

IMF STAFF DISCUSSION NOTE

A Post-Pandemic Assessment of the Sustainable Development Goals

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INTERNATIONAL MONETARY FUND

Fiscal Affairs Department

A Post-Pandemic Assessment of the Sustainable Development Goals

Prepared by Dora Benedek, Edward Gemayel, Abdelhak Senhadji, and Alexander Tieman¹

Authorized for distribution by Vitor Gaspar and Abebe Selassie

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JEL Classification Numbers: Q01, H11, H20, H87, O23, I15, I25, F35.

Keywords: Sustainable Development Goals, Development, Fiscal Policy, Structural Reform.

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¹ This note was prepared under the overall guidance of Abdelhak Senhadji. The team comprised Dora Benedek and Alexander Tieman (team leaders), Edward Gemayel, Magdi Ahmed, Olusegun Akanbi, Aqib Aslam, David Bartolini, Svetlana Cerovic, Hua Chai, Ricardo Fenochietto, Klaus Hellwig, Yujin Kim, Narine Nersesyan, and Roberto Perrelli. The note benefited from helpful comments from IMF departments and assistance with production by Von Allena and Zane Goins.

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EXECUTIVE SUMMARY

The COVID-19 pandemic hit countries' development agendas hard. The ensuing recession has pushed millions into extreme poverty and has shrunk government resources available for spending on achieving the United Nations Sustainable Development Goals (SDGs). This Staff Discussion Note assesses the current state of play on funding SDGs in five key development areas: education, health, roads, electricity, and water and sanitation, using a newly developed dynamic macroeconomic framework. This framework permits the analysis of development strategies and their financing while imposing macroeconomic consistency. It is applied to four case studies to gauge the financial resources needed to achieve the SDG targets in these areas and offers policy options to meet these needs. Based on our case studies, which may not be fully representative, we estimate that on average the public and private sectors will together have to spend some 14 percent of GDP additionally every year between now and 2030 to meet the SDGs in the five sectors, some 2½ percentage points—or 21 percent more—than before the pandemic.

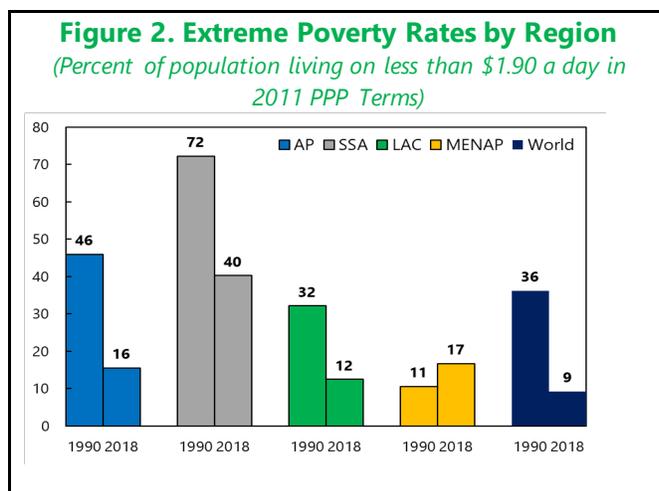
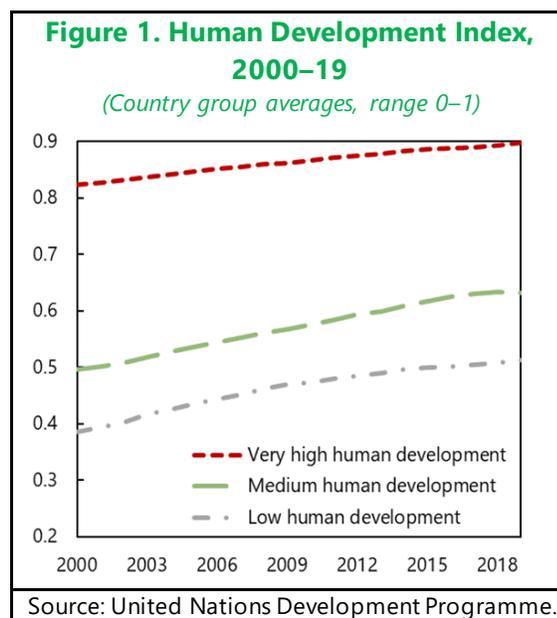
Meeting the SDGs will require extraordinary efforts from all stakeholders. Without such efforts, the SDGs will remain out of reach by 2030. Country authorities will need to pursue a very ambitious reform agenda to raise long-term growth, mobilize domestic revenue, and improve the management of public sector assets. The private sector needs to play a larger role in development, including through investments in SDG-related projects. Governments can facilitate this by ensuring macroeconomic stability and improving governance and the business climate. Reforms to enhance spending efficiency are critical in an environment of scarce resources. In particular, there is significant scope to increase the impact of investment on growth by enhancing public investment management. We estimate that such domestic reforms can generate enough resources to fill up to half of our case study countries' SDG spending needs. But even with such comprehensive domestic reforms, the SDGs will be significantly delayed—by a decade or more according to our estimates—without further action. Achieving the SDGs by 2030 would require an extraordinary effort from the international community as well. For instance, increasing official aid to the United Nations target of 0.7 percent of gross national income would largely cover the financing gap.

These efforts should continue beyond 2030. The framework also highlights the long-term benefits of incremental but sustained reforms. In particular, policies that invest in people improve living standards substantially and reduce inequality. The analysis in this note makes it clear that developing economies will not be able to achieve alone the developmental goals set in 2015. Solidarity is beneficial to all. More than half of world population growth between now and 2050 will come from sub-Saharan Africa, making it potentially the fastest-growing market in the world. A global effort to support low-income developing countries' success is in everyone's interest.

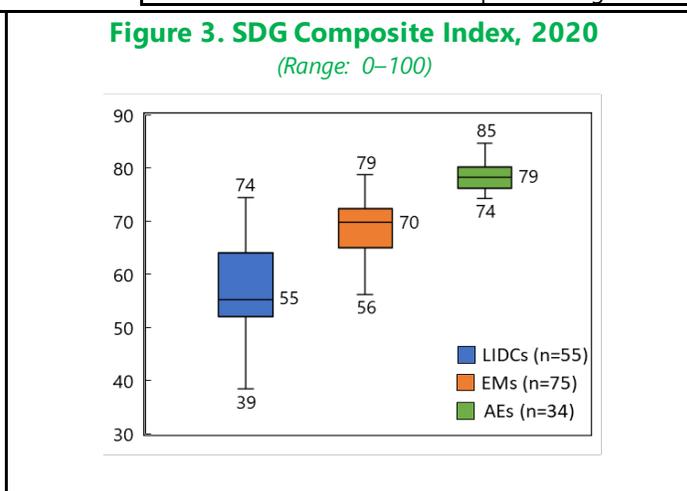
I. INTRODUCTION

1. **The Sustainable Development Goals (SDGs) represent important benchmarks for human development.** They encompass broad areas both of human capital, such as better health and educational outcomes, and of physical capital, such as better water and sanitation and roads and electricity provision—all with an emphasis on sustainability and inclusiveness. The SDGs were set following the broadly successful experience with the Millennium Development Goals (MDGs) agenda, which concluded in 2015.

2. **While advances have been made under the SDG and MDG development agendas, further progress remains paramount.** Between 2000 and 2018, human development improved across the globe, and countries with low and medium levels of human development were gradually but steadily catching up with their best-scoring peers (Figure 1). Nevertheless, progress has been uneven, with poverty remaining widespread (Figure 2), and lagging progress on SDGs in many low-income developing countries (LIDCs) (Figure 3). Even following pre-COVID-19 pandemic trends, the world was not on track to meet the SDGs by 2030, as it set out to do in 2015 (United Nations 2020; Gaspar and others 2019).

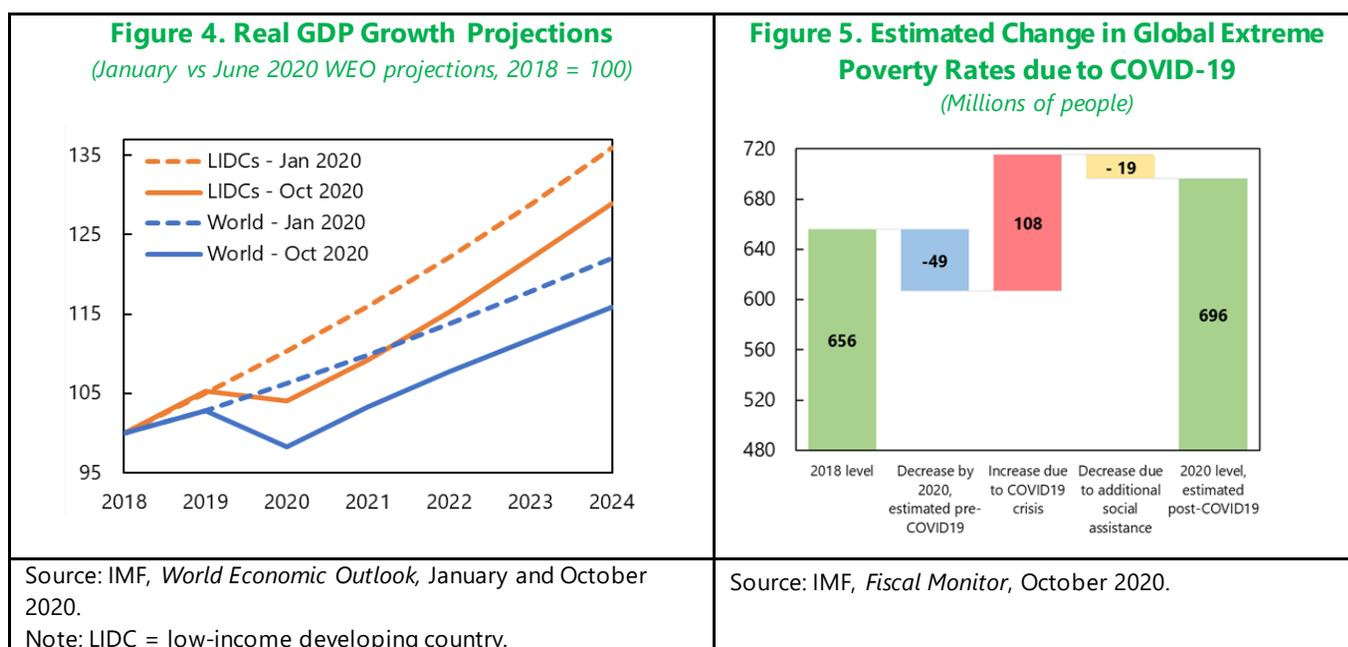


Source: World Bank PovcalNet.
Note: Low-income developing countries only. AP = Asia and Pacific; LAC = Latin America and the Caribbean; MENAP = Middle East, North Africa, and Pakistan; SSA = Sub-Saharan Africa; PPP = purchasing power parity.



Sources: 2020 SDG Index; and Dashboard Reports.
Note: The SDG Index aggregates data on individual SDGs into a composite index. The index is based on pre-COVID-19 data. Plots exclude extreme values for emerging markets (EMs) and advanced economies (AEs). LIDC = low-income developing country.

3. **The COVID-19 pandemic hit this development agenda hard.** The pandemic has plunged the world into a deep recession (Figure 4) and, by mid-April 2021, had infected 140 million people, killing over 3 million. The impact on LIDCs and the world’s poor is especially harsh. Millions of people may be pushed into extreme poverty in the short term and even more over the medium term (Figure 5), much of this effect concentrated in LIDCs in sub-Saharan Africa and South Asia (World Bank 2020a; IMF 2020b). The United Nations warns that in some regions poverty levels could reach as high as those last seen 30 years ago (Sumner, Hoy, and Ortiz-Juarez 2020). The pandemic has put the SDGs firmly out of reach by their 2030 target date in most countries.



4. **A renewed commitment to pro-SDG public policies will be critical to avoid a permanent setback to this development agenda.** The impact of the pandemic on development reemphasizes the importance of reforms to foster sustainable and inclusive growth. Reversing (some of) these setbacks and moving closer to the development goals will entail significant scaling up of spending on human and physical capital. National authorities should continue implementing structural reforms to boost potential growth, increasing public resources through progressive taxation and spending reforms, and improving spending efficiency. They should also reinvigorate strategies to facilitate private investment in the SDGs. But in many countries domestic policies will not be able to raise sufficient funding to meet the SDGs by 2030.

