Assessment of Expenditure Choices by Low- and Low-Middle-income Countries During the Pandemic and their Impact on SDGs

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Abstract

Until the COVID pandemic, public spending in low- and low-middle-income countries had been growing modestly. As a result, governments expanded service provision, including in social sectors, and enlarged welfare programs. This was made possible in part by domestic revenue growth. However, the pandemic has significantly lowered revenue receipts of these countries, while creating pressures to spend more on shielding the population and providing support to the economy. Unfortunately, health outlays did not increase as a share of total output during 2000–2018. The preliminary evidence compiled in this paper shows that health spending in relation to GDP increased virtually in all low and low-middle income countries in 2020, though not by as much as in advanced economies. However, higher health spending in low and low-middle income countries is unlikely to be sustained because of the pandemic's adverse impact on revenues and other spending pressures. Furthermore, COVID has critically scarred the future productivity of these countries.

Before the pandemic, the achievement of the Sustainable Development Goals (SDGs) by 2030 was doubtful in part because of the slow pace in generating additional revenues from domestic sources. As the financing needs have increased, the achievement of these goals will be delayed beyond 2030, unless additional financing sources can be found.

This means that policy actions will need to be taken by these countries to create additional fiscal space going forward. There is potential to raise more revenues from domestic sources by implementing politically difficult policy measures and generating savings by improving the quality of public spending, including on health.

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1. Introduction

The COVID pandemic has had a severe impact on public spending in low and low-middle income countries (LLMICs). However, a comprehensive assessment of the pandemic on government expenditures is constrained by limited availability of up-to-date comprehensive data. For example, data on health outlays are typically available with a lag of two years in advanced economies. In developing countries, such data are generated with even a longer lag.

COVID-19 impacted public spending in LLMICs through both direct and indirect channels. The direct impact was felt through higher government outlays on health and social protection measures implemented to mitigate the pandemic's impact and provide income support to the vulnerable. The indirect impact emanated from falling government revenues, which constrained government's ability to spend. To prevent the spread of the virus, governments imposed lockdowns with varying degrees of stringency. The general population further sought to reduce exposure to the virus through voluntary social distancing. The resulting contraction in activity lowered government's tax take, particularly when vaccines were not available or in limited supply. The revenue position was further exacerbated when governments pursued policies to offset the pandemic's contractionary impact on output by granting tax concessions to consumers and producers. More recently, the war in Ukraine has caused prices of fuel and food items to rise, which would lower both growth and revenues at least until the war continues. As a result, LLMICs are heavily constrained in responding to the pandemic in the presence of widening fiscal deficits, rising debt levels, and limited fiscal space.

In this paper, we analyse expenditure trends in 76 LLMICs (composed of thirty-six low-income countries (LICs) and 40 Low-middle income countries (LMICs).[1] To get a better understanding of COVID's impact, we briefly look at the evolution of pre-pandemic trends in expenditures as well as revenues (that facilitated public spending in these countries) (Section 2). For this purpose, we rely on data from the IMF's World Economic Outlook (WEO) updated in October 2021. We pay special attention to spending on social sectors, in particular health, and compare its evolution vis-à-vis education. Data on education and health are drawn from the World Bank's World Development Indicators. This is followed by a discussion on severity of the impact on public spending and revenues stemming from the pandemic (Section 3). In Section 4, we look at the increases in health and other public spending in 2020 because of the pandemic, by also drawing on an IMF survey. Thus, we supplement limited public spending data with information assembled with a survey of a large number of LLMICs. This is followed by a discussion on financial management of additional health spending in LLMICs (Section 5). Section 6 analyses the pandemic's impact on the likelihood of achieving the Sustainable Development Goals (SDGs). Section 7 concludes with policy implications and way forward.

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1   As classified by the World Bank in 2021. If country classification was allowed to vary over time, the reported averages would change. For instance, China began to be classified as an upper-middle income country in 2011 instead of lower-middle income country. This alone would make a significant difference in country averages used in the ensuing discussion.

We find that overall spending rose steadily in the pre-pandemic period, supported by rising revenues. Unfortunately, this does not hold for outlays on health, which maintained their share of total output during the 2000–2018 period. The survey evidence compiled in this paper shows that health spending increased in relation to GDP in 2020 virtually in all LLMICs, though not by as much as in advanced economies. The increases were larger in LICs, reflecting their lower spending prior to the pandemic. It is unclear if additional health spending reached the intended users of funds in all countries. Increases in health spending are unlikely to continue in the future. This is because the pandemic has seriously impacted the revenue position of LLMICs, lowering their ability to finance spending needs from domestic sources. Furthermore, COVID has critically scarred the future productivity of LLMICs. Before the pandemic, the achievement of the SDGs by 2030 was considered improbable in part because of the slow pace in generating additional revenues from domestic sources. As the financing needs have increased in the aftermath of the pandemic, the achievement of the SDGs will be delayed beyond 2030.

2. Pre-pandemic trends

This section shows that in the pre-pandemic period public spending rose in LLMICs with rising revenues. But increases in public spending were larger in LMICs owing to a stronger revenue performance. LLMICs as a group spent more than twice on education as compared to health, but LICs relied more on external financing as a share of total health spending.

A key pre-pandemic trend is that public spending grew supported by rising revenues

TABLE 1. Tax and expenditure trends in low and lower-middle income countries, 1990–2019 (in percent of GDP)

| | Years | | | | | | |
	1990	1995	2000	2005	2010	2015	2019
Taxes	12.0	11.7	11.9	12.8	13.7	14.0	14.4
o/w							
Taxes on income	3.2	3.3	3.4	3.8	4.3	4.5	5.2
Taxes on goods & services	4.2	4.3	4.7	5.1	5.8	6.4	6.8
Taxes on international trade	4.0	3.5	2.6	2.4	2.1	2.2	2.2
Nb. of countries taxes	45	57	68	74	75	77	65
	1990	1995	2000	2005	2010	2015	2019
General governement total expenditures	24.8	26.3	23.3	23.7	26.6	28.2	N/A
Social Contributions	0.7	1.1	1.4	1.7	1.8	1.8	2.1
General government expenses	21.4	19.5	20.1	19.3	21.9	21.8	21.3
o/w							
Compensation of employees	2.1	3.4	4.1	5.0	5.8	6.3	6.2
Interest	1.3	1.6	1.9	1.6	1.1	1.4	1.7
Social benefits	0.8	2.1	3.1	3.1	3.6	3.7	3.5

	Years						
	1990	**1995**	**2000**	**2005**	**2010**	**2015**	**2019**
Capital expenditures	2.5	3.2	4.3	4.6	6.2	6.2	5.3
Net acquisition of financial assets	0.0	0.1	0.2	0.2	0.2	0.3	0.4
Nb. of countries expenditures	36	48	69	74	74	80	0
Nb. of countries expenses	17	16	16	28	39	48	36

Source: International Monetary Fund, World Economic Outlook, October 2021.

Table 1 shows tax revenues rose by over two percentage points of GDP on average in LLMICs during the pre-pandemic period (1990–2019). Both taxes on income and on goods and services boosted their contribution by two percentage points of GDP each, while receipts from taxes on international trade fell by an equivalent amount (Figure 1). By contrast, average spending rose at a faster pace. Rising government employment, reflecting expansion in the provision of government services, resulted in government wage bill tripling to 6 percent of GDP on average (Figure 2). At the same time, governments expanded their social programs, which caused outlays on social benefits (comprising social protection and unemployment benefits—see Box 1 for glossary of terms used in the paper) to almost quadruple to 3.5 percent of GDP. Spending on public infrastructure doubled to 5.3 percent of GDP during the pre-pandemic period as governments spent more on roads, schools, and hospitals.

