued LEIs in more than 200 jurisdictions, although wider coverage is likely needed to support effective use of the LEI in payments. Data collection on the direct and ultimate parents of entities with LEIs, helpful for reducing financial integrity risks, has been ongoing since May 2017 with more than 84 per cent of LEI registrants either reporting information or opting out for valid reasons.[44] Technical changes are being made to payment message formats to enable inclusion of the LEI in messages, but there is no regulatory requirement for their use. Advance joint commitment by regulatory bodies to require the use of LEIs would remove concerns about disadvantages to banks in countries that made such regulations first. As the Task Force has previously recommended, more widespread adoption of LEIs could reduce the cost of their issuance and have application in other aspects of financial integrity and combatting illicit financial flows.

6. Institutional and policy coherence

In the Addis Agenda, Member States recognized the importance of addressing inconsistencies in the international system and committed to taking better advantage of relevant United Nations forums for promoting universal and holistic coherence and international commitments to sustainable development. As identified in the Addis Agenda, coherence across the three dimensions of sustainable development should aim at consistency of multilateral financial, investment, trade, development and environment policies, institutions and platforms.

There have been significant, but uneven, efforts to align financial, investment, trade, development and environment policies, institutions and platforms with the SDGs. These efforts are advanced in development cooperation, for which many donors have agreed on the need for mutually supportive policies on issues that go beyond aid[45], yet still only half of OECD DAC members carry out analysis of policy coherence between domestic policies and development objectives.[46] The IMF has undertaken numerous efforts to incorporate the SDGs in their work on fiscal policies (see chapter II) and is developing a framework on social spending in response to an independent evaluation, which highlighted that IMF advice in this area has been uneven. Trade institutions, for example, are still working to incorporate the SDGs, which is made harder by the existing base of trade and investment agreements, which are not easy to

Box 2

Governance of international institutions

The Addis Ababa Action Agenda called for further progress in strengthening the voice and participation of developing countries in international institutions. This was also included as Sustainable Development Goal targets 10.6 and 16.8 in the 2030 Agenda for Sustainable Development. The 2016 implementation of the International Monetary Fund (IMF) Fourteenth General Review of Quotas met one of the commitments Member States of the United Nations undertook in the Addis Agenda. In keeping with the commitment to ensure a strong, quota-based and adequately resourced IMF at the centre of the global financial safety net, the IMF is working towards completing the Fifteenth General Review of Quotas, including a new quota formula, by the 2019 Spring Meetings and no later than the 2019 Annual Meetings. The Executive Board's third progress report on the Fifteenth Review was submitted to the IMF Board of Governors in September 2018. In line with the agreed work plan, discussions are expected to continue in the coming months.

In the Addis Agenda, Member States also committed to open and transparent, gender-balanced and merit-based selection of the heads of the international financial institutions. Traditionally, the World Bank president has been from the United States of America, while the IMF has been headed by a European. Except for the current head of the IMF, all previous leaders of both institutions have been male. In 2012, several developing-country candidates were nominated to be World Bank president. The World Bank Board announced the process for replacing President Jim Yong Kim in January 2019. Nominations are accepted from any World Bank Group shareholder from 7 February to 14 March, to be followed by a shortlisting process and a selection by the World Bank/IMF Spring Meetings in mid-April, after this publication has gone to press.

Source: UN/DESA.

renegotiate (see chapter III.D). As another example, the existing base of taxation treaties were for the most part not motivated with increasing revenue mobilization, but instead to decreasing double taxation, with the sometimes unwarranted assumption that such a policy would encourage investment.

The Monterrey Consensus broke new ground by bringing together discussions on economics, finance and trade. International norms, institutions, and platforms have evolved considerably since both the 2008 crisis and the 2015 adoption of the 2030 Agenda and Addis Agenda, yet there are still gaps in how aligned they are with sustainable development in some policy areas. The Addis Agenda's promise to promote alignment across a wider set of policy areas for the most part remains unfulfilled. For example, financial regulatory policies are not cognizant of environmental agreements, with each policy area operating independently. This problem is exacerbated by the lack of dedicated multilateral institutions in a number of areas. For example, tax cooperation and international investment promotion have no single coordinating secretariat or body and a predominance of bilateral treaties. This makes coordination difficult and prevents cross-cutting discussions. In some policy areas that are increasingly important for the structural transformation needed to put countries on the path to achieving the SDGs, there are neither global institutions nor bilateral policy frameworks, as exemplified in the discussion on increasing monopolies internationally (see chapter III.B). Efforts to achieve greater institutional and policy coherence at the international level, will often benefit from more inclusive and democratic decision-making with universal participation (see box 2).

In November 2018, the G20 Eminent Persons Group on Global Financial Governance gave its recommendations to G20 countries on measures to increase the coherence of the international system. In the Addis Agenda, Member States recognized the need to improve global governance and arrive at a more inclusive and representative international architecture for sustainable development. The main organs of the United Nations, ECOSOC and the General Assembly, as inclusive bodies with equitable governance, can address cross-cutting issues of coherence. Support for multilateralism necessitates that Member States commit both to come to the table in good faith and to afterwards implement what is agreed. The 2019 High Level Dialogue on Financing for Development is an opportunity for Member States to show their support for multilateralism, make concrete commitments for faster national implementation of the Addis Agenda and discuss how to address gaps in the international architecture and promote coherence across siloed policy areas.

Box 3

The Global Compact for Safe, Orderly and Regular Migration

In December 2018, Member States of the United Nations adopted the Global Compact for Safe, Orderly and Regular Migration (GCM).[47] This is the first intergovernmental agreement prepared under the auspices of the United Nations to cover all dimensions of international migration in a holistic and comprehensive manner. The GCM recognizes that migrants and migration dynamics affect development outcomes across a range of sectors and vice versa.

The GCM addresses a number of Sustainable Development Goal (SDG) targets, including migrants' access to public services regardless of their migration status (SDGs 3 and 4), protecting labour rights (SDG 8), and advancing well-managed migration policies and reducing the transaction costs of remittances (SDG 10). These issues need to be fully integrated into sustainable development strategies and associated integrated national financing frameworks.

For example, SDG target 4.b calls for expanding the availability of cross-border scholarships to developing countries for higher education. Progress made in achieving this target would facilitate migration for education purposes, and also, as called for in SDG target 4.4, increase the number of youth and adults from developing countries with technical skills.[48] The GCM includes objectives on basic services for migrants in a gender- and disability-responsive as well as child-sensitive manner, including providing inclusive and equitable quality education to migrant children and youth, as well as facilitating access to lifelong learning opportunities.

The GCM is particularly relevant to the commitments in both the 2030 Agenda for Sustainable Development and the Addis Ababa Action Agenda to facilitate safe, orderly and regular migration, notably through SDG target 10.7. In practice, comprehensive and effective migration management involves a wide range of initiatives, for which the guiding principles, cooperative framework and objectives and commitments outlined in the GCM will be critical.

The potential economic, social and environmental benefits of migration can be quite large,[49] the realization of which depend upon available resources and the policies put in place by Governments. The GCM puts forward specific provisions to support development financing efforts, including encouraging, for example, the implementation of programmes and financial products that facilitate migrant and diaspora investments in entrepreneurship, and of digital platforms and other mechanisms for coordinated voluntary or philanthropic engagement of migrants and diasporas, especially in humanitarian emergencies in their countries of origin. If implemented as part of a coherent overall strategy, the 2030 Agenda, Addis Agenda and GCM can significantly improve migration governance globally.

Source: IOM and UN/DESA.

Endnotes

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SCIENCE, TECHNOLOGY, INNOVATION AND CAPACITY-BUILDING

Chapter III.G

Science, technology, innovation and capacity building

1. Key messages and recommendations

Rapid changes in new and emerging technologies have great potential to support achievement of the Sustainable Development Goals (SDGs), but also raise new challenges. Yet, institutions and policy and regulatory frameworks at the national and international levels have not kept pace with these changes.

Recent developments in automation have raised concerns that rapid advances in artificial intelligence (AI) and other technologies could make the labour of millions in developed and developing countries redundant. While estimates are highly uncertain, there are several actions Governments can take to be better prepared: *encourage innovation that uses technologies to create new products, services, and jobs; be sensitive to the differential impact on women and men; ensure social protection and extend social security mechanisms to compensate for loss of working hours and jobs; and invest in people's capabilities in order to enable them to benefit from new technologies, with attention to the different needs of different groups (young, older, persons with disabilities, women, men and others)*.

Advances in access to mobile Internet, cryptography and distributed computing have given rise to financial innovations (fintech) that has fostered financial inclusion. However, they also led to new risks and challenges for financial markets. Regulation needs to address these risks without stifling financial innovation. *Improved dialogue between policymakers, regulators and new service providers is critical to finding the right balance. Governments should incorporate platforms for dialogue into their policy frameworks. Experimentation and innovative mechanisms, such as regulatory sandboxes, can help policymakers design appropriate regulatory frameworks*. Given that new actors involved in fintech are blurring the lines between software, settlement and financial intermediation, *financial regulators will need to shift from looking at the type of financial institution providing financial services, to the underlying risks associated with the financial activity*.

Developing countries need support from the international community to close technology gaps and address digital divides, keep up with rapid technology change, and make progress towards the SDGs. A variety of factors can constrain diffusion of technology. *To improve access, it is important to identify binding constraints—be they absorptive capacities and the digital skills gap, lack of economic incentives, social and cultural factors, or issues related to intellectual property rights (IPRs). International organizations can help in this endeavour and international cooperation can contribute to address obstacles in each of these areas*. Because the technology landscape is evolving rapidly, facilitating access to relevant technologies requires policy experimentation. The increasing digitalization and connectivity of the economy exemplifies this continuous change; it makes entirely new innovation approaches possible, but also raising new challenges, especially for the poorest countries.

2. New and emerging technologies and the Sustainable Development Goals[1]

New and emerging technologies are characterized by rapid development[2] and the possibility of their combination based on digitalization and connectivity.[3] Several new technologies show potential

to help achieve many of the SDGs. However, to benefit, countries will need to strengthen technology capabilities and increase access for all groups in a wide range of areas, with support from the international community.

Advances in information and communications technologies, which have vastly increased digital interconnectedness, are at the heart of this technological change. They have spurred innovations such as big data, AI, 3D printing, Internet of things (IoT), robotics, cloud computing and many others.

Big data can lead to scientific breakthroughs, advances in human health and improved decision-making and effectiveness of development interventions. The Internet of Things (IoT) monitors and manages connected objects and machines and has applications in healthcare, agriculture, energy, and water management and quality.[4] AI offers a wide range of capabilities including image recognition for diagnostics in health care, and agriculture. Combined with robotics, AI could transform production and distribution networks, in line with new business models, especially in manufacturing.[5] New types of 3D printing[6] allow ever faster and cheaper low-volume production and rapid iterative prototyping of new products,[7] offering benefits in healthcare, construction and education.

Biotechnology makes possible the personalized treatments and genetic modification of plants and animals.[8] Nanotechnology is used in water purification, battery storage, precise management of agrochemicals, and in the delivery of medication.[9] Renewable energy technologies provide electricity in rural areas far from the grid systems,[10] while drones are used in precision farming and could revolutionize the delivery of supplies and replace humans in dangerous tasks.[11] Small-scale satellites are used in communication networks and in applications that use high-resolution imagery in areas such as for monitoring land use and for urban planning. These satellites may soon become affordable for more developing countries, businesses and universities.[12] Blockchain technology can be used in applications in which ensuring the integrity and traceability of the information about transactions is important, such as those in smart contracts, digital identity systems, land registration, and financial transactions.

Many developing countries are already using these technologies, even in conditions of low resources and capabilities.[13] For example, during a typhoid outbreak in Uganda, the Ministry of Health used data-mapping applications to allocate medicine and mobilize health care teams.[14] In India, the CropIn start-up has developed a vegetation index using satellite images that provides support to farmers in ensuring crop health.[15] In Bangladesh, IoT is being used to assess groundwater chemistry and protect the people in the Ganges Delta who face the threat of drinking groundwater contaminated with arsenic.[16] In Rwanda, the Government partnered with Zipline, a robotics company, to address maternal mortality by using drones to deliver blood to medical facilities, reducing the time it takes to procure blood from 4 hours to 15 minutes.[17]

As new technologies are becoming cheaper and easier to access and use, many new applications that support progress towards achieving the SDGs become possible. At the same time, gaps continue to persist both within and between countries, including in the access to digital services, and there are risks of existing inequalities being exacerbated. Societies also need to manage the often significant social, economic and environmental consequences of rapid transformations brought about by technologies (see, for example, box 1).

