

Managing sovereign debt

Governments around the world mobilized enormous resources to pay for the COVID-19 pandemic response. Many emerging economies, already heavily indebted at the outset of the crisis, took on additional debt to support households and firms. During 2020, this led to an increase in the total debt burden for low- and middle-income countries of 9 percentage points of gross domestic product (GDP), compared with an average annual increase of 1.9 percentage points over the previous decade. Managing and reducing elevated levels of sovereign debt improve the ability of governments to continue providing support through the recovery, especially to low-income households and small businesses, which is key to ensure an equitable recovery. However, coordination between debtors and creditors has become more difficult than in previous crises because of the greater number of creditors and the higher participation of commercial and nontraditional creditors in the market for sovereign debt.

Policy Priorities

Governments can take proactive policy approaches to mitigating the risks posed by high levels of sovereign debt to an equitable recovery:

- Governments at high risk of debt distress can pursue proactive debt management approaches with creditors through, for example, debt reprofiling, which replaces existing debts with new debt with a different currency or maturity profile.
- Governments in debt distress must coordinate with creditors to restructure debt. Effective restructuring requires the prompt and comprehensive recognition of debts, coordination with and among creditors, and a medium-term plan of reforms needed to achieve debt sustainability.
- Governments and their creditors can benefit from improvements in sovereign debt transparency, which requires comprehensive disclosure of claims against the government and terms of the contracts that govern the debt.
- Contractual innovations can help overcome coordination problems and speed up the resolution of **unsustainable debts**, but they are not a universal cure.
- Well-developed tax policy and investments in tax administration can support debt sustainability in the longer run by increasing the government's ability to mobilize revenue.

Introduction

The impacts of the COVID-19 (coronavirus) crisis on sovereign debt are unusual in the speed and global synchronicity of the surge in debt levels. If the economic recovery from the pandemic is delayed or falters, the buildup of sovereign debt will threaten debt sustainability in many emerging economies, and could produce longer-term economic and social consequences that look very similar to those of debt crises in the past.

Many emerging economies entered the pandemic with record levels of sovereign debt,¹ and they took on additional debt to pay for programs aimed at limiting the economic and human costs of the pandemic. This was a practical choice driven by limited options: increasing taxes in a struggling economy is not viable, and reducing other public spending is, in most cases, not sufficient to cover the magnitude of additional financing needs. The resulting debt burdens will have to be managed carefully to prevent them from becoming a drag on the economic recovery.

Managing and reducing elevated levels of sovereign debt is crucial to ensure a strong and equitable recovery. Sovereign debt crises are costly for sustained growth. One study finds that every year a country remains in default reduces its GDP growth by 1–1.5 percentage points.² High levels of sovereign debt also have significant social costs. They reduce the government's ability to spend on social safety nets and public goods such as education and public health, which can worsen inequality and human development outcomes. When debt sustainability problems are not resolved, they tend to worsen over time because the choices of each government constrain the options of future governments as more revenue is directed to debt service. Sovereign debt crises also frequently coincide with other types of economic crises—such as financial sector crises, rising inflation, and output collapses—that have far-reaching negative consequences for poverty and inequality.³

Importantly, debt dynamics, financing opportunities, and options to manage debt differ significantly between emerging and advanced economies.⁴ For example, advanced economies tend to have better market access and financing options. They are also able to rely more heavily on domestic borrowing, and many can issue debt in their own currency and at different maturities, which facilitates borrowing and debt management. There are also important differences in the ability of advanced and emerging economies to service debts. Many observers have noted that since the 2007–09 global financial crisis, economic growth globally has remained above the effective interest rates on sovereign debt, thereby keeping debt service burdens manageable.⁵ However, this observation masks important differences across countries. Although interest payments in advanced economies have been trending lower in recent years and account, on average, for only around 1 percent of GDP, the cost of interest payments for emerging economies has been rising steadily, and reached nearly 8 percent of GDP in 2020.⁶

This chapter examines the impact of the COVID-19 crisis on sovereign debt. It documents the sharp increase in sovereign debt stemming from the crisis and charts the options available to policy makers to manage dramatically increased debt burdens, while differentiating between countries based on characteristics such as market access and income levels. Learning from past experience is essential to inform the policies governments will need to adopt to address debt sustainability concerns as the immediate effects of the COVID-19 pandemic begin to recede. To this end, this chapter highlights the importance of addressing debt sustainability problems promptly and proactively, as well as the substantial economic and social costs of delayed action.

The impact of COVID-19 on sovereign debt

The COVID-19 crisis led to a dramatic increase in sovereign debt, with average total debt burdens among low- and middle-income countries increasing by roughly 9 percent of GDP during 2020, compared with an average of 1.9 percent of GDP per year over the previous decade.⁸

This increase in debt burdens has serious implications, especially for low-income countries, whose financial position had already been deteriorating before the pandemic. Between 2019 and 2020, the average domestic and external debt stock of low-income and lower-middle-income countries increased by roughly 7 percent of GDP (figure 5.1). Over the same time period, the average debt stock of countries eligible for the Group of Twenty (G20) Debt Service Suspension Initiative (DSSI) increased from 50 to 57 percent of GDP. By 2019, half of the countries in this group were in debt distress—that is, unable to meet their financial obligations to creditors—or at high risk of debt distress (figure 5.2).9 This trend accelerated after the onset of the pandemic and was poised to accelerate further with the expiration of DSSI in December 2021.¹⁰

Sovereign debt burdens are unlikely to decrease in the near future because they are the combined result of large fiscal support programs necessary to mitigate the worst effects of the pandemic and the contemporaneous collapse in government revenue due to the global slowdown in economic activity. Tax revenue as a share of GDP, for example, declined in 96 of the 133 low- and middle-income countries in 2020.11 The costs of the pandemic are far exceeding the amount of money countries can easily shift from other areas of their budgets; countries that have access to credit markets have taken on new debt to finance emergency expenditures.

The prospect of a slow recovery places further pressure on government budgets, even as the immediate effects of the pandemic subside. During an economic crisis, governments can and often do function as the lender of last resort for firms and households, which means that private debts can quickly become public debts in a large, protracted economic crisis. When an economic crisis threatens the survival of economically important sectors and firms, governments have often taken on significant additional debt to stabilize those sectors or firms. Some of the debt-financed stimulus programs implemented during the COVID-19 crisis are examples of how governments step in to absorb economic risks when the private and financial sectors are unable to do so. If successful, the stimulus should result in economic growth and the deleveraging of private borrowers. However, such a solution comes at the cost of higher public debt burdens.¹²

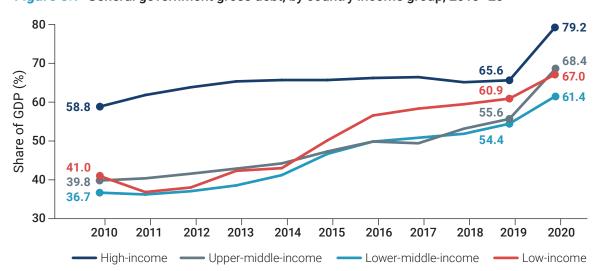


Figure 5.1 General government gross debt, by country income group, 2010–20

Source: WDR 2022 team, using data from World Bank, World Development Indicators (database), https://datatopics.world bank.org/world-development-indicators/; International Monetary Fund, World Economic Outlook Database: Download WEO Data, April 2021 Edition (dashboard), https://www.imf.org/en/Publications/WEO/weo-database/2021/April.

Note: The figure shows the general public debt stock as a share of the gross domestic product (GDP) by World Bank income classification.

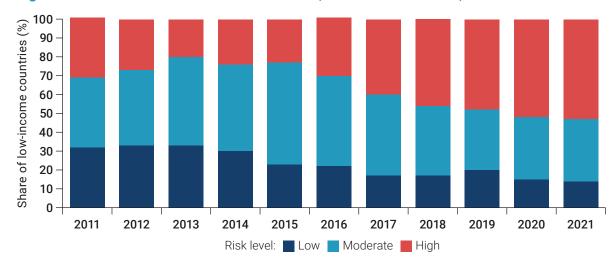


Figure 5.2 Level of risk of external debt distress, low-income countries, 2011-21

Source: World Bank and International Monetary Fund, Joint World Bank-International Monetary Fund LIC DSF Database (Debt Sustainability Framework for Low-Income Countries), June 2021 data, https://www.worldbank.org/en/programs/debt-toolkit/dsf.

Note: The figure shows the risk of debt distress among low-income countries on which a debt sustainability analysis (DSA) has been run. As of June 2021, this information was available on 66 of the 73 countries eligible to participate in the G20 Debt Service Suspension Initiative (DSSI). The latest available risk rating has been extrapolated pending a new DSA. If more than one DSA exist for one country in a calendar year, the most recent rating is used. The 2021 ratings are as of June 30, 2021. The high-risk category includes countries assessed to be in debt distress. For the DSA, see International Monetary Fund, DSA LIC (Debt Sustainability Analysis Low-Income Countries) (dashboard), https://www.imf.org/en/publications/dsa. For the DSSI, see World Bank, DSSI (COVID 19: Debt Service Suspension Initiative) (dashboard), https://www.worldbank.org/en/topic/debt/brief/covid-19-debt-service-suspension-initiative.

In countries where state-owned banks and state-owned enterprises (SOEs) are an important part of the economy, governments are more directly exposed to the risks of a prolonged economic downturn. Significant contingent liabilities might materialize if, for example, systemically relevant financial institutions or SOEs need to be rescued by the government. When such contingent liabilities arise, they often lead to a significant deterioration of the government's financial position that may require new borrowing. In past crises, the cost of bank bailouts, for example, has totaled as much as 40 percent of GDP. Between 2017 and 2020, Ghana's ailing energy and financial sectors required a cleanup that added an estimated 7 percent of GDP to its debt stock. In 2018, Angola faced downward pressure on its sovereign credit ratings after the government had to make an unexpected, one-off support payment of \$8 billion (7 percent of GDP) to the national oil company. Indonesia had to bail out its largest utility company in 1998 during the country's financial crisis at a cost of 4 percent of GDP.

In emerging economies, government finances may come under additional pressure from developments in the global economy. In the COVID-19 pandemic, unequal access to vaccines, among other factors, will likely lead the economic recovery to proceed faster in advanced economies than in the rest of the world. As the United States and Europe phase out their unprecedented monetary stimulus programs, global interest rates are bound to increase. This could have outsize effects on borrowing costs for emerging economies and make it more difficult for governments and private enterprises to refinance their debt. The normalization of monetary policy in high-income countries may also spur capital outflows from emerging markets, exert pressure on exchange rates, and aggravate debt sustainability concerns.

A high-risk scenario is one in which a large share of the global population remains unvaccinated or one in which mutations render the existing vaccines less effective. This would delay the recovery of

incomes and government revenue, and yet governments will need to maintain spending to cope with the consequences of the pandemic and protect households and firms from further economic disruptions.

Meanwhile, elevated levels of sovereign debt can also weaken the recovery, through their impact on the financial sector. Many governments have financed their COVID-19 response by issuing new domestic debt that is held predominantly by domestic financial institutions. While this helped governments mobilize resources for the crisis response, it exposes financial institutions to sovereign risk as the financial position of the government deteriorates. This, in turn, reduces the ability of the financial sector to issue new credit and support economic growth. High levels of sovereign debt, particularly in the relatively shallow domestic markets of many emerging economies, can also dampen economic activity by leading to higher interest rates and affecting the prices firms and households pay for financing.

High levels of sovereign debt also affect the private sector directly, such as through the government's inability to provide ongoing support in a prolonged recession or economic setbacks during the recovery. Governments that are near or in debt distress do not have room to provide even temporary fiscal support to firms and households. Moreover, an increase in the risk of debt distress typically leads to a downgrade in the sovereign credit rating, which sets off self-fulfilling dynamics because the downgrade itself deteriorates macroeconomic fundamentals and the access to capital by private firms.¹⁷

Finally, it is important to note that the COVID-19 pandemic is a "crisis within a crisis." Countries may face additional pressure on government finances from other economic disruptions, some stemming from the risks posed by climate change. Policy makers will need to confront these risks by mobilizing fiscal resources to combat the effects of climate change.

The human costs of debt crises

Managing and resolving elevated levels of sovereign debt are essential to ensuring an equitable recovery from the COVID-19 crisis. Long-lasting debt distress has far-reaching negative consequences for the economy and population. These consequences are typically borne disproportionately by vulnerable populations, low-income households, and small businesses, and tend to worsen pre-existing poverty and inequality.

Sovereign debt crises affect human development in many ways because they rarely occur as an isolated event and often are only one component of a conglomerate crisis affecting multiple sectors of the economy. 18 Debt distress or default often coincide with a myriad of economic problems that may include output collapses, financial crises, currency crashes, and high inflation, which disproportionately affect the poor. Though the initial crisis trigger and order of events may differ, conglomerate crises have larger economic and human costs than crises confined to one sector of an economy. Because the COVID-19 pandemic simultaneously weakened private sector, financial sector, and government balance sheets (and weakened the ability of governments to mitigate spillover risks), many countries are at risk of experiencing these types of mutually reinforcing crises in the aftermath of the pandemic.