FIGURE 1. Tax revenue composition in LLIMCs, in % of tax revenue
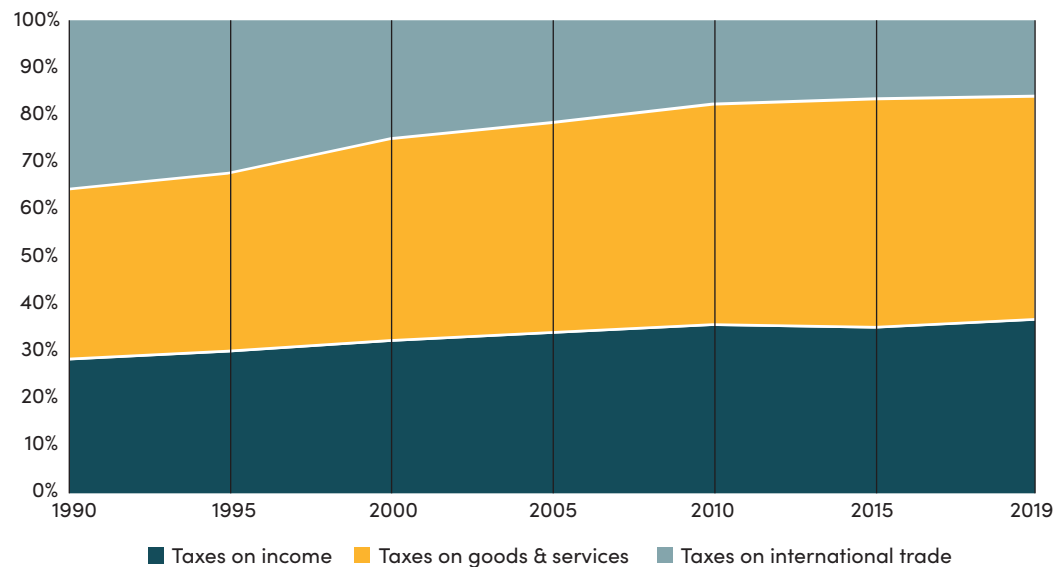
Source: International Monetary Fund: World Economic Outlook, October 2021.

FIGURE 2. Expenses composition in LLMICs, in % of expenses[1]

■ Capital expenditures	■ Other	■ Interests	■ Compensation of employees	■ Social benefits	
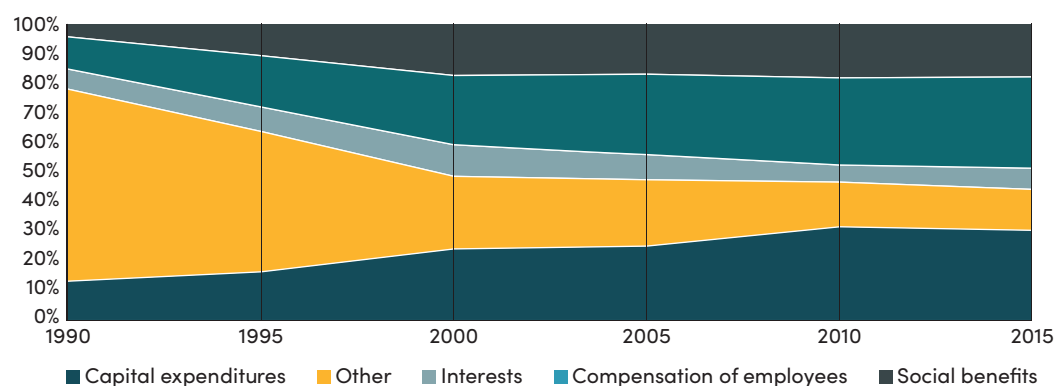
[1]Other represents expenses not elsewhere classified.
Source: International Monetary Fund: World Economic Outlook, October 2021.

BOX 1. Glossary of terms used

General Government Total Expenditures: Total expenditure consists of total expense and the net acquisition of nonfinancial assets.

General Government Expenses: Expense is cash payments for operating activities of the government in providing goods and services. It includes compensation of employees (such as wages and salaries), interest and subsidies, grants, social benefits, and other expenses such as rent and dividends.

Compensation of employees: Compensation of employees consists of all payments in cash, as well as in kind (such as food and housing), to employees in return for services rendered, and government contributions to social insurance schemes such as social security and pensions that provide benefits to employees.

Interest: Interest payments include interest payments on government debt—including long-term bonds, and other debt instruments—to domestic and foreign residents.

Social Benefits: Social benefit spendings such as unemployment benefits and social protection.

Capital Expenditures: Government Expenses to maintain and improve its fixed assets.

Net acquisition of Financial Assets: Net acquisition of government financial assets includes domestic and foreign financial claims, SDRs, and gold bullion held by monetary authorities as a reserve asset. The net acquisition of financial assets should be offset by the net incurrence of liabilities.

Health Expenditures: Public expenditure on health from domestic sources as a share of GDP.

Education Expenditures: General government expenditure on education (current, capital, and transfers) is expressed as a percentage of GDP.

Public spending increased in lower-middle income countries (LMICs) by more than in low-income countries (LICs)

The above averages mask crucial differences between low-income countries (LICs) and lower-middle income countries (LMICs). Table 2 shows that tax revenues in LICs increased by more than in LMICs, reflecting the low tax base in the former countries in 2005.[2] That said, the increase in receipts from taxes on goods and services was much sharper in LMICs as compared with LICs. At the same time, LICs continued to rely on taxes on international trade while LMICs' reliance on these taxes fell. On the spending side, the average increase in LMICs was larger than LICs, reflecting their stronger revenue performance on average.

TABLE 2. Tax and expenditure trends in low and lower-middle income countries, 2005–2019[1] (in percent of GDP)

	Low Income Countries				Lower-Middle Income Countries			
	Years							
	2005	2010	2015	2019	2005	2010	2015	2019
Taxes	9.9	10.9	11.3	12.0	15.7	16.5	16.7	16.8
o/w								
Taxes on income	2.9	3.3	3.6	4.2	4.7	5.4	5.4	6.2
Taxes on goods & services	3.9	5.0	5.4	5.4	6.4	6.6	7.4	8.3
Taxes on international trade	2.5	2.2	2.1	2.6	2.3	2.1	2.2	1.8
Nb. of countries taxes	29	29	31	26	45	46	46	39
	2005	2010	2015	2019	2005	2010	2015	2019
General governement total expenditures	21.4	23.9	25.4	N/A	25.4	28.6	30.2	N/A
Social Contributions	0.8	0.9	1.2	0.9	2.6	2.7	2.3	3.21
General government expenses	12.5	17.5	16.1	14.0	20.8	23.6	24.1	24.85
o/w								
Compensation of employees	4.7	5.3	6.2	6.2	5.3	6.2	6.5	6.3
Interest	1.4	0.9	1.2	1.2	1.7	1.4	1.7	2.2
Social benefits	3.5	3.8	3.8	3.8	2.8	3.4	3.6	3.3
Capital expenditures	5.4	6.8	6.4	5.7	3.7	5.5	6.1	4.9
Net acquisition of financial assets	0.1	0.4	0.2	0.6	0.4	-0.1	0.3	0.1
Nb. of countries expenditures	31	31	37	0	43	43	43	0
Nb. of countries expenses	5	12	14	12	23	27	34	24

Source: International Monetary Fund: World Economic Outlook, October 2021.

[1]Due to insufficient disaggregated data on LICs for years before 2005, the above table covers the peroid 2005–2019.

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2   There was an increasing variance in the value of tax revenues in LICs, as reflected by widening interquartile range during the pre-pandemic years.