Box 1

New technologies and education

Artificial Intelligence (AI) and related technologies can support new forms of quality education and lifelong learning (SDG 4) and offer more flexible, lifelong learning pathways.

Part of the challenge surrounding AI is an incomplete understanding on its implications for education systems and practices and, in particular, which human skills need to be developed to ensure that humans benefit optimally from AI-powered machines. This is particularly pressing in developing countries where young people often lack job-ready skills and AI platforms, tools, and applications are scarce. In the least developed countries (LDCs), a lack of mass digitalization and low penetration of broadband mean there is insufficient data for machine learning and deep learning. There is also a lack of transparency in the use of education data to ensure algorithmic accountability, privacy and data transparency.

In response, "AI for Education- Harnessing AI to Achieve SDG 4", a UNESCO initiative, aims to: strengthen capacities of policymakers; promote AI literacy programmes in school curricula and lifelong learning; enhance training for teens and young people (with a priority on girls and women), and to advocate for transparent and auditable use of education data.

Source: UNESCO.

3. New technologies and labour markets

Recent progress in automation and AI has contributed to a rising fear of technology driven unemployment. Robots and smart machines are able to replace workers in ever more complex tasks, such as those that require visual inspection and classification. They have slowed employment growth in both developed and developing countries. Thanks to advancements in AI and the autonomous processing of large swaths of data, an increasing number of sectors are affected, including those that

provide services such as medical and legal assistance, accounting and credit analysis. Education and skills, once a guarantee for secure employment in many countries, no longer necessarily provide the expected benefits of relative wages and job stability.

The overall impact of digital technologies on employment remain uncertain, but recent estimates point to a high probability of considerable labour market disruption. For example, estimates of future job losses due to automation and AI range from a low of 5-10 per cent to almost half of all existing jobs. Research also differs on the expected impacts on different groups, such as women and men, of these changes. In developing countries, two thirds of all jobs might be at risk of automation and AI.[18] According to some surveys, the resulting rise in unemployment rates could reach more than a quarter of the labour force by 2050.[19] Developing countries might be most affected because of their greater distance from the technological frontier and the impact of automation on patterns of production and trade specialization and opportunities for catch-up.[20]

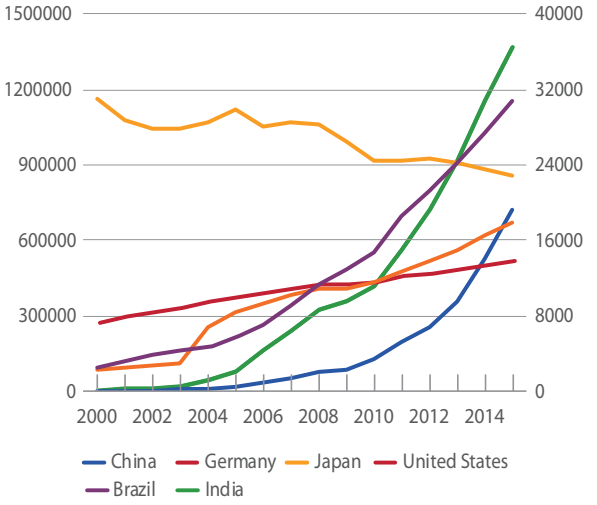
So far, the widespread introduction of digital technologies has not led to a rise in overall unemployment but may have contributed to rising income inequality and job polarization (see last year's Task Force report). Productivity growth has shown no signs of acceleration, a phenomenon dubbed the "productivity paradox".[21] To date, only a few firms are reaping most gains provided by new technologies, in part because adoption rates remain low in many parts of the world.[22]

New technologies should also lead to the creation of new jobs, which was the pattern of previous technological revolutions. For example, AI is good at predicting on the base of past patterns. It could displace workers that provide these services but could also create new demands for skills that take advantage of cheaper prediction as an input for decisions that still require human judgement. However, it is difficult to predict in which sectors employment will be created, and the complementary skills that will be required. Advanced cognitive skills, such as in science, technology, engineering and mathematics (STEM) fields, and inherently human skills and aptitudes are likely important, as they are difficult for algorithms and machines to emulate.[23] So far, many displaced workers have often found jobs outside their traditional occupation, but often at lower wages. New digital technologies also carry potential to improve provision of services at a higher quality and with decent work standards. This could prove particularly important for care activities, which are often female-dominated, and where there is significant unmet demand.[24]

3.1 Automation: challenges for jobs in developing countries

In recent decades, automation has made the largest inroads through the use of robots, i.e. re-programmable, multi-purpose and automatically controlled devices. The stock of robots has expanded across the world, most dramatically in China, and has affected countries at all income levels (figure 1).

Figure 1
Robot stock in selected countries, 2000-2015
(Number of robots, ratio)



Source: International Federation of Robots.
Note: The chart displays the number of robots in selected economies. The number of robots in Brazil and India are displayed on the right-hand side scale.

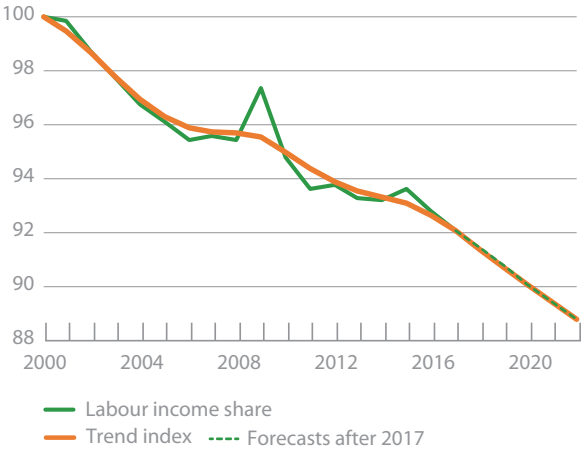
Robotization has already negatively impacted global employment growth, with pronounced effects in emerging economies.[25] Between 2005 and 2014, employment losses due to robotization were almost 14 per cent in emerging economies compared to 0.5 per cent due in developed countries, with the most notable losses in industrial employment. Technologically-driven declines in incentives for off-shoring—and in some cases re-shoring of industrial activities—depressed employment in emerging economies by 5 per cent.

Manufacturing exports—a historic engine of employment creation in developing countries—have become less labour-intensive in both developed *and* developing countries.[26] Price reductions prompted by new technologies have benefitted both consumers and producers—mobile phones and banking have increased productivity for a range of activities and created jobs. However, to the extent that new technologies require highly skilled labour there is evidence that they may be less complementary with existing capabilities in developing countries.[27]

Policymakers can consider several options to boost employment creation. First, there is still a window of opportunity to pursue policies that lead to job creation in activities not yet automated, or where automation in developed countries will not be cost-competitive with production in developing countries for several decades.[28] Second, the reduction in capital costs brought about by new forms of automation, such as applications of AI, may support significant technological upgrading. Big international players such as Google have started

tapping into this market, opening research centres in low-income countries.[29] Some of these activities are tradeable, particularly services in information technology and finance. Because some of the technologies are *complementary* to unskilled labour (e.g. matching applications such as ride-hauling services), which is abundant in developing countries, they are a potential source of new employment opportunities in those countries.[30] Third, to ensure competitiveness in the long-run, these efforts should be complemented by investments in the digital economy to build digital capabilities.

Figure 2
Global labour income share, 2000-2020
(Index)



Source: ILO, Global Wage Database, 2018; ILO, Wage projection model.

3.2 Shifting wealth, growing concentration of production and profits

Automation has led to a high concentration of profits among a few companies and locations[31] contributing to growing inequality. A few frontier technology firms have reaped a large share of the recent productivity gains and profits, a trend that predates the global financial crisis.[32] Digital technologies have also led to increasing labour market concentration, with workers facing fewer opportunities for mobility and reduced bargaining power, including in online platforms.[33] As a consequence, the labour income share has continued its long-term decline (figure 2)[34] and income inequality within countries has risen (see chapter I).

3.3 How can decent work be achieved?

Policymakers can promote new technologies in areas where large unmet demand for (mostly) socially relevant activities remains, such as in personnel and health care. Public policies should encourage the use of new technologies that also offer opportunities for new jobs. This needs to be accompanied by extending regulation and social security mechanisms in order to prevent private providers undercutting existing protection schemes.[35]

Investments in peoples' capabilities also needs to be increased. Digital divides need to be addressed, including by supporting all workers to develop the digital and complementary skills needed in the digital age. The International Labour Organization's *Global Commission on the Future of Work* proposed a universal entitlement to lifelong learning that enables upskilling and reskilling, to enable people to benefit from new technologies and new work tasks.[36] One example is adult learning for women during family related absences from work, such as care-related events.

As the world of work reorganizes and part-time employment and underemployment rise, social protection needs to expand its focus to include compensation for loss of (market) working hours, not only for loss of jobs.[37] This requires shifting the debate on achieving decent work from a focus on "full employment" to a focus on "full activity" in achieving decent work.

4. Fintech and financial inclusion

Digitally enabled innovation in the financial sector (fintech) is changing the shape of financial systems. Fintech has contributed significantly to the rapid expansion of access to financial services and financial inclusion. It has helped Governments reduce operational costs and more effectively deliver transfers to citizens. It has made low cost, prepaid or pay-as-you-go business models viable in sectors such as energy and thus enabled progress on the SDGs. Its impacts are visible across the 2030 Agenda for Sustainable Development.

Advances in AI and computing power allow extraction of more value from rapidly growing data and are transforming credit decisions. Ever wider mobile access to the Internet has fueled the mobile money revolution. Advances in cryptography and distributed computing have given rise to digital currencies, smart contracts and new forms of biometric identification.

New financial products can carry many traditional financial risks, such as credit risk, liquidity risk, and asset liability mismatches. But the entry of new fintech actors, instruments and platforms has helped to ameliorate some market imperfections that are pervasive in the financial sector, such as incomplete or asymmetric information, high transactions costs, and high barriers to entry for new providers.

Fintech can facilitate more speedy, secure and transparent service delivery. It has enabled innovations ranging from new credit, deposit and capital-raising services (e.g., crowdfunding, lending marketplaces, mobile banks) to payment, clearing and settlement services (e.g. mobile wallets, digital currencies) and investment management services (e.g., high-frequency trading). Table 1 provides examples of new technologies and the innovation in financial services they have facilitated.

At the same time, fintech affects service providers themselves, and the market structure of the financial

Table 1
New technologies and impact on financial services and providers (examples)

	Credit, deposit	Payment, clearance	Investment management
Artificial intelligence, big data	Automated credit decisions, crowdfunding	Fraud detection	Investment advice, high frequency trading
Distributed computing		Payment settlements, back-end processing of payments	
Cryptography	Identity protection	Identity protection	
Mobile Internet access	Mobile money, crowdfunding	Mobile money	Digital wallets

Source: Based on IMF, 2017

system. New providers, often originating outside the financial sector, are challenging traditional business models. They include mobile money providers, e-commerce giants and marketplace lenders. As new technologies alleviate information failures and reduce transaction costs, traditional intermediaries such as banks, whose business proposition is in part to overcome these market failures, could be at risk of being displaced.[38] This in turn creates challenges for regulatory systems that have traditionally focused on regulating by type of entity.

Fintech innovations thus create new opportunities *and* new risks and challenges for consumers, service providers and regulators. It impacts all key objectives of financial policy makers, such as access and inclusion, but also consumer protection, financial integrity, competition, and financial sector stability and its ability to promote growth and sustainable development.