5. **This note presents a framework for assessing the financing strategies for development.** The analysis is based on a novel long-term macroeconomic framework that can assess whether and how the SDGs can be achieved under various policy scenarios and financing

options, including domestic revenue mobilization, private sector funding, and support from the international community. In particular, the framework gauges whether and how the SDGs can realistically be achieved by 2030 and, if not, by when. More generally, the framework allows policymakers to assess the macroeconomic coherence of their development strategies. The note illustrates the framework through four country case studies. Section II lays out the framework, Section III assesses the setback from the pandemic, and Section IV discusses policy options for reinvigorating the SDG agenda. To conclude, Section V uses country case studies to illustrate the potential impact of comprehensive development policies.

II. A FRAMEWORK FOR ASSESSING DEVELOPMENT STRATEGIES

6. **This note analyzes development financing strategies to achieve the SDGs using a novel long-term macroeconomic framework.** The framework is suitable for the analysis of a variety of long-term economic issues. It allows the simulation of various development paths consistent with domestic policies to increase available public and private funding for development, and with alternative scenarios for donor contributions. Analyzing these different policy packages and options can help policymakers assess whether current or stepped-up policies will suffice to reach the development goals by 2030. And if not, the framework illustrates by how many years the SDGs will be delayed. The focus is on recurrent and investment spending in the five SDG sectors that Gaspar and others (2019) argue are at the core of sustainable and inclusive growth and for which a costing exercise has been carried out: education, health, roads, electricity, and water and sanitation. Although the full financing needs to achieve all 17 SDGs are not covered, these sectors are key for development and represent a large share of government outlays.

7. **More generally, policymakers can use the framework to help build realistic development strategies and assess the long-term impact of shocks.** The framework focuses on the real economy and the fiscal sector, is fully dynamic, and has a long time horizon (2050 in this note).² In addition to helping build coherent development strategies, the framework makes it possible to assess truly long-term effects. For instance, it can illustrate permanent scarring of the economy as a result of the pandemic through the impact on human capital from higher and longer unemployment and lower educational attainment due to school closures, and it illustrate the benefits of modest but sustained reform.

² Given this long-term focus, it abstracts from business-cycle fluctuations and monetary developments. The first five years of the projection are aligned with the projections for individual countries in the IMF's *World Economic Outlook*.

8. **The framework ensures macroeconomic consistency and can be tailored to specific country circumstances.** It imposes standard macroeconomic accounting identities and interlinkages throughout the real, fiscal, and external sectors (IMF 2021a; Bartolini and Hellwig, forthcoming) and models the relationship between investment and growth (Box 1). It is flexible, allowing users to set key model parameters to analyze different country settings (Bartolini and Perrelli, forthcoming). The framework is also user-friendly, automatically building on countries' macroeconomic projections (set out in the IMF's *World Economic Outlook*), population projections (following the United Nations medium-fertility scenario, UN 2019), and other key country-specific data.

Box 1. Key Relationships in the Long-Term Macroeconomic Framework

The macroeconomic framework models the interaction between the fiscal and private sectors that finance spending on human capital and infrastructure and the productive capacity of the economy. It centers on the long-term relationship between investment and growth, following the Debt, Investment, and Growth (DIG) model and its extension to include human capital (Atolia and others 2019). Investment in education, health, roads, water, and power translates into better-educated and healthier populations and better and more infrastructure—all boosting economic growth (IMF 2014). The framework is fully dynamic, showing how investment boosts growth over time.

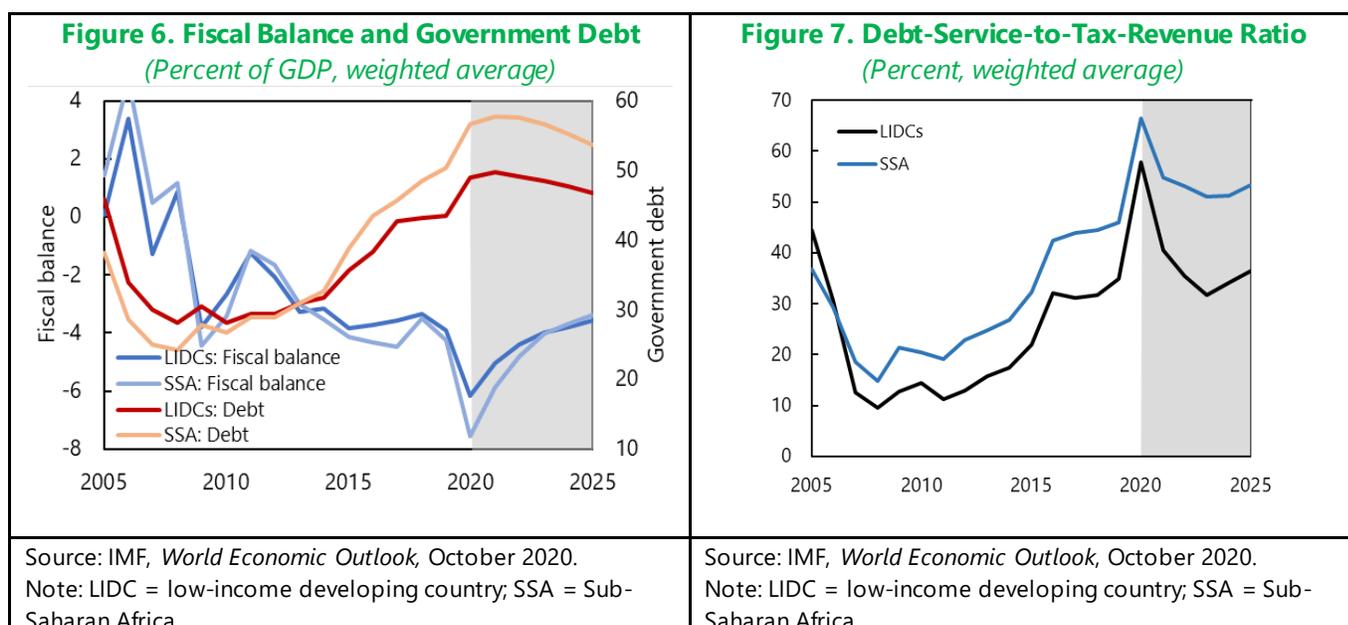
Spending in the areas mentioned above builds human capital, private capital, and two forms of public capital: publicly financed and privately financed. The latter is a novel feature of the model. It includes public infrastructure projects that are suitable for private investment, often labeled “bankable” public projects. The distinction between public and private capital lies mainly in the types of projects they encompass. For instance, rural roads normally require public investment (that is, they are “nonbankable”), while highways and water treatment plants can be thought of as public investment, possibly open to private financing (that is, bankable), and factories and farm equipment can (largely) be regarded as private sector investment. Human, public, and private capital are complementary. Hence investment in one type of capital raises the return on investment in other types of capital.

The framework is applied to the financing of SDGs. Taking the assessment of SDG needs in human and physical infrastructure as given (from Gaspar and others 2019 or more recent costing assessments), the model allows its user to construct different financing scenarios. For each scenario, it shows whether the SDG targets can be met or, if not, how large the remaining financing gap is on average between the current and the target years. The baseline sets the SDG target year at 2030 and follows the IMF's 2020–25 *World Economic Outlook* projections, keeping growth at its long-term potential thereafter as no additional SDG spending occurs in this scenario. Alternative macroeconomic and financing scenarios are user-defined, providing the flexibility to analyze different policies in a tractable manner while ensuring internal consistency. Details of the model are described in IMF (2021a).

III. THE SETBACK FROM THE PANDEMIC

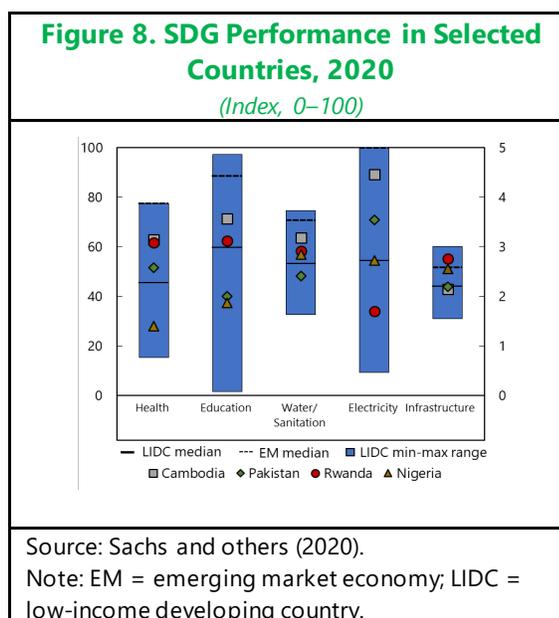
9. **The global coronavirus pandemic and the ensuing economic crisis are having a severe adverse effect on LIDCs and emerging market economies alike.** Government support has saved

lives and livelihoods, but governments have a hard time paying for it. Just as their spending increased, revenues collapsed. Even though most LIDCs received rapid support, including from the IMF (IMF 2020a) and the World Bank, the needs far outstripped support. Meanwhile, capital flows have proved to be precarious, with emerging market economies experiencing the largest capital outflow ever recorded in early 2020 as investors looked to safeguard their assets amid widespread uncertainty, followed by a sharp recovery later in the year on the back of improved sentiment (IIF 2021). The impact of the crisis on government deficits, debt, and debt service capacity is massive (Figures 6 and 7). The situation would have been significantly worse without the rapid emergency financing from international financial institutions and the G20 Debt Service Suspension Initiative.



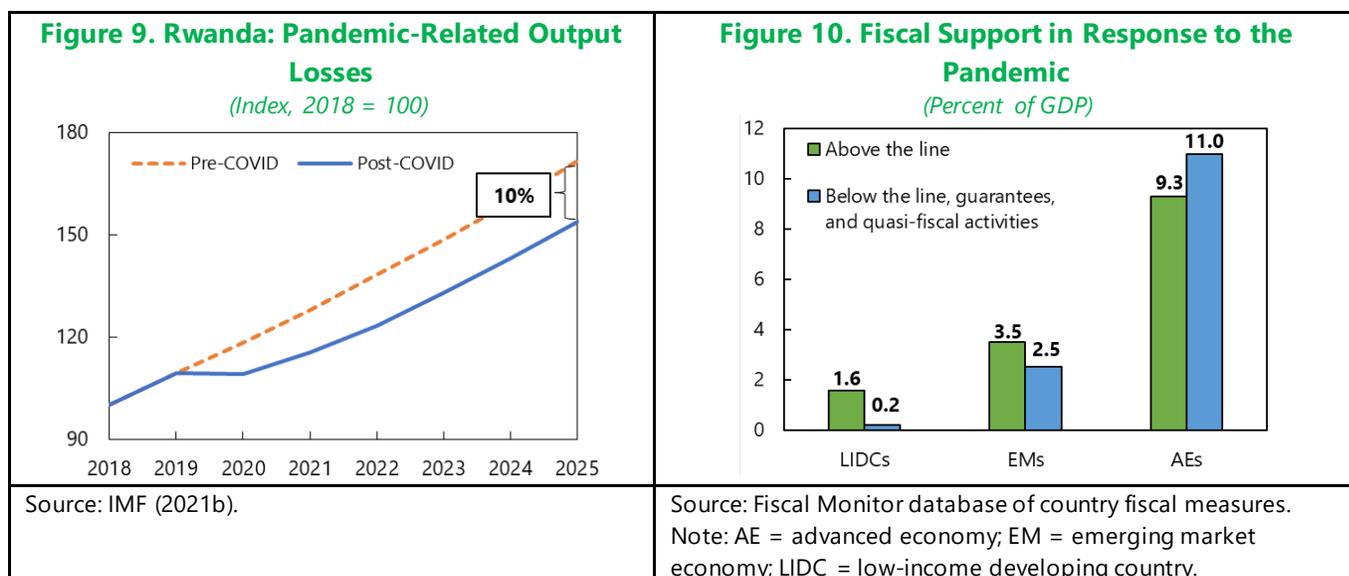
10. **We illustrate this impact through four case studies that can each be seen as representing a group of countries with specific characteristics.**

- Our first case study looks at a fast-growing sub-Saharan country with a sizable public sector. Starting from a low base, *Rwanda* has made swift progress on social and economic development over the past two decades (Figure 8). Along with rapid economic growth, poverty levels fell quickly, declining from 60 to 38 percent between 2000 and 2019, while the country’s human development score doubled to 0.52 between 1990 and 2019 (IMF 2021a).