LLMICs as a group spent more than twice on education as compared to health, but LICs relied more on external financing as a share of total spending

Before the pandemic, LLMICs spent more than twice on education as a share of GDP vis-a-vis health (Table 3). The differential between education and health spending is larger in LICs (Table 4), reflecting in part external financing of a significant share of public health spending (Figure 3). Almost 30 percent of total spending in LICs is traceable to external sources as compared to about 10 percent in LMICs. LICs have become increasingly dependent on external aid; in more than half of LICs, external aid accounted for a greater share of health spending than government's own funds (WHO, 2021). A high share of external aid in LICs meant that governments assigned a lower priority to health from their own budgets. In the pre-pandemic period, spending on infectious diseases was mainly financed by external aid, whereas private sources and government spending focused on noncommunicable diseases. This created a dependence on external aid for equipment, infrastructure, and financing response to highly infectious disease such as COVID.

TABLE 3. Expenditures on education and health in low and lower-middle income countries, 2000–2018 (in percent of GDP)

	Low Income Countries & Lower Middle Income				
	Years				
	2000	2005	2010	2015	2018
Education	3.8	3.8	4.1	4.4	4.1
Health	1.7	1.8	1.7	1.8	1.8

Source: World Bank, World Development Indicators.
Note: The coverage begins from 2000 onwards because of insufficient data before then.

TABLE 4. Expenditures on education and health in low and lower-middle income countries, 2000–2018 (in percent of GDP)

	Low-Income Countries				
	Years				
	2000	2005	2010	2015	2018
Education	3.3	2.9	3.3	3.7	4.1
Health	1.4	1.4	1.2	1.2	1.3
	Lower-Middle Income Countries				
	Years				
	2000	2005	2010	2015	2018
Education	4.4	4.6	4.9	5.2	4.2
Health	2.0	2.2	2.2	2.4	2.3

Source: World Bank, World Development Indicators.

FIGURE 3. Funding source share in LICs, 2000–2019 (% of total health spending)

- ■ Governement transfers
- ■ Voluntary health insurance contributions
- ■ Social health insurance contributions
- ■ Out-of-pocket spending
- ■ External aid
- ■ Other
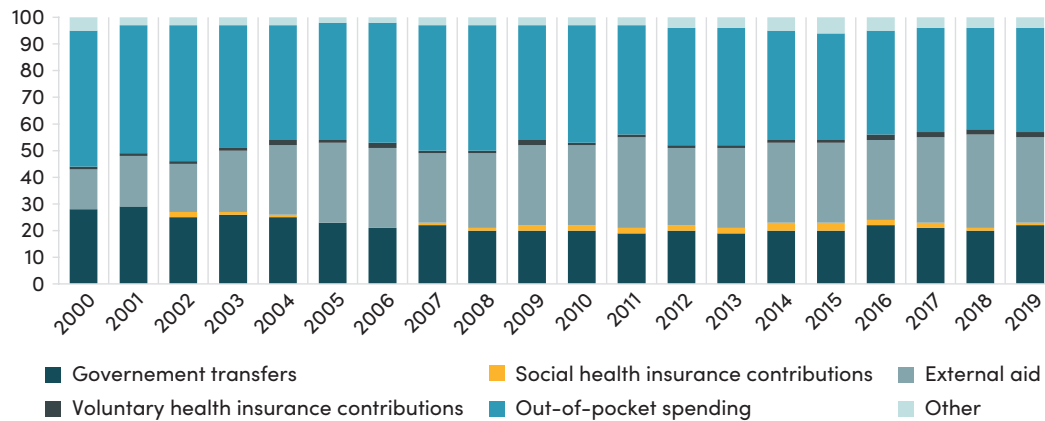
FIGURE 4. Funding source share in LMICs, 2000–2019 (% of total health spending)

- ■ Governement transfers
- ■ Voluntary health insurance contributions
- ■ Social health insurance contributions
- ■ Out-of-pocket spending
- ■ External aid
- ■ Other
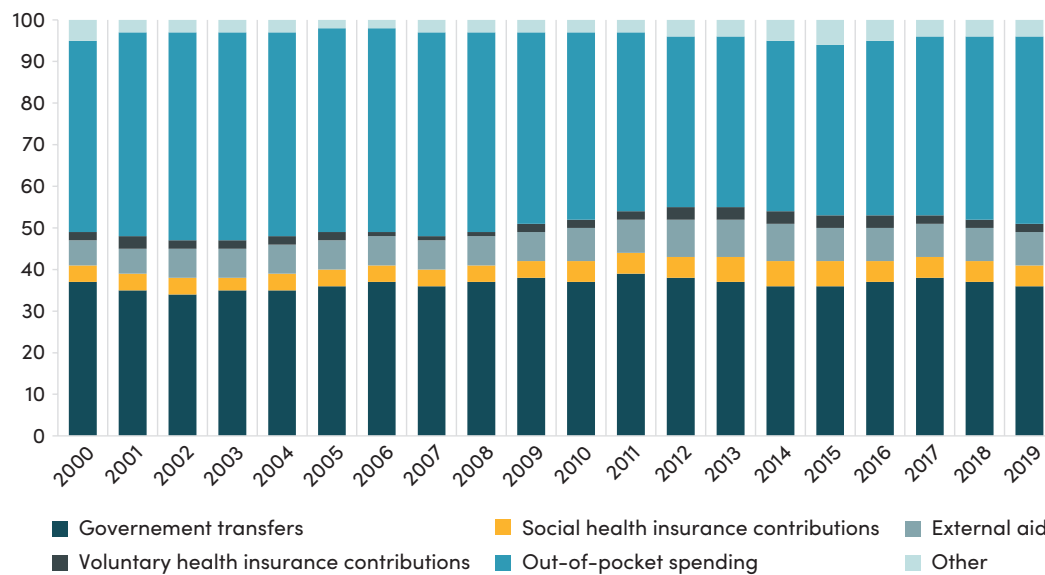
Source: WHO Global Health Expenditures Report 2021.

3. Macroeconomic impact of the pandemic

## The pandemic's impact was more sever in LICs than in LLMICs

One way to assess how severely the pandemic affected LLMICs is to compare their projected revenue and expenditures before the pandemic (2018) with the actual outturn in 2020. Furthermore, the statistical data for LLMICs is slow to come in. To deal with this shortcoming, we studied the evolution of projections over time to gauge pandemic's impact on the budget.