4.1 Enhancing financial access

More than half a billion people opened an account and gained access to financial services between 2014 and 2017 (see chapter III.B.),[39] in large part due to the growth of fintech. In sub-Saharan Africa, 21 per cent of adults now have a mobile money account. In India, issuance of biometric identification cards contributed to rapid growth of account ownership (box 2). Inclusive digital financial services helped lift about 1 million people out of extreme poverty between 2008 and 2014 in Kenya, with a particularly strong impact on female-headed households. Farmers are managing risks and making investments that result in higher yields and incomes.[40] There is also some early evidence that mobile money might help to close the gender gap in account ownership, which remains sizeable, at 7 percentage points globally.[41]

The picture is not uniform across countries. Mobile money has made a significant impact in some countries outside of sub-Saharan Africa, such as Bangladesh and Mongolia, but this is not reflected in broader global trends (only 1 per cent of adults rely on a mobile money account alone globally). Fintech remains a nascent industry in Latin America and the Caribbean, mainly concentrated in Brazil and Mexico, and to a lesser extent in Argentina, Chile and Colombia. Even in Africa, the share of adults with mobile money accounts varies widely between countries. To a degree, this points to the continued digital divide across and within countries. Often, however, it reflects shortcomings in regulatory environments. It also reveals the potential for digital technologies and mobile money have to close the remaining access gap.

Of the 1.7 billion adults in the world that do not have access to financial services, about 1.1 billion have a mobile phone. Mobile phones could continue to strengthen financial inclusion, provided the necessary complementary investments and policy actions are made. They include infrastructure investments in reliable electricity and network connections, and in payment systems and other financial infrastructure. They also include an enabling regulatory environment. Licensing for non-bank providers to issue mobile money, permission to use third-party agents for service provision, risk-based and proportionate customer due diligence standards, and effective consumer protection have emerged as necessary regulatory conditions for digital financial services to spread.[42] Social, economic and cultural factors also have an impact on who can gain access and need to be addressed. In addition, policymakers can lever the public sector's own transfer payments to enhance access—digitizing public sector transfers, pensions and wages and utility bills has contributed to increased account ownership in several countries.[43]

4.2 Fintech and small and medium-sized enterprises

Fintech might also help close the financing gap faced by small- and medium-sized enterprises (SMEs). SMEs are a major source of growth and job creation. Surveys indicate that lack of access to finance is a major obstacle for SMEs in many developing countries (see chapter III.B).

SME financing challenges relate to both demand and supply-side issues. The former can include cumbersome financial documentation and collateral requirements, slow applications and high interest rates. On the supply side, the lack of credit history or more general information, low revenues per client, and high levels of SME

informality impede lending to SMEs.[44] Digitalization can address some of these impediments. The fast growing digital footprint of SMEs—which create data whenever they make or receive digital payments, buy or sell electronically, use cloud-based services, or get rated online—can help overcome information constraints. Thanks to advances in computing power and smart algorithms, this more diverse data can increasingly be translated into reliable determination of creditworthiness, at a falling cost and at much higher speed. While these advances do not eliminate small business risk per se, they do create more viable business models in this market segment for both traditional and new lenders.

New fintech lenders include large e-commerce and payment firms, such as Amazon and PayPal in the United States of America or Baidu and Tencent in China. Access to the transaction history of their users puts them in a position to assess credit risk. Because of their vast scale, they have the potential to become significant providers of financial services.[45] Fintech companies have also started to offer supply chain financing, and mobile lending models offer small mobile loans based on mobile e-money usage and savings and credit history.

Online platforms and marketplace lenders are intermediary platforms. They offer fast loan applications, but shorter-term loans than traditional banks. Thanks to big data and smart algorithms, they can provide automated credit screenings as they connect lenders and borrowers. The peer-to-peer label is sometimes misleading, however, as loans are also funded from their own balance sheets or from investors.

Fintech is also increasingly a priority for traditional lenders. They possess a growing amount of information and data on their SME clients, but data silos and legacy systems have meant that many banks are not using this data to its full extent in lending decisions. Some banks have perceived fintech companies, particularly those intermediating credit, as a threat to their business models. Fintech companies are often more nimble in reaching new clients and storing data, and are often outside the regulatory umbrella (see chapter III.F). At the same time, many traditional financial institutions have started to engage and partner with fintech companies to update their data analytics and mobile technology and to explore new technologies such as blockchain.[46] Over 80 percent of top global banks have some form of partnerships with fintechs. In some cases, digital lending tools have brought down "time to cash" for small business lending from an average of 3 months to less than 24 hours.[47]

4.3 Balancing access with consumer protection, integrity and stability

Enhancing the breadth and depth of the financial system needs to be balanced with safeguarding consumer interests, financial integrity and system stability. These objectives are mutually reinforcing; effective consumer protection and financial system stability are enablers of greater financial inclusion, and a more stable financial system in turn supports investments in sustainable development. However, there can also be trade-offs, as a quick scaling up of new technologies can lead to consumer fraud on the one hand, as well as risks of excessive leverage in unregulated areas of the economy (e.g., through shadow banking), which has been at the root of many financial crises over the past decades. As new financial products and actors enter the financial system, policy and regulatory responses have to adapt to these new circumstances and carefully manage risks of fintech, without stifling innovation and destroying opportunities for achieving the SDGs.

Consumer protection has arisen as a concern around mobile money, with relatively high levels of fraud in some major markets. Identity theft, false promotions or phishing schemes, agents defrauding customers, or agents that were themselves defrauded have all been reported.[48] As noted in last year's Task Force report, over half of all consumers in one major African market experienced fraud; and exposure was high in other markets as well. At the same time, levels of fraud differ greatly between countries, which indicates that this risk can be mitigated. Country experiences suggest that effective consumer protection requires first and foremost that regulatory regimes cover all providers. Additional factors include measures to enhance transparency, such as disclosure requirements on fees in a standard comprehendible format; opportunities for consumer complaints; enforced and costly penalties for bad behavior; minimum standards for digital platform reliability; and mechanisms to correct mistaken or fraudulent transactions.[49]

Crypto-assets or digital currencies carry widely reported risks for consumers and investors. In addition to price volatility, providers offering services for crypto-assets, such as wallet providers and exchanges, are not covered by traditional safeguards such as deposit insurance. Bankruptcies and fraud have caused major losses for consumers. Initial coin offerings (ICOs)—where companies raise capital by creating digital assets related to a specific product or business model—have gained in popularity, with about $7 billion raised in the first half of 2018. However, an often-cited study has found that over 80 per cent of ICOs to date were ultimately identified as scams.[50] In response, regulators in several countries have started to apply investor protections to ICOs.

Fintech also impacts financial integrity, including anti-money laundering and countering the financing of terrorism (AML/CFT) goals. There is evidence that crypto-assets have proven fertile ground for financial crimes.[51] In October 2018, the Financial Action Task Force (FATF) updated its standards and recommendations regarding cryptocurrencies. It defined a new group of "virtual asset service providers", such as cryptocurrency exchanges, wallet providers, and providers of financial services for ICOs, and called on jurisdictions to include virtual asset service providers in AML/CFT regulations.[52]

Nevertheless, fintech also provides opportunities to overcome AML/CFT-related barriers to access to

Box 2

India: the JAM trinity

The JAM (Jan Dhan, Aadhaar, Mobile) trinity is an ambitious, technology-driven initiative to promote financial inclusion in India by linking universal biometric digital identity (Aadhaar), government-sponsored bank accounts (Jan Dhan), and mobile numbers. It creates a low-cost and accessible financial infrastructure supporting services previously out of reach for most Indians.[a]

The first pillar of the trinity is the Aadhaar, a unique identification (ID) number based on demographic data and biometric information collected from fingerprints and iris recognition. It enables easy identification for accessing public and private services and offers fraud protection. Since its introduction in 2009, about 1.2 billion ID numbers have been issued, making it the largest database of its kind in the world. The second element is the Jan Dhan, a low-cost bank account that provides benefits such as no minimum balance requirement, debit cards (RuPay), inexpensive life and accident insurance, access to government subsidies and affordable loans. Since the beginning of this project in 2014, a total of 326 million accounts have been opened totalling almost $11.7 billion. The third pillar is the mobile number, which provides the 1.16 billion of mobile phone subscribers (of which 463 million are connected to wireless broadband) with access to virtual services anywhere with network accessibility.

Building on these three interconnected databases, the Government and its partners have created a national digital infrastructure called India Stack. It is an ecosystem of open application programming interfaces that enable governments, businesses, startups and programmers to develop innovative financial and non-financial services.[b]

In its few years of operation, the initiative has already brought positive impacts and saved the government $8.1 billion. By using a biometric digital ID, public services are more likely to reach the right people, reducing leakage. The Aadhaar Payment Bridge (APB), for example, allows the Government to send liquified petroleum gas subsidies directly to the beneficiary's unique Aadhaar ID.

Nonetheless, the JAM trinity has also faced challenges. One concern regards the ownership of personal data and recourses to its possible misuse. Another issue is the potential impact on inequality. In response, the 2016's Aadhaar Act states that no one should be denied public services for not having an Aadhaar ID. A third concern was tax avoidance. The policy response was to instead try to use the information from Aadhaar to strengthen tax compliance. A recent Supreme Court ruling upheld an executive decision obliging Aadhaar holders to link it to their income tax Permanent Account Number card.

Source: ESCAP.

a United Nations Economic and Social Commission for Asia and the Pacific, *Innovative Financing for Development in Asia and the Pacific: Government Policies on Impact Investment and Public Finance for Innovation* (Bangkok, 2017).

b For more information, see the website of IndiaStack, available at: http://indiastack.org

financial services. In many cases, cross-border payments are costly, slow and opaque, without transparent pricing. These challenges have been exacerbated by de-risking and reductions of correspondent bank relationships related to AML/CFT concerns (see chapter III.F.). Fintech might reshape this market in the future. Distributed ledger technology could enhance the effectiveness of back-end processes (i.e. speed, transparency and tracking of payments). Some banks have introduced blockchain-based payment networks for cross-border payments, partly in response to growing competition from fintech startups in the money transfer space.[53] If combined with digital identity technology, distributed ledger technology might have the potential to reduce regulatory compliance costs.[54] Alternatively, technologies that enable direct settlement of payments would allow the bypassing of correspondent banking networks altogether.

In the longer term, more widespread adoption of fintech might also impact overall financial stability (see chapter III.F.). Greater competition could threaten traditional providers' profitability and may spur excessive risk taking. Possible growth in reliance on third-party data providers, which tend to be highly concentrated, could lead to widespread disruptions across the financial system in case of cyber incidents.[55] In the long term, crypto-assets could lead to more decentralized financial systems with more limited roles for traditional banks in lending and payment services. Such partial disintermediation would also affect the traditional monetary policy transmission mechanisms and could limit the role of central banks as a lender of last resort.[56] At present, the size of fintech providers, and the limited role of crypto-assets in the financial system are too small to pose a significant stability risk to the sector, but careful monitoring is warranted.[57]

Three main policy lessons emerge from this analysis. First, regulatory approaches need to balance opportunities and risks. Neither one should be elevated over the other; an environment that advances innovation, financial inclusion and market efficiency must be maintained, while risks to consumers and the financial system as a whole remain a priority consideration. Regulatory sandboxes are one tool to create controlled environments where new technologies and innovations can be tested, without immediately endangering other policy objec-

tives. Dialogue between policymakers and regulators and new service providers can facilitate a better understanding of different perspectives and needs and serve to level the playing field between traditional and new actors. Second, regulation needs to shift its focus from regulating specific entities toward regulating activities. As new service providers enter the financial system, they need to be brought within the perimeter of regulatory systems as well; this is beginning to be the case with crypto-asset services providers. Third, as fintech is rapidly evolving, regulatory approaches should strive to be technology neutral and capable to respond in real-time, or close to it. This will require spaces for peer learning among countries and enhanced capacity-building support by the international community.

4.4 Fintech and inequality

By expanding financial breadth and expanding access to financial services, fintech has the potential to help reduce inequality, including on the basis of gender, while also stimulating economic growth. Yet, ever more granular machine learning allows financiers to discriminate more accurately. They can thus better price risk and rely less on pooling of risk, but this could in turn contribute to inequality. Individuals may be priced out due to data analysis and the predictability of certain events (e.g., crop insurance might not be offered to farmers where data accurately predicts poor weather; health insurance might not be offered to individuals whose data suggest they are higher risk). This increasing ability to target clients poses new policy challenges in trying to best reconcile equity and efficiency considerations.

5. Access to technologies and innovative solutions

Ideas, knowledge and technology have become more important for sustainable development and economic growth in an economy increasingly characterized by intangibles. The discussion on fintech above has shown both their potential to contribute to development priorities, but also highlights the continued divides in access and use. This section explores how to address this divide, and how to improve developing countries' access to technology and innovation for sustainable development and outlines the main channels for international technology transfer.

