



Putting It All Together: Better Fiscal Policy for Reducing Poverty and Increasing Shared Prosperity

Summary

Part 1 of this report highlighted important recent challenges to global progress in poverty and inequality. Part II explores fiscal policy areas that could help meet those challenges. This chapter brings together the two parts of the report and suggests some fiscal policy priorities. It begins by describing how countries face very different needs, reflecting their circumstances going into the COVID-19 pandemic, as well as the impacts of the pandemic and subsequent crises (which were, in turn, influenced by the policies they adopted). These different needs translate into varying policy priorities that fiscal actions can help address.

This chapter outlines policy options for spending on higher-value policies that produce growth, for positioning fiscal policy to protect households against crises, and for raising revenue. Better fiscal policy for poverty reduction will also require better data and evidence—the type of evidence that has been presented throughout this report, as well as more evidence on key gaps such as spending data, costs of implementation, and the long-run impacts of fiscal policies.

Chapter 7 concludes by discussing whether better fiscal policy—that is, more progressive fiscal policy that produces higher growth—is by itself sufficient to meet the pressing needs outlined in part I. In doing so, it presents simulations of the likely impacts of dramatically more effective fiscal policy for poverty reduction until 2030. The results reveal that fiscal policy does make a difference and can even reverse, in the most optimistic scenarios, the setback in progress in 2020. However, the simulations are also sobering because they show that even heroic efforts to put in place better fiscal policy at the national level are not enough to get back on track to end extreme poverty. These results point to the need not just for better national policy making but also for more global action to end poverty.

Accelerating progress with better fiscal policy: Different options for different countries

Governments face the daunting task of deciding which fiscal policies are most suitable for achieving multiple goals. These goals include ensuring an inclusive recovery from the pandemic, supporting long-term growth, and preparing for ongoing and future crises. The current moment is especially challenging, with its record high debt, rising interest rates, and a medium-term outlook of poor growth and high inflation, all constraining the ability of a government to pursue

the most appropriate policy mix. Finding ways to raise revenue and increase the efficiency of spending become paramount in this context. Policy makers seeking to raise revenue should consider more progressive forms of taxation, even in an informal economy, to avoid harming the poor and increasing inequality. Spending should aim at protecting vulnerable households today and spurring growth for tomorrow, all while focusing on efficiency and in some cases reducing the total level of spending.

This chapter discusses fiscal policy options for different types of countries by drawing on the analysis in the previous chapters. What follows highlights priorities for spending, both for today and for tomorrow, based on need and fiscal space. This chapter also looks at the feasible options for raising revenue, keeping in mind that the most urgent needs and the feasible policy choices available to policy makers vary considerably across countries.

Better debt management is also essential to increasing fiscal space for recovery from the pandemic and for responding to ongoing and future crises. This chapter does not dwell on options for better debt management because the *World Development Report 2022: Finance for an Equitable Recovery* discusses these measures in detail (World Bank 2022). The measures include proactively reducing exposure to risks that threaten to worsen public debt further, such as by pursuing regulatory reform in financial markets, improving debt transparency, and establishing a common framework inclusive of as many creditors as possible to manage debt restructuring or relief (World Bank 2022).

Illustrating that different countries have very different needs, figure 1.11 in chapter 1 reveals that, although some countries have recovered to their pre-COVID-19 poverty rates, others have struggled to recover, and, for some, poverty continues to increase. Recovery has been particularly elusive in lower-middle-income countries (LMICs) and low-income countries (LICs). The pre-COVID-19 trends in these countries were often very different: countries that have fully or partially recovered were more likely to have enjoyed growth and poverty reduction prior to the crisis, while those that have not recovered were already in a more difficult situation before the crisis, with high poverty rates and low growth (Reinhart 2022). Rising food and energy prices also affect countries very differently. Some countries have been badly affected by rising prices; in others, high prices have barely dented growth or poverty reduction; and, in still others, growth projections are increasing because of the rising prices of key exports. Although faster progress is needed on poverty reduction in all of these countries, the needs and policy priorities are very different across these groups.

As governments decide which fiscal policies are the most suitable for achieving an inclusive recovery and long-run growth, they must deal with rising fiscal deficits and debt burdens (a problem before the pandemic and exacerbated by it). High debt burdens reduce space for fiscal policy to support the recovery and respond to ongoing and future crises because a larger share of spending is taken up with debt repayments and borrowing to finance spending becomes more challenging. LICs and middle-income countries (MICs) carry significantly more debt today than two years ago and are more likely to be in debt distress—2020 saw more emerging economies experience country credit rating downgrades than over the entire 2010–19 period. According to Olaberria and Reinhart (2022), the ratio of government debt to revenue is much higher in LMICs and LICs because of their higher levels of debt going into the crisis.

Figure 7.1 shows that some countries with higher costs of borrowing (see the top left quadrant) are also those in most need of course correction to reverse poverty increases or to restart or accelerate poverty reduction. Because of the differences in both need and fiscal space across countries, the fiscal priorities will vary across countries.

The following sections describe the policy options available to countries to achieve the objectives of poverty reduction and broad-based growth. The exact options for a particular country depend on the characteristics of the economy and the fiscal system. The same policy can differ

FIGURE 7.1

Some countries are facing the dual challenge of stimulating recovery and coping with limited access to external finance



Sources: Original estimates based on data from Kose et al. 2017; Mahler, Yonzan, and Lakner, forthcoming; World Bank, Poverty and Inequality Platform, <https://pip.worldbank.org>.

Note: The figure shows the ratio of the projected poverty rate in 2022 to the poverty rate in 2019 for 79 low- and middle-income economies, sorted by sovereign credit rating. Each marker represents one economy. A ratio above 1 indicates that poverty is projected to increase from 2019 to 2022. Income-group appropriate poverty lines are used. Sovereign credit rating is the 2020 average of foreign currency long-term sovereign debt ratings by Moody's, Standard & Poor's, and Fitch Ratings converted to a numerical index from 1 (worst) to 21 (best). The sample excludes Kyrgyz Republic, Lebanon, and Ukraine, which are outliers with projected poverty in 2022 more than 1.6 times the poverty rate in 2019.

country by country, depending on the management of public funds, the capacity of tax administration and delivery systems, the structure of the economy, and initial endowments of wealth, health, and education. Although several characteristics of an economy determine the feasible set of policy options, one consistently discussed across chapters is the degree of an economy's formality. This characteristic affects the ability to tax and deliver benefits in both crisis and non-crisis times. It is strongly correlated with a country's income level, just as needs and costs of borrowing vary. Much of the policy discussion therefore distinguishes between policy options for LICs, LMICs, and upper-middle-income countries (UMICs). Distinguishing among them is not intended to suggest that specific policies should be used in only certain countries, but to highlight the very real differences in feasible policy options that countries face.

Spending for faster growth

Increasing spending for growth in the short run

There is no one answer to what spending best suits a country; the choice depends on the country's context and policy objectives. The evidence presented in chapters 5 and 6, however, points to reducing spending on subsidies and tax exemptions in favor of spending on cash transfers and

policies aimed at addressing the market failures that constrain private investment. These options are more likely to increase growth. Key considerations include the following:

- *Targeted transfers are more cost-effective at redistribution than subsidies.* For subsidies and transfers, one consideration, in addition to their progressivity (see chapter 5), is the degree to which they reduce inequality (the points of the Gini index) per dollar spent—their “cost-effectiveness” at redistributing, as it were. For example, in 2012 subsidy spending in Indonesia was over 6 percent of gross domestic product (GDP) and social assistance spending less than 1 percent, but the least redistributive social assistance program had twice the cost-effectiveness of subsidies and the best program five times the cost-effectiveness (World Bank 2012). This finding led to the redirection of subsidy spending to infrastructure, health, and social protection. Similarly, in Jordan, spending on water and electricity subsidies amounted to more for each than the total direct transfers, but they are half as cost-effective as the least effective transfer program and a quarter that of the best (Rodriguez and Wai-Poi 2021). Nevertheless, targeted transfers have practical requirements and costs, such as for the data needed to assess eligibility and the potential social costs of differentiating eligibility and benefits.
- *Consumption subsidies vary in value and regressivity, but they are likely to be of lower value and more regressive than cash transfers.* When considering a subsidy, policy makers must answer several key questions: What is the policy objective? Is a subsidy the best instrument for achieving it? What externalities and distortions are being introduced? How difficult will it be later to remove the subsidy? Different subsidy types have different incidences and externalities. Fuel subsidies have high environmental externalities, and most benefits accrue to the rich. Utility subsidies also have negative externalities and leakage, but they are less regressive than fuel subsidies because they tend not to have indirect price effects (or at least not as large as those for fuel) because they are less likely to be inputs into production. A household or firm can consume only so much of utility subsidies, reducing their regressivity. Food subsidies are also less regressive than fuel subsidies—there are fewer indirect effects, and food makes up a large share of the consumption of the poor. Their incidence depends on their design. Chapter 6 points out that it is hard to justify putting in place distortionary subsidies that do not have positive externalities instead of cash transfers that have a higher value and are better targeted to those in need. However, such subsidies are widely used. One reason for their popularity may be that they benefit all households. This factor may point to the need for transfer programs that are somewhat less narrowly targeted. As a result, they may be more politically feasible, while also preventing the types of distortions that reduce the value of social spending via price subsidies.
- *Tax expenditures are large and often go to firms and better-off households.* There are many types of tax expenditures: value added tax exemptions and preferential rates, corporate income tax holidays, personal income tax exemptions and deductions, and so on. The beneficiaries of such tax expenditures vary. Some of these instruments may be progressive relative to income (that is, worth more to poorer households as a share of their income) but expensive and regressive in absolute terms (that is, the greatest share of benefits goes to richer households). Value added tax exemptions, in particular, act like subsidies.
- *Spending to address market failures is often of higher value than production subsidies and tax exemptions that do not produce positive externalities.* Agricultural input subsidies are large in low- and middle-income countries, but they are counterproductive in the long run because they distort incentives to invest in efficiency and often result in lasting damage to the natural resource base. Addressing the root cause of inefficiencies and constraints on productivity will bring larger gains in the long run. Experimental evidence from poor farmers in Sub-Saharan Africa and South Asia highlights the potential of well-designed extension and

marketing support policies. Compared with tax exemptions to firms, recent evaluations of support of small and medium enterprises reveal that customized business services and management training can have a higher immediate and sustained return when implemented well (McKenzie 2021; McKenzie et al. 2021; Quinn and Woodruff 2019).