In the following analysis, we discuss the difference between October 2018 WEO projections of revenues and expenditures for 2020 with the outturn. In LICs, 2018 WEO projected revenues of over 20 percent of GDP in 2020, whereas the actual outturn was lower by over two percentage points (Figure 5). In a similar vein, their spending was expected to rise to 24 percent of GDP in 2020 but the actual outturn was less by 1 percentage points of GDP. In LMICs, revenues in 2020 were also lower by about a percentage point of GDP than projected but in contrast to LICs, their spending was higher reflecting larger fiscal space because of higher revenue-to-GDP ratios and greater access to financial markets (Figure 6). Similar trends are observable when the outturn of real revenues and expenditures is compared with real projections from the 2018 WEO.
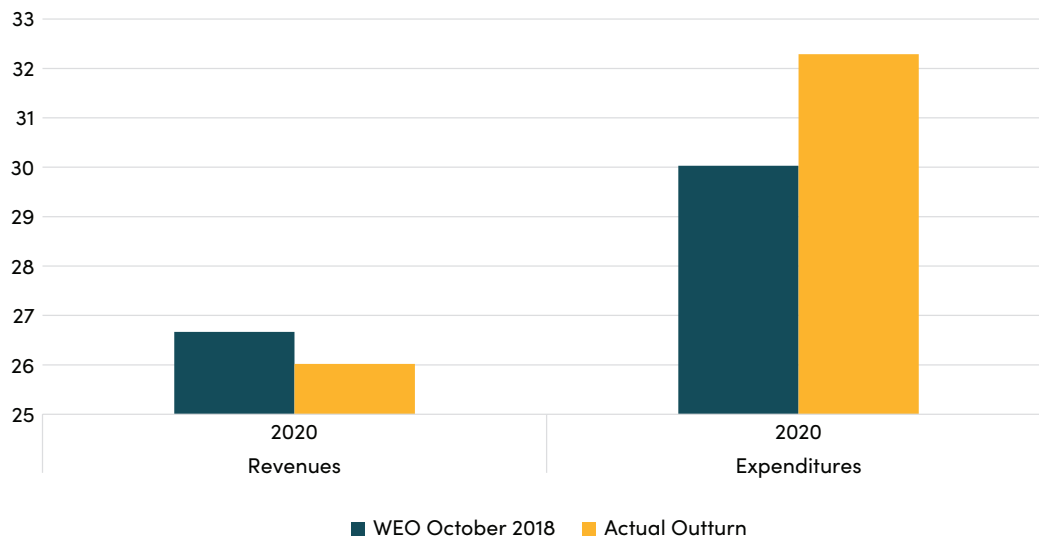
In LICs, both revenues and expenditures for 2021–23 were projected by the 2021 WEO to be lower than foreseen by 2018 WEO (Figure 7). By contrast, the outlook was less pessimistic for LMICs; 2021 WEO expected revenues to achieve the level projected in 2018 WEO by 2023 and expenditures anticipated to exceed the 2018 projections during the 2021–23 period (Figure 8).

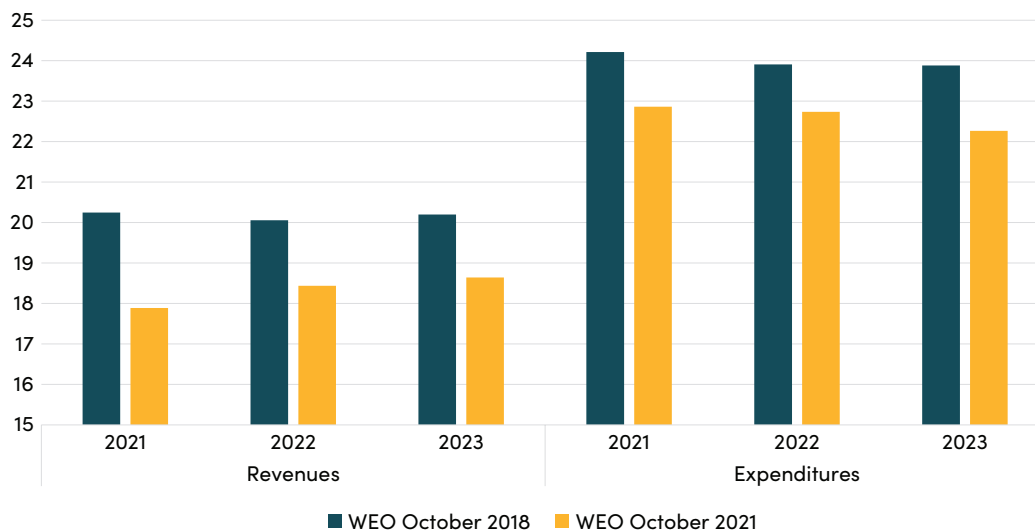### FIGURE 5. WEO projections and actual outturn for LICs
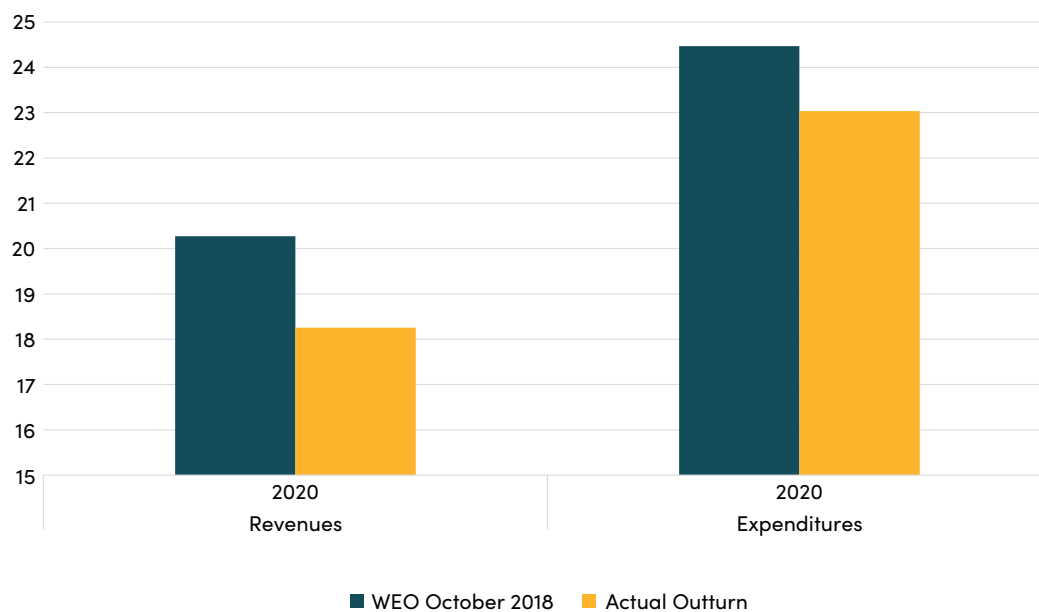
Source: International Monetary Fund: WEO October 2018.

**FIGURE 6. WEO projections and actual outturn for LMICs**

Source: International Monetary Fund: WEO October 2018.

FIGURE 7. LIC's comparaison of projections for revenues and expenditures, as a % of GDP, 2021–2023

Source: International Monetary Fund: WEO October 2018; WEO October 2021.

FIGURE 8. LMICs' comparison of projections of revenues and expenditures, as a % of GDP, 2021–2023
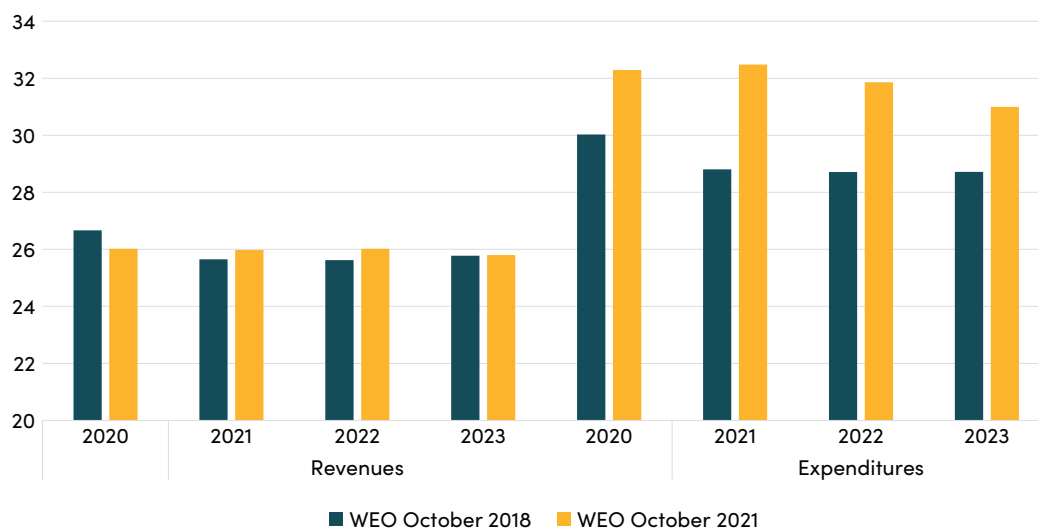
Source: International Monetary Fund: WEO October 2018; WEO October 2021

WEO's projections tend to be optimistic

There is one caveat to the above analysis: WEO projections have been shown to suffer from an upward bias (Celasun et al., 2021). The analysis of WEO forecasts (2004–2017) has found year-to-year and next-year projections to be accurate, except for LICs which suffer from a noticeable upward bias. The bias was particularly acute in the case of LLMICs, where the median growth was overpredicted during the two and five-year horizon. This has important implications for revenue and expenditure forecasts. Furthermore, growth overestimation seems to especially afflict countries in sub-Saharan Africa and developing Asia. It is difficult to say how optimistic the more recent WEO projections have been, but it is important to note that they are still more accurate than most of other forecasts, hence their use in this paper.