5.1 From technology access to innovation[58]

Technological learning and innovation depend on the ability of countries to access, adapt and diffuse technological knowledge. Technology transfer, whether on a commercial or non-commercial (concessionary) basis, occurs when there are economic incentives to commercialize a given technology in a new location through, for example, trading products, licensing or investing. It is often a collaborative and complex process, partly because technology has an important tacit component; knowledge that is not codifiable and is acquired through learning by doing.

There are many conduits of technology transfer, including trade; licencing; foreign direct investment; movement of workers, managers, professionals and academics; inter-university technology collaborations,[59] and open sources of knowledge (Table 2). Their effectiveness for technology transfer depends on: (a) economic incentives related to geography, market size, and competitiveness; (b) absorptive capacities, including human capacities, skills, governance, and infrastructure; and (c) policy and legal frameworks in the areas of, for example, trade, taxation, migration and intellectual property rights.

Intellectual Property Rights: Intellectual property rights (IPRs) are important factors in all the technology transfer channels outlined in table 2. In particular, published patent applications and patents are an important source of technological information, which is classified in accordance with detailed technical features and with a fairly uniform structure all over the world. Beyond this role in disseminating information, whether and to which extent IPRs promote or prevent technology development, access, transfer, and adoption is an empirical question that varies over time and depends on the specific country, sector and technology context, as well as the context in trading partners, in each case. Commercialization or licensing of technologies by foreign investors may hinge on whether IPRs are effectively protected; but certain kinds of IPR regimes may render other means of technology acquisition more costly, such as applying knowledge revealed in patents, imitation and reverse-engineering.[60] In general, the number of patents granted in developing countries and LDCs are much smaller than those in developed countries.[61]

Patents tend to play a greater role in appropriation of technology when knowledge is easily codified, such as in pharmaceuticals. They have less relevance in areas where knowledge is more tacit, or when other factors (e.g., learning curves, organizational capabilities, marketing) guarantee appropriability of returns.[62] What works and which level of IPR protection is most conducive to sustainable development in a given country also depends on the prevailing actions by private and public actors who file, manage and enforce their IPRs in that country. In countries where the majority of patent applications are filed by foreign applicants, their behaviours may be also relevant. The rise of strategic patenting has led to a complex system of patents which may support the rights of incumbent firms over new, smaller, innovative firms in developed and developing countries. Against this background, some patent offices have been exploring ways to improve patent quality over quantity.[63]

Absorptive capacities: The success of technology transfer depends on absorptive capacities at the level of firms and on enabling innovation ecosystems in which firms operate. If the innovation system provides incentives to adopt technology, firms are more likely to

develop absorptive capacity. Hard and soft infrastructures, including research infrastructures and education systems, play an important role in absorptive capacities.

Economic incentives: The effectiveness of technology transfer depends on the discovery of economically relevant knowledge that can make the transfer commercially viable. Economic experimentation, internal trials and market tests are needed to identify what can be produced competitively, thus translating technology into innovation. Economic viability is also linked to other required productive capacities, such as backward and forward linkages, infrastructure and regulations, which may be missing in the economy. In addition, informational and financing problems usually impede technology transfer and innovation. Matching the supply of technology and knowledge with its demand is a considerable task for public agencies responsible for development and technology transfers. Once a technology has been identified, financing must be found to cover costs of adjustment and reconfiguration for its new natural, technological and economic environment, and operational costs.

5.2 International action for improving access to technology for sustainable development

Technology and knowledge transfer needs vary greatly by country and depend on the structure of the economy and the level of industrialization, the overall level of development, and specific sector characteristics. There are many areas in which international action can facilitate technology transfer and support innovation to achieve the SDGs in developing countries. International support to enhance innovative solutions would include those that: (i) facilitate technology transfer through usual channels; (ii) support building domestic innovation capabilities required to adapt, use and master these technologies and to translate them into innovation; and (iii) support translating technology transfer into local innovation that is economically relevant. To illustrate some of these options, this section looks at international arrangements in the areas of health, agriculture, and climate change.

5.2.1 Health, medicine and pharmaceuticals

Expensive medicines/drugs can be a major factor for perpetuating poverty. For example, in 2004-05 in India, 47 million people were pushed into poverty due to health spending, mainly on medicines.[64] The conditions under which technology transfer strengthens local production, and results in greater access to medicines are however highly complex. They require substantive capacities in governance and public health, intellectual property and STI policy.[65] Increased domestic production of critical

Table 2
Typical channels of technology transfer

Channels	Comment
Exports or imports of final goods (trade)	Technology embodied in traded capital goods is transferred through learning by using, imitating or reverse engineering. The tacit component of knowledge is not easily transferred.
Licenses	Licensing is linked to the overall technological sophistication of the economy and tends to be more prevalent in developed and some emerging economies. Technology licenses often cover use of IPRs and know-how.
Purchase of foreign firm (mergers and acquisitions)	Technology is acquired through a merger.
Strategic alliance or joint venture	Partial or solely owned.
Migration of people for work or education	Human capital is a fundamental determinant of a country's absorptive capacity Movement of skilled labour and sending students abroad has been a key source of technology acquisition, which, however, can become limited by "brain drain".
Open sources of knowledge	Exhibitions, fairs, books, patent documents, and more recently the Internet are important open sources of information about new technologies.
Contract with research entity	Intellectual propoerty is negotiated with foreign university lab, research institute, firm, etc.
Collaborative research, development and demonstration	Intellectual propoerty is negotiated with foreign university lab, research institute, firm, etc.
Inter-university collaborations on technology transfer	Universities can acquire skills, technologies, and knowledge of their international partner universities, which may lead to joint publications and patenting.
Bilateral or multi-lateral technology agreement	Entities agree to share research, development and demonstration efforts and outcomes.

Sources: Gallagher 2013, Lanjouw and Mody 1996, Mowrey and Oxley 1997, Gallagher 2006, Barton 2007, Lewis 2007, Odigiri et al. 2010, Lema and Lema 2010, UNCTAD (2007).[a]

medicines, such as for HIV/AIDS or major communicable diseases, may also not significantly reduce the prices for patented medicines. Any incentives for local production should aim at supporting shared goals of industrial policies and health policies, for example, by strengthening an effective national regulatory authority.[66]

Innovative institutional arrangements and risk sharing could help reduce costs for selected medicines, provide support for the acquisition and sharing of intellectual property of certain medicines, and provide risk guarantees, equity/debt instruments and venture capital. One example in this regard is the Pool for Open Innovation against Neglected Tropical Diseases established in 2009.[67]

More systematic international cooperation in research, development and demonstration on medicines—including with developing countries and private sector entities—is also important. Some examples are the public-private partnership model applied to vaccines and drugs for neglected tropical diseases, and product development partnerships between academia, the private and the public sectors, such as the Drugs for Neglected Disease Initiative (DNDi).[68]

Compulsory licensing under the flexibilities in the World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) have been used to allow generic pharmaceutical producers to use patented technology for the production of cheaper, generic versions of pharmaceuticals.[69] Against this background, some have argued to broaden the discussion of the use "measures necessary to protect public health and nutrition" under TRIPS[70] to consider affordable solutions for malnutrition[71] and access to medical equipment, such as diagnostic, therapeutic, and surgical devices.[72] However, some have argued that since the transfer of know-how not disclosed in a patent application can only be made by concluding voluntary licenses or through reverse engineering, the effectiveness of compulsory licenses in technology transfer is limited to the cases where the technology is already known and only access to it is required.[73] LDCs can take advantage of transitional provisions in the TRIPS Agreement that exempted them from applying all substantive TRIPS standards until 2021, for example, to push the development of their manufacturing capacities. In addition, LDCs benefit from an extended transitional period, until January 1, 2033, with regard to pharmaceutical patents and test data protection for pharmaceutical products (including enforcement procedures and remedies).

Regional trade can create larger, regional markets, through a mutual recognition of certifications and approvals with trading countries. International cooperation can play a role in providing technical training and capacity building in certification and approval and for participation in international standard-setting bodies in the pharmaceutical sector. On the other hand, free trade agreements that extend patent terms beyond 20 years, which is not required by the TRIPS Agreement restrict production of generics, could severly impact access to health care.[74]

5.2.2 Agriculture

Technology access in agriculture to ensure food security is of existential importance. It depends on integrating knowledge flows, science, technology and indigenous capabilities into an effective agricultural innovation system. Many developing countries have relied on international agricultural research, but knowledge spillovers tend to be ecozone-specific, which means the research gaps have contributed to perpetuating productivity gaps between countries.[75]

In the past, the Consultative Group on International Agricultural Research (CGIAR) has promoted international cooperation in agricultural research, development and demonstration. It has systematically generated innovations that have become available worldwide, such as the "green revolution". The CGIAR continues to coordinate global research partnerships on food security, such as the New Rice for Africa, and the Next Generation Cassava Breeding initiatives. The participation of research centres from developing countries in CGIAR partnerships has generated local knowledge and agricultural technology transfer on a large scale.

However, local research to resolve local problems and develop local varieties remains a bottleneck. Biotechnology could be more widely used to insert new crop traits amenable to local conditions, provided regulations and IPR constraints can be overcome. Some experts have pointed to parallels between the patents and access to medicines and the transfer of climate change technologies to poor countries and have suggested the use of the TRIPS flexibilities, including compulsory licensing, to enhance agricultural technology transfer to developing countries.[76] International and South–South cooperation is important, and triangular cooperation, wherein a developed country sponsors South–South technology sharing efforts, has also shown promise as a model for agricultural technology transfer.[77]

5.2.3 Climate change

Technology transfer has been a key element of the United Nations Framework Convention on Climate Change (UNFCCC). The Clean Development Mechanism (CDM) was developed as the central instrument for transferring green technologies from developed to developing countries. It was promoted in 1997 at the third UNFCCC conference and was significant from a technology-transfer perspective as it involved allowing developed countries to count emissions reduction from CDM investments in developing countries towards meeting their legally binding obligations. Reductions would count only for projects that would not be commercially viable under normal circumstances. The assumption was that CDM projects would bring with them new technologies or innovative applications and the accompanying know-how.

Estimates suggest that only one-tenth to one-third of the CDM projects have enabled technology transfer.[78] South-South transfers represented only 10 per cent of

the total. High-tech and energy projects, such as wind turbines or solar panels, generated more transfers, while traditional sectors such as agriculture or construction materials created less. Some of the factors that could affect the extent of technology transfer involved in CDM projects include tariffs on imported equipment and recipient countries' capabilities to absorb technology.[79]

The bulk of the environmentally sound technologies have been developed in response to explicit and strong government support, in the form of tax incentives, research and development (R&D) grants, favourable regulatory frameworks, and government expenditure policies. The large public stake in these technologies could provide Governments with leverage to disseminate them more broadly in the larger public interest. Yet, these policies were generally aimed at enhancing national competitiveness, which may run counter to the goal of facilitating technology transfer to developing countries.[80]

IPR constraints and risk-sharing arrangements have been high on the agenda in climate technology debates. Institutions have been created with the aim to supporting risk reducation and risk sharing. They provide support for the acquisition and sharing of intellectual property, risk guarantees, equity/debt instruments and venture capital. Promising developments in this regard at the global level include the Green Climate Fund private sector facility; the Eco-Patent Commons of the World Business Council for Sustainable Development; and WIPO Green—Marketplace for Sustainable Technology. However, a cautionary note is due on IPR issues. A United Nations Environment Programme (UNEP) survey[81, 82] found that the willingness to out-license clean technology to developing countries has been much higher than the actual, relatively low level of licensing. Seventy per cent of survey participants said they were prepared to offer more flexible terms when licensing to developing countries with limited financial capacity. Instead, respondents considered scientific infrastructure, human capital, favourable market conditions, and investment climate as more important than protection of IPRs in the country of the licensee (in the case of developing countries). Most respondents favoured collaborative research and development activities, patent out-licensing and joint ventures over patent pooling and cross-licensing.

Many business incubators and accelerators for climate technology have been founded around the world. They support business plans and product development, build capacity for production skills and provide seed money. Interesting models in this regard are the Centre for Innovation, Entrepreneurship and Technology in Brazil and the Centre for Innovation, Incubation and Entrepreneurship in India. At the global level, the World Bank has run climate innovation centres for several years.