Evidence shows that sovereign debt crises are often associated with large output collapses that have significant human costs.¹⁹ Data on economic crises during the 1980s and 1990s, for example, indicate that the number of people living in poverty increased by as much as 25 percent during large contractions in output.²⁰ Not surprisingly, aggregate economic shocks that weaken the government's ability to provide public goods, such as health care and education, are also associated with a deterioration in human development and social indicators.²¹ On this point, there is significant heterogeneity between advanced and emerging economies. In advanced economies, where households can draw on insurance mechanisms that do not necessarily depend on current government spending, health and education outcomes are considerably less affected during crises. However, in emerging economies they deteriorate rapidly—for example, a 10 percent decline in GDP is associated with an increase of 1.5 child deaths per 1,000 live births.²² Identifying and resolving debt sustainability problems can restore the government's ability to invest in public goods and reverse these trends, as the case study of Rwanda in box 5.1 illustrates.

Sovereign debt crises also often go hand in hand with high inflation and sharp exchange rate depreciations, disproportionately burdening the poor. Low-income households spend a higher share of their income on basic goods, whose price increases with inflation. They are also more likely to rely on wage

Box 5.1 Case study: Debt relief to create space for social spending in Rwanda

In 1996, the World Bank and International Monetary Fund (IMF) launched the Heavily Indebted Poor Countries (HIPC) Initiative to ensure that low-income countries do not face unmanageable debt burdens. In 2005, HIPC was complemented by the Multilateral Debt Relief Initiative (MDRI), which also includes the African Development Bank. In 2007, the Inter-American Development Bank joined this initiative. Together, these initiatives provided 38 countries with debt relief totaling over \$100 billion. Rwanda is one of those countries.

The main rationale underlying the HIPC and related initiatives was that debt service obligations made it difficult for low-income countries to meet poverty reduction–related expenditures, including social spending and investment in infrastructure. The target of these initiatives was low-income countries facing unsustainable public debt that could not be solved through a traditional debt restructuring. To be eligible for HIPC relief, countries needed to commit to developing and implementing a poverty reduction strategy.

Notwithstanding the goals of the initiatives, the economic literature on debt relief (without broader reforms) is inconclusive about its impact on economic outcomes. Establishing the impacts in practice is difficult. Although high levels of debt may constrain economic development, it is also plausible that the same factors that lead to worse economic outcomes (such as conflict and weak institutions) are responsible for high levels of debt in the first place. Nonetheless, some studies find that decreases in debt service resulting from the HIPC Initiative were accompanied by increases in poverty-reducing expenditures, such as on basic health care, primary education, basic sanitation, and HIV/AIDS programs.^a Furthermore, debt service

decreases were associated with better outcomes, such as lower infant mortality rates, that were linked to increases in social expenditures.^b However, other contributions to the literature find little evidence of debt relief affecting the level or composition of public spending, growth, investment rates, or the quality of policies and institutions.^c

Rwanda was one of the countries that used the HIPC Initiative successfully. It received full debt relief from the HIPC Initiative in April 2005 (completion point). Over the next four years, Rwanda increased its poverty-reducing expenditures by almost 50 percent, compared with an average of 3 percent for the remaining HIPCs that reached a completion point (see figure B5.1.1). Furthermore, over the previous four years Rwanda also substantially increased its expenditures on poverty reduction-expenditures that were tracked as one of the conditions for obtaining full debt relief. Among other things, Rwanda reformed and operated primary teacher training centers and implemented health plans to reduce mortality from malaria, as well as infant and maternal mortality.d

Since the HIPC Initiative completion point, Rwanda has made important progress toward increasing its gross domestic product (GDP) per capita and reducing extreme poverty. GDP per capita almost doubled, from \$465 in 2005 to \$849 in 2020, and the share of people living in poverty, defined as those living at most on \$1.90 a day, fell from 69 percent of the population in 2005 to 56 percent in 2016.° These improvements, while significant, reveal how much more room there is for further growth and poverty reduction.

However, debt relief is not a silver bullet, and benefits can vary substantially across countries.

Box 5.1 Case study: Debt relief to create space for social spending in Rwanda (continued)

Figure B5.1.1 Poverty-reducing expenditures in Rwanda versus other HIPC countries 160 140 Share of GDP (%) 120 100 80 60 t - 2 t - 1t + 1t - 3t + 2t + 3t + 4HIPC countries, excluding Rwanda

Source: IMF and World Bank 2019.

Note: In the figure, t represents the year of the completion point (full debt relief received). The data for year t are normalized to 100. The other years should be read in reference to this. GDP = gross domestic product; HIPC = Heavily Indebted Poor Countries (Initiative).

This is especially true of the diverse 38 recipients of HIPC relief. Some countries were in fragile or conflict situations; some were resource-based economies in need of economic diversification; some had better governance structures. For the same debt relief initiative, each of these factors and others can produce different impacts for countries.

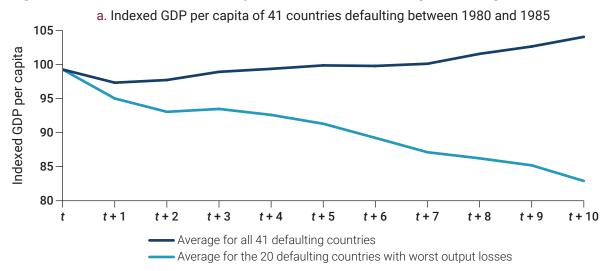
Debt cycles and the reversal problem are another issue. Seventeen of the countries that reached the completion point in the HIPC Initiative are currently in debt distress or at high risk of debt distress.f Even Rwanda's external debt has been steadily increasing to levels close to the pre-HIPC number (external debt of 76 percent of the gross national income in 1996 versus 62 percent in 2019).g

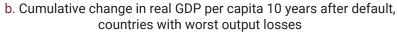
Thus Rwanda is now at a moderate risk of debt distress. Debt relief, then, is not sufficient to ensure long-term debt sustainability. Excessive debt is often a symptom of deeper structural and institutional weaknesses that need to be addressed first to achieve debt sustainability.

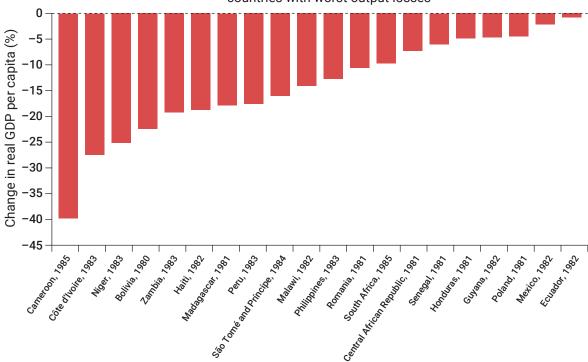
In middle-income countries, such reversals are also evident. Argentina and Ecuador, both participants in the Brady Plan debt relief initiative in 1989, have also experienced these reversals, which involved subsequent defaults and deep economic crises with their tragic effects on social outcomes.1 These effects highlight the importance of timely and commensurate debt restructuring to ensure debt sustainability in the long run.

- a. IEG (2006); IMF and World Bank (2019).
- b. Primo Braga and Dömeland (2009).
- c. Depetris Chauvin and Kraay (2005).
- d. IMF and IDA (2005).
- e. World Bank, World Development Indicators (database), https://datatopics.worldbank.org/world-development-indicators/.
- f. See World Bank, DSA (Debt Sustainability Analysis) (dashboard), https://www.worldbank.org/en/programs/debt-toolkit/dsa.
- g. See World Bank, World Development Indicators (database), https://datatopics.worldbank.org/world-development-indicators/.
- h. Under the Brady Plan, banks could exchange nonperforming debt for a new security, a Brady Bond, collateralized by a longterm, zero-coupon US Treasury bond.
- i. Farah-Yacoub, Graf von Luckner, and Reinhart (2021); Reinhart and Rogoff (2009).

Figure 5.3 The lost decade of development in countries defaulting on sovereign debt







Sources: Farah-Yacoub, Graf von Luckner, and Reinhart 2021; International Monetary Fund, World Economic Outlook Data base: Download WEO Data, April 2021 Edition (dashboard), https://www.imf.org/en/Publications/WEO/weo-database/2021 /April.

Note: In panel a, time t is defined as the year in which the country defaulted, provided that this initial default occurred between 1980 and 1985. The group of 41 countries consists of all countries defaulting between the two years. The subgroup of 20 countries consists of those requiring the longest time to reach their predefault levels of real gross domestic product (GDP) per capita. In panel b, the country name is followed by the year of the default. Real GDP is the value of the goods and services produced by an economy over a specific period and adjusted for inflation.

incomes and transfer payments, whose purchasing power is eroded by inflation when these payments are not indexed to inflation, and households do not have access to financial tools that would allow them to cope with rising prices. Empirical evidence shows the disproportionate impact of inflation on lowincome households.23

Exchange rate depreciations have similarly disproportionate effects on low-income households because a sudden depreciation in the value of the local currency can make basic goods inaccessible for most of the population.²⁴ Because most lower-income countries import a large share of consumer goods, a depreciation of the local currency can render imported goods prohibitively expensive for low-income households. These goods include medical products essential for dealing with the COVID-19 pandemic. Exchange rate depreciations also increase the burden of servicing debt denominated in a foreign currency, resulting in the government diverting more resources from social spending, thereby preventing an equitable recovery.

The most recent systemic debt crisis in emerging economies illustrates the dire economic and social consequences that arise when policy makers delay the resolution of escalating levels of sovereign debt.²⁵ In the 1980s, many countries, especially in Latin America and Sub-Saharan Africa, suffered a "lost decade" of development (figure 5.3, panel a). Inflation surged, currencies crashed, output collapsed, incomes plummeted, and poverty and inequality increased across these regions. The 41 countries that defaulted on their sovereign debt between 1980 and 1985 needed an average of eight years to reach their precrisis GDP per capita. For the 20 countries with the worst drops in output, the economic and social fallout from these debt crises continued for more than a decade (figure 5.3, panel b).

New challenges in managing and resolving sovereign debt

The COVID-19 crisis has played out against the backdrop of a rapidly changing market for sovereign debt, characterized by the increasing complexity in creditor composition and the legal structures used to issue debt. This situation has reduced the transparency of sovereign debt and made it more difficult for governments to manage, renegotiate, and restructure their debt when debt sustainability problems become apparent.

One of the most significant developments is the increase in the type and number of creditors. As of 2020, countries eligible for the G20 DSSI had, on average, more than 20 distinct creditor entities (excluding bondholders). ²⁶ Some countries had many more. Creditors have increasingly included private and official lenders that are not part of the Paris Club, a standing committee of official creditor countries formed in 1956 that, since its creation, has been instrumental in the majority of sovereign debt restructurings.²⁷

There has also been a marked change in the types of creditors that hold claims on sovereign balance sheets. Over the last three decades, these have included non-Paris Club foreign governments, quasi-sovereign entities, SOEs, and corporations not traditionally engaged in sovereign lending, such as commodity traders and producers.²⁸ They now account for a significant portion of sovereign debt, especially in emerging economies (figures 5.4 and 5.5). The rise of China as a bilateral creditor, for example, is a well-documented trend. In 2000, China accounted for 0.4 percent of the debt stocks of low- and middle-income countries. By 2019, it accounted for 4.8 percent. For low- and lowermiddle-income countries, China accounted, on average, for 11 percent of total external public and publicly guaranteed debt, although for 20 countries in this group it accounted for more than one-fifth and up to two-thirds in the most extreme cases.

While the rise of non-Paris Club lenders has given emerging economies new avenues to financing public expenditures, it may also complicate the resolution of debt distress. One concern is the lack of transparency surrounding debt contracted with non-Paris Club lenders. Many new bilateral debt

1,600
1,200
1,000
800
400
200
Bilateral, excluding China
Private creditors, banks
Multilateral
Multilateral
Private creditors, others

Figure 5.4 External debt in low- and middle-income countries, by creditor type, 1980-2019

Source: World Bank, International Debt Statistics (database), https://databank.worldbank.org/source/international-debt -statistics#.

Note: The figure shows total public and publicly guaranteed external debt by creditor type in low- and middle-income countries. The data are for 120 low- and middle-income countries, of which 73 are low- and lower-middle-income countries.