4. Impact of pandemic on health and other spending

The limited data suggests that LLMICs increased their health spending in 2020 in response to the pandemic

The pandemic hit LLMICs in the second quarter of 2020. As noted above, the system of health accounts generates health spending data with a lag of two years; as a result, 2020 data will be available in the middle of 2022 for most countries. Some inference on how health spending responded to the pandemic can be gauged from the recently released preliminary data for 14 OECD countries and three LLMICs (IHEA, 2021) and the survey carried out by the IMF.

The OECD countries on average raised health spending by about 1 percent of GDP in 2020.[3] Given that GDP fell in almost all OECD countries that year, a more accurate indicator is changes in real health spending. The OECD data shows that it went up by 5 percent on average in 14 countries (OECD, 2021).

The preliminary data for three LLMICs (Burkina Faso, Ghana, and Senegal) put together by WHO (2021) shows that health spending increased by between 1 to 2 percent of GDP in 2020. The vast majority of the COVID response was domestically financed[4] (93 percent in Ghana, 86.5 percent in Burkina Faso and 54.7 percent in Senegal). Senegal received the most from external sources.

The increased outlays on health in these three countries were directed to priority areas, which varied across countries. For instance, 65 percent was allocated to strengthening coordination in Burkina Faso, 80 percent to laboratory and infection prevention and control services in Ghana, and 76 percent to resolving supply chain issues in Senegal (IHEA, 2021).

FIGURE 9. Total expenditure on COVID response, as a % of GDP and in USD Millions
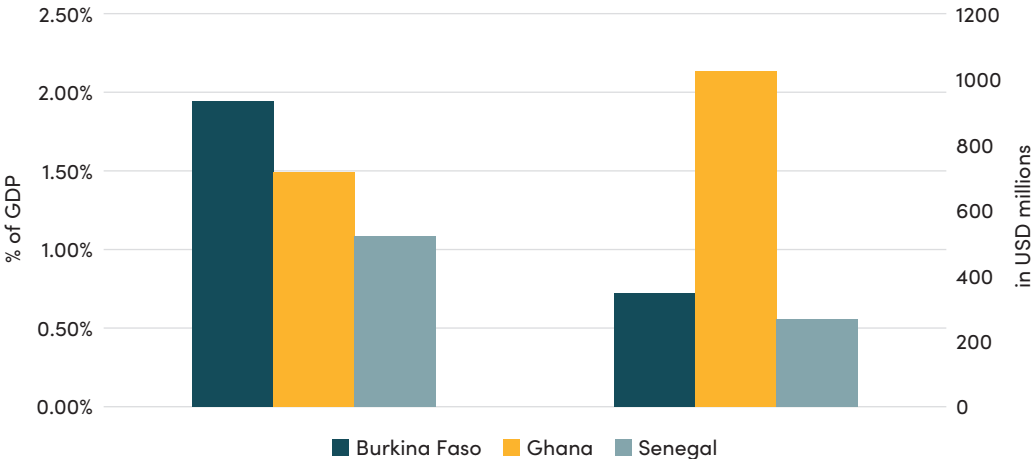
*Source:* International Health Economics Association, 2021.

A more comprehensive data set is available for 68 LLMICs, based on a survey conducted by the IMF on countries' responses to the pandemic in 2020/21. The IMF survey separated additional health outlays from those provided for other programs, such as cash transfers, equity injections, loans, asset purchases and debt assumption by the government.

Only eight LICs (out of a sample of 28) increased health spending as a share of GDP by more than that on other programs, while the remaining twenty countries allocated more on providing support to the economy (Figure 11). The median increase on health allocations for the entire LIC sample was 0.75 percent of GDP. The response of LMICs was somewhat different (Figure 12). Almost all LMICs allocated more resources for supporting the economy. Their median increase in health allocations

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3   Excluding outlays on capital projects and long-term care.
4   Domestic funding includes government, household, and private sector spending.

of 0.42 was lower than that found in LICs. Notwithstanding larger increases in allocations for supporting the economy in LMICs, the median increase in real health spending is quite significant—exceeding 16 percent. In a similar vein, the real increase in LICs was significantly higher at around 55 percent given their low starting base. The real increases health spending were lower than otherwise because real GDP declined in 2020 (Figures 12 and 13).

FIGURE 10. LICs increase in health and non-health spending in 2020, as a % of GDP
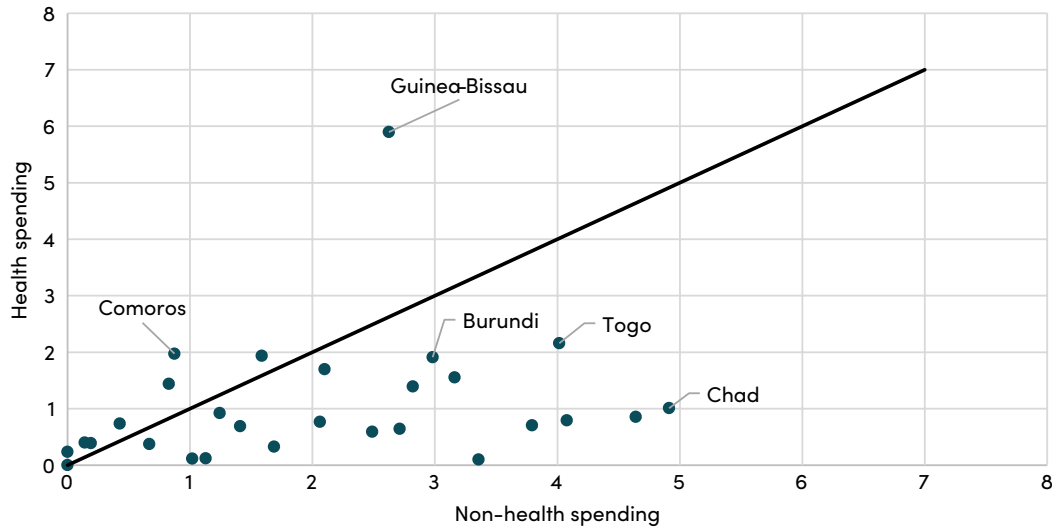
Source: IMF Policy Response to COVID-19 survey.