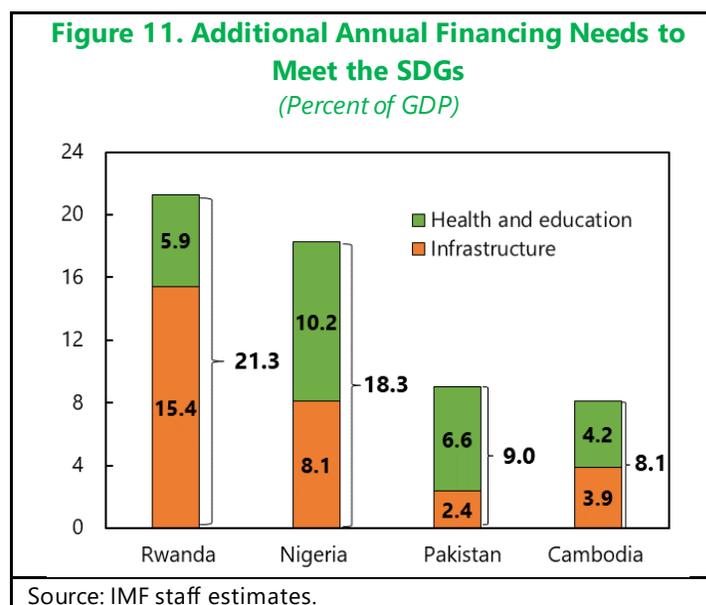


- Second, we look at an East Asian economy that has also grown fast. Over the past two decades this growth has enabled *Cambodia* to make remarkable progress on development. At the end of 2018, the country had practically eradicated extreme poverty: three-quarters of the population had some access to electricity and decent roads, and more than half had access to clean water. Over the past decade spending on health and education doubled and tripled, respectively, putting Cambodia among the top 10 most improved countries on the United Nations Human Development Index (Zdzienicka 2020; IMF 2021a).
- Third, we explore a natural resource economy with a small public sector. As the most populous country in Africa, *Nigeria* is key to global achievement of the SDGs. In the period up to 2015, the country made good progress on development amid rapid population growth, reducing extreme poverty by some 20 percentage points while improving health indicators and lowering the HIV/AIDS infection rate. However, much remains to be done, with healthy life expectancy at birth an abysmal 49 years and only 4 percent of the population connected to a safe water supply. Even before the COVID-19 crisis struck, growth had decelerated and was projected to remain lackluster, making it that much harder to achieve development goals (IMF 2021a).
- Our last case study is of an emerging market economy that still has serious development gaps. While *Pakistan* has made some progress on development amid volatile economic performance and fast population growth, its performance in critical SDG sectors lags that of its emerging market peers. In the areas of education, water, and sanitation it is below the LIDC average (Brollo, Hanedar, and Walker, forthcoming; IMF 2021a). Still, poverty (according to the national poverty line) fell by 40 percentage points, to 24 percent, between 2000 and 2015.

11. **The COVID-19 crisis has severely affected all four economies.** The Rwandan economy is projected to contract in 2020, compared with growth of more than 9 percent in 2019. The country's government deficit will rise to almost 10 percent of GDP, mainly because of tax revenue losses and increased spending on social protection and economic support. Even under the baseline scenario, in which the country returns to its previous growth path in five years, a long-term permanent output loss of some 10 percent is forecast (Figure 9). Similarly, the COVID-19 crisis caused recessions in Nigeria, Pakistan, and Cambodia. LIDCs and emerging market economies have been able to provide only a fraction of the support in advanced economies in the form of mitigating measures, in part because of limited fiscal space (Figure 10). Hence even though all four countries experienced large declines in tax (and in the case of Nigeria oil) revenue, 2020 deficits are expected to have increased by a relatively modest 1¾ percentage points of GDP on average compared with pre-pandemic projections.



12. **The pandemic has set back development** (Box 2). We estimate that, after the pandemic, even under assumptions of a relatively quick economic recovery—during which the four countries return to their precrisis growth path in five years—average additional (public and private) spending of just over 14 percent of GDP is needed every year between now and 2030 to achieve the selected SDGs.³ These estimates range from 8 and 9 percent of GDP in Cambodia and Pakistan, respectively, where the main spending shortfalls are in health and education, to 21¼ percent of GDP in Rwanda, which mainly needs to build its physical infrastructure (Figure 11). In case the recovery takes longer due to economic scarring, even more resources will be needed (Box 2). Without these additional resources, these four countries will meet their SDG goals much later than the target year of 2030.⁴



³ The additional spending need is on top of current spending on these SDG sectors, akin to what is described in Gaspar and others (2019). The 14 percent here differs from the 15 percent estimate in Gaspar and others (2019) because of the following factors: (1) our framework takes into account the impact of investment on growth; (2) the small sample of just four countries assessed here compared with the 49 LIDCs in Gaspar and others (2019); and (3) economic developments between the 2016 and 2020 base years in the different analyses. All numbers are expressed in terms of countries' domestic GDP.

⁴ Note that these estimates are preliminary: they are based on available macroeconomic indicators, which do not include current data on the SDG targets themselves.

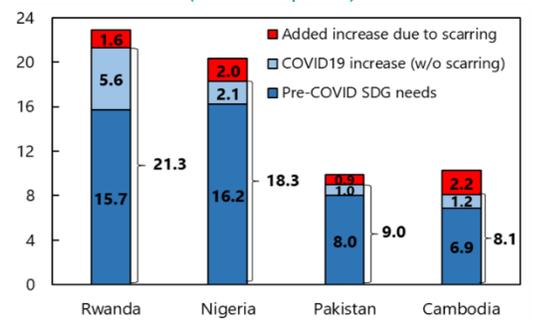
Box 2. Development Setbacks from the Pandemic and Long-Term Scarring

The pandemic increased the financing needs to reach the SDGs by 2½ percentage points of GDP on average in our four case study countries, assuming no long-term damage to their growth potential. Even before the pandemic the countries would have needed substantial additional resources to meet their SDGs by 2030, ranging from 7 percent of GDP a year in Cambodia to some 16 percent of GDP in Nigeria and Rwanda. A comparison with the currently estimated needs (paragraph 12; Figure 2.1) suggests that the pandemic resulted in an additional annual financing need of 2½ percent of GDP, or \$59 billion a year, when extrapolated to all LIDCs. These additional financing needs arise directly from the recession through lower tax revenue and more resources devoted to fiscal consolidation (as in the case of Rwanda). This implies that

even if the countries had been able to mobilize the necessary resources to achieve the SDGs by 2030 before the pandemic struck, in the wake of the pandemic these amounts will no longer suffice. Without additional resources to offset the costs of the pandemic (on top of the substantial additional pre-COVID funding needs), achievement of the SDGs will be delayed by one year for Cambodia and four to six years for Rwanda, Pakistan, and Nigeria. There could be an even greater delay if the pandemic persists longer than expected (IMF 2021a).

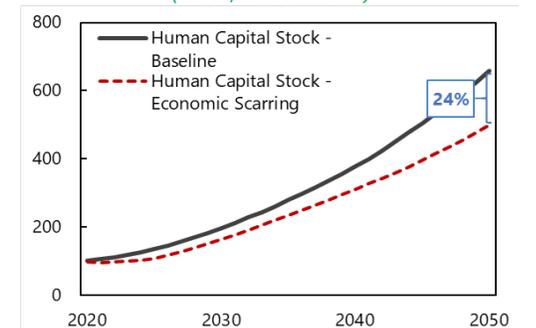
Long-lasting damage to an economy’s human capital and hence growth potential (that is, economic scarring) would increase these financing needs by an additional 1.7 percentage points. Lockdown measures have ground economies to a halt, closing firms and sharply increasing unemployment. They have prevented children from attending school, while remote learning has remained out of reach for at least 500 million children, the vast majority in developing economies. And it may prove more difficult for recent school graduates to enter the labor market (Von Wachter 2020; Wolf 2020). We simulate these effects by increasing the depreciation of human capital (loss of skills due to unemployment), decreasing the elasticity of new human capital to education spending (lower benefits of schooling), and decreasing the diffusion of the human capital into the economy (difficulties entering the labor market). We calibrate the growth impact to a downside scenario in which long-term growth returns to only three-quarters of its pre-pandemic potential. In these circumstances, our case study countries on average would need 1.7 percent of GDP in additional resources every year—over and above the 14 percent estimated under the assumption of no scarring (paragraph 12)—in order to maintain a credible path toward achieving their SDGs by 2030 (Figure 2.1). The scarring effect is even more pronounced over the long term, when the full impact on human capital accumulation can be assessed (illustrated for Cambodia in Figure 2.2)

Figure 2.1. Additional Annual Financing Needs to Meet the SDGs
(Percent of GDP)



Source: IMF staff estimates.

Figure 2.2. Cambodia: Human Capital
(Index, 2019 = 100)

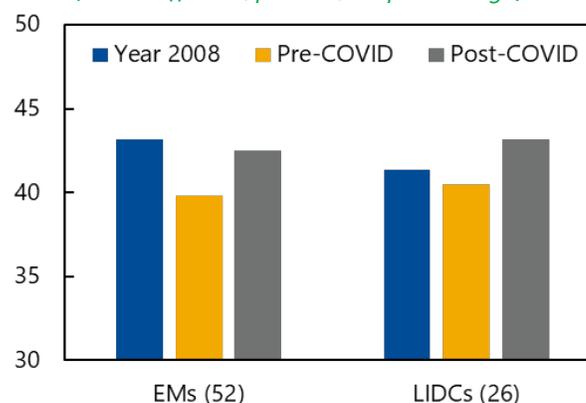


Source: IMF staff calculations.

13. **The crisis has also exacerbated inequality.** The IMF estimates that the average Gini coefficient, a measure of inequality, could increase by 2.6 percentage points for emerging market and developing economies following the pandemic, wiping out equity improvements since 2008 (Figure 12; IMF 2020c). As lockdowns hit particularly the service and education sectors, they affected women and younger cohorts disproportionately. The World Bank estimates that globally more than 90 percent of all students had their education disrupted to some extent last year, with about 40 percent losing the majority of the school year. This is costly, given that an additional year of schooling is associated with a 10 percent increase in wages (World Bank 2021).

Figure 12. Estimated Change in Inequality due to COVID-19

(Gini coefficient, percent, simple average)



Source: IMF, *World Economic Outlook*, October 2020.

Note: The number of countries is shown in parentheses. EM = emerging market economy; LIDC = low-income developing economy.

IV. IMPROVING THE ODDS

14. **Government policies have a crucial role in advancing development.** Structural reforms can boost growth and thus generate more resources. There is room for additional domestic revenue mobilization once the crisis has subsided (see for example de Mooij and others 2020) and for improvements in efficiency and governance to ensure that scarce resources are well spent. The public sector should also enable and catalyze private investment by strengthening institutions and improving the business climate. Still, even in the medium term, for many countries the SDG needs exceed potential domestic public and private resources, pointing to the vital role the international community can play in advancing development.

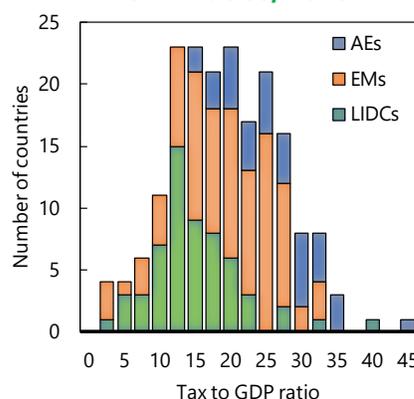
A. Public policies and structural reforms

15. **Higher inclusive economic growth can accelerate the development path.** Governments should focus on structural reforms, including efforts to enhance macroeconomic stability, institutional quality, transparency, and governance, which are associated with stronger medium-term economic growth. Financial system reform and financial inclusion can likewise boost inclusive growth by strengthening the allocation of capital in the economy. Promoting digitalization, green technologies, and trade could further improve economic prospects while enhancing resilience. Stronger growth in turn generates more resources that can be spent on financing the SDGs.