The UNFCCC Climate Technology Centre and Network is a technology mechanism to promote investment and technology transfer, by promoting partnerships among existing global and regional centres, online technology information platforms, clearing houses, technology instruments of international agreements, relevant economic partnership agreements, international financial institutions and technology funds. It links many similar national and international efforts. Further support will be needed to accelerate progress.

5.2.4 Common institutional components to facilitate technology access in health care, agriculture and climate

There are four types of common institutional components that have proven useful for facilitating technology access in health, agriculture and climate (table 3). They could be strengthened in the form of international networks of national and local institutions.

Table 3
Institutional components of technology access in health care, agriculture and climate

Type	Function	Institutional models
Research cooperation	Strengthen global cooperation in research, development and demonstration, and the participation of developing countries	CGIAR; public-private partnership model applied to vaccines and drugs for neglected tropical diseases.
Incubators	Support business plans and product development, build capacity for production skills and provide seed money	World Bank climate innovation centres; Centre for Innovation, Entrepreneurship and Technology (Brazil); Centre for Innovation, Incubation and Entrepreneurship (India)
IPRs and risk sharing	Reduce and share risk would aim to provide support for the acquisition and sharing of intellectual property, risk guarantees, equity/ debt instruments and venture capital; build links with public-private and philanthropic partnerships on collaborative intellectual property systems and licensing, organizations providing risk capital and a global venture capital fund	Green Climate Fund private sector facility, the South-South Global Assets and Technology Exchange System, the Pool for open innovation against neglected tropical diseases, the Eco-Patent Commons of the World Business Council for Sustainable Development, and WIPO Green—Marketplace for Sustainable Technology
Technology transfer and information	Promote investment and technology transfer, by promoting partnerships among existing global and regional centres, online technology information platforms, clearing houses, technology instruments of international agreements, relevant economic partnership agreements, international financial institutions and technology funds	UNFCCC Climate Technology Centre and Network; Technology transfer facilitation mechanism of the Asian and Pacific Centre for Transfer of Technology; Technology Bank for the LDCs, UNIDO technology centres; green revolution model of publicly funded centres

5.3 Technology transfer in an increasingly digitalized global economy

The increasing digitalization and connectivity in the production of goods and services will impact the process of technology transfer. Experience with the digital industry underlines the potential for increasing access to technology, as well as challenges in managing intellectual property. New and emerging technologies that combine algorithms and data with the physical and biological sphere could open new opportunities for technology transfer but also unforeseen challenges.

Traditionally, the digital industry has been a sector particularly amenable to technology transfer given that its products exist as pure applied and codified knowledge. In this context, free and open-source software (FOSS) has explicit copyright and end-user licenses that permit users to copy and redistribute software without restrictions. This makes FOSS particularly easy to transfer and absorb. It requires that authors of a programme make its source code publicly available and permits "looking under the hood," thereby supporting human capacity development in ICT and computer science. This is a particularly important issue given the challenge of improving absorptive capacity and therefore the likelihood of a successful technology transfer in many developing countries. FOSS generates positive economic externalities, including improvements in technology transfer flows and development of absorptive capacities.[83]

International cooperation has also produced numerous examples of technological transfer based on software products. For example, United Nations Conference on Trade and Development (UNCTAD) developed the Automated System for Customs Data (ASYCUDA), a computerized customs management system whose implementation strategy aims to ensure the full transfer of know-how on custom automation to ensure national long-term sustainability (see box 3).

Digital technologies can lead to economically viable innovations in developing countries when they offer an alternative to costly infrastructure investments needed for traditional technological paradigms. For example, rapid technological advances and associated cost reductions in ICT in recent decades have enabled some developing countries, notably in Africa and Asia, to skip the development of analogue landline infrastructure by moving directly to digital mobile telecommunications. Several countries that had low levels of penetration of fixed and mobile telephones in the early 2000s had reached levels of subscriptions of mobile-cellular telephones per 100 inhabitants above the global average (108.9) by 2017. Such is the case of the Gambia (139.2), Côte d'Ivoire (130.7), Ghana (127.5), Nepal (123.2), Timor-Leste (119.3), Cambodia (116) and Mali (112.4).[84] Leapfrogging contributed to increased productivity and the creation of new markets, such as in fintech services (see section 4).

At the same time, a digitalized economy implies new considerations for technology transfer. For example, since these new and emerging technologies rely on digital data, the control of data and the rules to facilitate or hinder their transfer are critical for technology transfer. In the case of AI and machine learning, algorithms may be less important than access to data used to develop, train and execute those algorithms. Digital assets are also scalable at very low costs, which has led to highly productive and profitable industry leaders and increased market concentration. Growing productivity gaps between firms suggest that technology diffusion has decelerated within industries, which could also affect cross-border diffusion of technologies. How these relations will play out is uncertain, but enormously consequential in an increasingly digital age, and thus calls for a better understanding of digital technology diffusion and transfer.

Box 3

ASYCUDA: Technology transfer for custom automation

UNCTAD's ASYCUDA programme provides technology transfer for custom automation, custom reform and streamlining of the customs clearance process, with a view to promote trade facilitation. Over a period of more than 36 years, it has supported customs administrations of 115 countries and territories. Having originated to help countries build and utilize the data collected at customs ports of entry through databases, the programme's scope has gradually widened to helping countries manage their economic and financial analysis and planning, as well as assisting the private sector in doing business. It has also expanded the customs management functions it supports, from the initial data capture (now uploaded via the Internet) to assisting countries and territories in monitoring trade crossing, trade statistics, and producing data critical to risk management analysis, among other issues.

Source: UNCTAD.

6. Development cooperation and United Nations actions on science, technology and innovation

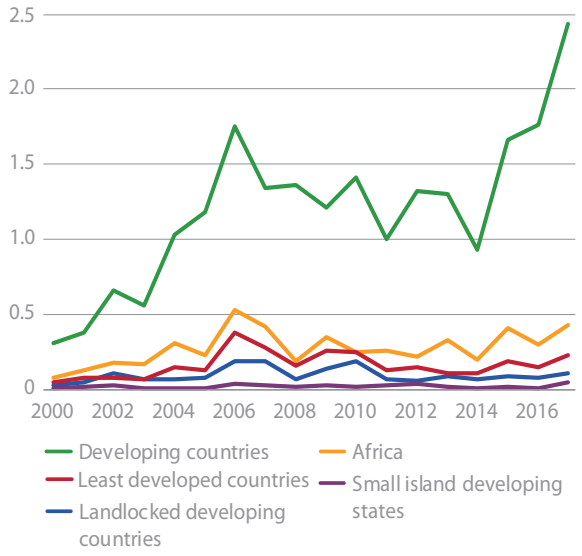
6.1 Development cooperation for Science, technology and innovation

Official development assistance (ODA) targeting the development of STI capacities in developing countries has increased in the past two decades and more than doubled since 2014, from almost $0.9 billion to $2.4 billion

in 2017. However, ODA for STI capacities directed to the LDCs, land-locked developing countries and small island developing States, as well as for developing countries in Africa, has remained at the about same levels for the past decade.

At the same time, international collaboration in scientific research, including both North-South and South-South collaboration, has grown considerably in recent decades, opening new opportunities to address pressing issues in key areas of sustainable development. The North-South divide in research and innovation, while still large for many countries, is narrowing overall, as more countries incorporate STI in their national development strategies.[85] Increased R&D spending and institutional strengthening over the past 20 years have encouraged more cross-border collaborations. International collaborations are also driven by coordination of research towards specific questions (due to lower communication costs), and by open access to data and publications.[86]

Figure 3
Official development assistance for scientific, technological and innovative capacity by recipient,2000-2017
(Billions of United States dollars)



Source: OECD Creditor Reporting System and UN/DESA calculations
Notes: Includes ODA commitments reported under education, medical, energy, agricultural, forestry, fishery, technological and environmental research, ICT and research and scientific institutions.

The capacities of many developing countries to participate in international collaboration have increased considerably. In 2014, 86 per cent of scientific publication in low-income countries had international co-authors (from 80 per cent in 2008), with 38 per cent in lower-middle income countries (from 29 per cent in 2008). Countries who are in the phase of building up their research capacities often begin by establishing projects with teams in scientifically advanced countries (both in the global North and South). As their research capacity increases, countries move on to the phases of consolidation and expansion, followed by internationalization, where they can take the lead in international projects. China, Singapore and Thailand, for example, now serve as scientific hubs for neighbouring countries in their region.[87]

Regional and international collaboration has also increased in scientific research and capacity-building for frontier technologies. Programmes such as the European Union's Marie Curie grants have helped promote collaboration and mobility and created regional and international scientific networks of researchers.[88] The online education platform Fast.ai offers free classes on deep learning with the aim of increasing diversity in AI. The platform has launched diversity and international fellowships for deep learning, providing an opportunity for participants to receive state of the art practical education in AI.[89]

6.2 Actions by the United Nations system and others

Several United Nations agencies have ongoing programmes for enhancing the capacity of the Member States of the United Nations on STI. UNCTAD conducts science, technology and innovation policy reviews upon request of countries to support the development of their national capacities in STI policy formulation and implementation. The STI policy review framework is being revised to strengthen the focuses on STI for the SDGs. UNCTAD also conducts eTrade Readiness Assessments to assist developing and least developed countries in assessing their readiness to engage in and benefit from e-commerce, and it develops national strategies and provides policy advice to countries in building and maintaining a dynamic and responsive ICT policy environment for trade and development. The United Nations Economic Commission for Europe (UNECE) carries out reviews of innovation policies in countries with economies in transition, for which the question of the absorption is particularly relevant.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) launched the GO-SPIN Platform[90] in November 2018 with information on STI policies, policy instruments, and legislation related to 55 countries. UNESCO's Abdus Salam International Centre for Theoretical Physics (ICTP) in Italy has been working with centres of excellence in Africa.[91] The ICTP is also training scientists from developing countries in the field of quantum technologies. UNESCO's environmental programmes are integrating the IoT and AI. For example, UNESCO G-WADI Geoserver application (Water and Development Information for Arid Lands—a Global Network) uses an artificial neural network algorithm to estimate real-time precipitation worldwide, and it is now available through the iRain mobile application to facilitate people's involvement in collecting local data for global precipitation monitoring.[92]

UNESCO is also now "Harnessing AI to Achieve SDG 4" to ensure that the Member States are ready to leverage AI to ensure inclusive, equitable quality education and lifelong learning opportunities for all and to mitigate AI's possible negative impacts. UNESCO is also working with Ericsson on "Artificial Intelligence for Youth" to help youth develop AI-related digital skills, and with Airbus on an international competition that encourages science and engineering students to develop sustainable solutions to global problems. Its STEM and gender advancement tools improve measurement and policies for gender equality in STEM fields. The Digital Skills for Jobs Campaign, led by the International Telecommunications Union (ITU) and international Labour Organization (ILO), mobilizes partners to invest in digital skills training opportunities for young women and men so that they can benefit from the opportunities offered by the digital economy, and to help countries make economic growth more inclusive.

WIPO assists Member States in the development, formulation and implementation of national IP and innovation strategies, including by enabling them to use the Global Innovation Index to set innovation policy targets. In addition, WIPO. It has developed WIPO GREEN,[93] a global marketplace that promotes green tech innovation and diffusion. WIPO has also developed an IP Toolkit for academic and research institutions to help them shape and implement their institutional intellectual property policies.[94] The International Atomic Energy Agency (IAEA), through the implementation of national, regional and inter-regional programmes and projects in four geographic regions, helps countries to address key development priorities and assists in the establishment of national legal frameworks for the safe, secure and peaceful uses of nuclear energy and ionizing radiation.

The United Nations Department of Economic and Social Affairs (UN/DESA) is implementing a four-year project for mobilizing STI in developing countries for the SDGs. The ITU has a large capacity-building programme focusing on strengthening skills among its membership in a wide range of ICT-related topics. Through the ITU Academy, which has more than 10,000 users, and its Centres of Excellence network, it delivers in-person and e-learning courses. The annual AI for Good Global Summit also provides an important opportunity for global and inclusive dialogue on AI.