FIGURE 11. LMICs increase in health and non-health spending in 2020, as a % of GDP
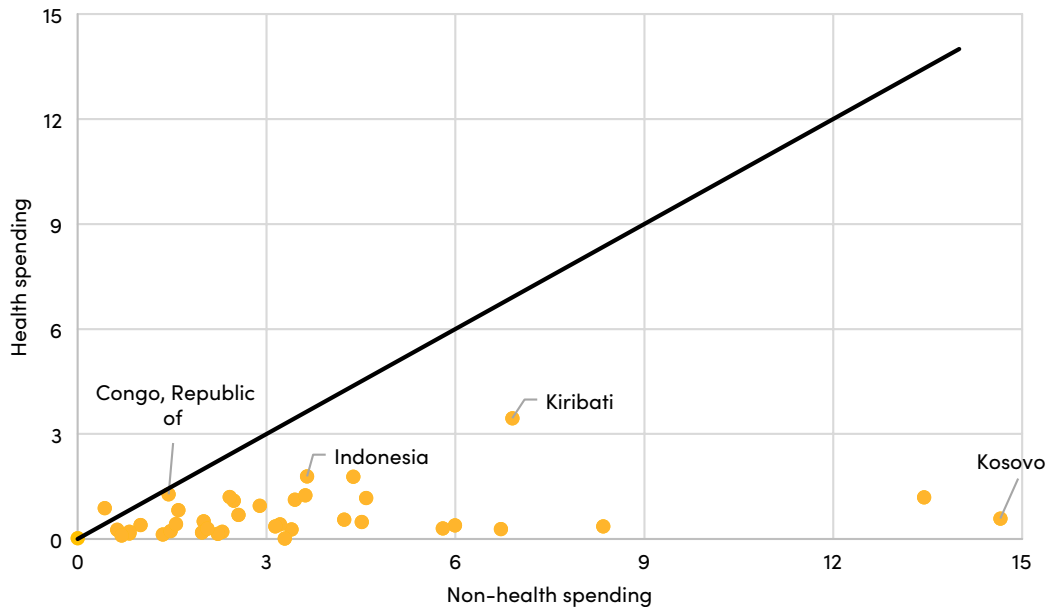
Source: IMF Policy Response to COVID-19 survey.

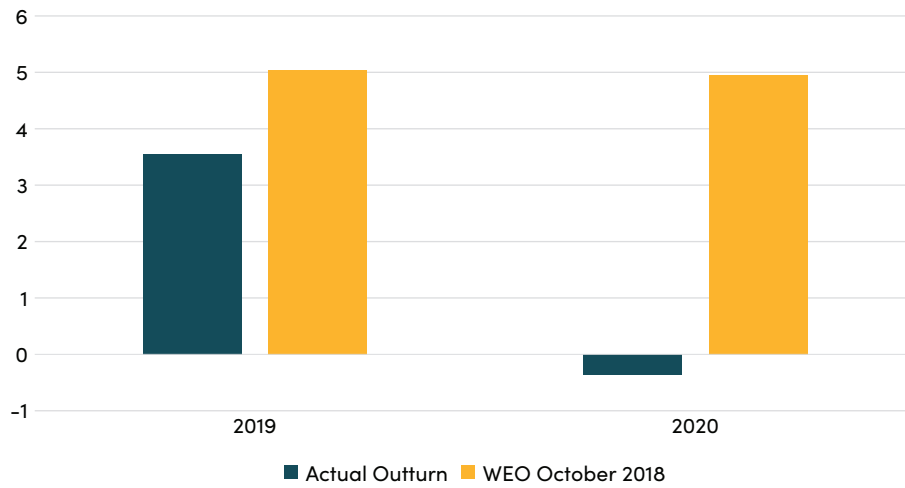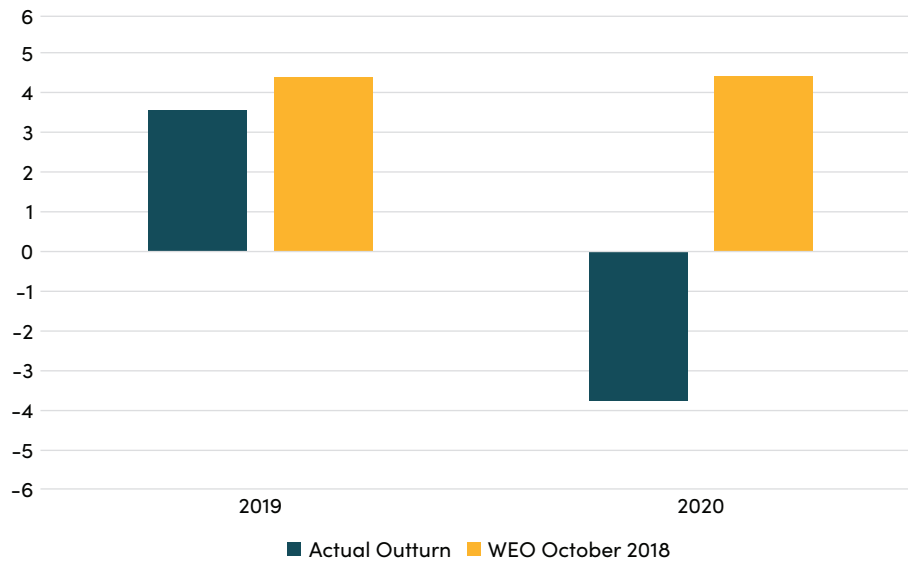**FIGURE 12. GDP projections and actual outturn for LICs, 2019–2020**

Source: IMF World Economic Outlook 2018.

FIGURE 13. GDP projections and actual outturn for LMICs, 2019–2020

Source: IMF World Economic Outlook 2018.

5. How good has been the financial management of additional health spending during the pandemic?

It is unclear if additional budget allocations in 2020 reached the intended health sector users in about one-third of countries

While the above analysis suggests that LICs and LMICs increased spending on health in 2020, additional allocations may not have reached the intended users in all countries. Information on how additional resources allocated to heath were used can be gleaned from a survey conducted by the International Budget Partnership (IBP, 2021). This survey has information on 56 countries included in our sample of LLMICs.

Of the 56 countries, 5 provided adequate or some information regarding how the additional health resources were used (Figure 13, Table 5). There were a few countries that scored higher in overall transparency. This was the case in the Philippines where specific law detailing additional budgetary spending was debated in parliament and weekly reports issued. In Nepal, the Parliamentary Accounts Committee investigated the procurement of medical equipment and supplies and found irregularities.

Another 29 governments provided limited information on the use of funds, while 22 provided minimal information. The lack of transparency in the latter group of countries makes it difficult to track and understand the quality of expenditures and policy choices exercised by governments in response to COVID. In general, these governments fell short on reporting the implementation of newly appropriated resources. Even Burkina Faso discussed above provided minimal information on additional spending. And this was made worse by insufficient transparency of procurement processes and the lack of timely audits, thereby making assessment of additional health outlays more challenging. As countries declared health emergency, they bypassed legislature to speed up the process. On the other hand, legislators approved most COVID-19 fiscal packages.