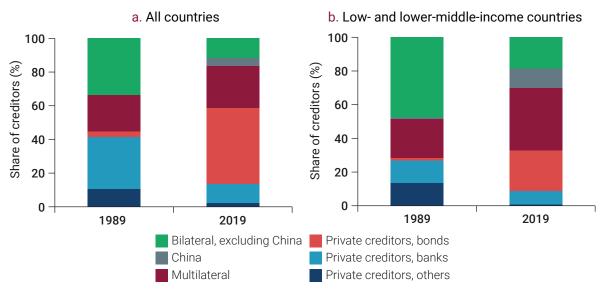


Figure 5.5 Composition of creditors in all countries and in low- and lower-middle-income countries, 1989 and 2019

Source: World Bank, International Debt Statistics (database), https://databank.worldbank.org/source/international-debt-statistics#.

Note: The figure shows the trends in creditor composition overall (panel a) and in low- and lower-middle-income countries (panel b). The data are for 120 low- and middle-income countries, of which 73 are low- and lower-middle-income countries.

contracts contain expansive nondisclosure clauses, making it difficult for other creditors to reliably assess the true financial position of the government or the seniority of one creditor's claim on the government relative to those of other creditors. ²⁹ However, concerns about transparency are not limited to government loans with non-Paris Club creditors. Debts taken on through SOEs or using legal forms not typically recognized as debt have also added to the difficulty of assessing the full extent of sovereign liabilities.³⁰ Not only does this complicate debt resolution in the event of a crisis, it also may deter lenders from offering loans to countries in the first place.

These issues extend beyond the central government. In many emerging economies, subnational entities, such as SOEs or regional governments, also enter into external credit arrangements. Between 2009 and 2019, debt issuance by SOEs and subnational entities grew sevenfold, to about \$140 billion.³¹ Such borrowing by SOEs creates a risk of contingent liabilities that may not be reflected in government accounts because the debts of SOEs are often not fully integrated into the public sector's balance sheet. Moreover, not all liabilities of SOEs are structured in ways that make them recognizable as debt, which further obfuscates the true financial position of the sovereign. This approach to liabilities can give rise to significant hidden risks (discussed in more detail later in this chapter), and it is especially important in the current context in which many SOEs are directly affected by the pandemic. Public utilities, for example, have seen a dramatic decline in revenue stemming from moratoria on utility payments or the inability of customers to pay their bills.

There has also been a shift in the type of legal structures used to issue sovereign debt. New debt instruments and contractual innovations have proliferated to meet the needs of particular creditor-debtor pairings. Specifically, secured lending, novel de facto seniority structures, complex guarantees, swap lines, central bank deposits, and commodity-based lending structured as forward sales have become more popular over the last two decades.³² A recent report on debt transparency finds that commoditybased lending represents 10-30 percent of external debt stocks for the median low-income country in the year following the signing of the commodity-based arrangement.³³ This practice has become particularly prevalent in Sub-Saharan Africa, where this type of lending accounted for 10 percent of new borrowing from 2004 to 2018.34

Although syndicated loans (loans issued by a small group of banks organized by an "agent" bank) were the dominant debt instrument in the 1970s and 1980s, they have since given way to bonds as the most prevalent instrument for sovereign debt from private creditors. This shift has direct consequences for debt resolution. For example, because bondholders are more dispersed and more difficult to coordinate than bank syndicates, every time a central government needs to seek debt treatment, a bondholder committee must form.³⁵ It is also notable in today's context that more than one bondholder committee may form for any given restructuring. This increases coordination problems among debtors and further complicates the management of sovereign debt.

While some contractual innovations can improve the ability of debtors to resolve disputes with specific creditors, they can also hamper coordinated resolution efforts. For example, certain creditor types have become reluctant to participate in broad restructuring initiatives because of their perceived unequal contractual treatment relative to others. One set of contractual innovations is aimed at improving the seniority and security of their claims, including through collateralization.³⁶ Such innovations can add significant complexity for the sovereign borrower if debts need to be restructured. An analysis of this class of debt contracts found that they often include broader nondisclosure clauses than is typical. Such clauses obscure the true financial position of the sovereign borrower and create significant obstacles in negotiations involving multiple creditors. ³⁷ Although this class of contractual innovations has not been tested in the courts—and it is unclear whether they would prevail—the signaling effect and cost of litigation may be enough to tilt, and lengthen, resolution practices.³⁸

Managing sovereign debt and resolving sovereign debt distress

Effective management of sovereign debt can reduce pressure on government finances, free up resources for urgent fiscal expenditures, and avert the large social and economic costs of a full-blown debt crisis.³⁹ This section reviews tools that governments can use to better manage elevated levels of sovereign debt and resolve distress when it materializes. It also looks at the longer-term policies and reforms that can make government finances more resilient to unanticipated shocks such as the one resulting from the COVID-19 crisis. At times, similar tools can be used for both managing elevated levels of sovereign debt and for resolving debt distress. The difference is often the degree to which the available tools are applied and which combination of available policy options is chosen. The degree of relevance of these tools depends on countries' individual circumstances—for example, their degree of market access and their income level—as well as macroeconomic factors such as the exchange rate regime. Most of the options presented in what follows are applicable across the spectrum because the basic principles of timely recognition of the problem, negotiation, and burden reduction are relevant to all types of debt.

A critical first step is to identify a country's risk of falling into debt distress. International financial institutions typically play a central role in providing debt sustainability analyses (DSAs),⁴⁰ which are the basis for classifying debt risks and designing strategies for debt reduction. For example, DSAs are an integral part of Paris Club debt restructurings and often play a key role in restructurings with private creditors as well.

Because a reliable DSA is the basis for successful debt management and debt reduction, it is critical that such an analysis be based on accurate information as well as transparent and realistic assumptions. Accurate assumptions are crucial in three areas. The first is growth, comparing expected growth rates with historical growth rates and allowing for realistic worst-case scenarios, especially in fragile, low-income, and commodity-exporting economies. The second is fiscal. Assumptions should take into account the expenditures needed to achieve development goals—such as reducing poverty, adapting to climate change, meeting the Sustainable Development Goals (SDGs)—as well as assumptions on the amounts and terms of the debt instruments used to fill future funding gaps. The third is realistic discount rates. Assumptions should differentiate between debt due now and debt due in the future.⁴¹ To do this, DSAs use present value estimates, which discount future payments by a given discount rate. Unrealistic discount rate assumptions are often overlooked as a reason that expectations and reality diverge. The use of overly optimistic discount rates that make the present value of a sovereign's liabilities look manageable can lead to surprises when the economic environment turns out to be less benign than the forecast and insufficient relief if debt distress materializes.

Managing sovereign debt

Countries at high risk of debt distress, as opposed to countries already in debt distress, have a number of policy options for making their repayment obligations more manageable. Sovereigns at high risk of default can, for example, modify the structure of their liabilities and the schedule of future payments through negotiations with creditors and the effective use of refinancing tools—whether these creditors are private or official. In this way, proactive debt management can reduce the risk of default and free up the fiscal resources needed to support the recovery from the pandemic.

Debt reprofiling to temporarily free up fiscal resources

One of the primary tools governments have at their disposal to manage debt pressures before they become untenable is debt reprofiling. In debt reprofiling, the sovereign issues new debt in order to change

its debt service profile. Multiple characteristics can be targeted by such operations. Most commonly, debt reprofiling operations modify the maturity or currency exposure of existing debt. This usually happens in one of three ways: (1) new debt is issued, and the proceeds are used to retire old debt; (2) old debt is exchanged for new debt (similar to a debt restructuring, but market-based); or (3) new debt is issued at the time of maturity of the old debt but has significantly different characteristics. The debt is thus rolled over, but the emerging liability service profile is different and more advantageous for the borrower.

Debt reprofiling could, for example, be helpful when a country has multiple loans that come due in the same year and would place an excessive strain on government finances. The sovereign could choose to issue new debt with a longer or more even maturity profile that is easier to service. The sovereign would then use the capital raised from this new debt issue to retire some of the loans for which maturities were bunched in the same year. More typically, the operation would retire debt maturing in the near future and replace it with debt of longer duration. In recent years, some sovereigns have also begun to issue amortizing bonds, which pay principal down at different points of their life. Use of this method helps to manage debt service ex ante by spreading out debt payments over time.

Reprofiling can also target currency composition, which is an important factor in debt sustainability, irrespective of a country's exchange rate regime. In this case, instead of changing the maturity of existing debt, the debt reprofiling operation aims to retire existing debt in one currency by issuing new debt in another currency. In a recent debt reprofiling operation in Ghana, for example, a foreign currency bond was issued to partially retire domestic currency debt. The rationale for this choice was to take advantage of abundant hard currency liquidity to increase space in the aggregate balance sheets of the domestic financial sector.⁴² Of course, the risks of greater foreign currency debt exposure, particularly in the context of significant currency depreciation, must be weighed against the costs of domestic debt service in a relatively shallow domestic market. Other operations can retire expensive debt if the sovereign's cost of funds has fallen in capital markets (see box 5.2 for an example).

The details of reprofiling operations vary, depending on the characteristics of a country's debt and debt service profile. Although debt reprofiling receives more attention when pursued with private creditors, it is not uncommon for debt reprofiling operations to involve official creditors. Thus this option is available to debtor countries whatever their creditor composition. Countries with access to bond markets are, in theory, in a better position to take advantage of debt reprofiling, but they may also be more reluctant to do so to avoid risking a downgrade in their credit rating. Designing a reprofiling operation that effectively manages the risks associated with sovereign debt is not trivial and requires extensive analysis, typically carried out by the country's debt management office in conjunction with international financial institutions and possibly other advisers.

Overall, a country seeking to reprofile its debt needs to ascertain whether realistic financing options are available and whether the resulting changes to its debt profile would be sufficient to solve the problem. Although debt reprofiling can free up liquidity and make a country's debt payments more manageable, it typically will not reduce the debt stock and is therefore not a long-term solution for debt sustainability issues.

Preemptive negotiations with creditors to prevent debt distress

Sovereigns that are at high risk of or are in debt distress have the option of initiating preemptive negotiations with their creditors to reach a debt restructuring before they fail to meet their contractual obligations.⁴³ There are many historical examples of preemptive restructurings aimed at averting outright default, including Chile (1987 and 1990), Algeria (1992), the Dominican Republic (2005), and, most recently, Ukraine (2015–16) and Belize (2020).⁴⁴ The option to pursue a preemptive restructuring depends largely on the creditor's willingness to negotiate, the debtor's credibility, and agreement on the debtor

Box 5.2 Case study: Seizing market opportunities for better debt management in Benin

The COVID-19 crisis has had a profound impact on Benin's economy and people. Between 2017 and 2019, Benin's real gross domestic product (GDP) was growing at 6.4 percent per year. In 2020, with the pandemic under way, real GDP growth dropped to 3.8 percent per year. Gains in poverty reduction were partially reversed. According to World Bank estimates, the percentage of people living under the international poverty line of \$1.90 a day increased from 45.5 percent in 2019 to 45.9 percent in 2020.^a Because of this fragile situation, the government now faces greater than usual difficulties in collecting taxes, as well as more demands for additional spending on health and social programs to contain the impacts of the pandemic.

In the years prior to the pandemic, Benin's total public debt increased significantly, from 22.3 percent of GDP in 2014 to 41.2 percent of GDP in 2019.^b But it was not the only country in this situation: 45 of 48 countries in Sub-Saharan Africa saw an increase in debt levels over the same period.^c Benin's increase in debt partly resulted from better access to commercial debt. Benin first entered the Eurobond market in March 2019 with an issuance of €500 million (\$600 million) and a final maturity of seven years for a coupon of 5.75 percent. The bonds were to be amortized over the last three years of their life (2024, 2025, 2026).d These terms placed significant pressure on the government to mobilize the resources needed to meet the debt service demands. In particular, the 2023 external debt service-to-revenue ratio was expected to triple, reaching 20 percent in 2024 due to amortization of the Eurobonds.e

To meet the growing financing needs triggered by the pandemic, as well as the looming debt service pressures, Benin looked at different financing options, including reentering the bond market. It issued a new Eurobond in January 2021. This issuance had two tranches: (1) €700 million (\$840 million) with an 11-year maturity and a coupon of 4.875 percent and (2) €300 million (\$360 million) with a 31-year maturity and a coupon of 6.875 percent. Overall, Benin succeeded in mobilizing €1 billion, which allowed it to buy back 65 percent of the previous Eurobond issuance (from March 2019), reduce its debt cost, and address the debt service

problem. Benin was also able to mobilize substantial funding to address new financing needs arising from the pandemic.

Benin had experience in proactive debt management. In 2018, it was able to obtain commercial loans for €260 million (\$312 million) through the World Bank's Policy-Based Guarantee. The terms of these loans were 4 percent interest and 12-year maturities. Benin used the loans to buy back shorterterm domestic debt.g Although Benin replaced local currency debt with foreign currency debt, it was able to take advantage of improved financing conditions with a small increase in its exposure to currency risk because Benin's currency is pegged to the euro. Overall, however, this operation is an example of how Benin has effectively used the instruments available through international financial institutions such as the World Bank and the International Monetary Fund (IMF) to optimize market access, as well as to manage its sovereign debt.