Spending for transformative growth in the long run

The benefits of high-value policies that usher in transformative growth often accrue in the long term. However, with their eye on immediate priorities and political cycles, governments can overlook the long-run growth benefits of these policies, which limit the potential of an economy to achieve inclusive growth tomorrow.

Investments in child health and education have large impacts on long-run growth. This type of spending can be transformative if well implemented because it places young people on a trajectory of higher lifetime earnings, thereby growing the economy and contributing to future revenue. For example, according to Hendren and Sprung-Keyser (2020), the average marginal value of public funds aimed at improving child health and education outcomes in the United States is infinite—they pay for themselves. Social spending programs to improve the welfare of adults tend to have a lower value in the long run (a marginal value of public funds of between 0.5 and 2.0). Impact evaluations suggest these findings hold in LICs and MICs, but implementation and context matter. For example, investments in education may need to be accompanied by policies that develop more labor market opportunities so that higher lifetime earnings can be realized.

Policies that produce transformative growth can be hard to identify. Examples include investment in research and development (R&D) that raises productivity, certain infrastructure projects, and policies associated with long-run climate-related benefits. Such policies can set an economy on a higher and more sustainable growth trajectory because they change the structure of the economy and increase productivity. Evidence from the Green Revolution finds that spending on agricultural R&D can have, for technology adopters, large impacts on agricultural growth, investments in schooling, capital accumulation, and reductions in fertility and migration (both locational and sectoral). The same spending can bring benefits to nonadopters through lower food prices, environmental benefits from lower land use, and a faster pace of structural transformation. Investments in public infrastructure also have the potential to bring transformative growth by reducing travel times and connecting new labor markets or by improving access to education and health services that increase earning opportunities in the long run. Evidence from public transit projects in Mexico and Colombia suggest that the gains in GDP can outweigh the direct costs. However, not all infrastructure investments will be of high value. The transformative potential of infrastructure policies depends on the country context, the efficiency of implementation, and how a particular project affects beneficiaries and nonbeneficiaries through different channels in the short and long run.

Positioning fiscal policy to protect households against future crises

Although the shock from the COVID-19 crisis was large and global in reach, every year climate-related and conflict-induced crises affect many households and hamper efforts to reduce poverty and build shared prosperity (World Bank 2020a). Countries can plan for the many crises that can be predicted (Clarke and Dercon 2016).

Waiting until a crisis occurs to plan and fund a fiscal response leads to a slow, inadequate recovery, with real consequences for the poor and those most affected by the crisis. By contrast, a well-targeted, timely response can fundamentally change the course of a disaster for poor or vulnerable households. Farmers who receive cash early in a drought can pay for supplemental

irrigation to limit the impact of the drought on food production (Hill et al. 2019). In Bangladesh, households benefiting from a preapproved, funded action plan triggered by reaching the forecasted flood level were more likely to evacuate household members, less likely to lose assets, and more likely to protect consumption (Pople et al. 2021). Even if this type of early response is not achieved, responding quickly to help households cope with their immediate income losses from a crisis can prevent short- and long-run increases in poverty from the crisis. In Mexico, when the costs of responding to disasters were covered by transfers from a contingent fund to municipalities, postdisaster mortality was reduced (del Valle 2021) and local economic recovery was accelerated (del Valle, de Janvry, and Sadoulet 2020). Often, however, the funding needs are not all met within a reasonable time frame. An assessment of financing for disaster response against needs (covering the 2015 earthquake in Nepal, the 2019 cyclones in Mozambique, the 2015 cyclone in Vanuatu, and the 2015 hurricane in Haiti) found that after 18 months an average of only 15 percent of needs had been met (Crossley et al. 2021).

Acting now on lessons from the COVID-19 crisis can strengthen the ability of governments to mitigate the welfare impacts of future crises. However, the experience of 2020 underscores that (1) in the medium term, fiscal policy cannot play the same protective role in countries with higher costs of borrowing and weaker delivery systems; and (2) it is crucial to supplement actions to strengthen the ability to respond to crises with other means of supporting poor households to cope with shocks. Other crises have also shown that the costs of a crisis are typically not fully covered by public sources. Analysis in chapter 4 reveals that more households in LICs used savings or assets to manage the impacts of the COVID-19 crisis than received support from governments, thereby confirming other findings showing that in Sub-Saharan Africa savings and informal transfers are much more important sources of support than government transfers (see, for example, Nikoloski, Christiaensen, and Hill 2018).

While critical, planning for disasters does not replace but rather complements efforts in physical risk reduction and emergency preparedness because these efforts can reduce the cost of disasters in the first place.

Steps to better financial preparedness for a crisis response

Financial planning help ensures that finance can be accessed quickly and cost-effectively in a crisis. Such planning includes designing comprehensive strategies based on the right data and information, developing risk financing instruments based on these strategic priorities, and implementing prearranged disbursement channels. A growing number of countries are developing disaster risk finance strategies to do this.¹ Such a strategy outlines a government's priorities in dealing with the fiscal risks from disasters and serves as a reference for relevant stakeholders on managing these risks with tactical financial instruments.

Various risk financing instruments ensure better financial preparedness for disasters. These instruments, which can be designed to protect government budgets following shocks, may target specific people or sectors, including the most vulnerable households, the agriculture sector, and the infrastructure sector. For example, instruments can be used to fund infrastructure reconstruction or the additional costs associated with continuing service delivery (del Valle, de Janvry, and Sadoulet 2020). It is important that such instruments be combined in a cost-effective risk layering strategy that considers both time and cost. That will ensure that the volume of funding available at stages of the response matches actual needs in a cost-efficient manner in order to access cheaper sources of financing first. The benefits and costs of instruments are summarized in table 7.1. Examples of how these instruments have helped countries finance a crisis response follow.

- To implement its National Disaster Risk Finance and Insurance Strategy, the government of Indonesia established several instruments. A dedicated reserve fund, the Pooling Fund for Disasters (Pooling Fund untuk Bencana), ensures access to sufficient resources for disaster

TABLE 7.1
Comparison of risk financing instruments

Type of instrument	Advantages	Disadvantages	Best suited for
Ex ante			
Contingency/reserve fund	<ul style="list-style-type: none"> • Can be cheap, particularly for frequent shocks • Fast • Allows implementers to plan • Allows governments to learn from experiences of others because approach has been used in many contexts 	<ul style="list-style-type: none"> • Requires fiscal discipline • High opportunity cost of funds given high rates of return on other government investments • Can be hard to defend annual allocations 	Low-risk layer: frequent low-level events, such as annual flooding or localized drought or conflict
Contingent credit	<ul style="list-style-type: none"> • Can be cheap, particularly for mid-frequency shocks • Fast, if conditions are met • Allows implementers to plan • Can incentivize proactive actions to reduce risk (such as Cat DDO) 	<ul style="list-style-type: none"> • Has conditionality • Entails opportunity cost of loan • Adds to country's debt burden; must be repaid 	Middle-risk layer: higher-magnitude events such as widespread flooding or hurricanes that occur less frequently but cause damage that exhausts the resources of national contingencies
Market-based risk transfer instrument	<ul style="list-style-type: none"> • Leverages additional finance for infrequent events, making them more cost-efficient • Can be disbursed quickly • Allows implementers to plan • Supports fiscal discipline • Promotes risk diversification 	<ul style="list-style-type: none"> • More expensive for frequent shocks • Can be vulnerable to criticism and "regret" • Can miss need • Requires a level playing field to negotiate • Entails trade-off between the cost of premiums and the frequency or scale of payout 	High-risk layer: extreme, less frequent events occurring less often than every 5–10 years, such as severe droughts, hurricanes, or earthquakes
Ex post			
Humanitarian assistance	<ul style="list-style-type: none"> • Flexible; can respond to need • Does not have to be repaid 	<ul style="list-style-type: none"> • Can be slow, so the hazard impact increases • Can be unreliable • Undermines planning 	Only as a last resource
Other ex post instruments (such as budget reallocation)	<ul style="list-style-type: none"> • Offers lessons from experience, because approach has been used in many contexts • Can respond to materialized need 	<ul style="list-style-type: none"> • Can have a negative impact on long-term development/investment programs • Can be expensive • Can be slow to mobilize funding 	Primarily as a last resource

Source: World Bank, Disaster Risk Financing and Insurance Program.