FIGURE 14. Level of accountability in COVID-19 response
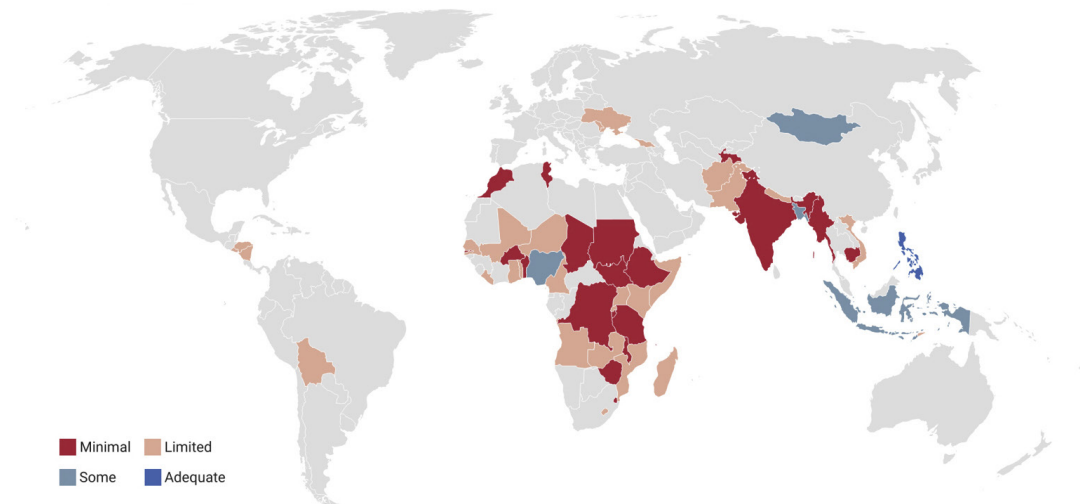
Source: International Budget Partnership, "Managing COVID Funds: The accountability gap," May 2021.

TABLE 5. Level of accountability in COVID-19 response for the countries studied

Adequate	Philipines					
Some	**Bangladesh** **Indonesia** **Mongolia** **Nigeria**					
Limited	*Afghanistan* **Angola** **Bolivia** **Cameroon** **Cote d'Ivoire**	**El Salvador** **Georgia** **Ghana** **Honduras** **Kenya**	**Lesotho** *Liberia* *Madagascar* *Mali* **Moldova**	*Mozambiqu* *Nepal* **Nicaragua** *Niger* **Pakistan**	*Rwanda* *Senegal* *Somalia* **Timor-Leste** **Togo**	*Uganda* **Ukraine** **Vietnam** **Zambia**
Minimal	*Benin* *Burkina Faso* *Burundi* **Cambodia** *Chad*	*Comoros* *Congo, Democratic Republic of the* **Egypt** **Eswatini** *Ethiopia*	**India** *Malawi* **Morocco** **Myanmar** *South Sudan*	**Sudan** *Tajikistan* *Tanzania* *Gambia, The* **Tunisia**	*Yemen* *Zimbabwe*	

In bold: LMICs; in italic: LICs.
Source: International Budget Partnership, "Managing COVID Funds: The accountability gap," May 2021.

The issue of accounting health spending in a transparent manner, especially in sub-Saharan LLMICs has been recognized by government officials and academics as a hindrance to effective public spending (IMF, 2022). Before the pandemic (between 2005–2019), the Public Expenditure and Financial Accountability (PEFA) performed several assessments of the countries' accountability and health expenditure management systems (199 LLMICs at the national level, 155 at the sub-national level) and the results of these assessments are consistent with the IBP findings.

6. Public spending and SDGs

## Achieving the SDGs was challenging even before the pandemic

The preceding sections discussed how the pandemic influenced revenue and spending patterns of both LICs and LMICs. In this section, we examine how these changes as well as scarring of the economy from COVID are likely to impinge on the achievement of the SDGs.

There are no comprehensive estimates of resources needed to achieve all the SDGs by 2030. One important study that assessed resources requirements in five key SDG areas was prepared by the IMF prior to the onset of the pandemic. In 2019, it estimated (Gaspar et al., 2019) that on average, LICs—which is a subset of countries included in this paper—will need additional resources amounting to 15.4 percent of GDP to finance the SDGs in education, health, roads, electricity, and water by 2030. These resource requirements are greater in sub-Saharan Africa because of their lower starting point than a typical LIC.

According to the IMF study, the median sub-Saharan African country would face additional spending of about 19 percent of GDP—almost 4 percent of GDP more, on average. In the average LIC, the IMF further estimated that of the required additional financing, five percentage points of GDP would have to come from increased mobilization of domestic taxes (Gaspar et al., 2019). The resource requirements would be larger if all SDG areas were to be financed. That is, the need for additional resources from domestic taxes would be even larger since the above figures incorporate funds obtainable from external sources.

The resource requirements across countries would vary. As an illustration, Benin and Rwanda would require additional resources amounting to 21.3 percent of GDP and 18.7 percent of GDP, respectively, to achieve the SDGs in five areas by 2030 (Prady and Sy, 2019). Benin would need to spend additional 3.2 percent of its GDP on education, 5.1 percent of its GDP on health and 2.5 percent of GDP on water (Figure 14). For Rwanda, required spending to meet the SDGs is the largest in education, estimated at 6.2 percent of 2030 GDP. Additional required spending is estimated at about 4 percent of 2030 GDP on roads, 2 percent of GDP on health, 2 percent of GDP on electricity and 4.5 percent of GDP on water.

FIGURE 15. Estimates for the additional spending in 2030 by sector (percent of 2030 GDP)

■ Health ■ Education ■ Electricity ■ Water ■ Roads
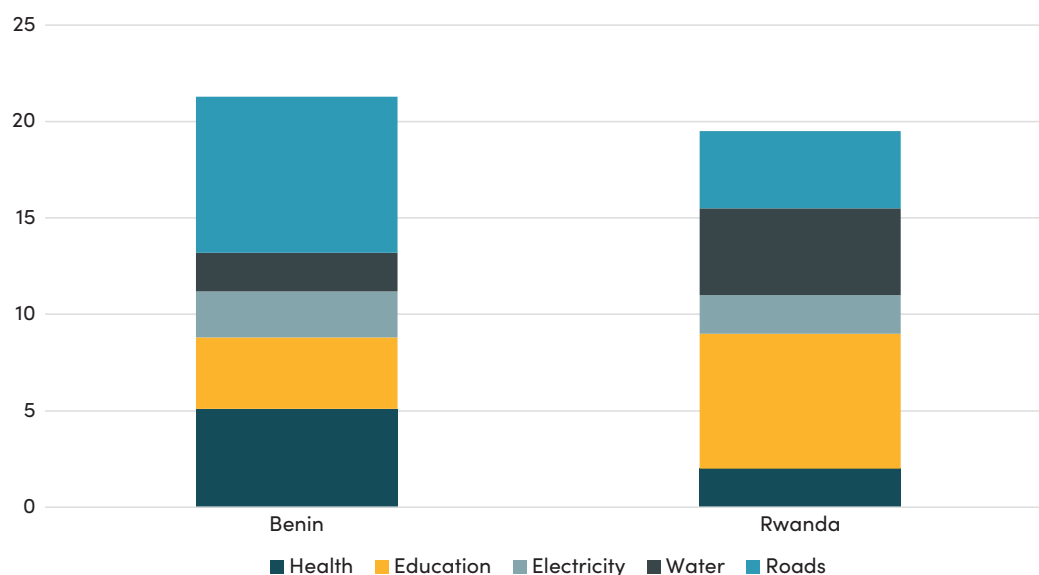
Source: Prady, D. and Sy, M., 2019.

In LMICs—which are classified as emerging market economies in the IMF paper—resource availability from both domestic and external sources was seen adequate for achieving the SDGs. However, the COVID pandemic has scarred both LICs and LMICs, thereby increasing resources needed to achieve the SDGs.

Another study by the Sustainable Development Solution Network found that even if LIDCs (all countries classified by the World Bank as LICs, and a subset of LMICs) engage in a bold program to raise domestic resources and raise the ratio of government revenues to GDP by 5 percentage points between 2019 and 2030, the average SDG financing gap per year would be of about $400 billion during this period (Sachs et al., 2019). In the post-pandemic environment, this number is expected to increase as indicated by the OECD study. It has estimated that the financing gap in developing countries would increase by 50 percent per year (Cattaneo et al., 2021).