Another example of how Benin has been able to effectively combine financing instruments from international financial institutions and the bond market is Benin's July 2021 issuance of a Sovereign Sustainable Development Goals (SDGs) Bond.^h The €500 million (\$600 million) mobilized through this issuance will be used toward achievement of the SDGs as described in the Benin SDG Bond Framework.ⁱ Benin was able to secure a maturity of 14 years with a coupon of 4.95 percent for this bond, compared with a maturity of 11 years and a 4.875 percent coupon in the previous operation (table B5.2.1).

Benin has also successfully tapped into sources other than commercial funding to finance its COVID-19 response. As a low-income country eligible for International Development Association assistance, Benin has access to concessional loans from the World Bank and IMF. Benin obtained \$177.96 million in emergency assistance from IMF in December 2020, in addition to the \$103.3 million approved earlier, in May 2020. Benin also secured \$50 million in emergency financing from the World Bank in 2021 to fight the COVID-19 pandemic, in addition to the \$100 million in budgetary support disbursed in 2020.

Successful debt management requires optimizing complicated contracts with different moving

Box 5.2 Case study: Seizing market opportunities for better debt management in Benin (continued)

Table B5.2.1 Benin's debt profile and recent issuances in the Eurobond market, 2019-21

a. Debt profile

	End of 2019		End of 2020 (est.)	
	External	Domestic	External	Domestic
Nominal debt (US\$, millions)	3,623.90	2,611.00	4,055.80	3,247.00
Interest payments (% of GDP)	0.5	1.0	0.5	1.2
Weighted average interest rate (%)	2.1	6.1	1.8	5.9
Average term to maturity (years)	10.9	2.8	10.8	3.6
Share maturing in one year (%)	3.2	24.2	3.4	21.7

b. Recent issuances

	March 2019	January 2021, tranche 1	January 2021, tranche 2	July 2021
Amount (€, millions)	500 (\$600 million)	700 (\$840 million)	300 (\$360 million)	500 (\$600 million)
Maturity (years)	7	11	31	14
Coupon (%)	5.75	4.875	6.875	4.95
Used to repurchase maturing debt?	No	Yes, partially	Yes, partially	No

Sources: CAA 2019; MEF 2021.

Note: Panel a considers all external and domestic debt, including concessional lending. Panel b provides further details on bond issuance since 2019. For bonds alone, weighted average coupons evolved from 5.75 percent in 2019, to 5.5 percent in January 2021, and then to 5.35 percent in July 2021. The corresponding average maturities evolved from 7 years in 2019, to 15.5 years in January 2021, and then to 15 years in July 2021. GDP = gross domestic product.

parts—maturity, currency, interest rate, and amortization schedules, among others. Debt management offices need to be aware of market movements, as well as actions and initiatives by donors and multilateral organizations, to find the opportunities that best match their country's interests and financing needs. Benin is a good example of how countries can mitigate pressures on government finances and preserve their ability to meet urgent financing needs through proactive debt management.

- a. World Bank (2021b).
- b. IMF (2020b).
- c. WDR 2022 team calculations, based on data from International Monetary Fund, World Economic Outlook Database: Download WEO Data, April 2021 Edition (dashboard), https://www.imf.orq/en/Publications/WEO/weo-database/2021/April.
- d. Government of Benin (2019).
- e. IMF (2020b).
- f. Government of Benin (2021b).
- g. IMF (2020b).
- h. CAA (2021).
- i. Government of Benin (2021a).
- i. IMF (2020b).
- k. For more details on the financial engagement of the World Bank in Benin, see World Bank, Overview: Strategy, World Bank in Benin, https://www.worldbank.org/en/country/benin/overview#2.

country's needs. For countries with market access, these negotiations usually take the form of convening a meeting with bondholders. When these negotiations are pursued with official creditors, they take the form of either separate bilateral negotiations or a meeting with multiple creditors that could be coordinated by a group such as the Paris Club or an international financial institution. Whatever the creditor pool, the objective is a reduction of the debt stock or some present value reduction of the debt burden through reduced payments, extended maturities, or extended grace periods.

Evidence shows that where preemptive restructuring is undertaken, it is resolved faster than post-default restructuring, leads to a shorter exclusion of the country from global capital markets, and is associated with a lower decline in output.⁴⁵ This option is not available to all governments, however, because it requires a high level of transparency about who holds the country's debts and on what terms. This is important because a preemptive restructuring relies on debtors and creditors agreeing on the probability of debt distress and reaching an agreement acceptable to all creditors.

Although this discussion suggests that countries can reap clear benefits from renegotiating high debt burdens preemptively, the evidence also shows that preemptive restructuring does not make countries more resilient to debt sustainability problems in the longer term. The probability of defaulting within 24 months following a restructuring does not differ between countries that pursue preemptive versus postdefault restructuring (the relapse probability is 39 percent in both strictly preemptive and strictly postdefault restructuring). This finding suggests that in the future countries should use the improved breathing space and stability offered by preemptive restructuring to more rapidly lay the foundation for longer-term debt sustainability.

Resolving sovereign debt distress

Once a government is in debt distress—most often marked by a default—the options to treat the problem are more limited. The primary tool at this stage is debt restructuring. It requires prompt recognition of the true nature of the problem (sustainability), coordination with creditors, and an understanding by all parties that restructuring is the first step toward debt sustainability (that is, reaching a level of debt that allows the government to pay its current and future obligations).

These broad principles for sovereign debt restructuring are very similar to the principles for restructuring private sector debt covered in chapters 2 and 3, with a few important differences. First, there are no bankruptcy or insolvency courts for sovereign debt, which remains a significant gap in the present financial architecture. To restructure sovereign debt, there are, at best, creditor committees (such as the ones set up by the Paris Club, bondholders, or the London Club in the past) so debtors can meet to negotiate and come to an agreement. However, it is often a difficult, lengthy process to enforce such agreements or seize the assets of the debtor as in a regular commercial insolvency case. Typically, the assets of the sovereign are either covered by sovereign immunity (for example, central banks' reserve accounts with other central banks) or outside the jurisdiction of the courts adjudicating the contractual breach. With rare exceptions, only assets pledged as collateral and covered by clauses forgoing immunity are readily reachable by creditors. Second, despite the term *public debt*, there is often a lack of information about a country's lenders and the total amount of debt. Credit registries or credit bureaus track corporate debts. Although these databases may not be perfect, they tend to be more complete than the information available on sovereign debt (see box 5.5 later in this chapter on the hidden debt problem). Third, sovereign debt restructuring involves lenders from different countries, with the result that debt contracts are often established under different jurisdictions with different instruments and different levels of implied seniority. Although corporate debt can also have an international component, this is less common, especially in the case of micro-, small, and medium enterprises.

The importance of timely debt restructuring

When a country is unable to service its debt, there are strong arguments in favor of it quickly acknowledging the problem so it can take steps to reduce debt loads and allow for faster recovery. Evidence from past debt crises shows that the average default spell lasts eight years,⁴⁷ and the indebted country typically goes through two debt restructurings before it emerges from default (figure 5.6).⁴⁸ Indeed, Jamaica and Poland each engaged in seven debt restructuring deals with private external creditors before resolving their default spell so they are capable of financing the necessary spending. Chad, one of the first three countries to apply for the G20 Common Framework for Debt Treatment beyond the DSSI (see box 5.3), is currently seeking its third debt restructuring since 2014. Such extended timelines have far-reaching social and economic consequences in which development goals suffer significant setbacks, delaying an equitable recovery. This is part of the post-COVID-19 reversal problems many low-income countries are already experiencing (see box 5.1).

The resolution of sovereign debt distress can be a lengthy process for several reasons. First, the increased importance of new types of lenders impedes transparency and makes it more difficult to establish the true extent of a country's outstanding debts, which complicates the coordination of different creditors. Second, governments are often tempted to delay debt restructuring for strategic or political reasons. In addition, creditors are often reluctant to grant debt relief that is extensive enough to permanently solve a country's debt sustainability problem. Although the explanations vary case by case, the common outcome is that the initial restructuring is often delayed and falls short of what is necessary to achieve debt sustainability.

One common—and misguided—approach is to postpone debt resolution efforts until economic conditions improve.⁴⁹ However, such a strategy can itself deepen and prolong an economic downturn because the unresolved debt crisis prevents a country from recovering capital inflows. Creditors and debtor governments should thus view debt restructuring as part of the initial resolution and recovery plan rather than as a subsequent step, as is often the practice for private debt.

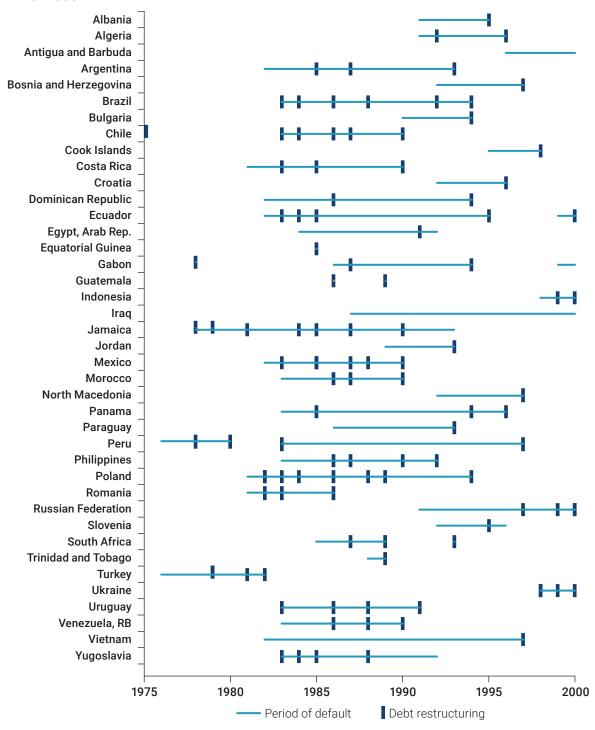
Sovereign debt restructuring typically involves five steps:

- 1. The debtor country announces its intention to pursue an agreement with one or several of its key creditors.
- 2. Creditor committees are formed (if no standing committee exists), and conversations are initiated.
- 3. The debtors, creditors, and their respective advisers take inventory of the existing claims against the debtor nation and validate them in order to agree on the set of contracts to be discussed—a process called claim reconciliation. This process includes a review of existing contracts to ascertain the truthfulness and validity of the claims. This is often a time-consuming process, and countries would benefit from conducting such an analysis as part of their ongoing debt management efforts.
- 4. Negotiations cover aspects of the contracts the parties want to change.
- 5. When an agreement is reached and a debt exchange offer is completed, creditors exchange the old debt contracts for new and amended debt agreement contracts that reflect the negotiated settlement.

This process is applicable to countries at all income levels and to all creditor compositions. What changes is the degree of complexity involved.

When a country defaults because of a temporary shock such as the COVID-19 crisis, sufficiently extending maturities and spreading debt service payments more evenly into the future may achieve debt sustainability. However, it may not be possible to determine in real time whether a shock is temporary, and the cost of erring in favor of a shallow restructuring can extend the duration of default spells and

Figure 5.6 Sovereign debt restructuring and time spent in default, selected countries, 1975–2000



Source: WDR 2022 team, based on Cruces and Trebesch (2013); Farah-Yacoub, Graf von Luckner, and Reinhart (2021); Meyer, Reinhart, and Trebesch (2019); Reinhart and Rogoff (2009).

Note: The figure shows a timeline of sovereign defaults and debt restructuring from 1975 to 2000. The figure excludes countries covered by the International Development Association (IDA) and the Heavily Indebted Poor Countries (HIPC) Initiative.

increase their human and economic costs. Data from recent studies suggest that more than half of the debt restructurings that ended a default spell included a reduction in face value.⁵⁰

The role of insufficient debt reduction in future defaults

One reason why countries typically require several rounds of debt restructuring to emerge from debt distress is that creditors often find it difficult to agree to restructuring deep enough to make debt burdens sustainable and future default unlikely.

From the creditor's perspective, sovereign debt restructuring follows a simple logic: the restructuring should grant sufficient debt relief to ensure repayment but avoid reducing debt more than is strictly necessary. For low-income countries, official lenders equate debt relief with aid, and so they may be more willing to agree to larger debt reductions. However, the debtor country's ability to service its debt depends on a wide range of factors (such as economic growth, international economic conditions, and the ability to raise tax revenue), which are difficult if not impossible to forecast at longer time horizons. In this situation, it is tempting for lenders to buy in to overly optimistic forecasts because those forecasts imply that smaller debt write-offs are required to ensure debt sustainability in the future. In reality, however, by relying on overly optimistic forecasts creditors systematically underestimate the amount of debt reduction needed, thereby laying the foundation for future debt distress.

To avoid this common cause of prolonged debt distress and recurring rounds of default, creditors and sovereigns need to agree on a set of realistic (ideally independently assessed) growth projections, which can provide the basis for a more reliable debt sustainability analysis.