Note: Cat DDO = Catastrophe Deferred Drawdown Option.

response and streamlines the execution and transparency of spending (World Bank 2021a). Its more than US\$2 billion in insurance coverage of public assets provides infrastructure reconstruction protection covering more than 5,000 buildings across multiple line ministries and agencies.

- Countries with World Bank Catastrophe Deferred Drawdown Options before the COVID-19 crisis had the quickest flow of funds from the multilateral system for the fiscal response: 80 percent of these World Bank funds had been disbursed by the end of April 2020, compared with less than 30 percent of other forms of budget support from the multilateral system and less than 5 percent of project financing (Yang et al. 2021).

- In 2021, the Philippines—still recovering from the pandemic—was hit by Typhoon Rai, triggering a US\$52.5 million payout of the Philippines catastrophe bond to allow financing for disaster response and recovery (Evans 2022). In 2018, the Pacific Alliance countries (Chile, Colombia, Mexico, and Peru) jointly sponsored a US\$1.36 billion catastrophe bond to reduce their fiscal vulnerability to natural disasters. Peru received a US\$60 million payout in 2019 for an event that triggered the instrument (World Bank, n.d).
- In 2020, the Turkish Catastrophe Insurance Pool paid out more than US\$60 million to 58,591 households affected by two major earthquakes that year.² More than half of the households in Türkiye are insured by this pool.³

So why are these instruments so little used? It is not easy for governments to allocate funds to preparation for the next crisis when they are facing pressing needs today. Psychologists have long noted that people tend to be optimistic about the likelihood a bad event will befall them (the “it won’t happen to me” heuristic). Governments thus find it hard to push for preparing for the low-probability, worst-case scenario. Even if the cost of preparation is small, the psychological cost-benefit assessment may not resolve in its favor. When the cost of preparation is large, choosing to fund tomorrow’s disaster over urgent development needs today becomes even more difficult.

Meanwhile, many incentives are stacked against preparing for crises. Incentives differ by crisis and by country. Almost universally, however, political incentives are aligned with a big show of support in a crisis instead of preparing for a disaster. This approach wins more votes in the United States and Mexico (Healy and Malhotra 2009), and these political disincentives flow through to bureaucracies. The international humanitarian and development system also does not incentivize allocation of financing to a crisis response *ex ante*. Humanitarian and development partners consistently step in with finance when a predictable crisis is well developed and large welfare costs are already evident. This practice reduces the incentives for the governments, particularly governments in LICs, to proactively plan for these needs (Clarke and Dercon 2016).

Loans and grants to countries are an opportunity to incentivize proactive financing that prioritizes the right risks, responds to clear needs in a transparent and objective way, and complements ongoing initiatives and aligns with government strategic priorities. Some recent changes highlight steps in this direction. The International Development Association has now allocated US\$1 billion for early response financing. The Crisis Response Window for Early Response Financing can disburse funds based on predetermined triggers, and they do not count toward a country’s International Development Association allocation. The World Bank’s Global Risk Financing Facility makes funds available to match government contributions to investments in risk finance instruments.⁴ And the United Nations’ Central Emergency Response Fund is supporting anticipatory action pilots in which a response plan is financed before a crisis and disbursed according to pre-agreed triggers. These approaches need to move beyond the pilot scale to become part of mainstream financing by the international system.

Preplanning is important, but the urgency of financing needs might go well beyond what can be prepared for cost-effectively in advance. Governments will likely continue to rely on *ex post* financing in major disasters, even when prearranged finance is in place. Therefore, it is also important to strengthen *ex post* financing. As described in chapter 4, the scale of the fiscal response to the COVID-19 crisis was essential for impact, and this scale was determined in large part by the cost of borrowing. Better debt management in advance of a crisis is necessary for better crisis preparedness.

In addition to better debt management, a more transparent and more disciplined approach to budget cuts can minimize their costs. Budget reallocations should be rule based and, to the extent possible, predictable and conducted in a consultative way to maintain budget credibility and minimize opportunity cost without compromising the speed with which reallocations can be made. Tracking the historical response needs and costs is fundamental to understanding the

requirements of the next shock and helps put the right instruments in place. Currently, very few countries systematically track disaster-related expenditures, and those that do have limited data on the use of the funds.

A fiscal system that can deliver support quickly in a crisis

Funding alone is not enough: a plan and operational preparedness—ensuring the flow of money to beneficiaries—are equally important. Impact has been demonstrated when financing and a plan have been put in place before a disaster *and* there is an automatic link between the availability of financing and the delivery of support—to municipalities in the case of Mexico (del Valle, de Janvry, and Sadoulet 2020) and to households in the case of Bangladesh (Pople et al. 2021). In both instances, eligibility for support was automatic once the pre-agreed trigger for action was met. According to *Public Expenditure Review: Disaster Response and Rehabilitation in the Philippines*, the release of funding from prearranged sources can be delayed by ineffective public financial management systems, such as complex approval processes (World Bank 2020b).

Why are automatic criteria and preapprovals important? Without preapprovals, public financial management systems and bureaucratic approvals can hinder the quick transfer of funds and implementation of response plans. The African Risk Capacity (ARC) Group provides its member governments in Africa with fast financing of drought responses using a parametric insurance policy and contingency planning support for governments to optimize use of the funds. In some cases, ARC policies have resulted in swift payments to farmers. For example, in Mauritania, ARC payouts allowed the distribution of support to households to start two months earlier than usual. However, in the early years of ARC, three out of four cases missed the target payout time of 120 days because of bureaucratic delays (OPM 2017; Vyas et al. 2019). Preplanned procurement for disaster response and recovery can facilitate implementation and disbursement and also generate savings and cost efficiencies, as evidenced in the Caribbean (Rafuse, Bruce, and Arnold 2020).

Delivery systems that automatically target and meet needs are an important component of support systems. The COVID-19 response highlights the challenge in quickly identifying needs and targeting timely support to meet those needs. Automatic stabilizers can deliver support to those in need quickly and with accurate targeting. Unemployment insurance and employment guarantee programs use self-selection to allow accurate targeting of those affected by all types of economic shocks. Public health, disability, and agricultural insurance increase support through pre-agreed rules for assessing need when specific shocks occur. Extending these programs where possible is essential to ensuring that households receive support quickly. Although schemes will remain challenging to implement in contexts in which a large share of the workforce is informal or self-employed, examples of two that are operating well in these settings follow.

- The government of Kenya has mobilized private sector financing and disbursement channels to reach vulnerable pastoralists. Its Kenya Livestock Insurance Program was launched in 2015 and implemented through a public-private partnership between the government and insurance companies. The program offers drought insurance that is fully subsidized by the government to some 30,000 households. Insurance companies pay claims directly to the beneficiaries when a payout is triggered by drought. The government is now moving toward a partially subsidized program, and similar programs are being prepared in Ethiopia and Somalia.
- In India, the Mahatma Gandhi National Rural Employment Guarantee Act has played a role in mitigating the impact of rainfall shocks in the past (Gehrke 2019) and was also used to mitigate income losses during COVID-19, particularly later in the crisis when concerns around social distancing eased (Gelb et al. 2021). The government of India increased the

budget for additional workdays between April and September 2020, and states that were able to increase total workdays under the act by one day per rural person in a district reduced job losses by 7 percent in rural areas over the baseline employment rate (Afridi, Mahajan, and Sangwan 2022).

In the absence of automatic stabilizers, cash transfer programs can be made adaptive so that they scale up automatically in a crisis. In adaptive social protection programs, it is clear in advance how the number of beneficiaries will be increased on the basis of predictable crises, such as a one-in-five-years drought that increases the need for cash transfers in a rural area. The rules covering when to scale up (that is, what kind of event is used as a trigger), for whom, for what size event and duration, and for what method of financing are documented in the operational manuals of these programs. In Malawi, the government is implementing an adaptive social protection program in preselected districts, combining contingent financing with risk transfer (MEPDPSR 2021). Precrisis investments in the beneficiary registry, data collection repositories, and payment systems are needed to make this work. Gentilini (2022) provides a comprehensive assessment of what the COVID-19 response taught about the investments needed.

To increase the degree to which adaptive cash transfers can scale up automatically, further innovation in state-contingent targeting is needed. Data in social registries and PMT formulas collected and designed during noncrisis times cannot by themselves identify the newly poor in a crisis. Data that reflect the severity of the crisis on the ground in real time are needed as a complement. Nascent examples have demonstrated two promising approaches. The first approach involves combining preexisting vulnerability data with crisis-specific triggers, including geographic targeting of anticipatory action in response to a natural hazard. The second entails complementing existing population registers with individual-level data that are passively collected during a crisis, such as the phone-based targeting method used in Togo (see box 4.1 in chapter 4). The value of digital payment systems in expanding support to new beneficiaries was also a notable part of Togo's impressive COVID-19 support. Recent crises have highlighted multiple sources of real-time data that can effectively track economic outcomes during crises. Examples of such sources are emissions data and Google mobility data during the COVID-19 pandemic and data on flood extent, soil moisture, or greenness during climate crises.

Fiscal priorities for countries where building fiscal systems to respond will take time

The coverage of social assistance remains low in many countries, particularly LICs and LMICs. Although coverage may increase in coming years, it will take time before it is large enough to be a reliable source of support for poor and vulnerable households in a crisis (see figure 4.16 in chapter 4). In the meantime, during a crisis these households will be relying on savings, assets, loans, and informal transfers from friends and family. In these contexts, fiscal policy can support the development and use of these financial strategies. A review of evaluations of interventions that support household access to financial instruments—mobile money transfers, savings, credit, and insurance—reveals that (1) interventions that extend the geographic reach of informal risk sharing improve the ability of households to protect their welfare against disasters; (2) heavily subsidized insurance produces welfare benefits, or at least the belief that welfare that is better protected produces welfare gains; (3) interventions to increase savings may help households manage shocks (there is little evidence on this); and (4) there is one study that highlights the promising potential benefits of contingent credit (Hill, Peredo, and Tarazona 2021).