16. **Many LIDCs and emerging market economies have relatively low tax revenues.** In

general, the public sector is smaller in LIDCs, somewhat larger in emerging market economies, and largest in advanced economies (Figure 13). But with appropriate policy changes government resources can be increased over time. Updated estimates for a panel of 116 countries show a tax capacity—the predicted maximum taxation in an economy given its macroeconomic, demographic, and institutional features—of about 23 and 28 percent of GDP, respectively, for the average LIDC and emerging market economy (IMF 2021a). As LIDCs in the sample currently collect only about 17½ percent of GDP and emerging market economies collect about 20½ percent of GDP, on average, in tax and social security contributions, there is considerable potential for a gradual increase in domestic revenue. Even closing part of the gap can substantially increase available resources.

Figure 13. Distribution-of-Tax-to-GDP Ratios, 2019



Sources: IMF World Revenue Longitudinal Database and IMF, *World Economic Outlook*
 Note: The figure comprises 37 advanced economies (AEs), 94 emerging market economies (EMs), and 59 low-income developing countries (LIDCs).

17. **Increasing the tax-to-GDP ratio by about 3–7 percentage points over the medium term through comprehensive policy and administration reform is an ambitious but achievable aspiration for many countries.**

Looking at successful tax reform episodes, Akitoby and others (2019) and Akitoby, Honda, and Primus (2020) found that several LIDCs were able to increase their tax collection significantly over a medium-term horizon. Among our case study countries, the Pakistani authorities have started to implement tax policy and revenue administration reforms that could help raise the tax revenue ratio by more than 3 percentage points of GDP over four years, while Rwanda is crafting a medium-term revenue strategy (MTRS) to raise revenue after the pandemic subsidies.⁵ Such reform episodes center on improving tax policies by eliminating tax incentives and exemptions that undermine the efficiency, equity, neutrality, and simplicity of the tax system. They also encompass enhancements to revenue administration to increase taxpayer compliance, raising efficiency and increasing revenues from hard-to-tax sectors, thus reducing informality and the shadow economy (for details, see, for example, OECD 2020). In the international context, countries should focus attention on eliminating opportunities for base erosion and profit shifting as well as possibly introducing carbon taxation to curb global warming.

18. **The impact of such a comprehensive tax reform strategy is substantial and long-lasting.** Nigeria features structurally low government revenue. An ambitious tax reform to raise non-

⁵ The MTRS concept was introduced in [PCT \(2016\)](#), a report to the G20 by the [Platform for Collaboration on Tax](#), which comprises the IMF, Organisation for Economic Co-operation and Development, United Nations, and World Bank.

oil revenue by 6 percentage points of GDP over the medium term could help the country generate almost a quarter of the resources needed to achieve its SDGs. In Rwanda and Cambodia, increasing tax revenue gradually by 7 and 3 percentage points of GDP, respectively, and spending the proceeds on development would allow these countries to achieve their SDGs by the mid-2040s and mid-2030s, respectively.^{6,7} To be successful, tax reforms require a holistic perspective, as outlined in the MTRS approach, not least to convince stakeholders that the reform is in the interest of all.

19. **Still, raising domestic revenue will have to await a solid recovery.** Even as tax revenue has decreased significantly due to the pandemic (Figure 14), in the short term and to the extent their fiscal position allows it, governments will need to focus on supporting the economy by running deficits, thus partially making up for the lack of private demand. Only once a country's economy is on track for a solid post-pandemic recovery should the authorities aim to increase domestic revenues. At the same time progressive taxes need to be enforced to ensure that those who can pay during the pandemic contribute.

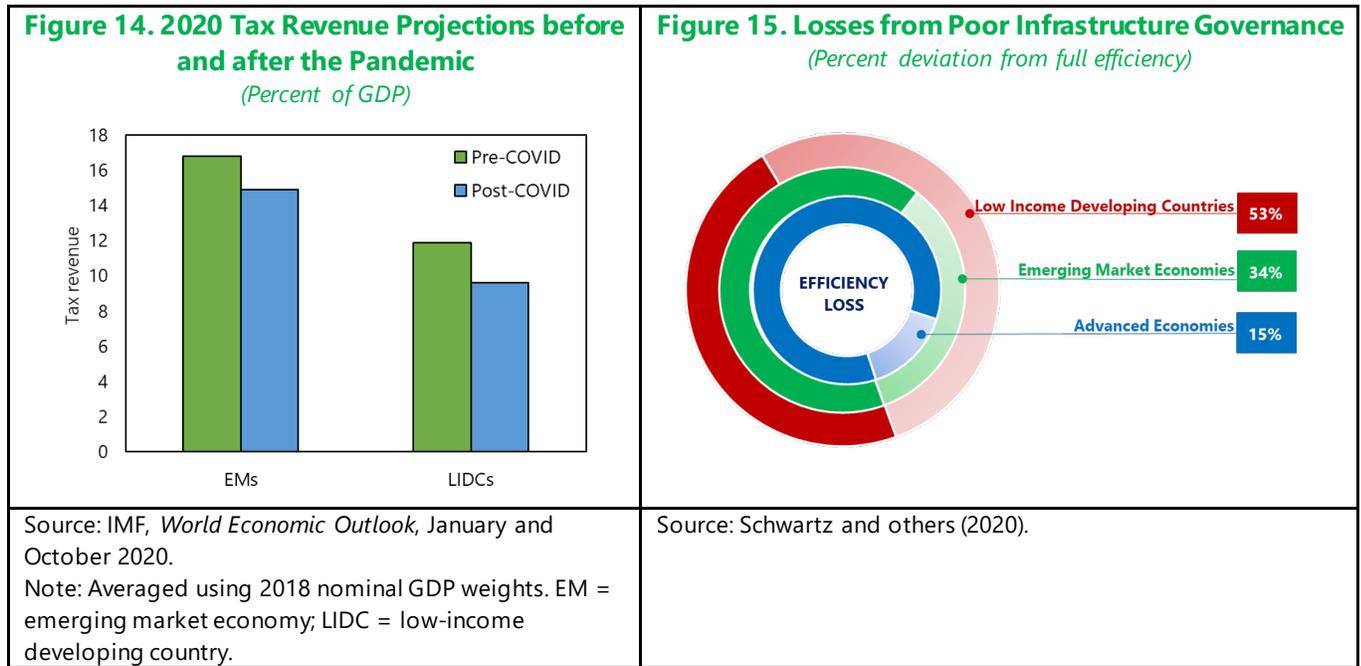
20. **Besides taxes, governments can also increase revenues from other sources by stronger management of government assets.** Good management of existing public assets aims to make sure that maximum value is derived from their use and that they are maintained optimally over their lifetime. Governments should expect to earn a return on their financial and nonfinancial assets that can help meet their spending needs. The revenue potential is sizable. The 2018 *Fiscal Monitor* (IMF 2018c) highlights a potential average revenue gain from improved management as high as 3 percent of GDP a year. In LIDCs a large share of these potential gains is likely to come from improvements in the management of state-owned enterprises, which are prevalent in many LIDCs. But, like other revenue-raising reforms, implementing better asset management takes considerable time and is thus no short-term panacea.

21. **Increased efficiency of public spending can also help to meet the SDGs.** Analysis suggests that the average LIDC loses about 53 percent of the returns on its investment to inefficient public investment management (Figure 15; IMF 2015a, 2018a). For instance, in Nigeria and Pakistan the efficiency of physical infrastructure investment is relatively low, whereas Cambodia and Rwanda perform in line with their peers. Better public investment management and infrastructure governance—that is, strengthening public sector institutions' capacity to plan, allocate, and

⁶ The scenarios for Rwanda and Pakistan are informed by recent capacity development. The scenario for Cambodia is in line with MTRS experiences in peers. For Nigeria the MTRS scenario is benchmarked on successful reform episodes discussed in Akitoby and others (2019) and Akitoby, Honda, and Primus (2020) and estimates of tax capacity in Fenochietto and Pessino (2013), updated in IMF (2018b) and IMF (2021a). For further details, see IMF (2021a).

⁷ These dates are derived using our framework, adding the MTRS proceeds discussed in the text to the (post-COVID-19) baseline (see IMF 2021a for details).

implement public investment in infrastructure to ensure that every available dollar boosts economic development—can help countries close up to two-thirds of their efficiency gap (Baum, Mogues, and Verdier 2020). And countries can use the efficiency savings to finance shortfalls in SDG financing elsewhere (Box 3).



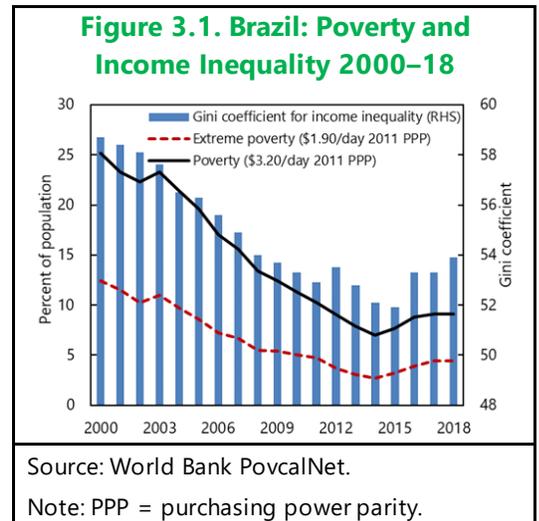
Box 3. Doing More with Less: Efficiency Savings in Brazil

Brazil has achieved remarkable social and economic progress over the past two decades, but poverty and income inequality remain high by regional standards (Figure 3.1). A recent analysis by Flamini and Soto (2019) estimating Brazil’s spending needs to meet its SDGs found that it faces a large infrastructure gap, in particular for roads, with a more modest shortfall for water and sanitation and electrification targets. Achieving its SDGs in these infrastructure areas will require about 3½ percent of GDP a year in additional investment between now and 2030.¹

The same analysis found that the country also falls short on its education and health targets. But in these sectors, there is substantial scope for improving outcomes while containing expenditure.

Regarding education, demographic developments imply a large

decline in the school-age population, pointing toward lower overall education costs. While some of these savings should be spent on increasing enrollment rates and staffing to improve educational outcomes, estimates suggest there would be room to reallocate up to 1½ percent of GDP a year over the long term.



Box 3. Doing More with Less: Efficiency Savings in Brazil (cont.)

Similarly, the analysis suggests there is room to improve health outcomes while realizing efficiency savings. Even after allowing for an increase in the number of doctors to improve health outcomes in line with high-performing peer countries, potential cost reductions of up to 2½ percent of GDP in the medium term may be possible.