6.3 Technology Facilitation Mechanism

The Third Annual Multi-stakeholder Forum on Science, Technology and Innovation, which was held under the umbrella of the Technology Facilitation Mechanism (TFM) in New York in June 2018, was attended by more than 1,000 participants, representing Governments, scientists, innovators, technology specialists, entrepreneurs and civil society. The Forum explored policies and actions for advancing STI to achieve the SDGs. It proposed a list of recommendations that addressed, inter alia, STI roadmaps and disruptive societal impacts of new technologies, such as nanotechnology, automation, robotics, AI, gene editing, big data, and 3D printing.

The membership of the Interagency Task Team on Science, Technology and Innovation for the SDGs (IATT) now comprises more than 100 staff experts from 41 United Nations entities. In cooperation with the 10-Member Group of high-level representatives, it has undertaken joint activities in seven subgroups on the STI Forum; the TFM online platform; STI roadmaps for the SDGs; joint capacity building; new and emerging technologies; and gender and STI.

In 2018, the IATT developed a demo version of the TFM Online Platform[95] as a gateway for information on STI initiatives, mechanisms and programmes around the world, and to connect suppliers and users of technologies for the SDGs.[96] IATT members have also pooled training resources on STI policies and started jointly delivering capacity building workshops with participation from seven United Nations entities, including in Jordan and Panama. Partnerships are also emerging with scientific and technological communities and other stakeholders.

As an activity towards fulfilling the follow-up to General Assembly resolution A/RES/72/242, the IATT organized the second "Expert Group Meeting on Rapid Technological Change, Artificial Intelligence, Automation, and Their Policy Implications for Sustainable Development Targets" in Mexico City in April 2018. The IATT has continued this work and has collected inputs from over 100 contributors (box 4).

6.4 The work of the Commission on Science and Technology for Development

As the United Nations focal point for STI, the Commission on Science and Technology for Development (CSTD) acts as a forum for strategic planning and sharing lessons learned and best practices. It provides analysis and foresight about critical trends in STI in key sectors of the economy, the environment and society, drawing attention to emerging and disruptive technologies. The twenty-first annual session of the CSTD was held from 14 to 18 May 2018 in Geneva and addressed two priority themes: (i) the role of science, technology and innovation in increasing the share of renewable energy by 2030; and (ii) building digital competencies to benefit from existing and emerging technologies, with special focus on gender and youth dimensions.

In 2018 the CSTD worked with the Chinese Government to strengthen South-South collaboration in the area of STI and to develop a set of customized training courses on STI capacity-building. The collaboration will continue in 2019 with a young scientist program through which 24 scientists from CSTD developing countries will have the opportunity to work in China from six to twelve months and exchange experience and knowledge.

CSTD has also made efforts to strengthen the collaboration between CSTD and United Nations regional commissions and other stakeholders, including in Asia and Africa.

6.5 The Technology Bank for the Least Developed Countries

The General Assembly established the Technology Bank for the Least Developed Countries at the end of 2016. Its operational activities started in 2018, focusing on preparing science, technology and innovation/technology needs assessment reviews and on digital access to research. The needs assessment reviews aim at identifying technological gaps and priority needs and providing recommendations for strengthening policies and measures to improve national and regional technological capabilities and encourage innovation. The Technology Bank entered into arrangements with UNESCO for the preparation of the reviews of Guinea, Haiti, Sudan and Timor Leste and UNCTAD for the preparation of the review of Uganda.

Under its work on digital access to research, the Technology Bank, together with the UN parnership Research for Life, aims to facilitate online access to scientific journals, books, and databases at no direct charge to LDC beneficiaries. 38 workshops were held in 2018 in 10 LDCs.

Box 4

Initial TFM findings on the impact of rapid technology change on the SDGs

At the Third Annual Multi-stakeholder Forum on Science, Technology and Innovation, held in New York in June 2018, the initial findings by the Technology Facilitation Mechanism (TFM) on the impact of rapid technology change on the achievement of the SDGs[97] were presented. These findings were based on inputs by the TFM's Interagency Task Team, the 10-Member Group of high-level representatives, eight meetings[98] and sessions on the topic under the TFM umbrella[99], and inputs by UNCTAD, DESA, UNU, ECLAC, ESCAP, ESCWA, ITU, ILO, WIPO, World Bank, the International Science Council and the Major Group on Children and Youth. The Interagency Task Team on Science, Technology and Innovation for the Sustainable Development Goals (IATT) subgroup on new and emerging technologies continues to collect and synthesize inputs for an updated presentation at the Fourth STI Forum in 2019. The work of the IATT on the potential and risks of technology, development and employment impacts, and on education have informed this chapter. Additional findings include the following:

- *Natural environment:* New materials, digital, bio-, and nanotechnologies, and AI all hold great promise for a range of high- efficiency water and renewable energy systems that could be deployed in all countries and catalyse the global move towards sustainability. However, despite efficiency increases, AI and all the other emerging technologies clusters will require an ever-increasing use of electricity, creating more pollution and waste (e.g., e-waste, nano-waste, and chemical wastes). Such outcomes demand that environmental considerations be incorporated into the design of these technology systems from their inception.
- *Norms and ethics:* A more responsible and ethical deployment of new technologies have to be balanced against concerns that excessive restraints on innovations may deprive humanity of many benefits. Ethical and normative considerations that should guide our thinking on these issues have to spring from our shared vision—the values contained in the United Nations Charter, the Universal Declaration of Human Rights, the Rio+20 outcome "The Future We Want", and most recently the 2030 Agenda for Sustainable Development.
- *Multi-sectoral and multi-stakeholder engagement:* Fostering policy coherence and multi-stakeholder dialogue is more important than ever. This requires coherence across policies for the macro-economy, science and technology, industrial development, human development and sustainability. Multi-stakeholder dialogue is essential in order to include different perspectives, to arrive at shared understanding and to establish trust.

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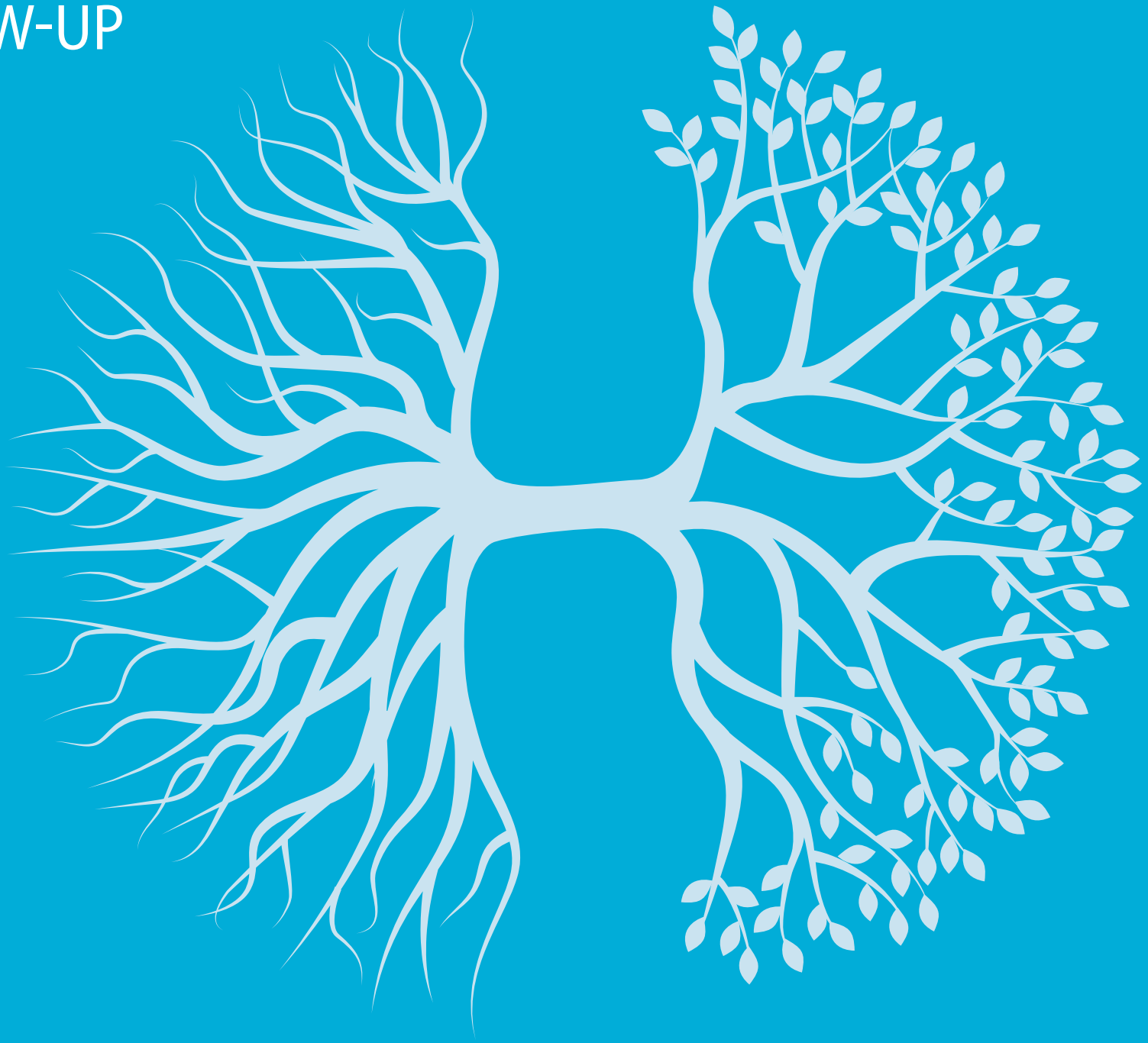
DATA, MONITORING AND FOLLOW-UP



Chapter IV

Data, monitoring and follow-up

1. Key messages and recommendations

The implementation of the 2030 Agenda for Sustainable Development and the commitment to leave no one behind requires the collection, processing, analysis and dissemination of an unprecedented amount of data, including disaggregated data, for effective policy design and for monitoring and evaluation of progress. *To capture data on all population groups, including the most vulnerable, Governments should further strengthen traditional data sources, such as surveys and administrative records, while also embracing new sources of data and continuing to strengthen gender data.*

The signatories of the Addis Ababa Action Agenda agreed to provide international cooperation, including through technical and financial support, to further strengthen the capacity of national statistical offices and national statistical systems. Given the increased need for disaggregated data, as well as the opportunities and challenges stemming from non-traditional data sources, *providers should step up their support for developing countries' statistical systems through increased capacity-building. A doubling of funds will be needed to operationalize the six priority areas of the Cape Town Global Action Plan for Sustainable Development Data.*

National Strategies for the Development of Statistics (NSDS) provide an overall vision for the development of national statistical systems and addressing issues related to the integration and use of data from different sources, as well as statistical capacity development. *To ensure alignment with national priorities, statistical strategies should be closely linked to national sustainable development strategies and incorporated into integrated financing frameworks.*

Big data presents an opportunity to complement traditional sources of statistical information to assess progress towards achieving the Sustainable Development Goals (SDGs), as well as to improve targeting of policy interventions; but it also presents new risks and challenges. *The international community should work to develop technical standards that adequately address data access, privacy and data security concerns, while continuing to follow existing statistical quality standards.*

Continuing efforts are under way to improve the collection and dissemination of data on the financial sector and on financial vulnerabilities. As part of the second phase of the Group of Twenty (G20) Data Gaps Initiative (DGI), progress was achieved regarding the monitoring of shadow banking, reporting of data on global systemically important banks, and improved coverage, timeliness and periodicity of sectoral accounts. *It will be important to secure adequate resources to support the necessary infrastructure for data access and sharing, and to ensure future maintenance of newly created DGI datasets.*

2. Big data for the Sustainable Development Goals

2.1 The role of big data in the implementation of the 2030 Agenda

Big data is emerging as an important factor that can contribute to the achievement of the 2030 Agenda in a variety of ways (figure 1). It creates opportunities to offer and provide services that can dramatically add to the productivity of work and well-being of people. Big data can support applications in the retail sectors by improving targeted marketing and inventory management, as well as in the banking and insurance industries through improved risk assessment tools, and in many other sectors. Geospatial information management is assisting in the provision of transportation services and is essential for the development of self-driving cars.

As discussed in this report, big data can also improve the enforcement of tax collection; promote financial inclusion through financial technology applications; and help monitor and incentivize the adherence to environmental, social and governance standards in capital markets.