Examples of fiscal policies that help support these strategies are progressive taxation policy on digital transfers (discussed later) and other mobile money products (such as insurance), as well as investments in financial inclusion and reaching households not yet benefiting from mobile money.

Another example is subsidizing the development of insurance options that work well for nonpoor but still vulnerable households that need protection but do not qualify for a cash transfer program. The benefits and costs of each intervention will need to be assessed in each country context, and often in comparison with alternative interventions.

Supporting firms during the pandemic has been a way to protect jobs and markets for goods and services, helping to avoid the loss of potentially productive firms and preserve the long-term relationships between firms and workers that would be difficult to rebuild (World Bank 2021b). Interventions that support access to financial protection for firms have a role as well. In Rwanda, the government is financing a risk-sharing mechanism—a “bridge lending window”—to increase lending from the financial sector (banks and multilateral financial institutions) to vulnerable micro, small, and medium enterprises exposed to climate shocks. In such an event, MSMEs can use funds from the bridge lending window to meet loan repayments for a fixed period (say, six months), reducing default rates, and then pay back the lending window funds over a longer period. The Rwandan government is also exploring the option to take out an insurance product to protect the bridge lending window in the event of a catastrophic climate event that would increase requests by micro, small, and medium enterprises for support.

Raising revenue

This chapter does not review options for better debt management because the *World Development Report 2022* discusses those measures in detail (World Bank 2022). Instead, the chapter considers how to increase mobilization of domestic resources in a way that reduces inequality while not increasing poverty. In its discussion of the short-term impacts of fiscal policy, this section builds on chapter 5. The discussion is also informed by evidence on the long-run value of fiscal decisions, as discussed in chapter 6. The patterns of and lessons from international experience suggest a series of short- and medium-term actions:

- *Short term.* Use tax and transfer strategies appropriate to the country context to increase progressivity where possible. Such strategies exist for all levels of country income and administrative capacity.
- *Short term.* Explore new (or underused) tax instruments that address externalities and can be progressive (property, green, health, and digital taxes).
- *Medium term.* Strengthen direct taxation capacity (personal income, property, and corporate income taxes) and direct transfer capacity, in part through digitalization and better use of data.

Increasing progressivity while raising revenue through tax and transfer strategies

Although richer countries tend to redistribute more through fiscal policy (as discussed in chapter 5), progressive fiscal policy is possible at all income levels. Richer countries use taxes and transfers to reduce poverty and inequality to a greater extent than poorer countries. In richer countries, revenues rely more on progressive direct taxation and create more fiscal space for social spending. Meanwhile, these countries’ administrative capacity allows them to accurately observe income, both limiting tax evasion and more accurately targeting support to poorer households. MICs can also reduce inequality by using fiscal instruments for the purposes for which they are better suited—indirect taxes for revenue generation and direct transfers for income support for the poor—while avoiding costly and regressive subsidies and indirect tax exemptions. In this way, countries can both generate sufficient revenues and reduce poverty and inequality. The poorest countries are particularly constrained in their revenue-generating capacity, space for spending, and ability to target. Even so, the short-term burden of taxes on the poor can be minimized through well-designed social assistance.

Table 7.2 describes tax and transfer strategies that can promote the progressivity of fiscal policy for countries at all income levels while still generating the additional revenue needed during fiscal consolidation. For high-income countries (HICs) and those UMICs aspiring to HIC status, broadening the direct tax base by means of changes to tax schedules and investments in administrative capacity is key, as is targeting direct income support to the households that need it most. Such an approach combines the most progressive fiscal instruments on both the tax and spending sides. For LMICs and UMICs without sufficient administrative capacity or sufficiently formal economies to sustain a broad direct tax base, medium-term investments in strengthening administrative capacity are important. In the shorter term, indirect taxes are best focused on revenue generation (eliminating costly and regressive exemptions), and direct transfers can be used to offset the burden on poorer households, although targeting errors are inevitable in less formal economies. LICs could also adopt this approach of maximizing revenue through indirect taxation while building targeted direct transfers to support the poor.

Patterns in the international experience suggest a series of short- and medium-term actions, as noted previously. In the short term, a country can assess whether the tax and transfer strategy is appropriate for its income level and administrative capacity and move toward a more suitable strategy if necessary. This process could include the exploration of new tax instruments (such as

TABLE 7.2

Progressive fiscal policy strategies are available to all countries

LICs: Increase revenue, build safety nets	LMICs and UMICs: Broad indirect taxation with targeted direct transfers	HICs and aspiring UMICs: Direct taxation and targeted direct transfers
<p>Indirect and trade taxes are inevitable.</p> <ul style="list-style-type: none"> Taxes are not progressive and will burden households but they are the main revenue-generation instruments. <p>But health taxes can raise important short-term revenue directly and long-term revenue indirectly, as well as reduce long-term public health spending</p> <p>Investments in social assistance can help reduce inequality and offset the burden of indirect taxation for the poorest.</p> <p>Investments are needed in tax administrative capacity for collecting direct taxes (such as PIT, property tax).</p>	<p>Indirect taxes have a revenue and regressivity trade-off.</p> <ul style="list-style-type: none"> But exemptions are generally an inefficient way to help the poor; “personalized VAT” schemes are difficult. <p>Indirect taxes combined with targeted transfers can be progressive.</p> <ul style="list-style-type: none"> Each instrument should be used for its best purpose (raising revenue, supporting the poor). <p>But indirect taxes have some limitations.</p> <ul style="list-style-type: none"> Indirect taxes create a greater burden to offset, while targeting has more errors because of data constraints and so transfers are less effective. If the prices of basic goods are high, the VAT is a greater burden on the poor. <p>Political economy issues are raised in closing exemptions/raising rates, targeting errors, and coverage rates.</p> <p>Indirect tax revenue should be augmented with progressive health tax revenue.</p> <p>Investing should continue in the capacity for direct taxation and expanding the PIT and property tax base.</p>	<p>Direct taxation is progressive.</p> <ul style="list-style-type: none"> It raises revenue from those who can most afford to pay, which can then be used for progressive spending. <p>Use of progressive health tax revenue should continue.</p> <p>Targeted direct transfers are progressive.</p> <ul style="list-style-type: none"> They are the most cost-effective way of reducing poverty and inequality. Richer countries with more formal economies and more data can target more precisely (eligibility and benefit levels).

Source: World Bank.

Note: HIC = high-income country; LIC = low-income country; LMIC = lower-middle-income country; PIT = personal income tax; UMIC = upper-middle-income country; VAT = value added tax.

green, health, or digital taxes) that raise revenue and can be designed in a progressive fashion. Short-term action could also include redirecting spending more toward cost-effective, targeted direct transfers and less toward subsidies and tax expenditures.

Over the medium term, all countries should invest in their direct tax capacity. Administrative constraints explain part of the low revenue collection of direct taxes, especially in LICs. Nevertheless, many countries already have the capacity to raise more direct tax revenue. Beyond income tax withholding by firms, consolidation of increasingly digitized data sources might allow expanding the tax base to capital and mixed income (discussed further later in this chapter). Furthermore, international tax agreements for automatic exchanges of information and greater transparency of wealth held offshore could reduce the movement of reported income across borders and the extent of international tax avoidance, thereby permitting more progressive taxation of domestic income.

Introducing new forms of progressive taxation

Property taxes can raise revenues progressively, but they are complex to administer and take time to implement at scale. New technology can help. On average, property tax revenue in countries that are not members of the Organisation for Economic Co-operation and Development (OECD) is just 0.3 percent of GDP, as opposed to close to 2.0 percent in OECD member countries. This finding may be surprising because historically property taxation has been an important source of revenue in OECD countries and the property tax base is visible and immobile. However, the data requirements (accurate land and building databases) are significant; their administration requires greater capacity than that for even personal income tax, and initially the costs of administration are greater than the revenue raised. Many countries thus start with a *land* tax, which itself requires governments to invest in their regulatory framework and institutional capacity. The revenue raised from successful land taxes can then, in part, be reinvested in the capacity to administer a *property* tax. Meanwhile, administrative constraints arising from outdated cadasters and property valuation can be partially resolved via data and technological improvements, even in countries with limited tax capacity:

- *Update cadasters.* Satellite imaging and drones can be used to extend and update cadasters. For example, in Kigali, Rwanda, high-resolution satellite images for measuring building footprints and heights are combined with data from the statistical agency to build accurate cadastral records and extend their coverage at a low cost (Ali, Deininger, and Wild 2020).
- *Improve and simplify valuation.* Area-based valuation, which uses easily observable characteristics of a property, combined with local data on rental and sales values, can simplify the complicated process of valuation. Such data are increasingly available in urban areas with active rental and resale markets.
- *Encourage local government and central administrations to share the tax collection effort.* Property taxes are often local, funding local public goods and building trust. But higher-capacity central governments need to assist local governments in valuation, cadastral updates, and data sharing. Relying on the central government for valuation also limits the possibility of corruption.
- *Enhance social acceptance and trust.* Property taxes are unpopular—taxpayers frequently do not believe they have any benefits, and their lump sum nature can make them seem unfair to illiquid taxpayers. Increasing transparency, demonstrating that taxes fund local public goods, and, in some cases, earmarking revenue for popular projects can improve the social contract (Dom et al. 2022). Another frequent criticism is that, by taxing wealth, these taxes do not consider the capacity to pay and liquidity constraints. This criticism can be alleviated by spreading payments over time, withholding taxes from direct deposits, and building exemptions for specific situations.