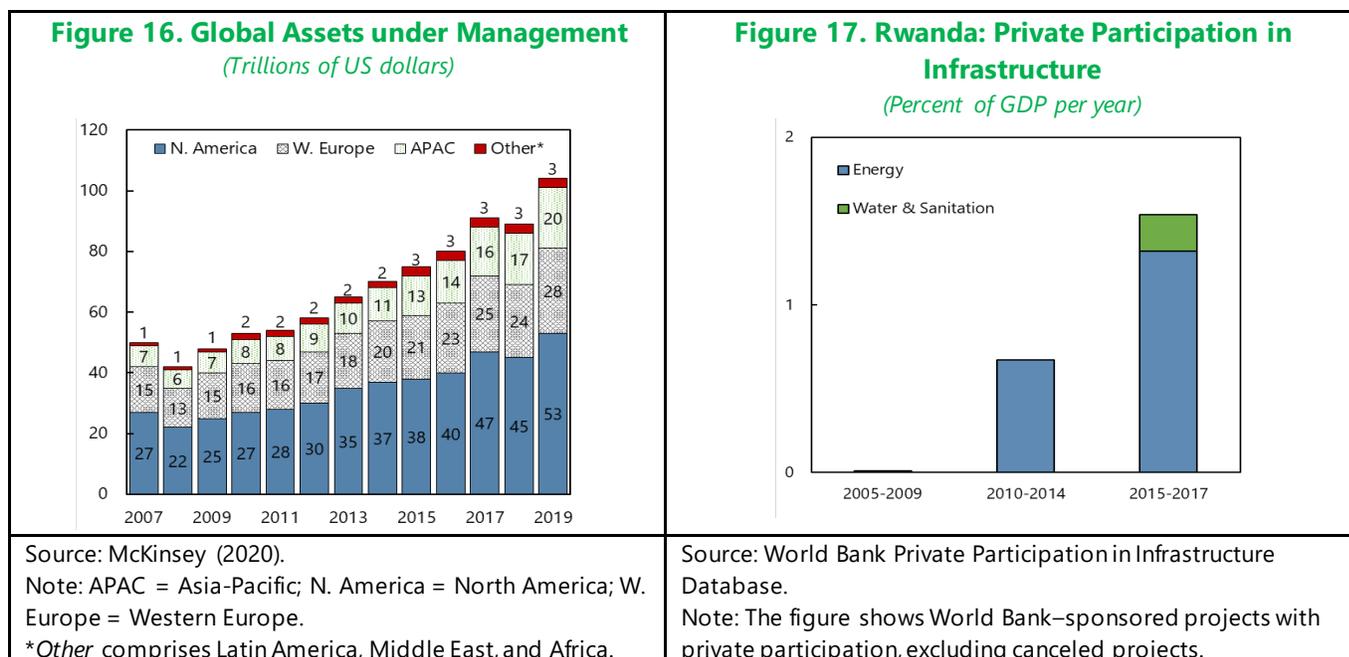
Brazil would thus be able to improve both human and physical capital by pursuing efficiency gains in its health and education sectors. The country can do more with less by increasing the efficiency of public spending, but this will require substantial reforms.

¹ This assessment was done in 2019, before the pandemic struck.

B. Private sector policies

22. **Private investment can make a significant contribution to economic growth and development.** In developing economies, the private sector generates 90 percent of jobs and 60 percent of all investment and provides 80 percent of government revenues (IMF 2020c; IFC 2013). Private investment boosts development by increasing labor productivity and wage growth, leading to an inverse relationship between investment and poverty (IMF 2018b). It can also serve to enlarge the resource envelope, bring efficiency gains, and enhance risk sharing between the public and private sectors. Many LIDC governments therefore look to boost private finance to bridge the financing gap required to achieve the SDGs. Examples of such private finance include public-private partnerships to build roads and power plants and privately financed and run schools and universities. Given often limited domestic private saving in LIDCs, much of this additional private finance would come from abroad.

23. **The potential for (external) private finance remains largely unrealized, but some positive examples have emerged over the past few years.** Globally, institutional investors manage more than \$100 trillion in assets (Figure 16). For the pension funds and insurance companies among them financing infrastructure projects may be particularly attractive, as they typically have long investment horizons and seek risk diversification. But overall, only a small fraction of institutional investment is concentrated in LIDCs and emerging markets (McKinsey 2020), even though infrastructure investments in these countries on average have strong yields. This suggests that there may be opportunities to scale up private engagement. For example, Rwanda managed to increase World Bank–sponsored infrastructure projects in which the private sector participates from virtually nothing in the early 2000s to about 1½ percent of GDP annually during 2015–17—concentrated in the energy sector (Figure 17).



24. Policies should support a favorable business climate to catalyze higher private finance.

Macroeconomic and sociopolitical conditions are key determinants of credit risk and foreign investment. Weak institutions and high levels of corruption magnify the risk of asset loss and carry high reputational risk for investors. Effectively, this reduces the risk-adjusted returns on private investment. Countries with weak governance and regulatory environments should therefore strengthen their institutional framework to enhance the clarity and transparency of the regulatory and legal frameworks and ensure consistent enforcement of contracts and property rights.

25. For many projects, public sector support may be required to generate an attractive risk-return profile for private investors.

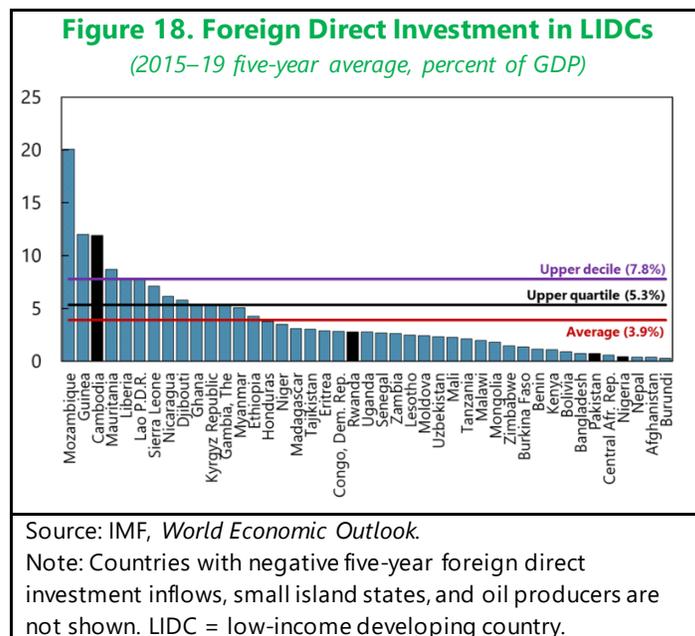
When the risk-return profile on a project is not a priori attractive to a private investor, public sector and concessional resources can be leveraged to improve the risk-return tradeoff (World Bank 2020b; Economist 2016). Such *blended finance* can be tailored to the project; for example, through subsidies, guaranteed minimum returns, or shouldering part of the risk directly. Of course in any project careful consideration should be given to fair and proportional distribution of risk and return among public and private participants.

26. Countries also need a solid pipeline of infrastructure projects available for private sector financing, with transparent and accessible information.

Some SDG priority areas are less suitable for large-scale private investment than others. Sectors that generate revenue from stable usage fees (such as energy, airports, and toll roads) are more attractive to investors due to their more predictable repayment capacity—which is why they are often referred to as “bankable.” In health and education, private delivery of services is typically much smaller in LIDCs and emerging

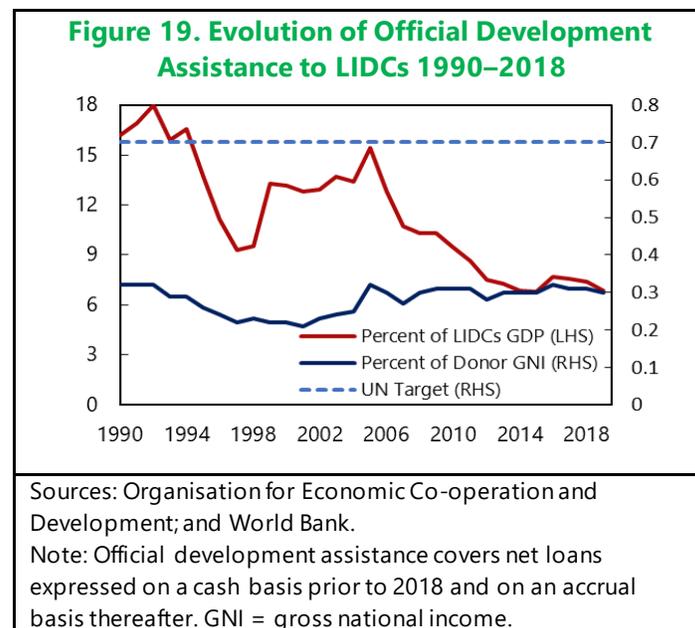
market economies than in advanced economies, which limits the potential to scale up investment (Kenny 2019). Finally, some types of direct investment, such as greenfield infrastructure projects, may not be feasible for many institutional investors as they cannot demonstrate financial viability and are hence deemed too risky.

27. **Increasing private finance for development may be feasible in our case study countries.** Countries that attract little foreign direct investment (FDI)—the main source of additional private finance—could pursue reform to emulate their better-reforming peers (see, for example, Eyraud and others, forthcoming). Consider Pakistan and Nigeria, which saw FDI inflows of just 0.7 and 0.5 percent of GDP a year during 2015–19, respectively—both well below the average of their peers (Figure 18). Similarly, Rwanda, which attracts more FDI and aims to increase it further, could strive to raise FDI to emulate the top quartile of its peers.



C. International support

28. **Most LIDCs will not be able to achieve their SDGs by 2030 without international support.** Even if the public sector implements the right policies and the private sector responds positively, a gap would remain. The international community could help fill this gap. Donor country support has been fairly constant as a percentage of their gross national income, at a level representing about half the recommended UN target (Figure 19). Because low-income countries’ economies have grown faster than those of donor countries, especially since the early 2000s, this support translates to a declining share of LIDCs’ GDP and hence a declining impact on the ground. This trend limits the scope for donor inflows to finance new SDG-related projects.



29. **Multilateral financial institutions also have a role to play.** The IMF and other multilateral institutions should focus their capacity development in LIDCs, particularly in fragile and conflict-affected states, on critical SDG bottlenecks. This includes helping build technical and financial capacity on the ground to manage investment pipelines and in the process increasing the capacity to absorb the necessary large inflows. In addition, development banks could leverage their balance sheets to de-risk investment projects and transform them into tradable assets through securitization, providing a better risk-return profile for investors and, by creating financial instruments that align better with private investor mandates, making investment attractive to a new class of private investors (IPS 2020). Development banks can also help market development more generally as, for example, the International Finance Corporation did by issuing a series of bonds to help build an offshore yield curve in Indian rupees. The IMF should continue catalyzing support for countries hit by shocks, thus helping maintain macroeconomic stability, and incorporating targets and objectives for (public) expenditure on SDG priority areas, while expanding them where possible. Across the IMF membership, increased attention to governance should continue, along with encouragement of regulatory reform to improve the investment climate.

30. **Supporting development with both funding and capacity development is in the self-interest of all.** More than half of world population growth between now and 2050 will come from sub-Saharan Africa, potentially transforming the continent into the most dynamic market in the world. Helping LIDC populations achieve better lives and livelihoods would also decrease migration and the politically difficult issues surrounding it. A global effort to support the success of LIDCs in getting development back on track is thus in the interest of all.

V. A PATH FOR DEVELOPMENT

31. **LIDCs face a daunting challenge in achieving their SDGs.** Drawing on the previous section, we simulate several illustrative scenarios to assess the depth of the challenge. In a baseline scenario without further reform effort, our four case study countries on average need additional resources of just over 14 percent of GDP every year between now and 2030 to meet their development goals (paragraph 12). Without these additional resources we estimate that some countries will not be able to reach their SDGs even by 2050. This dire reality makes it all the more important to pursue economic recovery policies that are carefully designed to support higher and more inclusive growth and generate more resources for development.

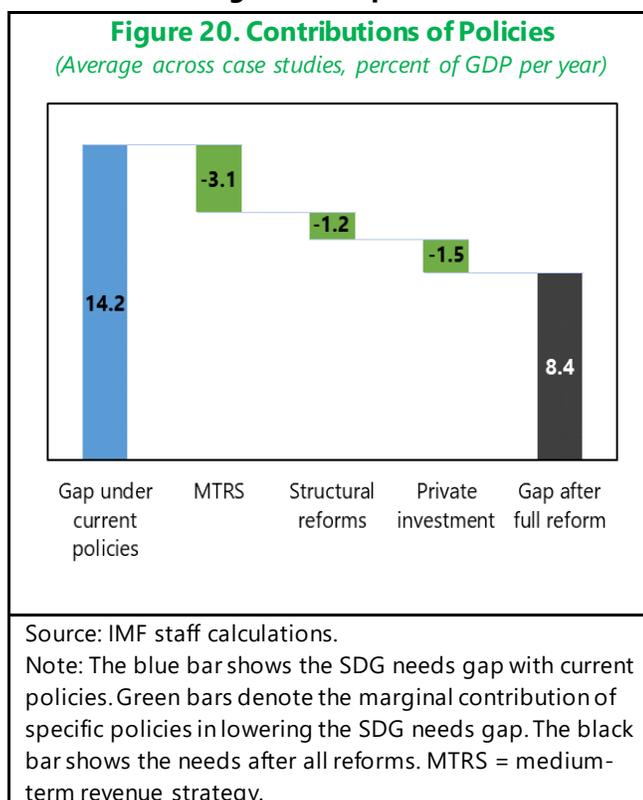
32. **Countries should face this challenge by improving policies to spur growth and generate more resources for development.** The right mix of policies can substantially speed up the development agenda. To this end, boosting economic growth through structural reforms is

perhaps the most important channel (IMF 2015b). IMF (2019) estimates that in emerging market economies and LIDCs comprehensive reforms could raise output by more than 7 percent over a six-year period on average, accelerating convergence with advanced economies.⁸ Gaspar and others (2019) estimate that doubling projected GDP per capita in 2030 would reduce additional spending needs by some 4½ percentage points. At the same time, countries should pursue the policies discussed above to generate additional public funds for development through domestic revenue mobilization, better management of public assets, more efficient spending, reprioritization of expenditure toward development, and encouragement of more private sector investment in SDG sectors.