Big data can also help improve the monitoring of SDG implementation. When properly utilized and integrated into larger data and statistical systems, big data can help improve the timeliness, coverage and granularity of data to assess progress at a disaggregated level, which is especially relevant for the commitment to leave no one behind.

In addition, big data can support SDG implementation by strengthening evidence-based policymaking and improve response times by providing timely and disaggregated information. By expanding statistical coverage of vulnerable or marginalized groups, big data can help develop targeted policies to ensure that, indeed, no one is left behind.

The generation and use of big data also poses a number of important challenges. From a statistical point of view, challenges include adherence to statistical quality criteria, such as representativeness, validity, accuracy, consistency of measurement and sustainability of the data source. Efforts are needed to transform big data into accurate, coherent and comparable statistics, including integration with and cross-validation from established statistical sources such as survey data. Developing countries face particular challenges in this context, as they often lack the necessary infrastructure, statistical capacities or the technological skills to benefit from innovative sources of data.

Big data also poses challenges in terms of privacy, data security, ownership, access and inequality, including the potential amplification of existing biases through algorithms. In recent years, these issues have received increased attention amid the exponential growth of the generation and use of personal data and the increased market power of a few large private technology companies, in addition to several prominent cases of data security breaches.

To realize the opportunities of big data for sustainable development while mitigating the associated risks, countries have begun to develop national digital strategies and adjust legislation and regulatory standards. Due to the cross-border nature of the generation and use of big data, the international community can facilitate global norms and standard-setting in legal, technical, privacy, geospatial and statistical realms,[1] as well as regarding the measurement and effective taxation of gains from the use of data (see chapter III.A).

Progress in the establishment of global standards has been achieved in the area of geospatial information, with the adoption of the five guiding principles of the Global Statistical Geospatial Framework in 2016[2] and an Integrated Geospatial Information Framework in 2018.[3] Work is also ongoing on standards for open data and data interoperability. However, global consensus has remained elusive on the governance of big data, including in the areas of privacy and data security, as well as on digital taxation. The European Union agreed in 2018 on legislation to safeguard the processing and movement of its citizens' personal data—the General Data Protection Regulation (GDPR)—although there is currently no agreement at the global level. Efforts have been launched by different actors to work towards an international consensus on the use of data, including as part of a broader effort by the Organization for Economic Cooperation and Development to develop common standards for the use of artificial intelligence. More recently, data governance has been identified as one of the main themes for the Japanese Presidency of the G20, to be discussed at the Leaders' Summit in June 2019 in Osaka. However, the global implications of these issues warrant wider and inclusive discussions.

2.2 Big data for Sustainable Development Goals initiatives

A number of multilateral initiatives have been established over the past decade to support countries in the use of big data for sustainable development. The United Nations Global Pulse works to promote awareness of the opportunities big data presents for sustainable development and humanitarian action. It implements data innovation programmes to provide the United Nations and development partners with access to the data, tools and expertise required to discover new uses of big data for development. Global Pulse also contributes to the development of regulatory frameworks and technical standards to address data sharing and privacy protection challenges.[4]

The United Nations Global Working Group (GWG) on Big Data for Official Statistics was established by the United Nations Statistical Commission in 2014.[5] Over the last four years, it has actively engaged to make big data, corresponding services and innovative applications accessible, and to harness their use in research and capacity-building for statistical production processes. The group has active task teams on the use of satellite imagery data, mobile phone data, social media data and scanner data. For example, the GWG task team on mobile phone data is developing methodologies that can facilitate the monitoring of orderly, safe, regular and responsible migration and mobility of people, relevant for the monitoring of SDG targets 8.8 and 10.7. In conjunction with this, the Statistics Division of the Department of Economic and Social Affairs supports countries in improving their capacity in the collection and dissemination of migrant statistics; for example, it is assisting the statistical office in Georgia in using new data sources and technologies by partnering with the national mobile network regulator.

The GWG is also developing catalogues and libraries for data, metadata, methods, partners and learning on a United Nations Global Platform.[6] It hosts a global catalogue of big data projects relevant to the production of official statistics and SDG indicators, and other types of statistics.[7] The GWG also established a Privacy Preserv-

Figure 1
Big data and the SDGs

How data science and analytics can contribute to sustainable development

1 NO POVERTY
Spending patterns on mobile phone services can provide proxy indicators of income levels

2 ZERO HUNGER
Crowd sourcing or tracking of food prices listed online can help monitor food security in near real-time

3 GOOD HEALTH AND WELL-BEING
Mapping the movement of mobile phone users can help predict the spread of infectious diseases

4 QUALITY EDUCATION
Citizen reporting can reveal reasons for student drop-out rates

5 GENDER EQUALITY
Analysis of financial transactions can reveal the spending patterns and different impacts of economic shocks on men and women

6 CLEAN WATER AND SANITATION
Sensors connected to water pumps can track access to clean water

7 AFFORDABLE AND CLEAN ENERGY
Smart metering allows utility companies to increase or restrict the flow of electricity, gas or water to reduce waste and ensure adequate supply at peak periods

8 DECENT WORK AND ECONOMIC GROWTH
Patterns in global postal traffic can provide indicators such as economic growth, remittances, trade and GDP

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
Data from GPS devices can be used for traffic control and to improve public transport

10 REDUCED INEQUALITY
Speech-to-text analytics on local radio content can reveal discrimination concerns and support policy response

11 SUSTAINABLE CITIES AND COMMUNITIES
Satellite remote sensing can track encroachment on public land or spaces such as parks and forests

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Online search patterns or e-commerce transactions can reveal the pace of transition to energy efficient products

13 CLIMATE ACTION
Combining satellite imagery, crowd-sourced witness accounts and open data can help track deforestation

14 LIFE BELOW WATER
Maritime vessel tracking data can reveal illegal, unregulated and unreported fishing activities

15 LIFE ON LAND
Social media monitoring can support disaster management with real-time information on victim location, effects and strength of forest fires or haze

16 PEACE, JUSTICE AND STRONG INSTITUTIONS
Sentiment analysis of social media can reveal public opinion on effective governance, public service delivery or human rights

17 PARTNERSHIPS FOR THE GOALS
Partnerships to enable the combining of statistics, mobile and internet data can provide a better and real time understanding of today's hyper-connected world

Source: United Nations Global Pulse.

ing Techniques task team in 2018 to develop and propose principles, policies and open standards for encryption of data on the platform, to reduce the risks associated with handling proprietary and sensitive information, and assure data privacy and confidentiality.

The United Nations World Data Forum (UNWDF) brings together different data communities of producers and users, to collaborate on and launch innovative data solutions and share experiences for data innovation, advocacy and technology transfer. The second UNWDF, held in Dubai in October 2018, launched the Data Interoperability Guide, which identifies steps to help countries and development partners integrate data from multiple sources for better monitoring and policymaking to achieve the 2030 Agenda.[8]

The International Monetary Fund (IMF) Statistics Department started to investigate the potential and challenges of big data for macroeconomic and financial statistics in 2016, laying the groundwork for a structured discussion within and outside the IMF.[9] In 2018, the IMF launched a pilot project to support Indonesian authorities in using scanner data to develop high-frequency indicators of private consumption and consumer prices.

The World Bank has stepped up efforts to use big data for applications in development operations. As of 2017, over 60 big data projects were under implementation, using measurements from satellite, mobile phone and social media sources.[10] For example, in Malaysia and several other countries, the World Bank is piloting a method to use news and social media to construct forecasts and leading indicators of growth and labour market conditions.[11] The World Bank also launched a Data Collaboratives initiative to access and use private sector data towards reaching development goals.

Many other pilot projects are being conducted to demonstrate the effectiveness and advantages of integrating new data sources into the production of official statistics. Most progress has been made in the use of satellite data for agriculture and environment indicators. For example, satellite data are used to measure changes in water-related ecosystems over time. The United Nations Environment Programme and the European Commission Joint Research Centre developed the Global Surface Water Explorer application, which provides free and open access to national, basin and sub-basin aggregated data on water extent.[12] Statistics Canada has successfully estimated crop yields using satellite data, and shared its satellite data and calculation methods with several African countries. Similarly, the national statistical office of Colombia runs pilot projects to estimate the yield of cereal crops, using the results of satellite image processing.[13] Gradually, crop yield surveys could be replaced by yield estimates based on satellite data. The European Commission Joint Research Centre developed the Global Human Settlement Layer, which provides free and open access to detailed built-up and population statistics and the rural/urban divide.[14]

To move beyond the pilot stage and scale up some of these applications, both technical and political challenges will have to be addressed. Multilateral efforts could help agree on a set of common standards at the global level.

3. Progress in strengthening data and statistical systems

Traditional data sources and statistics remain critical, as they continue to provide much-needed reliable information for policy-making and monitoring of SDG achievement, across a multitude of indicators compiled from traditional and new data sources. Progress has been made in the further development of SDG indicators, as well as in gender statistics and financial statistics, but there are still gaps in the production and usage of data. Additional funding is needed to further strengthen statistical systems and capacities.

3.1 Progress on the Sustainable Development Goals indicator framework, the Cape Town Global Action Plan for Sustainable Development Data, and other initiatives

Throughout 2018, the Inter-agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) continued its work for the implementation of the global indicator framework for the goals and targets of the 2030 Agenda for Sustainable Development. It reviewed and agreed on the methodology of 25 indicators,[15] making them available for global monitoring; developed criteria on data flows; discussed data disaggregation; and organized work on interlinkages, statistical data and metadata exchange and geospatial information. It also started the preparations for the first comprehensive review of the global indicator framework in 2020.

The Cape Town Global Action Plan for Sustainable Development Data was launched in 2017 and welcomed by the General Assembly in its resolution on the work of the United Nations Statistical Commission pertaining to the 2030 Agenda for Sustainable Development.[16] It provides the framework for discussion, planning, implementation and evaluation of statistical capacity-building for the 2030 Agenda. It was born out of the realization that effective planning, follow-up and review of the 2030 Agenda requires the collection, processing, analysis and dissemination of an unprecedented amount of data and statistics at the local, national, regional and global levels, by multiple stakeholders. To effectively use more disaggregated data for policy formulation, it is important to link national strategies for the development of statistics to national development plans.

Initiatives are also being implemented at the regional level. For example, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) is supporting countries through the Every Policy is Connected initiative, a tool for facilitating a dialogue between

policymakers and data producers. Two key outcomes of this initiative are a national sustainable development indicator set and recommendations for policymakers. The tool enhances user-producer dialogues, sustainable user-producer partnerships, and efficient budget allocations for the integration of inclusive policies and data.

The Praia Group on Governance Statistics aims to contribute to the development of international standards on governance statistics (supporting the development of indicators for the targets of SDG 16). Work is currently ongoing on a handbook towards this aim, to be released in early 2020.

Box 1

Capacity-building for education statistics

The UNESCO Institute for Statistics (UIS) engages with national statistical systems to provide statistical capacity development support, including on the definition of a National Strategy for the Development of Education Statistics to improve national education data.

In this context, UIS has been in discussions to engage in a collaboration with the Partnership in Statistics for Development in the 21st Century (PARIS21) regarding the linkage between National Strategies for the Development of Statistics (NSDS) and sectoral statistical strategies. This has been the basis for the development of a new project carried out to design and implement SDG 4 pilot monitoring initiatives in low and lower-middle income countries within the UNESCO Capacity Development for Education (CapED) Programme.[a] The first component of the pilot initiative, which reviewed national plans and policies in light of SDG 4 commitments, was completed in 2017. The second component, which is ongoing, focuses on strengthening national capacities to improve monitoring of progress towards SDG 4.

Source: The description of CapED was adapted from: Montoya, Silvia, and Jordan Naidoo, "Moving Up a Gear: The CapED Initiative" (UNESCO Institute for Statistics Blog, 2 August).

a The eleven countries supported by the UIS as part of CapED are Afghanistan, Bangladesh, Cambodia, Democratic Republic of the Congo, Haiti, Madagascar, Mali, Mozambique, Myanmar, Nepal and Senegal. Bangladesh was initially not among the ten pilot countries for CapED but joined later. All eleven countries are also partner countries of the Global Partnership for Education.