New fiscal instruments could raise additional revenue. Examples are green taxes, health taxes, taxation of the digital sector, and improved inheritance, wealth, and capital gains taxation. These tax instruments may not be appropriate for every context, but they should be explored.

- *The climate urgency implies that fiscal policies that reduce carbon emissions and encourage clean energy use should be considered.* Excise taxes on fossil fuel consumption and electricity could raise revenue, but any reform needs to carefully consider their distributional implications, and, like the removal of value added tax exemptions, design compensation mechanisms for the poor. Carbon taxes present several advantages. First, they can initially be applied to a small group of heavy-polluting firms (which often produce upstream), thereby facilitating tax administration. Second, beyond their impact on carbon reduction, these taxes tend to generate other positive externalities, such as less air pollution. Third, their design needs to consider their impact on competitiveness, employment, and abatement possibilities. Employment effects are difficult to identify, but studies find, if anything, positive impacts and progressive reallocation of jobs. Furthermore, carbon taxes do not distort the choice between the formal and the informal sector when collected upstream from large formal firms, and some of the new revenue collected could be used to lower labor taxation (Schroder 2021). Much of the existing analysis is focused on HICs (Azevedo, Wolff, and Yamazaki 2019; Dussaux 2020; Goulder et al. 2019; Martin, de Preux, and Wagner 2014; Metcalf and Stock 2020; Schroder 2021; Yamazaki 2017), but cross-country analysis suggests that carbon taxes can raise revenue without increasing inequality in LICs and MICs (Dorband et al. 2019).
- *Health taxes, such as on tobacco, alcohol, and sugar-sweetened beverages, are increasingly being adopted, with often net positive effects on long-term health and public finances.* Although health taxes can affect the poor more in the short term, they are progressive over the long term because poorer households benefit more from lower out-of-pocket spending and higher lifetime earnings. Shorter-term revenue averages around 0.4 percent of GDP for tobacco and for alcohol and 0.1 percent for sugar-sweetened beverages (OECD chapter, in Lauer et al., forthcoming). In Indonesia, however, tobacco excise taxes made up 10.6 percent of all revenue in 2020 (1.1 percent of GDP), and they could grow quickly (Ross 2021). In the Philippines, reforms saw alcohol excise taxes grow in contribution from 0.2 percent to 0.4 percent of GDP by 2019, and for tobacco from 0.3 percent to 0.8 percent of GDP. Moreover, the long-term savings to public health spending may even exceed the short-term revenue. Thus, if revenue declines over time as consumption falls, the health spending savings will continue to increase, implying that the fiscal gains can be significant and sustained.
- *The digital sector and online purchases often avoid taxation because of outdated legislation.* Although some aspects of the digital economy could complicate the administrative process of collecting taxes, especially when they occur across borders, other aspects are simplifying the process (Lucas-Mas and Junquera-Varela 2021). For example, large online platforms concentrating economic activity and transactions can act as withholding agents. With appropriate adjustment of legal frameworks and investments in the capacity to monitor this expanding sector, the digital economy might serve as a chance to improve tax collection.
- *Taxation of inheritance and wealth raises little revenue outside of OECD countries.* Taxes on capital transmission and on capital stock (wealth taxes) are often unpopular, can be hard to administer, and may slow capital accumulation, at least in OECD countries (Jakobsen et al. 2020). Yet these taxes are very progressive, and the widening of income and wealth inequality in many countries could call for their expansion. Currently, low- and middle-income countries do not rely much on this form of taxation, but in OECD countries there is an active debate, especially on the expansion of inheritance taxes, which could reduce inequality of

opportunity and reduce social mobility (OECD 2021). Despite the uncertainty, UMICs with greater institutional capacity and accumulated wealth could consider further reliance on taxes on inheritance and possibly wealth.

- *Taxes on capital gains (appreciation of property or shares).* These taxes are progressive and can raise revenue, especially in places where real estate values have increased substantially. Yet capital gains taxes face their own challenge: they can discourage investment, can lock capital owners into their position (because they are untaxed until realization of the gains), and can require that transactions be recorded and administered efficiently. The government thus needs to work closely with third parties, such as public notaries, to ensure compliance. Many countries apply low rates to capital gains, and some UMICs might consider revising this practice.

Increasing the progressivity of personal income tax and corporate income tax

As discussed in chapter 6, the degree of progressivity of the tax code is a choice that will, in part, reflect the social welfare weights a country gives its income groups. However, hastening poverty reduction will often benefit from increasing the progressivity of the personal income tax and corporate income tax. Corporate income taxes (CITs) contribute about 2 percent of GDP, but more could be raised in many countries. The CIT acts as a complement to the personal income tax, is progressive, and is administratively simple to collect. Although tax competition to attract investments has led to a drop in the statutory CIT rates worldwide, the macroeconomic effective tax rate on corporate profits has risen over the last 20 years in several MICs, especially in large economies (Bachas et al. 2022). Thus, the race to the bottom in corporate taxation is not inevitable, and governments can undertake measures to raise CIT revenue.

- *Reassess corporate tax incentives.* Many countries provide large firms with generous tax incentives, leading to a reduction in effective tax rates at the top of the firm size distribution. A cost-benefit analysis of these tax provisions would help justify those that are productive and remove those that are inefficient and inequitable (Kronfol and Steenbergen 2020).
- *Increase firm formalization.* Governments should not try aggressively to formalize small firms, which often display low productivity and whose reported income is very elastic to the tax rate (Bachas and Soto 2021). However, formalizing productive medium-size informal firms, which compete with formal ones, would raise revenue and level the playing field (Ulysea 2018).
- *The new international corporate tax infrastructure is projected to yield little additional revenue. Countries should continue to train personnel and adapt legislation to limit tax avoidance.* The OECD-led reform of the corporate tax architecture (scheduled for implementation by 2023 in 136 countries) includes both rule revisions to determine where economic activity takes place and how to allocate profits across jurisdictions and the establishment of a global minimum corporate tax of 15 percent to prevent excessive use of tax havens. Its adoption would represent a step forward for equitable taxation of multinational enterprises globally. As currently designed, however, the reform benefits OECD countries and large economies because the distribution of revenue depends on the location of such enterprises' headquarters, and the rules permit substantial exemptions. For low- and middle- income countries, the new framework is projected to raise CIT collection by only a few percent of baseline (Barake et al. 2021). To raise further revenue, these countries will need to continue to improve their legal arsenal, train personnel, and adopt the OECD/G20 Base Erosion and Profit Shifting framework to limit tax

avoidance by multinational enterprises. The momentum for global CIT reform might encourage additional exchanges of information across jurisdictions and reduce the role of tax havens and unfavorable tax treaties.

Finally, ongoing investments in data and technology can improve revenue collection and the ability to increase the progressivity of taxation. Because taxation is first and foremost about precise information on income, the digitalization of large quantities of data on transactions, tax and transfer histories, and third parties (such as procurement, financial, and utilities) promises to improve government fiscal capacity. Digitalization can help countries detect unregistered firms, improve the assessment of taxes to be paid, and detect fraud. E-filing and prefiled tax returns can reduce taxpayer compliance costs and the need for tax official interventions.⁵ Furthermore, new data could permit more precise targeting of beneficiaries of social assistance and social insurance programs.⁶ Box 7.1 discusses the potential benefits of investments in digital technology in more detail, as well as some of its limitations.

A concrete example of technological change enhancing fiscal capacity is the increasing use of digital payment methods. When combined with the adoption of electronic billing machines, which directly report taxable sales to the tax administration, the declining use of cash improves the capacity to detect tax evasion and illicit transactions, and it could solve the main weakness of the value added tax by providing information on end-consumer transactions. The Republic of Korea is an example of a successful digital transition supported by tax incentives (Sung, Awasthi, and Lee 2017). Policy makers should, however, remain cautious in their approach to the digital sector—putting restrictions on cash can come at a high efficiency cost, especially for poorer households (Alvarez et al. 2022), and formalizing very small firms could be regressive. Furthermore, as mobile money services and transactions expand, governments are increasingly tempted to tax both mobile money providers and transactions directly. This taxation could hurt technology adoption and reduce financial integration over time.

Nevertheless, data and technology are not a panacea: their use and adoption need to be adapted to each country and combined with investments in the skills of the bureaucracy. Data need to be centralized, merged, and harmonized. At the same time, an adequate legislative and regulatory environment will both facilitate data sharing and ensure data protection and privacy. In practice, data integration often faces constraints stemming from lack of centralized systems to host data, missing digital IDs, lack of collaboration across government institutions, and an inadequate information technology infrastructure. Governments must, then, hire well-trained personnel and phase in technologies customized for each country and tailored to their segments of taxpayers (such as large firms versus small and medium enterprises). For example, tax administrations could build a data lab or a policy studies unit to ensure the quality, security, and usability of data merged across sources. The *World Development Report 2021: Data for Better Lives* describes what governments can do to improve the role of data in public administration (World Bank 2021c). Among other things, governments could create an efficient Integrated National Data System that includes relevant stakeholders in the data life cycle and in the governance structures of the system. Data labs for tax administrations can benefit from the system to foster data production, protection, exchange, planning, and decision-making.