33. A full reform scenario along the lines discussed in Section IV can generate up to half

the resources needed for the SDG agenda in the case study countries.

A comprehensive reform scenario should combine reforms to boost growth, revenue mobilization strategies, reforms to attract private investment, and further structural reforms, such as increasing the efficiency of state-owned enterprises and (for natural resource producers) revisiting the natural resource regulatory and taxation regime.⁹ We estimate that such comprehensive reform plans could on average generate about 40 percent of the resources needed to achieve the selected SDGs in our four case study countries and cover half the need in Pakistan and Cambodia (appendix; IMF 2021a). Still, to reach their SDGs by 2030, the countries would need to find additional resources amounting to almost 8½ percent of GDP a year, even with these ambitious reform agendas (Figure 20).



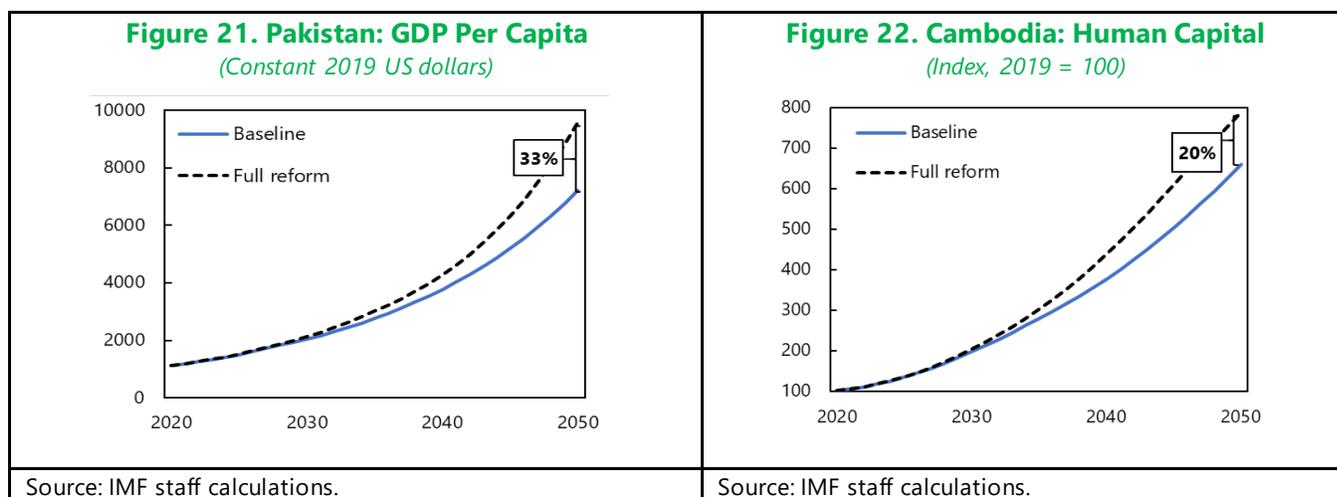
34. Country-specific conditions heavily influence the yield of reforms. Both Rwanda and Nigeria have much higher SDG needs than Pakistan and Cambodia. Hence similar reforms can be expected to pay for a smaller portion of their SDG needs. At the same time, Rwanda and Cambodia

⁸ The importance of comprehensive reform in all areas of public policy is illustrated by IMF (2015c), which finds that when three or more large-scale reform episodes in different areas are implemented (almost) simultaneously, the five-year average growth rate increases by 2 percentage points for emerging market economies and 5.5 percentage points for LIDCs.

⁹ These illustrative reform scenarios are discussed in the appendix, with further details in IMF (2021a)

have a good track record of reform in recent years, while Pakistan and Nigeria have pursued less reform. Therefore, while harder to achieve, the scope for reforms and their potential gains are larger in the latter two countries. For instance, while tax revenue represents 15–18 percent of GDP in Rwanda and Cambodia, Nigeria and Pakistan are projected to have collected only 3 and 11 percent, respectively, of GDP in tax revenue in 2020. Comprehensive reforms of the tax system hence imply greater potential gains in Nigeria and Pakistan.

35. **The benefits of reform are even more significant over the long term.** Looking beyond 2030 illustrates the sizable benefits from sustained reform, showing truly large increases in development indicators that can be achieved through the cumulative buildup of physical and human capital over a prolonged period. Pursuing and maintaining the domestic reforms discussed above would reduce poverty meaningfully as 2050 GDP per capita increases significantly over a no-further-reform baseline scenario (illustrated for Pakistan in Figure 21). Similarly, investment in health and education under such scenarios would provide a large long-term boost to the collective value of knowledge (illustrated for Cambodia in Figure 22).

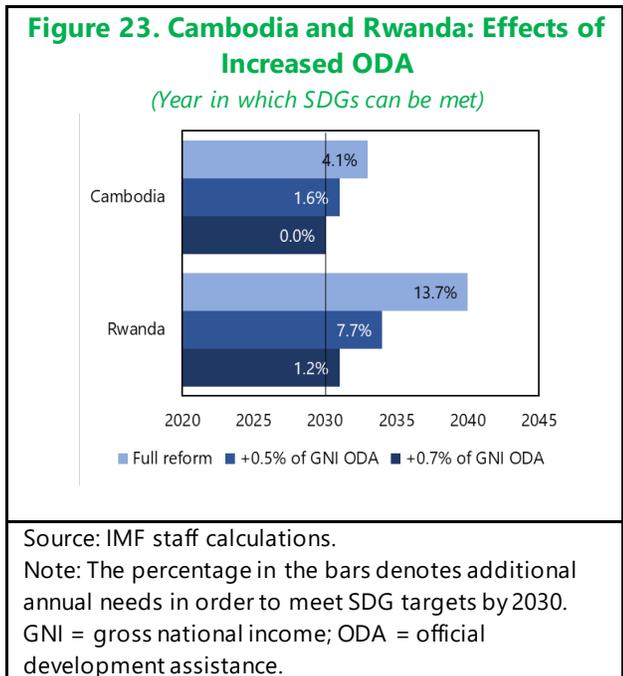


36. **Even if countries undertake ambitious reforms, the SDGs will be significantly delayed without a contribution from the international community.** In our case study countries, the resources generated by the ambitious domestic policy reform above are substantial but far from sufficient for achieving the SDGs. Even though the reforms would not suffice to achieve the SDGs by 2030, they would allow countries to meet their goals eventually. The reforms would enable Cambodia to meet its SDGs by 2033. Considering their larger SDG needs, it would take Rwanda and Nigeria until 2040 and 2043, respectively, while the reform policies—on top of current reform plans under its IMF-supported program—would enable Pakistan to meet its SDG targets by 2045.

37. **Additional donor support is hence critical for the SDG agenda.** Donor countries and their public finances have been hit hard by the pandemic, putting constraints on their fiscal resources. However, gradually building donor support toward the United Nations’ recommended official development assistance (ODA) target of 0.7 percent of gross national income (GNI) over the next decade would release some \$200 billion (in 2020 US dollars) for development. Based on our case studies, that would fill more than two-thirds of LIDCs’ average SDG needs gap after pursuing reform.

The impact on individual countries depends on how this amount is distributed across countries. Combining the domestic reforms outlined above with additional support distributed to LIDCs in accordance with recent aid flows would allow Cambodia and Rwanda to (largely) fill their remaining financing gaps and meet their SDG agendas in the five sectors considered in this note by 2030 and 2031, respectively (Figure 23).¹⁰ In this scenario Nigeria and Pakistan would receive less support, and—while the funds would help both countries—it would still take them at least a decade longer to achieve their SDG goals.

Distributing the support based on countries’ GDP would allow Pakistan to meet its SDG agenda by 2030, while Nigeria—which has much larger initial needs—would be able to meet its SDG goals by the middle of the next decade.¹¹



¹⁰ We assume the difference between the current 0.3 percent of GNI ODA and the target 0.7 percent of GNI to become available gradually over 10 years and to be distributed across LIDCs (plus Pakistan) in line with the share of LIDC ODA each country received between 2014 and 2018.

¹¹ In this scenario we assume the ODA is divided among all LIDCs (plus Pakistan) in accordance with the size of their economies. Nigeria and Pakistan hence receive more of the aid than in the previous scenario, while Rwanda and Cambodia receive less. While Cambodia would still be able to meet its SDG goals by 2030, lower ODA would imply that Rwanda would achieve its goals by 2036.

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APPENDIX: COUNTRY CASE STUDIES

Rwanda

Rwanda has made remarkable progress in social and economic development over the past decades. Since 1995, poverty levels have fallen fast, GDP per capita has more than tripled, and its human development score has doubled. Rwanda has achieved all but one of its Millennium Development Goals (MDGs), and current outcomes are above the median of peers in health, education, water and sanitation, and infrastructure (Figure A1). The country is strongly committed to ensuring ownership of its 2030 Sustainable Development Goals (SDGs) both at the national and local levels and across stakeholders.

Despite Rwanda's remarkable progress, achieving the SDGs will be a daunting challenge. Closing Rwanda's development gaps requires substantial additional resources. Taking the costing estimates in Gaspar and others (2019) and Prady and Sy (2019) as input, we estimate the country's SDG financing gap to have been 15.7 percent of GDP a year at the onset of the pandemic. If the additional resources do not materialize, Rwanda will not be able to meet its SDGs until 2045.

The pandemic has widened Rwanda's SDG financing gap to 21.3 percent of GDP a year. Revenue losses, expenditure increases, and a planned fiscal consolidation needed to keep debt at sustainable levels have constrained Rwanda's ability to invest in the SDGs. As the country returns to its pre-pandemic potential growth rate over the medium term, Rwanda faces a permanent output loss of approximately 10 percent. Reflecting lower nominal GDP and reduced fiscal space, the pandemic is estimated to have increased Rwanda's SDG needs gap by 5½ percentage points of GDP, to 21.3 percent of GDP.

This emphasizes the importance of continuing Rwanda's track record of reform.

- *Revenue mobilization and structural reform:* The authorities are considering a medium-term revenue strategy (MTRS). We estimate that boosting domestic revenue by 7 percentage points of GDP a year between 2023 and 2029 would reduce Rwanda's annual SDG financing gap by some 4.2 percentage points of GDP.
- *Spending rationalization:* Reallocating 1 percentage point of GDP toward SDG projects and boosting spending efficiency would cover another 1.5 percentage points of GDP.
- *Private finance:* Pursuing policies to bring annual foreign direct investment in line with the top quartile of Rwanda's peers could reduce the gap by a further 1.9 percentage points of GDP.
- Taken together, these policies would provide more than a third of Rwanda's SDG financing needs and would enable the country to meet its SDGs by 2040. Moreover, these policies would result in significantly higher per capita income and boost human capital (Figure A4). However, to meet its SDG targets by 2030 Rwanda would still need additional resources of 13.7 percent of GDP each year until 2030.

Table A1. Rwanda: Main Economic Indicators

(Percent of GDP, baseline)

Baseline	2019	2020	2030	2050
Real GDP growth (%)	9.4	-0.2	7.2	6.5
GDP per capita (2019 US dollars)	801	781	1,089	2,893
Total revenues (% of GDP)	23.6	23.1	22.4	23.6
Primary expenditures (% of GDP)	27.5	27.5	23.1	25.4
of which: on SDGs (% of GDP)	12.5	13.5	8.1	10.4
Overall fiscal balance (WEO definition, % of GDP)	-5.2	-5.4	-2.5	-4.0
Public debt (excl gov. guarantees, % of GDP)	49.7	61.0	59.2	58.6

Sources: IMF (2021b) and IMF staff estimates.