The importance of effective creditor coordination to debt resolution

Debt restructuring requires coordination between the sovereign and its creditors. Because there is typically one debtor and many creditors, a creditor committee is formed to facilitate the process and minimize holdouts and litigation.⁵¹ Whether a restructuring is attempted preemptively or after distress has materialized, negotiating through a creditor committee is the most common approach to resolving sovereign debt distress. Depending on the composition of the creditors, creditor committees can be made up of multilateral, bilateral, and private sector creditors. Coordination problems are typically difficult to resolve for any of these types, but historically multilateral and bilateral diplomacy between official creditors has helped (box 5.3).

Because the growing importance of nontraditional lenders has obfuscated the full extent of countries' debts and made creditor coordination more difficult, new solutions are needed to overcome coordination problems in debt negotiations. Past crises may offer some guidance on how better coordination between creditors can be achieved in a more complex market for sovereign debt. For example, commercial creditors, which account for a growing share of sovereign debt, could be enticed to participate in restructurings by their own governments. During the debt crises of the 1980s, US commercial banks held substantial amounts of emerging market debt, especially in Latin America. Defaults on these assets threatened to develop into a banking crisis in the United States,⁵² thereby giving the US government an incentive to offer bilateral debt relief. The result was the Brady Plan, named for US Treasury Secretary Nicholas Brady. Under the program, banks could exchange nonperforming debt for a new security, a Brady Bond, collateralized by a long-term, zero-coupon US Treasury bond. The initiative was, in most cases, a success for debtors and for the United States. After these restructurings, debtor countries experienced higher growth rates, renewed capital inflows, and improved credit ratings.⁵³ The stock market capitalization of US banks with emerging market exposure also increased substantially.⁵⁴

Today, the debt of emerging economies is not nearly as concentrated in a handful of large banks as it was then. Nonetheless, countries whose commercial banks and nonbank lenders are newly exposed

Box 5.3 The role of multilateral coordination in the looming debt crisis: The G20 Debt Service Suspension Initiative and the G20 Common Framework

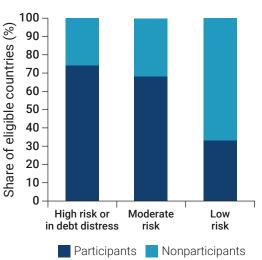
Multilateral coordination is essential when many debtor nations are facing distress. It is especially important when the sovereigns in distress are low-income countries, whose largest creditors are governments and multilateral organizations.

The G20 Debt Service Suspension Initiative

Responding to this reality, in April 2020 the G20 (Group of 20), along with multilateral financial institutions, including the World Bank and International Monetary Fund (IMF), launched the Debt Service Suspension Initiative (DSSI), which sought to preempt debt distress from the pandemic by offering 73 low-income countries the option of forbearance delayed payment—on bilateral loans.^a Since it came into effect in May 2020, the initiative has provided 48 economies with temporary cash-flow relief, and by the end of June 2021 it had delivered about \$10.3 billion in debt service suspension (a national development bank participated as a private creditor). On average, participants in DSSI faced more elevated risks of debt distress than those economies that abstained (see figure B5.3.1).

Multilateral institutions provided much relief through the initiative. From April 2020 to June 2021, the World Bank committed \$52.4 billion in International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA) financing to DSSI-eligible countries. Its total gross disbursements to these countries—IBRD, IDA, and Recipient Executed Trust Funds (RETFs) amounted to \$31.1 billion, of which \$8.8 billion was provided on grant terms (\$28 billion in net transfers). International Finance Corporation (IFC) support amounted to \$4.9 billion in commitments (own account and mobilization) and \$2.0 billion in disbursements (own account). However, multilateral institution actions alone are insufficient to relieve countries of the debt pressures faced. Commercial creditors, except for the national development

Figure B5.3.1 Participation of countries in DSSI, by level of risk of debt distress



Source: WDR 2022 team.

Note: The figure presents the percentage of the 73 eligible low-income countries participating in the Debt Service Suspension Initiative (DSSI) within each class of risk of debt distress as defined by the World Bank–International Monetary Fund debt sustainability analyses.

bank mentioned earlier, have not offered forbearance under the DSSI. Because private credit is now a much larger share of sovereign debt than when the Paris Club was founded, creditor coordination to date appears more difficult than in the past.

The G20 Common Framework for Debt Treatment

The DSSI was followed in November 2020 by the G20 Common Framework for Debt Treatment beyond the DSSI, which covers the same 73 low-income countries eligible for the G20's DSSI. The Common Framework seeks to expand on the

(Box continues next page)

Box 5.3 The role of multilateral coordination in the looming debt crisis: The G20 Debt Service Suspension Initiative and the G20 Common Framework (continued)

DSSI's provision of relief by establishing a process to restructure debts, including those held by non-Paris Club official and commercial creditors. The process of debt treatment is initiated by the debtor country. Eligible debt includes all public and publicly guaranteed external debt maturing in at least one year. How much debt needs to be restructured and the related financing needs for the country are determined by IMF-World Bank debt sustainability analyses (DSAs) and an assessment by the participating official creditors in conjunction with the debtor country.^b Treatment should comport with the parameters of an IMF upper credit tranche loan—that is, the program, amount, and policies should lay the groundwork for a return to debt sustainability. Modifications considered by the process include (1) changes in debt service over the course of the IMF program; (2) debt reduction in net present value terms; and (3) extension of maturities. The framework reserves the right to cancel or write off debts for the "most difficult cases." Determination of such need also follows the IMF-World Bank DSA and the collective assessment of the participating official creditors.

The key driving principle of the G20 Common Framework, much like that of the Paris Club, is

the comparable treatment of creditors—that is, upon reaching an understanding with the participating official creditors, the debtor nation is obliged to seek similar debt relief from its other creditors. Still, so far only three countries have applied for treatment: Chad, Ethiopia, and Zambia. Many eligible countries remain reluctant to seek assistance because of concerns about reputational credit risks and access to capital. All three major credit agencies have made it clear that requesting commercial creditor forbearance on G20-comparable terms could lead to a downgrade of credit rating. That certainly would be the scenario if comparability of treatment triggers private debt restructuring.

In summary, the international community can take the following steps in the event of debt distress: (1) determine whether the restructuring deal and policy package returns the country to debt sustainability and thus offsets creditworthiness concerns; (2) ensure participation by all relevant creditors; and (3) advocate for concessional sovereign financing until the state can access finance from the market, including by increasing concessional options. As the historical track record shows, these steps have been difficult to achieve.

- a. For the DSSI, see World Bank, DSSI (COVID 19: Debt Service Suspension Initiative) (dashboard), https://www.worldbank .org/en/topic/debt/brief/covid-19-debt-service-suspension-initiative.
- b. For the DSA, see World Bank, DSA (Debt Sustainability Analysis) (dashboard), https://www.worldbank.org/en/programs /debt-toolkit/dsa; International Monetary Fund, DSA LIC (Debt Sustainability Analysis Low-Income Countries) (dashboard), Washington, DC, https://www.imf.org/en/publications/dsa.

to sovereign debt are in a position to implement a similar approach. Nonperforming debt could, for example, be swapped for new securities backed by creditors' sovereigns and held in escrow to reduce risk in the same way as the Brady Bonds. Such an initiative could prove fruitful in encouraging commercial lenders to participate in resolving debt distress and at the same time reduce risks to the lender country's financial system, as occurred with the Brady Plan. Nonetheless, Brady Bond-like arrangements require significant subsidies from the government, donors, or international financial institutions and therefore come at a cost to taxpayers. This may help explain why about eight years passed after the onset of Mexico's debt crisis before the first Brady deal in 1990.

The high social and economic costs of liquidating sovereign debt without restructuring

Significantly reducing sovereign debt in emerging economies typically requires debt restructuring, there are other means to achieve this end. The most orthodox approach is fiscal consolidation, which involves reducing government expenditures, raising taxes, or both. Similarly, debt burdens can be reduced through robust economic growth, which improves government revenue, fiscal balances, and debt servicing capacity.

Sovereign debt can also be reduced using less orthodox macroeconomic policies, such as deficit monetization (central bank financing of budget deficits) or financial repression (forcing negative real interest rates and proscribing capital outflows). Such policies have often accompanied debt crises and arguably are a forced response to debt distress in situations where other options are limited.⁵⁵ Nonetheless, when policy makers are confronted with unsustainable debts denominated in local currency, held by local creditors, or adjudicated under domestic law, they often see deficit monetization and financial repression as soft options that they should attempt before default or restructuring.⁵⁶ Because both types of policies require action by the central bank, they can not typically be applied in countries that are members of a currency union.

Unanticipated inflation has also played a role in debt reduction in both advanced and emerging economies.⁵⁷ The degree to which inflation spikes can reduce debt depends on the currency profile and maturity profile of a country's debt stock and the extent to which inflation expectations are well anchored, among other factors. In many countries, particularly in Africa and Latin America, the monetization option has proved to be a slippery slope, often leading to high, persistent inflation.

Financial repression measures, often coupled with higher inflation, are another path that many countries have taken to manage domestic debt servicing costs and reduce debt loads. For example, Ethiopia, one of the first three countries to apply for the Common Framework, has maintained significantly negative real (inflation-adjusted) interest rates since 2006. Financial repression measures also include financial market regulation, such as caps on interest rates, and capital controls. Directed lending to the government by "captive" institutions or public programs has played a role as well. For example, governments may require banks, pension funds, or other domestic financial institutions to purchase sovereign debt, often to the exclusion of other assets, or to lend directly to the government (or government-sponsored enterprises) at below market rates. In short, financial repression is a transfer from savers to borrowers, with government often being the single largest borrower in most low-income countries.

Historically, numerous countries have used financial repression policies to reduce their sovereign debt. Studies document that between 1945 and 1980 financial repression was among the most widely used paths to debt deleveraging in countries as diverse as Argentina, France, India, and the United States.⁵⁹ More recently, in some countries financial repression policies have been employed specifically to help finance the COVID-19 response.⁶⁰

Even though they are often used to reduce domestic debt stocks, financial repression policies can have pernicious effects on economic growth, the allocation of capital, and inequality. Forcing domestic financial institutions to finance sovereign debt crowds out credit to the private sector and reduces economic growth in the longer run. It also exposes the domestic financial sector to sovereign risk and can undermine financial stability, and it increases the magnitude of contingent liabilities and the likelihood they will materialize. Perhaps most important, financial repression policies have severe negative effects on poverty and inequality. By keeping nominal interest rates artificially low, such policies punish savers and reward debtors. In addition, they often coincide with high inflation, which further erodes the value of wage income and precautionary savings, with disproportionate impacts on the poor. As described in box 5.4, in Argentina financial repression policies have been used extensively, but this policy choice has had adverse consequences.

Box 5.4 Case study: The social and economic costs of financial repression in Argentina

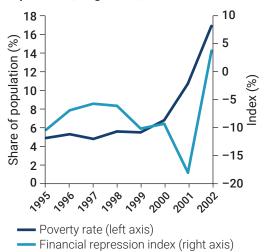
At the turn of the millennium, Argentina faced one of the severest economic crises in modern history. Accumulated vulnerabilities, delays in pursuing restructuring, and a three-year recession brought about significant economic turmoil. Fiscal vulnerabilities, loss of competitiveness, the rigidity of the currency board system, overly optimistic growth assumptions, and political instability were all cited as key factors leading to this conglomerate crisis.^a

As a result of the crisis and the delayed policy actions to address it, Argentina's economy shrank 20 percent in 2002 and, according to national statistics, 53 percent of the population was living in poverty in May 2002, up from 38 percent in October 2001. Based on the World Bank's international poverty line of \$1.90 per day, the poverty rate peaked at the height of the crisis in 2002 (figure B5.4.1).

In addition to loans from the International Monetary Fund (IMF) and the World Bank, debt restructuring, and changes in tax policy, the Argentine government instituted a number of standard financial repression policies, which effectively distributed losses across the population. These policies included forced conversion of foreign currency deposits, capital controls, and requirements that domestic financial institutions finance the government (see figure B5.4.2). These policies had several objectives. Their primary goal was to stem the flight of private capital, which was gathering steam in 2000 and 2001. In addition, financial repression was used to reduce sovereign debt loads by generating real negative interest rates.^c In essence, the government forced domestic savers and financial institutions to bear the costs of reducing its excessive debt burden by freezing their capital inside the domestic financial system, forcing savers and financial institutions to convert foreign currency to domestic currency, requiring financial institutions to buy new sovereign debt denominated in local currency, unifying and floating the exchange rate, and maintaining tight control of all foreign currency flows.

These measures had significant social costs. They were accompanied by a rise in poverty, which mirrored a dramatic fall in employment and in household incomes and wealth.d On December 1,

Figure B5.4.1 Poverty and financial repression, Argentina, 1995-2002



Source: WDR 2022 team, based on data from Banco Central de la República Argentina; Ilzetzki, Reinhart, and Rogoff (2019); and World Bank's World Development Indicators Database.