Political economy considerations

Some of the recommendations in this section on how fiscal policy could increase equity in the context of countries' administrative capacity can be implemented through administrative reforms such as greater enforcement of property taxation. Others will require tax reforms supported by a broad political consensus. Although the recommended reforms represent a move toward a progressive revenue base, they will produce winners and losers, and the losers may

BOX 7.1**Digitalization can improve the efficiency of fiscal administration, but not without challenges**

Digitalization of a developing economy's tax system could increase the efficiency of fiscal administration, in part through higher data quality and better access to the data generated by digital systems. For example, the use of geographic information system mapping has increased the quality of cadastral data collection and planning in Georgia by simplifying the process for authorities and citizens and eliminating fraud (National Agency of Public Registry of Georgia 2015). This method was also used in India, beginning in the 1980s, to create digital images for the cadastral map, which helps to identify unreported property across the country. The creation of a cadastral map facilitates land management and planning, as well as land registration and insurance of land titles to reduce land disputes (Mondal, Bandyopadhyay, and Chakravarty 2015).

Digitalization in the tax system can boost government revenue. Peru's e-invoicing system, introduced in 2013, contains billing and payment data in a machine-readable format that can be imported directly into the accounts payable system and shared with tax authorities. In one quarter alone, e-invoicing was associated with average increase of 15 percent in taxable sales and 11 percent in taxable purchases. Value added tax liabilities also increased the first year by 11.6 percent. E-invoicing has reduced the cost for small and medium enterprises from US\$0.56 to US\$0.20 per invoice and helped eliminate data entry errors (Bellon et al. 2022). The iTax system in Kenya enables user registration, electronic filing, and tax payment online. This expansion of the tax base and increased ease of tax payment increased tax collection from US\$6.82 billion in 2011/12 to US\$8.94 billion in 2013/14, reaching the highest increase of US\$10 billion for the first time in 2014/15 (Ndung'u 2019).

Digitalization can also have a positive impact on the fiscal spending side through ease of cash payment, improved digital tools, and data transparency. Use of fingerprint-based biometric automated teller machines enabled the South African government to identify and remove the 650,000 social grants being delivered to noneligible citizens, saving it US\$65 million annually. This system also ensures that payments cease even when an individual's death is not registered. Recipients must confirm their participation in the program through monthly fingerprint verification or voice recognition (Kanbur 2017).

Although digitalization can effectively improve the conduct of fiscal policy, it also may come with significant challenges for low- and middle-income countries. System design and implementation are some of the issues. In South Africa, where e-filing replaced paper filing for VAT and employment taxes, tax compliance costs (TCC) for small and medium enterprises fell, on average, by 22.4 percent and hours spent on tax compliance fell by 21.8 percent from 2006 to 2008. Meanwhile, Nepal saw a 34 percent increase in TCC from 2009 to 2011, while in Ukraine there was up to a 25 percent increase in TCC within the time frame of 2006 and 2009. These differences were driven by variations in policy implementation, timelines, and TCC measurement. For example, although South African small and medium enterprises were only required to file taxes electronically, in Nepal and Ukraine companies were also required to provide hard copies of documents, resulting in the possibility of double reporting. Notably, the TCC success rate in South Africa was measured three to four years after its policy implementation, whereas in Nepal and Ukraine results were measured after only one year, without possibly accounting for the learning curve of firms (Yilmaz and Coolidge 2013).

need to be compensated or convinced of the value of the reforms via a robust social contract. Tax reforms intended to change distributional outcomes can often be blocked by elites and specific lobbying groups, and these political constraints represent one of the key barriers to progressive taxation (Prichard 2019).

Two specific political constraints are (1) low taxpayer morale and low compliance norms; and (2) resistance from interest groups and elites opposing tax reforms. An expanding literature has

studied the issue of tax morale and information, suggesting that a lack of trust in institutions and the perception that various tax revenues are not well used and do not reach intended users often hinder demand for more revenue collection (Dom et al. 2022). The use of behavioral science may in certain contexts help to increase tax compliance (see box 7.2). Furthermore, multiple studies show that taxpayers are poorly informed about the redistributive role of the tax system, although information on the (positive) distributional impacts of fiscal policy may increase citizens' willingness to pay taxes (Hoy, forthcoming). Understanding the determinants of successful tax reforms, which can overcome entrenched interests, is more difficult, and there are no one-size-fits-all recommendations. Successful tax reforms are usually achieved after extensive consultation and a political pact that explains both the equity and efficiency goals of the reform. Favorable conditions are more easily reached during political transitions and following important events that reinforce the need for state intervention, such as the COVID-19 pandemic. Martinez-Vazquez, Sanz-Arcega, and Tránchez-Martín (2022) reviews the experiences of countries that substantially increased their tax revenue in the past few decades. Some successful cases arose from expanding the tax base combined with simplifying tax collection, especially for corporate taxation by reducing the number of tax levies and harmonizing rates. For example, over a decade, Cambodia, Georgia, and Paraguay raised their tax revenue as a share of GDP by more than 5 percent.

BOX 7.2

Nudging tax compliance: How behavioral science tools can improve compliance at low financial and political costs

A wealth of recent studies across the world, including of low- and middle- income countries, have demonstrated that *nudging* taxpayers or applying insights from behavioral science to improve the way tax administrations communicate with taxpayers can lead to more honest and timelier tax declarations and payments (Dalton and Manning 2021; Hallsworth et al. 2017; Mascagni, Nell, and Monkam 2017). Nudging is best described as an intervention that alters the choice architecture (that is, how information or options are presented) in a way that promotes certain behaviors over others without significantly altering economic incentives. In this context, presenting information to taxpayers about their obligations in ways that induce *voluntary* compliance instead of *enforcing* compliance through costly audits, fines, or business closures has shown positive impacts. Various studies point to the effective use of targeted notifications centered around deterrence (Hernandez et al. 2017), national pride (Hallsworth et al. 2017), and public goods provision (Mascagni, Nell, and Monkam 2017).

A recent tax experiment in Albania tested this approach in the context of the COVID-19 pandemic. The General Directorate of Taxation, with technical assistance from the World Bank, explored the impact of behaviorally informed notifications to improve compliance among firms (employers and their employees) suspected of underdeclaring their personal income tax withholding on monthly tax returns. The exercise tested whether using a soft tone (positive reinforcement and highlighting the benefits of compliance) or a strong tone (warnings about the costs of noncompliance) was effective in reducing the withholding of payments. During the first month of COVID-19 lockdown in Albania, soft-tone letters were sent to some employers and employees and strong-tone letters to others. The impact of these letters was substantial. For employers receiving soft-tone letters, the study found large, statistically significant increases in subsequent payroll declarations (by as much as 10 percent relative to business as usual). Strong-tone letters induced no change in behavior relative to the group that received no notification (Karver, Shijaku, and Ungerer 2022).

Note: Box was prepared by Jonathan Karver, Abigail Dalton, Renos Vakis, Ana Maria Muñoz, and Zeina Afif.

Data and evidence for better fiscal decision-making

Data and evidence gaps that need to be filled to improve understanding of the distributional impact of fiscal policy have been highlighted throughout this report. This section summarizes the needs identified. Addressing these needs can help improve the quality of fiscal decision-making, or at least the evidence base on which decisions are made. Improving data and evidence is also important for increasing the transparency of government fiscal choices.

Many of the investments needed to improve data and evidence for fiscal decision-making particularly pay off during a crisis. Chapter 4 highlights the importance of good data to designing and targeting support in a crisis. For example, in South Africa the government's ability to make evidence-based decisions during the COVID-19 pandemic was enabled by investments in data infrastructure (box 7.3). The data system allowed policy makers to leverage various data to improve the targeting of cash transfers. Nationally representative survey data enabled projections of how many people would be eligible for the transfers and the likely cost under different designs. Fiscal incidence analysis determined who was benefiting from existing transfers. Administrative data from the tax authority, the register of recipients of social grants, and the government payroll were used to identify individuals and households that needed benefits. In addition, evidence on the impact of cash transfers was instrumental in encouraging their use instead of food parcels or vouchers.

BOX 7.3

Using evidence and data to expand COVID-19 social protection in South Africa

At the onset of the pandemic, millions of informal workers in South Africa lost their livelihoods and were unable to access support. Despite an extensive social protection system for the elderly, children, and the disabled, there was no safety net for able-bodied people of working age, and the existing social protection system was largely structured around food parcels to the destitute. Recipients had to file paperwork to prove eligibility and collect grants in person. By July 2020, while severe lockdown restrictions were in place, roughly 9.8 million households were unable to buy enough food to cover basic needs (Bassier and Leibbrandt 2020).

The government of South Africa drew on scientific advice, data, and evidence to respond to this immense challenge. In May 2020, the government announced the biggest expansion of the social safety net since the early 2000s, leading to US\$6 billion in additional spending on poverty relief during 2020 and 2021, which reached 28.5 million people. Independent analysis estimates that the expansion led to 5.5 million fewer people living in food poverty between April and June 2020 and reached many poor households affected by informal job losses—almost half of job losers in the bottom 50 percent of the income distribution were covered by the new grant (Jain et al. 2020). The new verification process implemented was effective in targeting the poor: four persons in the bottom 20 percent of earners received the grant for every one person receiving it in the top 20 percent.