Table A2. Rwanda: Scenario Analysis

Scenario	Yield from reforms (percent of GDP)	Annual SDG financing (percent of GDP)	SDGs met by (year)	Per capita income in 2050 (2019 US dollars)
Baseline with SDG needs gap filled	-	21.3	2030	4,451
Full reform	7.6	0	2040	4,601
Full reform with SDG needs gap filled	7.6	13.7	2030	5,436

Source: IMF staff calculations.

Figure A1. Performance across SDG Needs

(Index, 0-100)

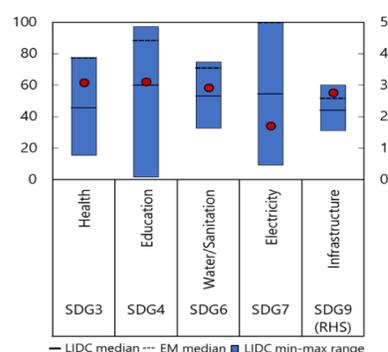


Figure A2. Pandemic-Related Output Losses 2019-25

(Index, 2018 = 100)

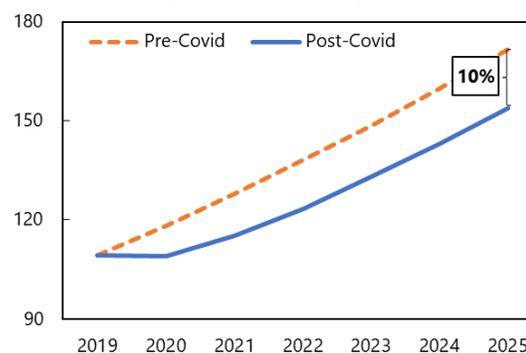


Figure A3. Tax Revenue 2019-30

(Percent of GDP)

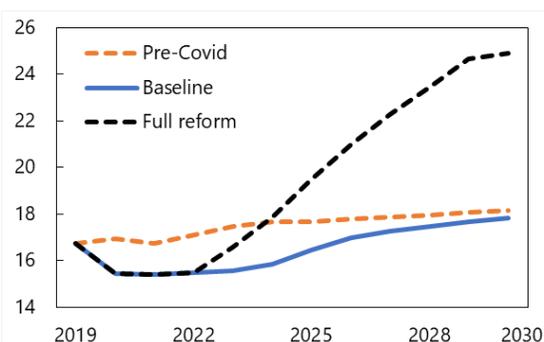
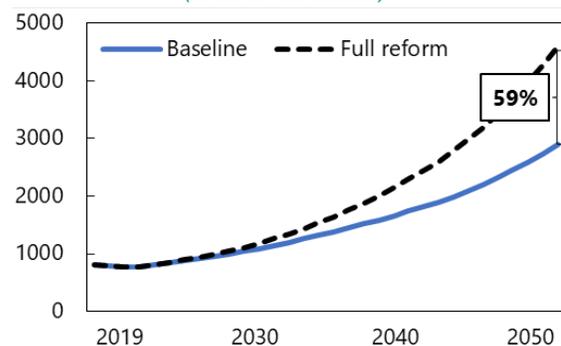


Figure A4. Impact of Reform on Per Capita GDP 2019-50

(In 2019 US dollars)



Source: IMF staff calculations

Nigeria

Nigeria, Africa's most populous country and its largest economy, faces serious development gaps.

Over the past decades, poor governance and a weak institutional structure have hindered the transformation of large crude oil windfalls into high and sustainable growth and development. Public spending on physical and human capital has been inefficient and insufficient to meet the needs of its fast-growing population. Despite progress in social and economic indicators, outcomes are well below its peers in critical SDG sectors (Figure A5). Achieving its SDGs by 2030 would require an unprecedented effort from both the authorities and the international community to generate 18.3 percent of GDP in additional resources each year.

Despite an expected swift economic recovery, the COVID-19 crisis will have a lasting impact. As a result of containment and mitigation measures and the global fallout from the pandemic, real GDP is estimated to have contracted by 4.3 percent in 2020. While the authorities' actions have supported a projected V-shaped recovery, the country faces a permanent output loss of almost 9 percent and a higher level of government debt, shrinking the fiscal space available to finance development (Figure A6).

A comprehensive reform agenda can help Nigeria generate substantial resources for development.

- *Revenue mobilization efforts:* Given the authorities' plan to implement important reforms in this area, we simulate a medium-term revenue strategy that increases tax revenues by 6.3 percent of GDP between 2021 and 2025 (Figure A7). A substantial part of these resources is assumed to be devoted to reducing fiscal risk by gradually eliminating the budget deficit by 2025, leaving only about 2 percent of GDP available for additional SDG spending. Beyond the medium term, further unspecified gradual improvement in tax administration and other fiscal institutions is expected to yield additional revenue of 3 percent of GDP by 2050.
- *Oil sector and exchange rate reform:* The introduction of exchange rate flexibility and the associated short-term depreciation will generate a revenue gain of ½ percentage point of GDP from value-added tax on imports and 1 percentage point from oil exports. Reform of the oil sector framework could encourage investment and reduce leakage from smuggling and could generate about 1 percentage point of GDP in additional revenue.
- *Structural reforms:* Better management of public assets—that is, restructuring state-owned enterprises, thus improving their efficiency—could yield 1 percent of GDP in nontax revenue by 2030. Improving the business environment is crucial to attract private investment in SDGs and stimulate growth. Bringing foreign direct investment in Nigeria in line with the average of its peers would generate an additional 3.4 percent of GDP in investment each year.

With these reforms, Nigeria could generate 35 percent of the resources to meet its SDG needs by 2030, leaving an SDG needs gap of 11.9 percent of GDP. Without additional resources to fill that gap, the above reforms would allow the country to meet its SDG targets by 2043. The reforms would also boost GDP per capita very substantially over the long term (Figure A8).

Table A3. Nigeria: Main Economic Indicators
(Percent of GDP, baseline)

	Baseline	2019	2020	2030	2050
Real GDP growth (%)		2.2	-4.3	3.5	4.5
GDP per capita (2019 US dollars)		2,228	2,157	2,218	3,440
Total revenues (% of GDP)		7.9	5.9	8.5	9.7
Primary expenditures (% of GDP)		10.9	10.7	9.8	10.4
of which: on SDGs (% of GDP)		3.9	2.2	4.3	4.2
Overall fiscal balance (% of GDP)		-4.8	-6.0	-4.4	-3.3
Gross public debt (% of GDP)		29.1	35.0	56.0	46.0

Sources: IMF, *World Economic Outlook*; and IMF staff estimates.

Table A4. Nigeria: Scenario Analysis

Scenario	Yield from reforms (percent of GDP)	Annual SDG financing (percent of GDP)	SDGs met by (year)	Per capita income in 2050 (2019 US dollars)
Baseline with SDG needs gap filled	-	18.3	2030	3,733
Full reform	6.4	0	2043	5,074
Full reform with SDG needs gap filled	6.4	11.9	2030	5,288

Source: IMF staff calculations

Figure A5. Performance across SDG Needs

(Index, 0-100)

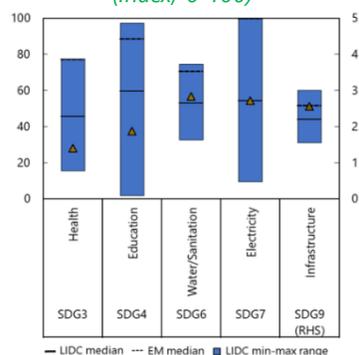


Figure A6. Pandemic-Related Output Losses 2019–25

(Index, 2018 = 100)

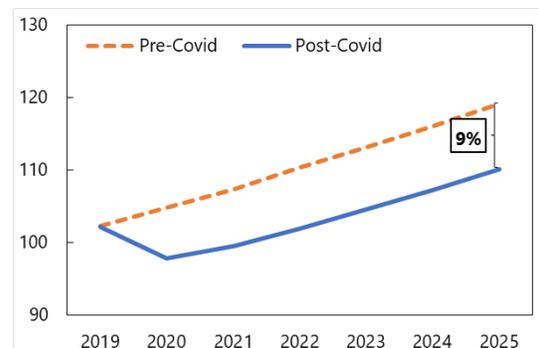


Figure A7. Tax Revenue 2019–30

(Percent of GDP)

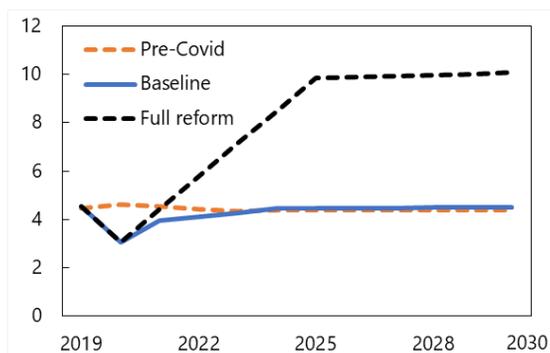
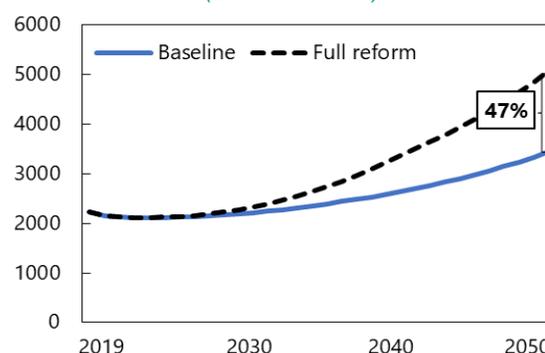


Figure A8. Impact of Reform on Per Capita GDP 2019–50

(2019 US dollars)



Source: IMF staff calculations.

Pakistan

Pakistan achieved mixed economic and social development results over the past two decades.

Short episodes of fast growth were soon followed by downturns, on the back of unbalanced policies and unfinished reforms, together with a challenging geopolitical and security situation. Public spending has been insufficient to meet the needs of a fast-growing young population. Despite a notable reduction in poverty, Pakistan's current performance in critical SDG sectors lags that of its peers. Achieving its SDGs by 2030 would require 9.0 percent of GDP in additional financing each year.

The impact of the COVID-19 crisis is severe, and the recovery is expected to be subdued. As a result of containment and mitigation measures and the global fallout from the pandemic, real GDP is estimated to have contracted by 0.4 percent in fiscal year 2020 (July 1, 2019–June 30, 2020). While the authorities' actions have supported an incipient recovery, economic growth is expected to return to its pre-pandemic rate of 4½–5 percent only in the medium term. As a result, the country faces a permanent loss of almost 6 percent of output, and fiscal space available to finance the SDGs has shrunk (Figures A10 and A11).

Pakistan needs to pursue comprehensive reforms to generate the resources to fund its development ambitions. Given the magnitude of the existing challenges, even wide-ranging reforms will not be sufficient to completely close the gap. Still, the reforms will notably reduce the resource gap and have a positive impact on development. The authorities should focus on the following reforms:

- *Further revenue mobilization efforts:* Following the authorities' commitment to important reforms in this area, our baseline scenario includes an increase in tax revenues of 3 percent of GDP during 2020–23. Still, there is room for additional improvement beyond 2023 by ensuring full harmonization of sales tax across federal and provincial levels, further broadening of the tax base to include the agricultural sector, expanding the services tax base, and strengthening the property tax system. We assume the authorities are able to generate additional tax revenue of 2 percent of GDP during 2024–26.
- *Reforming the energy sector and inefficient state-owned enterprises (SOEs):* A comprehensive reform to address structural weakness in these areas should include the introduction of an energy pricing structure reflective of costs, improved efficiency, enhanced transparency, and a legal framework for governance of SOEs. A triage exercise for all SOEs should determine their viability and may lead to privatization of some enterprises. We estimate that these policies can free up 1¼ percent of GDP in resources for development.
- *Attracting private investment:* Improving the business environment, which suffers from weak governance and institutions and stifling regulation, is crucial to attract private investment to stimulate growth and ensure SDG financing. Foreign investment in Pakistan is low. Bringing it in line with peers' median would result in an additional 3.4 percent of GDP in private investment for development.