Note: In the figure, the poverty rate is the poverty headcount ratio at \$1.90 a day (2011, purchasing power parity-adjusted), expressed as a percentage of the population. The financial repression index is calculated as the parallel exchange rate premium minus the real interest rate on deposits (the difference between the interest rate on deposits and inflation). This measure captures the difficulty in safeguarding liquidity in foreign currency (as expressed by the parallel market foreign exchange premium, which is the percent difference between parallel market exchange rates and official exchange rates) and the implicit inflation tax the government is imposing on this liquidity that becomes trapped in domestic currency (as expressed by the real interest rate, which in these cases is often negative).

2001, the government declared a bank holiday and implemented an array of banking controls to fight the ongoing bank run. This package of measures would become known as El Corralito.^e Deposits were frozen, savings denominated in US dollars were forcibly converted at the official rate of Arg\$1 per US dollar, and weekly withdrawal limits of Arg\$250 were imposed. As convertibility ended, the

Box 5.4 Case study: The social and economic costs of financial repression in Argentina (continued)



peso quickly depreciated to Arg\$1.8 per US dollar on the first day of unified floating (February 11, 2002), rendering depositors instantly poorer in terms of both the incomes they earned and the wealth they had saved. The central bank also moved to control all sources of foreign currency through a combination of requirements on exports and transactions involving foreign currencies.^f

Although financial repression measures are likely to have been a factor in the stabilization of the Argentine economy, their effects were not only unpopular but also highly regressive. In Argentina, repressive measures can be viewed as a consequence

of delayed policy action rather than an effective response to the debt crisis. Because Argentina had followed a fixed exchange rate regime (currency board) prior to the crisis, adjustments had to come either from the fiscal side, through increases in sovereign debt, or from the real economy. The resulting vulnerabilities—unsustainable levels of sovereign debt, in particular—continued to accumulate. This accumulation ultimately contributed to the depth of the Argentine economic crisis and left the government with little choice but to resort to policies that had severe negative effects on poverty and inequality.

- a. Daseking et al. (2004); Feldstein (2002); Hausman and Velasco (2003); Mussa (2002); Perry and Serven (2002).
- b. Cruces and Wodon (2003).
- c. Reinhart and Sbrancia (2015).
- d. Cruces and Wodon (2003). See Daseking et al. (2004), appendix 2, for a thorough recap of the measures.
- e. The term *El Corralito* (a bank account withdrawal limit or a freeze on a bank account) was popularized by Argentine journalist Antonio Laje to refer to the measures. See *La República*, "Argentina: Una década después del corralito," December 4, 2011, cited by *El Economista*, https://www.eleconomista.com.mx/economia/Argentina-una-decada-despues-del -corralito-20111204-0089.html.
- f. For example, any amounts in hard currency held by banks or exchange bureaus over a specified limit had to be deposited daily in the central bank. Taxes on exports were increased. Export receipts were required to be sold exclusively to the central bank. The purchase of foreign banknotes or transfers abroad for amounts over \$100,000 required the central bank's prior approval. See Daseking et al. (2004).

Looking ahead: Reforms to mobilize revenue, improve transparency, and facilitate debt negotiations

The challenges of managing higher debt levels and resolving a rising number of debt crises in the aftermath of the COVID-19 crisis highlight the need for reforms that can facilitate revenue mobilization, better debt management, debt negotiation, and access to capital markets in the longer term. This section explores how improved transparency, as well as legal and tax reforms, can make sovereign debt markets more efficient and sovereign balance sheets more resilient.

Dependence of sovereign debt sustainability on mobilization of new tax revenue

Prior to the COVID-19 pandemic, most countries saw a sustained rise in tax revenue—in lower-middle-income countries tax revenue as a share of GDP increased from 17 percent to 22 percent between 2000 and 2019.⁶² Half of this revenue growth came from indirect taxes (especially the value added tax, VAT), 30 percent from direct taxes on income, and 20 percent from payroll taxes. This upward trend in revenue mobilization was driven by the greater efficiency of tax administrations, technological innovations, and improvements of tax designs.

Can governments continue to increase tax revenue over the next decade? The COVID-19 pandemic has created a short-term but drastic revenue shortfall, but it could reinforce revenue mobilization in the medium term by legitimizing the role of the state as a provider of insurance and redistribution. However, there are no magic bullets—higher tax revenue arises principally from long-term investments in tax capacity and from structural changes in countries' economies bolstered by international efforts to address tax avoidance. Three areas of reforms can nonetheless raise revenue while balancing equity and efficiency considerations. However, progress on mobilizing new tax revenue may be threatened by a delayed or anemic recovery or social backlash, as was seen recently in Colombia.⁶³

First, governments increasingly have the capacity to target high earners with progressive taxes. Currently, in low- and middle-income countries personal income taxes and property taxes account for only a small share of GDP (3 percent and 0.5 percent, respectively), which is a much lower share than in high-income countries. The long-run transition from self-employment to employment in firms is a key enabler of modern personal income taxes. However, this evolution in employment structure must be accompanied by investments in a tax administration's capacity to target high earners and to tax their income from all sources (including capital) at rising marginal tax rates. Thus the tax effort is borne principally by those with the means to contribute. Taxes on property are another progressive source of revenue. But despite a visible tax base, the current revenues are low. As urbanization drives property values up in many cities, modern property registries, documented and accessed by means of technology, make real estate valuation and administration easier. Thus taxes on personal income and property are an untapped source of government revenue and simultaneously can help curb inequality.

Second, structural changes arising from the digitalization of economies and the climate emergency present not only challenges but also opportunities to mobilize revenue. As transactions go digital and taxpayers file electronically, tax administrations can compare self-reported economic activity with third-party reports to uncover discrepancies and better target audits. Similarly, large online platforms that aggregate transactions can be used as withholding agents and as mechanisms to formalize smaller firms that want to participate in online markets. Another key evolution is related to the climate emergency; it justifies taxes aimed at limiting energy consumption and could raise additional tax revenue. Policy responses could take the form of removal of energy subsidies and the imposition of fuel taxes or more ambitious carbon taxes. Whatever their shape, taxes must be tailored to each country's tax

capacity and energy structure and compensate vulnerable households for any increases in their tax burden.⁶⁵ Better use of health-related taxes (such as taxes on the consumption of alcohol and tobacco) could also add more resources to the public purse while aligning personal incentives with a reduction in the pressure on public health systems.

Third, the design of taxes can be simplified to improve their transparency and efficiency. The principal tax instruments (the VAT and corporate and personal income taxes) are riddled with tax exemptions and tax credits. By narrowing tax bases, exemptions reduce revenue collection and the efficiency of taxes and provide opportunities for tax avoidance. Although some tax exemptions are justifiable, other government tools might be more appropriate to address the underlying issues. A contentious example is the removal of exemptions from the VAT base. Typically, products such as food and energy are minimally taxed or not taxed at all to introduce progressivity. However, exemptions also benefit the rich, especially in countries where poor households mainly purchase goods in the informal sector. Zero rating goods is thus a coarse tax instrument for introducing progressivity. Conditional on compensating poor households through transfers, the removal of exemptions could be socially acceptable and would collect revenue while also improving efficiency.

To follow the suggested path to tax reforms, governments will need to overcome political challenges and the opposition of interest groups. To achieve successful reforms, governments must build wide support, clearly communicate the intended effects, and compensate poor households for tax increases. Even then, it is difficult to gather support for even well-designed tax policies, such as removing tax exemptions. Such considerations might dictate the set of feasible reforms. Furthermore, where the informal sector is large, complementary policies to develop the private sector and expand the tax base are paramount. Finally, because of the increased mobility of capital and of high earners, some tax revenue gains will depend on greater international tax cooperation. Recent developments on the minimum taxation of multinational companies hold promise, but it remains unclear how these agreements will be applied in practice and how much they will benefit low- and middle-income countries.⁶⁸

It is equally important to rationalize public expenditures and target public spending and investments effectively. To set priorities for the allocation of public funds and to avoid inefficient spending, waste, and corruption, governments must have a well-designed public finance management system. Effective public finance management can also enhance the transparency of public expenditures and the accountability of government officials. At a time when governments are pressured to increase health expenditures to address the effects of the pandemic, a well-managed public expenditure process can make this task less daunting.

The importance of transparency to debt management and resolution of debt distress

Some of the main obstacles to the prompt recognition and resolution of sovereign debt distress stem from opaque fiscal accounts and unreliable debt data. A prerequisite for expedient sovereign debt reprofiling and restructuring is creditors' access to reliable granular information about the country's overall debt as well as the seniority (when applicable) of their own claim relative to that of other creditors. Transparent data on a country's sovereign debt help creditors and multilateral institutions arrive at better debt sustainability assessments and financing decisions, which are ultimately helpful to both debtors and creditors and to overall market stability. When a country faces problems servicing its debt, better data reduce the time needed to negotiate with creditors to resolve the problem. Hidden debts, in their many guises, have been a recurring obstacle to prompt action, and not just in low- and middle-income countries as the 2011 Greek and 2015 Puerto Rican debt crises highlighted.

Debt transparency has two main dimensions: transparency in debt reporting and transparency in debt operations. 69 For transparency in debt reporting—probably the best-understood dimension—existing and new debt must be disclosed to the public in a timely, comprehensive manner. Transparency in debt operations refers to the process of entering a new debt contract or altering an existing debt contract, which includes but is not limited to having a well-designed legal framework.

Recent studies and proposals related to the international debt architecture have emphasized the central importance of transparency in debt reporting to successful debt management. Building on earlier work by the World Bank and International Monetary Fund (IMF), in 2019 the G20 endorsed a set of Voluntary Principles for Debt Transparency drafted by the Institute of International Finance and targeting private sector lenders. Meanwhile, the Organisation for Economic Co-operation and Development (OECD) is in the process of developing a disclosure platform based on these principles. These developments are a positive step toward further strengthening transparency in terms of both comprehensiveness and accessibility, but more can be done.

Effective, forward-looking debt management requires comprehensive disclosure of claims against the government, as well as the terms of the contracts that govern this debt. In practice, very few countries meet this standard of transparency. In the market for sovereign debt, contracts are often not made public, and some even include explicit nondisclosure clauses.⁷⁰ In addition, it is often difficult to develop a comprehensive picture beyond the central government, as this is typically the level of debt reporting. Unfortunately, the majority of low-income countries do not yet have consolidated public sector accounts.⁷¹

One important prerequisite for transparency in debt reporting and operations is therefore an unambiguous legal framework that clarifies which entities are authorized to contract debt that is enforceable against the sovereign. 72 This framework should also require debt contracts to be made public in a central repository. Although various government agencies can be signatories of sovereign debt contracts, the claims arising from these contracts are ultimately enforced against the underlying sovereign state and its population.

Some recent debt events have highlighted the problem of hidden or undisclosed debt and the possibility of legal disputes about whether a government and quasi-government entities have the authority to enter into debt contracts. Clarifying which state-owned entities are authorized to contract debt on behalf of the government and which subnational entities can raise claims against the government, including through guarantees and debt exchanges, can significantly facilitate debt management and reduce the risk of hidden debts, thereby helping to avoid costly and disruptive disputes. Such clarification would also ensure that any domestic accountability mechanisms that may be in place have sufficient information to operate properly. However, it is important that these legal requirements be accompanied by strong underlying institutions and by a domestic and international commitment to respecting those rules. Otherwise, even if the law clearly states who can approve debt contracts, the enforcement of those rules may be lacking, as in Mozambique (box 5.5).

Improved debt transparency can also contribute to the adoption of debt instruments, such as state-contingent bonds, which are efficient for debtors and creditors, but remain underutilized. One example is GDP- or commodity-linked bonds, which generate variable returns that move with the business cycle or commodity prices. Such bonds automatically reduce the burden on sovereign balance sheets during downturns and could also prove beneficial for investors. At present, these instruments have been used most commonly as value recovery instruments (securities that allow the creditor to share in the recovery of the country if it agrees to restructure debt during times of distress). GDP-linked bonds were used in the 2015-16 Ukrainian debt restructuring. In the past, Nigeria and República Bolivariana de Venezuela have issued commodity-linked warrants. However, the willingness of creditors to enter into such contracts depends heavily on reliable data on a broad array of financial and economic indicators. Although

Box 5.5 Case study: The curse of hidden debt in Mozambique

As in any credit market, timely access to information is essential for a well-functioning sovereign debt market. If there is any hint of undisclosed information about a country's debt, lenders may become less willing to provide financing, and new financing may become more expensive as lenders demand an additional premium to account for the potential risks associated with hidden information. Because of hidden debt, in Mozambique access to funding by the government was significantly reduced and therefore public investment was substantially cut.

In 2013 and 2014, external loans amounting to more than \$1 billion were contracted by state-owned companies in Mozambique under guarantee by the central government. In other words, the Mozambique government would be liable for these loans if the state-owned companies were unable to repay them.^a This publicly guaranteed debt was never disclosed to the public (including debtors and citizens) until 2016, when the media uncovered it.^b

How did this happen?