Part of the reason for difficulties in achieving the SDGs was weak revenue performance before COVID

Even before COVID's adverse impact on revenue performance of LICs and LMICs, resources anticipated from domestic sources in these countries through 2030 can be viewed as overly optimistic. A study (Gupta, Jalles, Jianhong, 2021) estimated country-specific tax buoyancies in sub-Saharan Africa (SSA) and found that the tax-to-GDP ratio in Benin would grow to 10.6 percent (an increase of 1.4 percent from the level prevailing in 2020) and in Rwanda to 18.7 percent (an increase of 3.2 percent from the level prevailing in 2020) by 2030, significantly short of the amount needed to achieve the SDGs. The tax-to-GDP ratio for SSA region would grow modestly by 0.8 percent.

In all cases, incremental taxes generated by 2030 would fall short of the average 5 percent of GDP additional revenues needed by LICs to finance the SDGs, and the shortfall would be large for two countries (Rwanda and Benin) for which detailed resource estimates exist.

Scarring of countries because of COVID has made achievement of the SDGs even more difficult

The COVID-19 pandemic and the resulting economic crisis have severely impacted LICs and LIMCs. The IMF (Benedek et al., 2021) has estimated that the pandemic resulted in an additional annual financing needs of 2½ percent of GDP on average for LICs. These funding requirements arise from lower tax revenue and more resources dedicated to restoration of fiscal balances. The implication is that even if LICs mobilize 5 percent of GDP additional revenues to achieve the SDGs by 2030—which we argued earlier was highly doubtful—the domestic tax effort would not have sufficed once the effects of the pandemic are considered. To what extent the lack of additional financing would delay achievement of the SDGs is likely to vary across countries. The delay could be in the range of one to six years.

The pandemic also scarred the economies permanently through its impact on human capital. The high unemployment together with lower educational achievements stemming from school closures are expected to lower the future productive capacity of the economy. As a result, financing needs of LICs and LMICs would be higher by an additional 1.7 percentage points of GDP, on average. Figure 14 below shows additional financing needs arising from pandemic and its scarring in four countries. In Cambodia, for example, COVID-19-related scarring would increase SDG spending needs by 2.2% of GDP.

FIGURE 16. Additional annual financing needs to meet the SDGs

Pre-COVID SDG needs   COVID19 increase (w/o scarring)   Added increase due to scarring
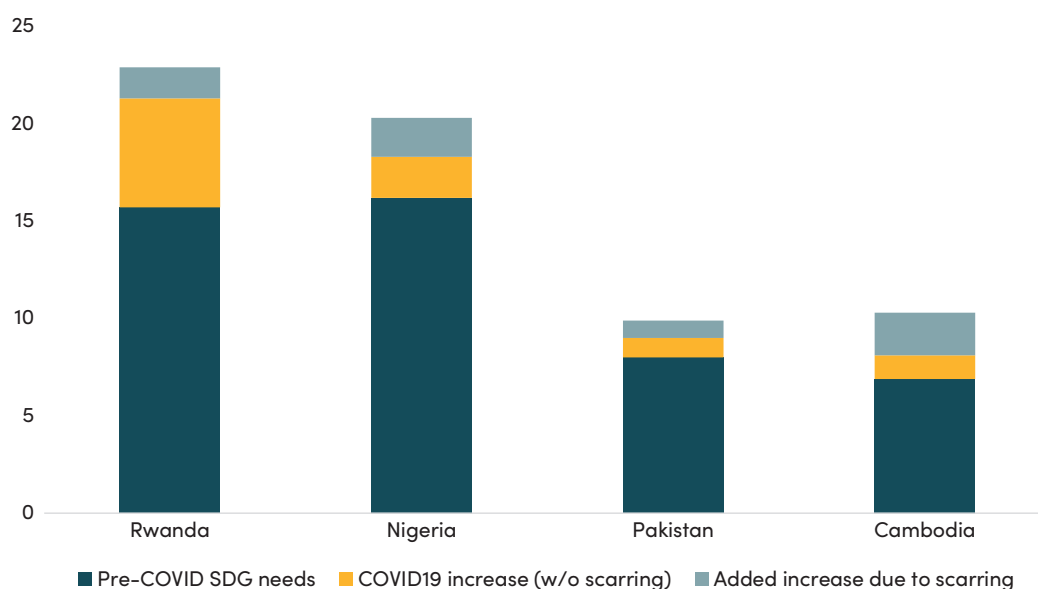
Source: D. Benedek, E. Gemayel, A. Senhadji, A. Tieman; 2021.

7. Policy conclusions and way forward

Until the COVID pandemic, public spending in LLMICs had been growing modestly. As a result, governments expanded service provision, including in social sectors and expanded welfare programs. This was made possible in part by domestic revenue growth. However, the pandemic has significantly lowered revenue receipts of these countries, while creating pressures to spend more on shielding the population and providing support to the economy. The impact is larger on LICs where revenues are unlikely to recover until 2023 with the war in Ukraine presenting new uncertainty. As a result, fiscal deficits will remain high and public debt continuing to grow.

Unfortunately, health outlays did not increase as a share of total output during 2000–2018. The preliminary evidence compiled in this paper shows that health spending in relation to GDP increased virtually in all LLMICs in 2020, though not by as much as in advanced economies. The median increase of 0.75 was larger in LICs, reflecting their lower spending prior to the pandemic. In real terms, LLMICs as a group witnessed a real increase in health spending. However, higher health spending is unlikely to be sustained because of the pandemic's adverse impact on LLMIC's revenues and other spending pressures. Furthermore, COVID has critically scarred the future productivity of LLMICs. Before the pandemic, the achievement of the SDGs by 2030 was doubtful in part because of the slow pace in generating additional revenues from domestic sources. As the financing needs have increased, the achievement of the SDGs will be delayed beyond 2030, unless additional financing sources can be found.

This means that policy actions will need to be taken by LLMICs to create additional fiscal space going forward. There is potential to raise more revenues from domestic sources by implementing politically difficult policy measures (Gupta and Plant, 2019). In general, there is scope for boosting the tax effort by 3–4 percentage points of GDP over time. This paper also presented evidence about the questionable nature of additional health spending in 2020 in some countries. The scope for enhancing the efficiency of public spending holds for all key programs in LLMICs, where resource savings through efficiency improvements can be as much as 3 percent of GDP (Gupta, 2018).

As more data becomes available, future research could delve deeper into the pandemic's impact on public spending patterns, including on health. Furthermore, the case for substantial investment in health-related Global Public Goods would also mean scaling up investment in data collection.

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Appendix

Country classification

Low income countries (33)

Afghanistan, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Congo, Eritrea, Ethiopia, Gambia The, Guinea, Guinea-Bissau, Haiti, Liberia, Madagascar, Malawi, Mali, Mozambique, Nepal, Niger, Rwanda, Senegal, Sierra Leone, Somalia, South Sudan, Syria, Tajikistan, Tanzania, Togo, Uganda, Yemen, Zimbabwe.

Lower-middle income (46)

Angola, Bangladesh, Bhutan, Bolivia, Cabo Verde, Cambodia, Cameroon, Congo Republic of, Côte d'Ivoire, Djibouti, Egypt, El Salvador, Eswatini, Georgia, Ghana, Honduras, India, Indonesia, Kenya, Kiribati, Kosovo, Kyrgyz Republic, Lao P.D.R., Lesotho, Mauritania, Micronesia, Moldova, Mongolia, Morocco, Myanmar, Nicaragua, Nigeria, Pakistan, Papua New Guinea, Philippines, Solomon Islands, Sri Lanka, Sudan, Timor-Leste, Tunisia, Ukraine, Uzbekistan, Vanuatu, Vietnam, West Bank and Gaza, Zambia.