These reforms could generate enough resources to finance some 57 percent of Pakistan's SDG needs and significantly boost per capita income (Figure A12). However, even with these reforms, the country would still need to find 3.9 percent of GDP in additional resources in order to meet its SDG targets by 2030.

Table A5. Pakistan: Main Economic Indicators
(Percent of GDP, baseline)

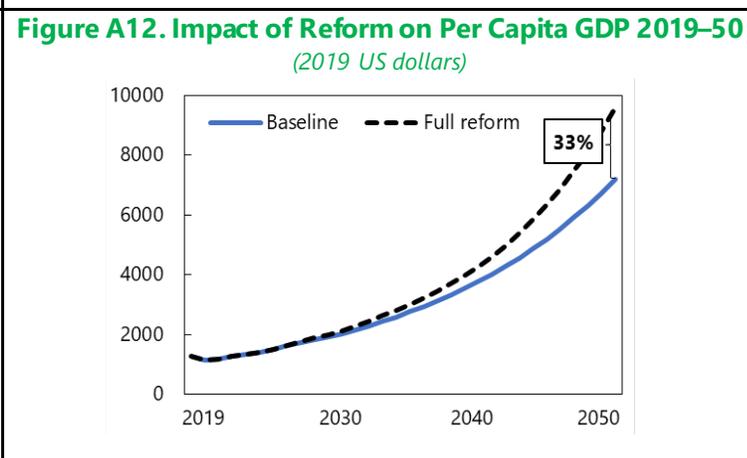
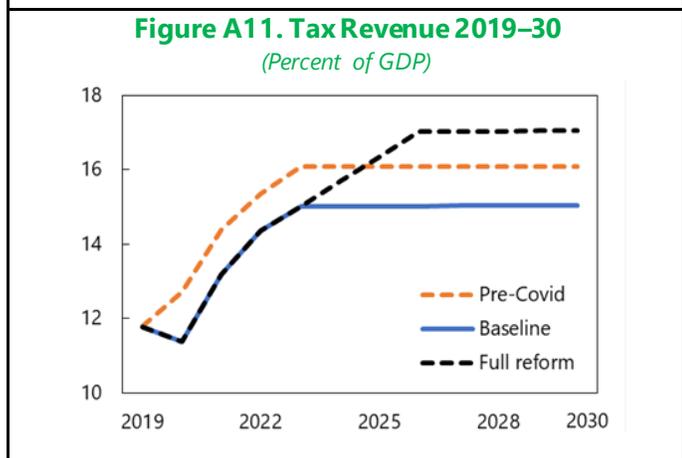
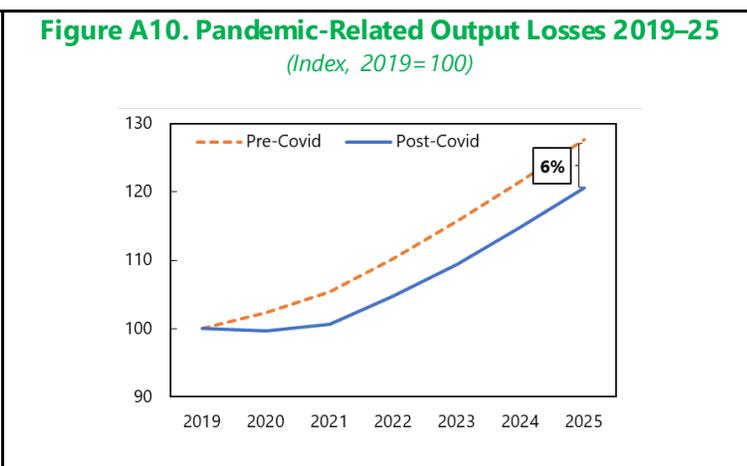
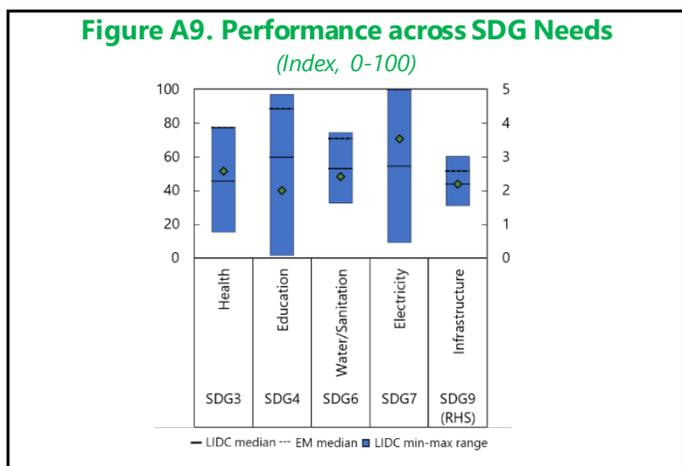
Baseline	2019	2020	2030	2050
Real GDP growth (%)	1.9	-0.4	5.0	5.0
GDP per capita (2019 US dollars)	1,275	1,134	2,041	7,207
Total revenues (% of GDP)	13	15.2	17.8	18
Primary expenditures (% of GDP)	16.5	17.7	17.3	18.3
of which: on SDGs (% of GDP)		5.9	6.9	7.9
Overall fiscal balance (% of GDP)	-9.0	-8.0	-2.8	-2.8
Gross public debt (% of GDP)	85.6	88.3	58.5	43.5

Sources: IMF, *World Economic Outlook*; and IMF staff estimates.

Table A6. Pakistan: Scenario Analysis

Scenario	Yield from reforms (percent of GDP)	Annual SDG financing (percent of GDP)	SDGs met by (year)	Per capita income in 2050 (2019 US dollars)
Baseline with SDG needs gap filled	-	9.0	2030	7,479
Full reform	5.1	0	2045	9,591
Full reform with SDG needs gap filled	5.1	3.9	2030	9,889

Source: IMF staff calculations.



Source: IMF staff calculations.

Cambodia

Cambodia ranks among the fastest-growing economies in Southeast Asia, averaging real GDP growth of 7.3 percent over the past two decades. Remarkable progress has been achieved in meeting some SDG targets, including eradication of extreme poverty. Cambodia made significant progress toward infrastructure targets owing to strong public and private infrastructure investment (Figure A13). Public spending on health has doubled, and public spending on education has tripled over the past decade, allowing Cambodia to become one of the top 10 performance improvers globally based on the United Nations Development Programme Human Development Index. The SDG framework was incorporated into the country's National Strategic Development Plan 2019–2023, with relevant national targets, estimates of spending needs, and their financing sources adopted by line ministries. Before the pandemic, achieving Cambodia's SDG targets by 2030 or soon thereafter was considered challenging but feasible.

The pandemic has had a large negative impact on Cambodia's economic activity due to disruption of international trade, particularly exports of garments, and a collapse in tourism. The economy is expected to have shrunk by 2.8 percent of GDP in 2020. While a recovery is expected in 2021, the shock will result in a permanent loss of output of about 6 percent (Figure A14). Similarly, total revenues are projected to come out 2.2 percent of GDP lower, widening the budget deficit by 1.6 percentage points, with total public debt estimated to stand 3.1 percent of GDP higher than projected prior to the pandemic. Altogether, the pandemic has increased the resources Cambodia needs to achieve its SDGs to an estimated 8.1 percent of GDP a year between now and 2030 (Table A8).

By continuing its successful reform program Cambodia would facilitate meeting its SDG targets. In light of its track record over the past two decades, we considered the following policy measures:

- An ambitious medium-term revenue strategy to mobilize an additional 3 percentage points of GDP in tax revenue over the course of five years (2022–27) through tax base broadening, improved tax system effectiveness, and further strengthening of revenue administration.
- A fiscal stance restraining nondevelopment current spending by 1 percent of GDP in favor of additional spending directed toward development needs.
- Reforms that facilitate investment, address financial sector vulnerabilities, encourage small and medium enterprise development, and advance labor market reforms, enabling an additional 2 percent of GDP in (already significant) private sector participation in the SDG priority sectors.

Together, these policies would allow Cambodia to meet its SDG targets by 2033 (Table A8). If Cambodia could secure additional grant-like donor funds it could meet its goals sooner. To achieve its SDG agenda by 2030 an additional 4.1 percent of GDP in annual funding would be required between now and 2030—significantly less than the 8.1 percent of GDP in the baseline without policy reform.

Table A7. Cambodia: Main Economic Indicators (Percent of GDP, baseline)				
Baseline	2019	2020	2030	2050
Real GDP growth (%)	7.0	-2.8	5.8	4.5
GDP per capita (2019 US dollars)	1,622	1,550	2,468	4,607
Total revenues (% of GDP)	23.9	21.6	24.6	29.7
Primary expenditures (% of GDP)	24.6	24.0	26.6	31.1
of which: on SDGs (% of GDP)	8.3	7.7	10.5	15.4
Overall fiscal balance (% of GDP)	-0.8	-2.4	-2.0	-2.0
Gross public debt (% of GDP)	28.6	31.5	34.2	38.0

Sources: IMF, *World Economic Outlook*; and IMF staff estimates.

Table A8. Cambodia: Scenario Analysis				
Scenario	Yield from reforms (percent of GDP)	Annual SDG financing (percent of GDP)	SDGs met by (year)	Per capita income in 2050 (2019 US dollars)
Baseline with SDG needs gap filled	-	8.1	2030	5,118
Full reform	4.0	0	2033	5,353
Full reform with SDG needs gap filled	4.0	4.1	2030	5,644

Source: IMF staff calculations.

Figure A13. Performance across SDG Needs
(Index, 0-100)

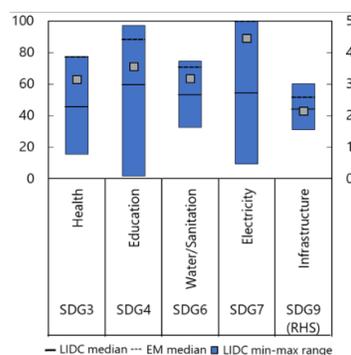


Figure A14. Pandemic-Related Output Losses 2019–25
(Index, 2018 = 100)

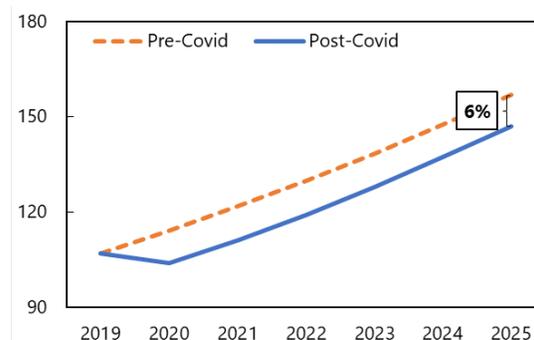


Figure A15. Tax Revenue 2019–30
(Percent of GDP)

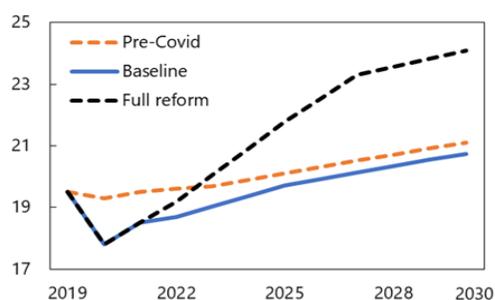
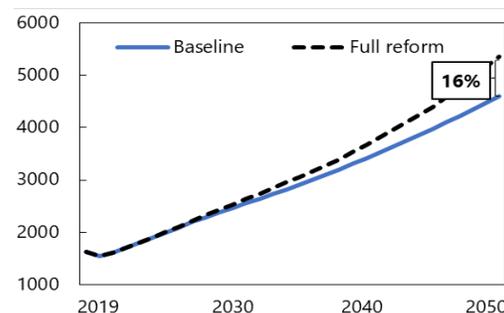


Figure A16. Impact of Reform on Per Capita GDP 2019–50
(2019 US dollars)



Source: IMF staff calculations.