The hidden loans, as well as a state-guaranteed bond, were contracted without the proper approvals.c In Mozambique, the Ministry of Finance and the parliament have oversight over the issuance of new debt (including publicly guaranteed debt). However, for external borrowing by Mozambique's state-owned enterprises, those checks and balances were not implemented. Because of the lack of proper oversight as well as corruption allegations against the parties involved in these loan transactions, in 2019 Mozambique's attorney general filed a lawsuit to nullify the government guarantee of the loan contracted by one of the state-owned companies.d In early 2022, the lawsuit was ongoing because the lender appealed the original court decision. In the meantime, Mozambique has been renegotiating its debt, even as it waits to see whether the court decides the loan and guarantee contracts are illegal in their entirety and thus void.

How has this affected Mozambique's financial standing?

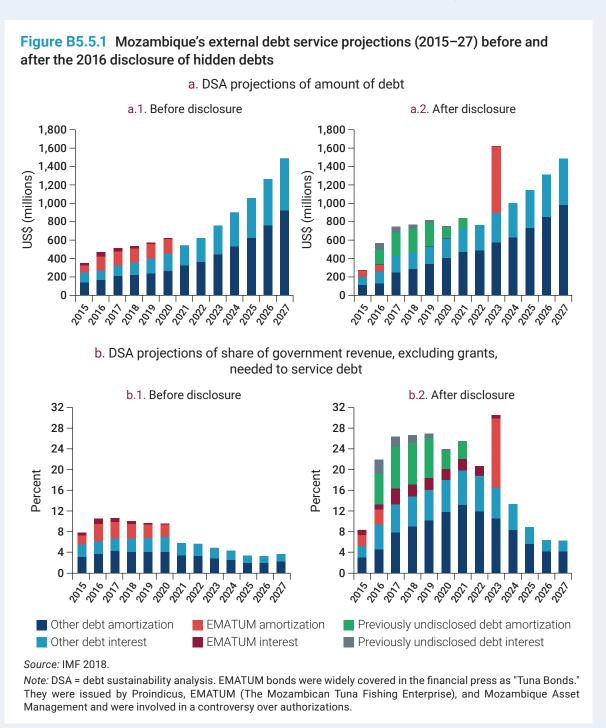
In Mozambique's 2015 debt sustainability analysis, the World Bank and International Monetary Fund (IMF) projected the country's external public and publicly guaranteed debt for 2016 to be 61 percent of GDP.^e The equivalent document published in 2018 estimated the external public and publicly guaranteed debt for 2016 to be 104 percent of GDP.^f

These hidden debts had significant implications for Mozambique's ability to service its debt, as it dramatically increased the amount of interest and amortization due in a given year. In particular, prior to the disclosure of these debts, the market was operating under the assumption that 11 percent of Mozambique's tax revenue would suffice to cover the debt service for 2016. With the disclosure of these debts, it was clear that at least 22 percent of tax revenue, or about \$600 million, was needed (figure B5.5.1). The projected increase in debt service was even bigger in 2017 and 2018. This increase was too large for the Mozambican economy to endure, and Mozambique defaulted on its debt in 2016.g As a result, credit rating agencies downgraded Mozambique to selective or restricted default. Similarly, Mozambique, which had been classified as in moderate risk of debt distress by the World Bank-IMF in 2015, was classified as in debt distress in 2016.^h

The deterioration of Mozambique's fiscal position and risk rating had far-reaching economic consequences and turned a crisis of transparency into wider economic turmoil that had many characteristics of a conglomerate crisis. The debt crisis was accompanied by a significant real exchange rate depreciation starting in 2014, a rise in inflation, reduced space for fiscal expenditures, as well as loss of confidence by external investors and the international community, leading to an acute downgrade in the country's sovereign credit rating. Concessional lending from international financial institutions—often used to resolve debt crises in

(Box continues next page)

Box 5.5 Case study: The curse of hidden debt in Mozambique (continued)



(Box continues next page)

Box 5.5 Case study: The curse of hidden debt in Mozambique (continued)

emerging economies—was no longer available. Only in 2019 was Mozambique's debt classified as sustainable on a forward-looking basis—eliciting enough confidence that the World Bank and IMF provided financing in the aftermath of Cyclone Idai. One important step to rebuilding confidence was improving transparency in debt reporting and debt operations implemented since. Improvements were the publication of periodic debt reports, including information on state-owned companies; a new

decree on public investment management; and new government-approved regulations to strengthen debt and guarantee management (including borrowing by state-owned companies). Nonetheless, Mozambique is still in debt distress while renegotiating its debt, and the legal battle over its hidden debts continues. Meanwhile, Mozambique still faces unfavorable borrowing conditions that imply a high cost of credit not just for the government but also for firms and households.

- a. IMF (2018).
- b. England (2016).
- c. The hidden loans from companies covered by a sovereign guarantee were as follows: \$622 million for Proindicus and \$535 million in favor of Mozambique Asset Management (MAM). The authorities also disclosed the existence of \$133 million in direct loans from bilateral lenders contracted between 2009 and 2014. This set of hidden debts was in addition to the EMATUM corporate bond, which was originally issued in September 2013 (also backed by a state guarantee) and then restructured as the MOZAM 2023 sovereign bond in March 2016. The government managed to restructure the MOZAM bond to mature in 2031. Although the EMATUM bond was not a hidden loan, it was part of the same package of projects underlying the undisclosed debt scheme.
- d. See Spotlight on Corruption, "Mozambique and the 'Tuna Bond' Scandal," Wells, Somerset, UK, https://www.spotlight corruption.org/mozambique-and-the-tuna-bond-scandal/. See also IMF (2019).
- e. IMF (2015).
- f. IMF (2018).
- g. From the Fitch report on Mozambique in 2016: "On 21 November the Ministry of Economy and Finance published a document confirming that Mozambique failed to make a capital and coupon payment, due 23 May 2016, on the USD535m loan to state-owned enterprise Mozambique Asset Management (MAM). The document also confirms that the MAM loan is guaranteed by the Republic of Mozambique. The arrears on the loan amount to approximately USD175.5m. In line with its criteria, Fitch therefore judges Mozambique to be in default on its sovereign obligations" (Fitch Ratings 2016).
- h. IMF (2016).

it is recognized that such state-contingent contracts are a desirable way forward, such contracts remain a minority in existing debt stocks.

Technological advances are another path to improve transparency in sovereign debt reporting and operations. One example is blockchain technology, which has been revolutionizing credit and capital markets. International financial institutions, such as the World Bank, but also sovereigns, such as the government of Thailand, have recently begun to use blockchain technology to issue and trade a subset of their bonds.⁷³ The key contribution of blockchain technology is that it immutably documents ownership status over tokenized assets in a decentralized and typically transparent ledger that is visible to all market participants. In other words, blockchain technology allows for more transparent and timely information on the ownership and terms of debt contracts housed in this environment. It then makes it possible to trace who owns the underlying asset at any given point in real time. For debt markets, the ability to trace and act on current ownership of instruments in a timely manner implies enormous efficiency gains. If implemented comprehensively, this ability could, for example, drastically reduce the time required to trace and reconcile the full list of claims against a country, which is a necessary step before a country can enter into a restructuring negotiation with creditors. Because of today's architecture, this is an inefficient, time-consuming procedure, and some small creditors remain unidentified even after the

restructuring is completed. Thus potential gains in transparency through blockchain due to the ability to identify the holders of a sovereign's outstanding debt instruments could be extremely useful in avoiding delays in debt restructuring.

The role of contractual innovations in reducing coordination problems and facilitating debt resolution

Several contractual innovations can help overcome coordination problems and speed up the resolution of sovereign debt. One innovation is collective action clauses (CACs), which could lead to faster resolution of sovereign debt restructuring and thus more stability.⁷⁴ Preliminary studies have found that these clauses tend to reduce the presence of holdout creditors during restructuring. CACs that permit aggregation, in which a majority of creditors can overrule a minority of holdout creditors, appear to be most effective at achieving faster resolutions in restructuring negotiations.⁷⁵

However, it may be too optimistic to assume that CACs are sufficiently embedded in debt contracts to resolve debt crises in the near future. Indeed, it may be too early to claim that debt crises were in fact shortened by the introduction of the newest generation of CACs in 2014.76 Recent analyses argue that the sample on which preliminary findings were based is too recent and draws heavily from a period of relative moderation.⁷⁷ Moreover, shortening restructuring processes and shortening debt crises are two different concepts. 78 First, historically bringing sovereign debt crises or default spells to an end has required, on average, two restructurings.⁷⁹ Second, it is difficult to argue that enhanced CACs are the secure, de facto market standard because only about half of the outstanding stock of sovereign bonds is estimated to contain these features, and a substantial portion of this legacy debt stock is still at least 10 years from maturity.80 In addition, of the 62 countries for which bond data are available, 16 have bonds with no CACs, as well as bonds with second-generation CACs or beyond (figure 5.7). This heterogeneity can complicate debt restructuring and highlights the need for broader changes.

Share of type of CAC in bonds (%) 100 90 80 70 60 50 40 30 20 10 0 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 Fourth-generation CAC Second- or third-generation CAC CAC information not available No CAC

Figure 5.7 Sovereign bond principal maturation in selected low- and middle-income countries, by share and type of collective action clauses included in the bonds, 2021-33+

Source: WDR 2022 team, based on data from Munevar (2021); Refinitiv, Refinitiv Data Catalogue (dashboard), https://www .refinitiv.com/en/financial-data.

Note: The data cover 62 low- and middle-income countries and bonds maturing in January 2021 and beyond. The figure shows the share and type of collective action clauses (CACs) included in bonds issued by low- and middle-income countries. Recent debt negotiations, such as the Argentine and Ecuadorian restructurings of 2020, highlight another practical limitation of CACs: debt contracts can be modified and renegotiated in ways that weaken the efficiency-enhancing features of CACs. In response to Argentina's proposed use of aggregated voting and creditor designation mechanisms, certain creditors demanded a rollback to pre-2014 CAC language.⁸¹ Ultimately, negotiations led to a compromise that included changes to allow for *creditor redesignation* (a provision through which Argentina could choose which creditors would be pooled for voting) and the subsequent launch of a *uniformly applicable offer* (an exchange offer with a menu of options deemed equitable to all creditors) once certain initial approval thresholds had been met.⁸² Unfortunately, like state-contingent contracts, only about half of outstanding debt contracts carry enhanced CACs, and the share is even lower for low-income countries.⁸³

Another type of contractual innovation that can accelerate debt resolution and shield countries from unanticipated increases in sovereign debt is state-contingent debt contracts that insure the borrower against disaster risk. Such contracts are especially useful as climate risks become more widespread. The recent debt restructurings of Grenada (2015) and Barbados (2018), for example, have included natural disaster clauses. To be effective, contingency triggers should be protected from manipulation or opportunism—that is, the terms of the contract (reduced debt service or access to additional liquidity) should be triggered by an objective and independently verifiable event. By reducing a country's debt service in the event of an unanticipated shock, these types of contracts can free up fiscal resources when they are needed most. In the aftermath of the COVID-19 pandemic or future events that trigger an increase in sovereign debt, this safeguard could be especially useful for countries that are also exposed to heightened risk of natural disasters or climate change.

A final set of legal developments that can potentially improve creditor coordination and speed up debt resolution are legal reforms that address problematic enforcement practices against states. Creditors face legal and practical challenges when enforcing claims against a state. In response, specific creditors (such as holdouts and so-called vulture creditors), have eschewed collective negotiation in favor of individualized enforcement. This approach has jeopardized creditor coordination and payments to other creditors, thereby preventing the prompt resolution of debt distress. Because of lack of a sovereign bankruptcy mechanism that could incentivize coordinated action, several national jurisdictions have taken legislative steps to address problematic credit enforcement practices. These have included profit-capping statutes for vulture fund lawsuits (United Kingdom, 2010) and legal protections for payment-clearing platforms, such as Euroclear (Belgium, 2015). In addition, international bodies have formulated nonbinding "soft law" guidelines and resolutions, such as the UNCTAD (United Nations Conference on Trade and Development) Principles on Responsible Sovereign Borrowing and Lending (2012) and the UN General Assembly Resolution on Basic Principles for Sovereign Debt Restructuring (2015). Although such soft law guidelines do not carry penalties for violation, they reflect legal principles in certain domestic jurisdictions and could represent emerging international norms. Further work to solidify these principles into national and international law would be beneficial for market efficiency.

Conclusion

The COVID-19 crisis has highlighted and aggravated preexisting vulnerabilities in public debt, particularly among low-income countries. Addressing debt sustainability problems promptly and proactively is crucial for a strong, equitable recovery. Because the historical track record on this front is not particularly encouraging, it is critical that new initiatives, such as the Common Framework, be strengthened to deliver more expedient outcomes.