3.2 Funding for statistical systems and capacities

The strengthening of statistical systems and capacities remains a challenge in many countries, as well as the financing for these efforts. The 2018 Partner Report on Support to Statistics (PRESS), produced by PARIS21, noted that countries received $623 million of support from multilateral and bilateral donors for all areas of statistics in 2016. This represents a small increase over the previous year, but remains below peak commitments earlier in the decade (figure 2) and well below the amounts required to implement the Cape Town Global Action Plan.

A recent study on financing challenges for developing statistical systems estimates the annual funding gap for operationalizing the six priority areas of the Cape Town Global Action Plan for Sustainable Development Data to be between $100 million (low ambition scenario) and $700 million (high ambition scenario). To close this gap, the study calls for doubling the current share of official development assistance (ODA) allocated to statistics, from 0.33 per cent to 0.7 per cent of total ODA from all donors. Some of the identified challenges include poor awareness of the importance of statistics by donors and recipients, the need for long-term sustainability of financing for statistics, insufficient alignment of programming with country systems and strategies, and insufficient emphasis on statistical system capacity-building.[17] It is often difficult for both donors and policymakers to justify spending on statistical systems over more pressing needs, such as health and social needs. Yet, strengthened data is needed to make informed decisions in terms of spending allocation in all of these other areas, such as through integrated financing frameworks.

To address this financing gap, the 2018 Dubai Declaration of the United Nations World Data Forum called for the establishment of an innovative funding mechanism—open to all stakeholders under United Nations membership oversight—that would be able to respond in a fast and efficient manner to the priorities of national data and statistical systems. Such a facility could initially use small grants catalytically, and then bring programmes to scale through additional sums from donors—including from private philanthropies—and domestic government resources. The facility could learn from experiences with similar structures in other areas, such as global health. For example, one lesson from the health field was that the mechanism went beyond financing and became a global hub for knowledge sharing on implementing national health policies.

3.3 Gender statistics

While existing gender statistics are still far from satisfactory, some progress has been achieved in terms of evidence on the status of women compared to men. Concepts have been improved and data collection methods innovated, resulting in fewer data gaps on critical gender concerns.[18] Nonetheless, gaps still exist in terms of data availability,[19] quality, comparability and timeliness of gender data, mainly due to a lack of national capacity in producing and using gender statistics, insufficient coordination among data producers at the country level and a lack of financial resources.[20]

UN Women's Making Every Woman and Girl Count programme seeks to transform the creation, use and dissemination of gender statistics. It currently supports countries by (i) promoting a supportive policy environment to prioritize gender data and effective monitoring of the SDGs; (ii) improving the regular production of gender statistics, through technical capacity-building for national statistical systems and financial support for improved data collection; and (iii) improving access to data to inform policy advocacy.

Other positive developments include ongoing work on environment and gender, including a new framework on disaster statistics and its intersection with gender, and the updated international classification of status in employment, adopted by the 20th International Conference of Labour Statisticians in 2018. It covers all forms of work, paid and unpaid, and additional details about types of employment, including those dominated by women. Emerging statistical issues, such as measuring gender identity and sexual orientation and the nexus between gender and migration, are building momentum within the statistical community.[21]

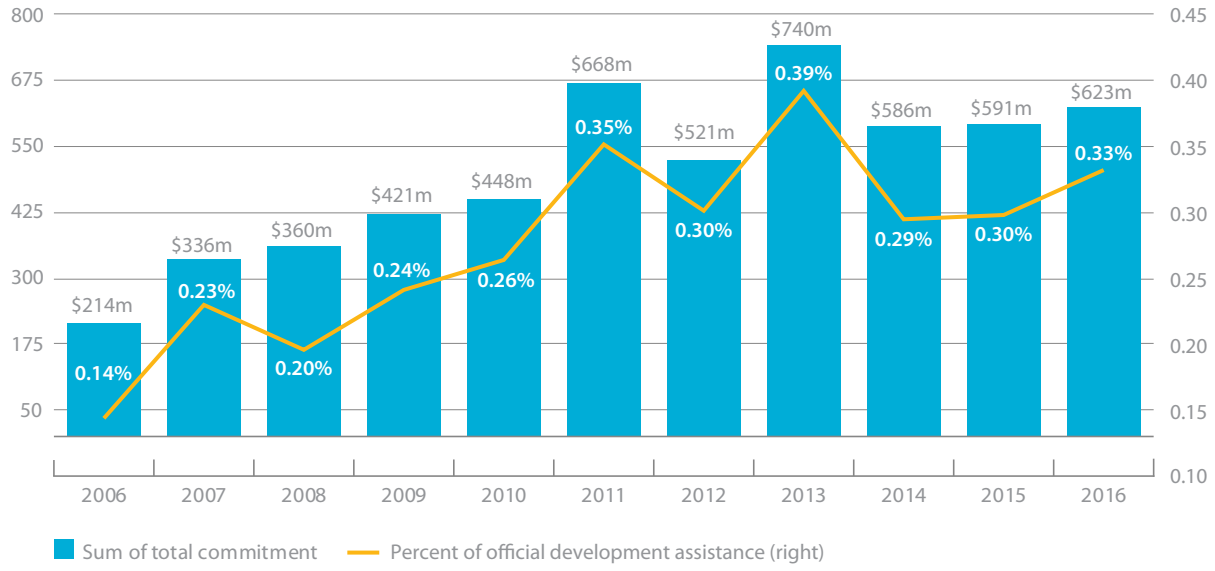
3.4 Monitoring the financial sector

The second phase of the G20 Data Gaps Initiative (DGI) was launched in 2015, with the main objective of implementing the regular collection and dissemination of reliable and timely financial sector statistics for policy use. While maintaining continuity with the recommendations from the first phase, the second phase also sets more specific objectives for the compilation and dissemination of minimum common datasets in three areas: (i) monitoring risk in the financial sector; (ii) vulnerabilities, interconnections and spillovers; and (iii) data sharing and communication of official statistics. The IMF and the secretariat of the Financial Stability Board, in close cooperation with the Inter-Agency Group on Economic and Financial Statistics and participating economies, monitor and report progress on an annual basis. Completion is envisaged for 2021.[22]

During 2018, important progress was achieved in the implementation of the DGI recommendations, including in the monitoring of shadow banking, reporting of data on global systemically important banks, and improved coverage, timeliness, and periodicity of sectoral accounts. Nonetheless, challenges persist as adequate financial, skill and information technology resources must be mobilized to ensure appropriate infrastructure for data access and data sharing, and the proper maintenance of new datasets, among others. To facilitate further progress, the work programme for 2019 includes three thematic workshops, on commercial property price indices (as part of the International Conference on Real Estate Statistics), sectoral accounts, and government finance and debt statistics.[23]

The DGI has important synergies with other global initiatives, such as public debt transparency, the implementation of the Legal Entity Identifier system (see chapter III.F), and big data for policymaking. Accurate and comprehensive debt data and strengthened transparency are important for sound borrowing and lending practices.[24] There are several initiatives to improve debt data, including the IMF Data for Decision Fund and the World Bank initiative on collecting domestic debt data on an instrument-by-instrument basis, and the Debt Data Quality Assessment Methodology, a joint initiative by the United Nations Conference on Trade and Development (UNCTAD) and the Commonwealth Secretariat (see chapter III.E).

Figure 2
Aid to statistics: commitments, 2006–2016
(Millions of United States dollars and percentage of ODA)



Source: PARIS21, "Partner report on support to statistics" (Paris, 2018).

Endnotes

1 See for example the recommendations of the Secretary-General's Independent Expert Advisory Group on a Data Revolution for Sustainable Development, as laid out in its report "A World that counts – mobilising the data revolution for sustainable development" in 2014.
2 United Nations Expert Group on the Integration of Statistical and Geospatial Information, *Global Statistical Geospatial Framework: Linking Statistics and Place: current status and plans for development* (New York, 2018).
3 United Nations, *What happens where: a new integrated geospatial information framework* (New York, 2018).
4 See the website of United Nations Global Pulse. Available at https://www.unglobalpulse.org.
5 United Nations Global Pulse is among the members of the United Nations Global Working Group (GWG) on Big Data for Official Statistics. For more information on GWG, see the website of the UN Global Working Group on Big Data. Available at https://unstats.un.org/bigdata.
6 United Nations, document E/CN.3/2018/8.
7 See the website of the Big Data Project Inventory. Available at https://unstats.un.org/bigdata/inventory.
8 Data Interoperability Guide. Available at https://unstats.un.org/wiki/display/InteropGuide/home.
9 The findings were publicized in a staff discussion note which identified data quality concerns, difficulties in accessing data, and new required skills and technologies as challenges. See Cornelia Hammer and others, "Big Data: Potential, Challenges and Statistical Implications", IMF Staff Discussion Notes SDN/17/06 (Washington, D.C., International Monetary Fund, 2017).
10 World Bank Independent Evaluation Group, *Data for Development: An Evaluation of World Bank Support for Data and Statistical Capacity* (Washington, D.C., 2018).
11 See Samuel P. Fraiberger and others, "Media Sentiment and International Asset Prices", NBER Working Paper No. 25353 (Cambridge, Massachusetts, 2018).
12 See the website of Global Surface Water Explorer. Available at https://global-surface-water.appspot.com.
13 Sandra Liliana Moreno, DANE Colombia, "Advances in the project 'Testing Satellite Imagery, geospatial data and administrative records for producing agricultural statistics'", presentation at the Open Day of the Global Working Group of the UN World Data Forum, Dubai, 21 October, 2018.
14 European Commission, Joint Research Centre, *Atlas of the Human Planet 2018—A World of Cities* (Luxembourg, European Commission, 2018).
15 See Tier Classification for Global SDG Indicators by the IAEG-SDGs. Available at https://unstats.un.org/sdgs/iaeg-sdgs/tier-classification.
16 United Nations, document A/RES/71/313.
17 PARIS21, "Financing challenges for developing statistical systems: A review of financing options", PARIS21 Discussion paper No. 14 (Paris, 2019).
18 Recent efforts to address these challenges include the Evidence and Data for Gender Equality (EDGE) project by the United Nations Statistics Division and UN Women, the STEM and gender Advancement (SAGA) project by UNESCO-UIS and more recently Data2X, Equal Measures 2030, UN Women's Making Every Woman and Girl Count flagship programme initiative, the World Bank LSMS survey methods programme, and the Women's Work and Employment partnership (Data2X, ILO, FAO, and World Bank).
19 According to a 2017 assessment, data were available for global monitoring for only half of the approximately 80 global Sustainable Development Goals indicators identified as potentially useful for gender analysis, with data disaggregated by sex available for fewer than a quarter of them. See United Nations, document E/CN.3/2017/11.
20 A 2012 survey on national gender statistics programmes conducted by the Statistics Division of the United Nations Department of Economic and Social Affairs and United Nations regional commissions, revealed that out of 126 countries that replied, only 13 per cent had a "dedicated gender statistics budget".
21 See the webpage of the 7th Global Forum on Gender Statistics. Available at https://unstats.un.org/unsd/demographic-social/meetings/2018/tokyo-globalforum-genderstat.
22 Economies participating in the second phase of the Data Gaps Initiative (DGI) are the G20 economies and five non-G20 FSB member economies (Hong Kong, the Netherlands, Singapore, Spain and Switzerland). Member agencies of the Inter-Agency Group (IAG) on Economic and Financial Statistics are the Bank for International Settlements, European Central Bank, Eurostat, International Monetary Fund (Chair), Organization for Economic Co-operation and Development, United Nations and the World Bank. The Financial Stability Board (FSB) participates in the IAG meetings.
23 See International Monetary Fund and Financial Stability Board, *Second Phase of the G20 Data Gaps Initiative (DGI-2): Third Progress Report* (2018).
24 See World Bank Group and International Monetary Fund, *G20 Note: Strengthening public debt transparency: the role of the IMF and the World Bank* (Washington, D.C., 2018); World Bank Group and International Monetary Fund, *G20 Note: Improving public debt recording, monitoring, and reporting capacity in low and lower middle-income countries: proposed reforms* (Washington, D.C., 2018).

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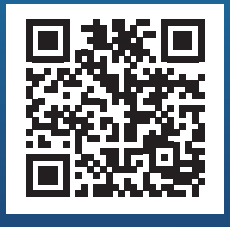

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