So what data and evidence helped the government of South Africa design and implement these policies so rapidly? The government formed an advisory group of experts from the Southern Africa Labour and Development Research Unit at the University of Cape Town, the Centre for the Study of African Economies at the University of Oxford, the DevLab at Duke University in the United States, and independent experts. The government commissioned this group to review international evidence and simulate the likely costs and impacts of various policy options.

Two complementary forms of evidence were used to inform the response: (1) international evidence from randomized controlled trials in other settings on the effects of cash grants and

(continued)

BOX 7.3**Using evidence and data to expand COVID-19 social protection in South Africa** *(continued)*

(2) local evidence from nationally representative data on the likely number of people who would be eligible for a grant and the likely cost to the state.

Researchers at Oxford and Duke collated evidence on the speed of delivery, cost-effectiveness, and targeting of cash transfers relative to food parcels or vouchers, as well as the potential multiplier effects benefiting the informal economy. These were important in convincing policy makers to adopt cash transfers more widely (Orkin et al. 2022). The lessons from recent evidence included the following:

- Cash transfers are often more cost-effective and simpler to distribute than food parcels, but they achieve similar improvements in nutrition when markets function well (Gentilini 2014).
- Cash transfer recipients often work the same or more hours, in contrast to the assumption that providing welfare to able-bodied unemployed people would discourage them from working (Orkin et al. 2022). Regular cash payments can also improve people's ability to generate income, enabling them to search for work, start businesses, or buy agricultural inputs.
- Governments in other countries gave priority to expanding access to social assistance by providing support remotely, even if a small number of applications were approved in error (Gerard, Imbert, and Orkin 2020).
- Cash transfers can have multiplier effects in local economies, where they are often spent (Egger et al., forthcoming). The beneficiaries of the spending enabled by transfers are different from those for food vouchers (which must be spent in large supermarket chains) and cash (which can be spent anywhere, including informal businesses in local communities, which were especially in need of support during lockdowns).

To project the numbers of people who would be eligible for the cash grant and its likely cost, the University of Cape Town researchers were able to use a pre-COVID-19 nationally representative survey, the National Income Dynamics Survey, and build on prepandemic Commitment to Equity analysis to model the extent to which top-ups through the existing transfer system would reach those likely to lose jobs and on how many applicants there might be for the unemployment transfer (Goldman et al. 2021). Before the pandemic, it was difficult to find funding for the National Income Dynamics Survey, but the investment paid for itself many times over in just this crisis. Researchers also used the sample frame to conduct phone surveys during the pandemic and track the impacts of the transfer extensions on poverty and hunger.^a

To rapidly assess the eligibility of applicants for the grant without requiring in-person applications, the National Treasury and Department of Social Development used the national population register, firm-level tax data on employment, unemployment insurance data, and data on social grant receipts. Funding from the United Nations University World Institute for Development Economics Research had helped establish a tax database that could be cross-referenced with the population register to identify formal workers. This database enabled a new grant to be rolled out to more than 10 million people in a matter of weeks.

The evidence and recommendations were distributed across the government to build support for policy reform. Crucially, the government's ability to make evidence-based decisions and move forward with the expansion was enabled by prior investments in high-quality evidence, surveys, and data infrastructure.

Sources: Orkin et al. 2022; personal communication with Kate Orkin, University of Oxford, and Saul Musker, director, Private Office of the President, South Africa.

a. Coronavirus Rapid Mobile Survey (<https://crmsurvey.org>).

So what are some of the key data and evidence gaps? Chapter 5 highlights the gaps in both tax and spending data. Although analysis by the Commitment to Equity (CEQ) Institute at Tulane University captures the two main tax instruments in most countries—consumption and personal income taxes—household surveys often miss the richest households (see box 2.2 in chapter 2). Also, CEQ data do not consider important taxes that are part of a government budget, such as those on corporate profits, property, or international trade (tariffs). Survey and administrative data can be used to fill these gaps. However, survey data must be more comprehensive to include this missing information, and administrative data must be more disaggregated and comparable across varying government and private sector systems. Moreover, administrative and survey data can be combined to provide the information needed for a more comprehensive fiscal incidence analysis. Several studies describe various methods for combining administrative and survey data (see, for example, Medalia et al. 2019; Meyer and Mittag 2019). These methods are based on methodological assumptions that preserve the representativeness of survey data in the combined data set and have also been found to improve program targeting in addition to producing more accurate distributional estimates (Meyer and Mittag 2019).

Fiscal incidence analysis is conducted largely for social spending, but not as much for spending designed to increase growth (in the short or long run), such as investments in agricultural R&D, agricultural subsidies, agricultural extensions, and tax exemptions aimed at firms. A better understanding of the distributional impacts of these spending categories will require better disaggregated spending data, as well as innovations in reporting. Global databases on government spending classify a huge portion of spending as “other spending” in order to capture the difference between spending in the categories explicitly defined and total government spending. Greater disaggregation of data in this “other” category is important.

In addition, methodological improvements that allow CEQ-type analysis to assess the trade-offs between the impacts of present and future fiscal spending are needed. Analyses that consider dynamic trade-offs as opposed to point-in-time analyses will help policy makers choose between public spending with immediate benefits, such as direct cash transfers, and those with benefits only over time, such as public education, infrastructure, and agricultural R&D (World Bank 2018).

Better data on costs are also needed to improve the prioritization of high-value fiscal spending. Although methods that assess the value of different policies are well established, cost and impact data on fiscal programs are not widely available. Several approaches and tools can be leveraged across countries to retrieve the comprehensive cost and impact data needed by governments when making fiscal policy choices. Examples are the quick costing tool developed by the World Bank’s Partnership for Economic Inclusion to analyze self-reported cost data from 34 economic inclusion programs (Varghese Paul, Vasudeva Dutta, and Chaudhary 2021); the cost-effectiveness analyses of education-focused programs from the Abdul Latif Jameel Poverty Action Lab at the Massachusetts Institute of Technology (Dhaliwal et al. 2012); and the tools developed by several research programs under the World Bank’s Strategic Impact Evaluation Fund.

Chapter 6 highlighted the value of investments in evaluations of impact. A comprehensive understanding of the impacts of fiscal policies on identified beneficiaries will help determine the growth effects of policy. Even short-run evaluations that use good proxy indicators of long-run outcomes will be highly useful (Athey et al. 2019). For targeted programs, understanding impacts on nonbeneficiaries is also important, and more impact evaluations can include this as a key component of evaluation design.

Can better fiscal policy put progress back on track? The need for global action

As this chapter has set out, correcting course on poverty and inequality reduction likely requires fiscal policy that is better targeted, more strongly focused on supporting growth, and able to

protect any gains from subsequent crises. The following points provide some indications of what gains are realistic to expect on each of these fronts.

- *Protecting progress.* During the COVID-19 crisis, poverty would have been, on average, 2.0 percentage points lower for UMICs and 1.5 percentage points lower for LICs and LMICs if all countries in each income category had performed as well as the top performers in their income category in preventing poverty increases.⁷ Policies that increase the protective power of fiscal policy by improving access to finance in a crisis and the readiness of delivery systems could reduce the poverty increase during a crisis by 50 percent for UMICs and 60 percent for LICs and LMICs if these best performers are an attainable benchmark.
- *Better targeted.* Tax and transfer reform in poorer countries can also make a difference. If each country was able to reach the level of poverty reduction achieved through taxes and transfers by the top quintile for their income category, poverty would fall by 1.6 percentage points in UMICs and 0.9 percentage point in LICs and LMICs.⁸ If fiscal policy became more progressive, thereby moving toward the top performers in terms of reducing inequality, the change in inequality achieved through fiscal policy could be substantial. In concrete terms, the Gini coefficient for UMICs would fall by 6.4 percent and for LICs and LMICs by 5.2 percent. As chapter 5 noted, this decline in inequality would not necessarily result in more poverty reduction.
- *More supportive of growth.* Although there are complex trade-offs in fiscal decision-making, investments in areas such as health, education, infrastructure, and R&D can bring sustained economic growth if not financed by deficits or highly distortionary taxes (Moreno-Dodson 2012). For example, in India, connecting a district to the Indian railroad network increased agricultural income growth by 16 percent (Donaldson 2018). Globally, the R&D that led to the Green Revolution resulted in GDP per capita that was 17 percent higher in 2010 than it would have been had the Green Revolution been delayed by 10 years (Gollin, Hansen, and Wingender 2021). When these increases in growth benefit households at the bottom of the income distribution, the impact on poverty is large. However, not all spending brings such high returns, and the literature on fiscal spending and growth estimates that capital spending would have a wide range of impacts on subsequent growth. However, these examples, and others discussed in chapter 6, point to the poverty reduction potential of growth-oriented fiscal policy.

To assess how much of a difference fiscal policy can make in global progress on poverty reduction, the simulations of poverty to 2030 conducted at the end of chapter 1 are revisited here, considering these possible fiscal levers for poverty reduction. How fiscal policy may protect against shocks is not included in the simulations of projected future progress because historical growth trends are used as a baseline, abstracting from the possibility of shocks.

Although the experience of the last two years has certainly demonstrated the undeniable nature of shocks when they occur, the improvements in poverty reduction that come from more protective fiscal policy are not modeled in the simple exercise here. Instead, the simulations either model reductions in the Gini coefficient that correspond to movement of each country toward being a best performer in its income category in terms of tax and transfer progressivity, or model an increase in the per capita growth rate. Increases in tax and transfer progressivity are modeled as reductions in the Gini coefficient commensurate with movement of each country from its current level of progressive fiscal policy to the top quintile in its income category.⁹ As discussed in chapter 5, this achievement will not necessarily translate into an immediate reduction in poverty because not all spending benefits household income in the short run. Here it is assumed that the income gained from increased progressivity is split between immediate transfers and long-term spending at the same rate currently experienced by countries in that income level, and that immediate transfers are distributed equally across all households through a universal transfer. Although inequality is reduced in this simulation, this simulation does not necessarily entail a reduction in poverty.

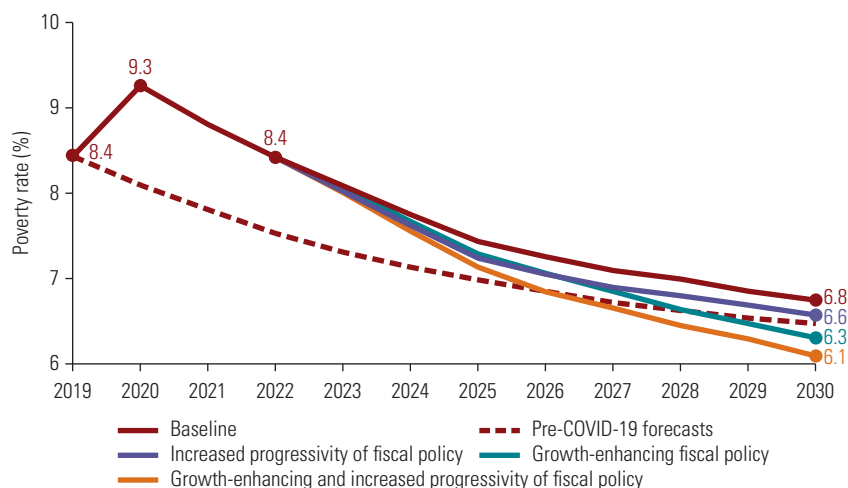
The impact of fiscal policy on growth is based on the wider literature. This literature does not provide one estimate of the impacts of better fiscal policy on growth because this relationship has many determinants and mediating factors. However a 0.6 percentage point increase is the midpoint of the estimates from the early literature on the growth impacts of a 1 percent of GDP increase in capital spending when undertaken prudently—that is, not deficit financed (Adam and Bevan 2005; Morozumi and Veiga 2016).¹⁰ More recent work suggests that even this midpoint estimate of how fiscal choices translate into growth is quite high, and that the average output elasticity of public capital spending is likely closer to 0.2 (Bom and Ligthart 2014; Calderón, Moral-Benito, and Servén 2015; Núñez-Serrano and Velázquez 2017). Because these fiscal simulations attempt to provide an upper bound of the progress expected from successful fiscal policy, they maintain a relatively optimistic output elasticity of capital spending of 0.6.

The results of the simulations (figure 7.2) reveal that fiscal policy can help countries recover from the losses of 2020. Indeed, the arguably heroic efforts modeled here—shifting a country’s progressivity of spending toward the top performers and raising an additional 1 percent of GDP in a minimally distortionary way while directing it toward productive capital spending—would see the setbacks of 2020 fully recovered by 2026 and a return to the prepandemic poverty projections years earlier than otherwise expected. However, even both efforts would not be enough to put the world on track to ending extreme poverty by 2030. The 3 percent target is well beyond the reach of what can be achieved through national policies alone, even if highly optimistic scenarios are considered. Although the potential of fiscal policies to reverse the 2020 setback should be noted, full reversal of the setback before 2030 would require optimistic projections unlikely to be realized. Furthermore, the 3 percent target was challenging to meet through national policy reform even before the 2020 setback. Now it is even further out of reach through national action alone.

Beneath the global numbers, the simulations highlight countries for which these changes have very different implications. To summarize the diversity, the proportion of countries that

FIGURE 7.2

Improving fiscal policy can help recover the losses of 2020, but it requires historic efforts and does not result in ending extreme poverty by 2030



Source: Original estimates based on Mahler, Yonzan, and Lakner, forthcoming; World Bank, Poverty and Inequality Platform, <https://pip.worldbank.org>.

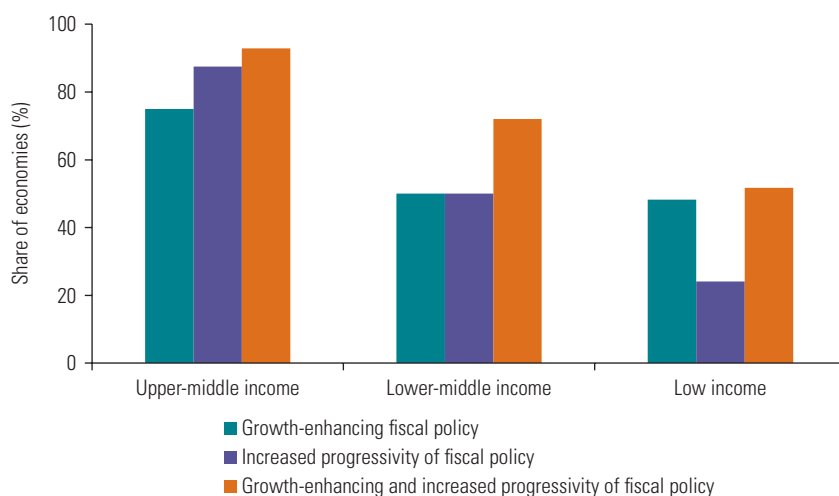
Note: The figure shows the projected poverty rate from 2022 to 2030 under assumptions of growth-enhancing fiscal policy, increased progressivity of fiscal policy, and both growth-enhancing and more progressive fiscal policy together.

reach the prepandemic poverty projection by 2030 are calculated separately for LICs, LMICs, and UMICs in figure 7.3. Clearly, extensive fiscal reform of the nature modeled here will return over 90 percent of UMICs to the prepandemic trajectory. Indeed, a switch to a more progressive spending profile alone will enable almost 90 percent of UMICs to reach the prepandemic trajectory, whereas the same goal would be attained by almost 75 percent of UMICs by means of the growth-enhancing policy alone. The effectiveness of the policies declines, however, with country income level. Among LICs, increased progressivity of fiscal policy will help only 25 percent of countries return to their prepandemic trajectory, while growth-enhancing policy will help less than half of them reach this benchmark. Taking the two ambitious fiscal reforms together will only move half of LICs to the benchmark. Especially for the poorest countries, fiscal actions alone will not return many countries to the pre-2020 course, let alone reach the more ambitious global target of 3 percent.

These simulations highlight the potential of better fiscal policies to help address the poverty and inequality challenges of today, but also the limit to what can be achieved by national policy making. More is likely needed than can be achieved by ambitious fiscal policy reform alone. Other national policy reforms that stimulate growth, particularly the income growth of households at the bottom of the income distribution, will likely be needed. The simulations also point to the importance of global action to address the unprecedented setback posed by the COVID-19 crisis and compounding crises since then.

The need for global action occurs at a moment when coordinated global action seems particularly elusive. Countries in all income categories are facing challenging economic times, and global cooperation is strained. However, the analysis in this report has shown that, although the continuing crises make 2022 a difficult moment for a new commitment to global action, it can still be an opportune time. And there is good precedent for global cooperation in these moments. After all, the Bretton Woods conference that established the International Monetary Fund and the International Bank for Reconstruction and Development was held while World War II was still being fought.

FIGURE 7.3
Many countries cannot recover the losses of 2020 by 2030, despite historic fiscal efforts



Source: Original estimates based on Mahler, Yonzan, and Lakner, forthcoming.

Note: The figure shows the share of economies in each income group that can reach pre-COVID-19 poverty forecasts by 2030 under assumptions of growth-enhancing fiscal policy, increased progressivity of fiscal policy, and both growth-enhancing and more progressive fiscal policy together.

Notes

1. For example, in Sub-Saharan Africa alone, Kenya, Malawi, and Senegal, with strategies being developed in Benin, Eswatini, Ethiopia, Lesotho, Madagascar, Niger, and Sierra Leone.
2. DASK, Turkish Catastrophe Insurance Pool, “Compensation Payments,” <https://dask.gov.tr/en/compensation-payments>.
3. DASK, Turkish Catastrophe Insurance Pool, “Interactive Earthquake Map,” <https://dask.gov.tr/en/interactive-earthquake-map>.
4. World Bank, Global Risk Financing Facility (dashboard), <https://globalriskfinancing.org/>.
5. From unpublished work by Fuchs and Wai-Poi, developed further in Sosa and Wai-Poi (forthcoming).
6. For applications, see Rodriguez and Wai-Poi (2021) for Jordan and Wai-Poi et al. (forthcoming) for Vietnam. Sosa and Wai-Poi (forthcoming) approximate impacts across a wider range of countries, with grouped decile data.
7. This is the poverty rate at the poverty line relevant for that income category.
8. Using the poverty line relevant for that income category.
9. For countries where no CEQ data are available (and therefore no information on the progressivity of a country’s fiscal policy is available), the median level of progressivity for the income category is used.
10. Adam and Bevan (2005) suggest that a 1 percent GDP increase in fiscal spending can increase growth by 0.6 percentage point, on average, with a range from 0.1 to 1.1 percentage points. This increase in spending cannot be deficit financed if it is to spur growth. Morozumi and Veiga (2016) indicate that the growth effects of fiscal spending arise with changes to capital spending, but not current spending.

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