Effective management of sovereign debt and resolution of debt distress play an especially important role. In a crisis, governments can essentially act as a lender of last resort to the economy, and well-designed

fiscal support can act as a circuit breaker that can reduce financial risks in other sectors and prevent them from affecting the wider economy. Such support, however, requires healthy public finances, which enable governments to spend on public goods and provide households, firms, and the financial sector with emergency support. When the government's ability to carry out this function is compromised by high debt burdens, its ability to support the recovery is limited—a challenge that an increasing number of countries now face because the COVID-19 crisis has outlasted original expectations.

Policy actions to prevent or resolve debt distress depend on many economic, political, and social factors, and no easy one-size-fits-all solutions are offered here. Debt sustainability analyses are the instrument most widely used to determine a country's risk of debt distress and is therefore the right course of action to prevent and resolve debt sustainability problems. For those countries already in debt distress, it is paramount to recognize the problem and not delay the restructuring process. As in the resolution of past crises, fiscal adjustment and structural reforms will be part of the debt restructuring process. Where public debt is denominated in domestic currency (a rising trend in emerging economies), inflation as well as financial repression measures have in some cases been used successfully to avoid default when governments were not able to meet their domestic debt obligations. However, these measures impose significant costs on citizens, especially the poor.

Countries that face sharply increased debt burdens as a result of the COVID-19 crisis have policy options for reducing the risk of falling into debt distress, including debt reprofiling and preemptive negotiations with creditors. For example, countries can take advantage of more favorable market conditions to extend maturities or lower the cost of debt service. Negotiating better terms for a country's debt is much easier when the country still has a relatively solid credit standing than when it is on the verge of default. Tracking credit market conditions can be very fruitful, as can taking advantage of the tools available to low-income countries. Examples include SDG Bonds, which can provide better terms for financing investments (see spotlight 5.1). Most emerging economies will need to make these types of poverty-reducing investments in any case, and, by using these bonds, they can get better lending terms, while improving their ability to attain the Sustainable Development Goals.

Beyond these more immediate actions, increasing debt transparency, adopting contractual innovations that reduce coordination problems in debt resolution, and securing the tax revenue needed to provide public services as well as repay the debt are essential. Although these are medium- to longer-term actions, they can significantly improve the resilience of government finances going forward.

Apart from debt reduction through sustained robust growth, all the approaches discussed here pose their own brand of social and economic costs and aggravate many of the economic fragilities outlined in chapter 1. A realistic assessment of past debt reduction strategies thus offers some guidance but does not deliver silver bullets.

Notes

- 1. Kose et al. (2020, 2021).
- 2. Borensztein and Panizza (2009).
- 3. Baldacci, de Mello, and Inchauste (2002); Furceri and Zdzienicka (2012); Ravallion and Chen (2009).
- 4. Kose et al. (2021).
- 5. Kose et al. (2021).
- 6. Kose et al. (2021).
- Kose et al. (2021). 7.
- Although GDP deceleration contributed to the net result, the main driver of the increase was the sheer growth in nominal debt. See International Monetary Fund, World Economic Outlook Database: Download WEO Data, April 2021 Edition (dashboard), https://
- www.imf.org/en/Publications/WEO/weo-database /2021/April.
- 9. In the context of the Joint World Bank-IMF Debt Sustainability Framework, debt distress is defined as a situation in which any of the following are observed: (1) arrears in public and publicly guaranteed external debt exceeded 5 percent during the previous three years; (2) a Paris Club restructuring of external debt was undertaken; (3) large disbursements were made in excess of 30 percent of the quota for IMF Stand-By Arrangements or Extended Fund Facilities; (4) a restructuring of commercial debt was pursued; or (5) default was executed on public and publicly

- guaranteed external debt. See World Bank and International Monetary Fund, Joint World Bank–International Monetary Fund LIC DSF Database (Debt Sustainability Framework for Low-Income Countries), https://www.worldbank.org/en/programs/debt-toolkit/dsf.
- 10. Calculations based on International Development Association (IDA) eligibility, including Blend countries (that is, those eligible for IDA funding based on per capita income but which are also deemed creditworthy by the markets), and debt and GDP data from International Monetary Fund, World Economic Outlook Database: Download WEO Data, April 2021 Edition (dashboard), https://www.imf.org/en/Publications/WEO/weo-data base/2021/April.
- Calculations based on data from International Monetary Fund, World Economic Outlook Database: Download WEO Data, April 2021 Edition (dashboard), https://www.imf.org/en/Publications/WEO/weo-database/2021/April.
- 12. Mbaye, Badia, and Chae (2018).
- 13. Bova et al. (2016).
- 14. Bova et al. (2016).
- 15. IMF (2021).
- 16. Moody's Investors Service (2019).
- 17. Brooks et al. (2004); Schumacher (2014).
- 18. For example, analysis spanning more than a century finds that, for each year a country has been in default since 1900, there was a concurrent banking crisis or an inflation crisis, or both, in one in three of the years. See Reinhart and Rogoff (2009).
- 19. Borensztein and Panizza (2009); Reinhart and Rogoff (2009).
- 20. Calvo (2010); Conceição et al. (2009).
- 21. Calvo (2010); Conceição et al. (2009).
- 22. Conceição et al. (2009); Ma et al. (2021).
- 23. See Albanesi (2007); Bulir and Gulde (1995); Easterly and Fischer (2001); Romer and Romer (1998). Binder (2019) finds that, although the relationship between the inflation tax and inequality varies over regions and time, it has remained positive in the Americas and Africa—regions in which a majority of countries are developing.
- 24. Diaz-Alejandro (1984).
- 25. See Farah-Yacoub, Graf von Luckner, and Reinhart (2021).
- 26. This group includes mostly low-income countries.
- 27. The Paris Club has been involved in over 470 restructuring agreements with over 100 countries. Its members are Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, India, Ireland, Israel, Italy, Japan, the Republic of Korea, the Netherlands, Norway, the Russian Federation, Spain, Sweden, Switzerland, the United Kingdom, and the United States. Any official or government creditor outside of this group is classified as a non-Paris Club lender.
- 28. For example, Glencore has been a lender to governments in Sub-Saharan Africa, while Sinopec is a key participant in complex arrangements with Chinese state-owned banks lending to oil-rich countries.
- Technically, the concept of seniority in the traditional sense is not applicable to sovereign finance because

- there is no bankruptcy code. However, a de facto quasiseniority structure exists based on decades of practice and conventions. See Gelpern et al. (2021); Schlegl, Trebesch, and Wright (2019).
- 30. Consider, for example, the case of commodity-based lending by official or private creditors, which are usually structured as a large forward sale; the case of Chinese swap lines; or the case of the deposit by the central bank of Saudi Arabia in the central bank in Pakistan.
- 31. See International Monetary Fund, DSA LIC (Debt Sustainability Analysis Low-Income Countries) (dashboard), https://www.imf.org/en/publications/dsa.
- 32. These practices are not entirely new. Similar types of debt contracts were common during the nineteenth century and the first part of the twentieth century. They were used to borrow through project companies, guarantee debt, and secure loans against government revenue or specific income streams, including commodity sales or tax receipts. However, these lending forms fell out of favor in part due to concerns about giving external actors financial control over domestic affairs.
- 33. World Bank (2021a).
- 34. World Bank (2021a).
- 35. This arrangement is unlike the de facto standing private creditor committees of the 1970s and 1980s. The London Club, for example, was an informal group of private creditors (most of them international commercial banks) that represented its members in renegotiations of the sovereign debt owed to them.
- 36. Gelpern et al. (2021).
- 37. Gelpern et al. (2021).
- 38. Gelpern et al. (2021).
- 39. See Reinhart, Reinhart, and Rogoff (2015).
- 40. The World Bank and IMF produce debt sustainability analyses on low-income countries, and IMF produces debt sustainability analyses on market access countries. These assessments are used frequently as a basis for determining the adjustments needed to reach debt sustainability. See International Monetary Fund, DSA LIC (Debt Sustainability Analysis Low-Income Countries) (dashboard), https://www.imf.org/en/publications/dsa; International Monetary Fund, DSA MAC (Debt Sustainability Analysis for Market-Access Countries) (dashboard), https://www.imf.org/external/pubs/ft/dsa/mac.htm.
- 41. There are other areas for improvement in DSA risk analysis. For example, improvements in the evaluation of contingent liabilities and SOE debt are crucial to the effectiveness of a DSA as a risk mitigation tool. However, for the purposes of this section the focus is on the aspects of a DSA that tend to carry the most importance at both the risk mitigation stage and distress resolution stage because the DSA becomes an integral part of resolution efforts in estimating a country's needs. The three identified factors are the most relevant at both stages.
- 42. Reuters (2021).
- 43. Asonuma and Trebesch (2016).
- 44. Asonuma and Trebesch (2016).
- 45. Asonuma and Trebesch (2016).

- 46. WDR 2022 team calculations; Asonuma and Trebesch
- 47. Defined as a default on private external creditors.
- 48. Based on restructurings of defaults since the end of World War II. Farah-Yacoub, Graf von Luckner, and Reinhart (2021); Graf von Luckner et al. (2021).
- 49. Benjamin and Wright (2009).
- 50. WDR 2022 team calculations, based on Asonuma and Trebesch (2016) and Farah-Yacoub, Graf von Luckner, and Reinhart (2021). Using a subset of default spells for which the reported default spell end dates in both studies match and restructuring deal details are available, 41 of 68 spell-ending restructurings had a face value reduction. Using only Asonuma and Trebesch (2016) data, 51 of 94 spell-ending restructurings involved a face value reduction.
- 51. Fang, Schumacher, and Trebesch (2021); Pitchford and Wright (2012); Schumacher, Trebesch, and Enderlein (2021).
- 52. Friedman (1983).
- 53. Reinhart and Trebesch (2016).
- 54. Arslanalp and Henry (2005).
- 55. Reinhart, Reinhart, and Rogoff (2015).
- 56. Reinhart, Reinhart, and Rogoff (2015).
- 57. Reinhart, Reinhart, and Rogoff (2015).
- 58. Reinhart, Reinhart, and Rogoff (2015); Reinhart and Sbrancia (2015).
- 59. Reinhart, Reinhart, and Rogoff (2015); Reinhart and Sbrancia (2015).
- 60. Calice, Diaz Kalan, and Masetti (2020).
- 61. Easterly (1989): Easterly and Schmidt-Hebbel (1994).
- 62. International Centre for Tax and Development, ICTD Government Revenue Dataset, Institute of Development Studies, Brighton, UK, http://www.ictd.ac/data sets/the-ictd-government-revenue-dataset.
- 63. Janetsky (2021).
- 64. Jensen (2019).
- 65. Pigato (2019).
- 66. Bachas, Gadenne, and Jensen (2020).
- 67. Phillips et al. (2018).

- 68. OECD (2021).
- 69. See World Bank (2021a) for a more complete discussion on the debt transparency framework.
- 70. Gelpern et al. (2021).
- 71. Aytekin Balibek (2021).
- 72. For a consideration of issues of sovereign authorization, see Lienau (2008, 2014). Through debt management performance assessments, the World Bank measures several relevant aspects of a well-designed legal framework for debt management. See World Bank, DeMPA (Debt Management Performance Assessment) (dashboard), https://www.worldbank.org/en/programs /debt-toolkit/dempa.
- 73. Cision PR Newswire (2020); Duran and John (2018).
- 74. IMF (2020a).
- 75. Fang, Schumacher, and Trebesch (2021).
- 76. IMF (2020a).
- 77. Graf von Luckner et al. (2021).
- 78. See Reinhart and Rogoff (2009).
- 79. Graf von Luckner et al. (2021).
- 80. IMF (2020a).
- 81. The debtor argued that it could amend the contracts to oblige the pool of voting creditors to redesignation using a voting threshold of 50.00 percent of the principal of each series, as opposed to the 66.67 percent aggregate and 50.00 percent of principal per series, or 75.00 percent of aggregate principal, necessary to amend reserved matters. Under the proposed amendment. Argentina would have been able to pool creditors amenable to its offer even after the votes had been cast and launch a subsequent exchange offer, including to the holders of new exchange bonds and the holders of old bonds who rejected the offer. Creditors argued that, by doing this, Argentina could have forced creditors to gang up and dilute their individual rights. This was dubbed the Pac-Man strategy. The creditors initially demanded a reversion to pre-2014 CAC verbiage as a response. See de la Cruz and Lagos (2020).
- 82. de la Cruz and Lagos (2020).
- 83. IMF (2020a).

References

- Albanesi, Stefania. 2007. "Inflation and Inequality." Journal of Monetary Economics 54 (4): 1088-1114.
- Arslanalp, Serkan, and Peter Blair Henry. 2005. "Is Debt Relief Efficient?" Journal of Finance 60 (2): 1017–51.
- Asonuma, Tamon, and Christoph Trebesch. 2016. "Sovereign Debt Restructurings: Preemptive or Post-Default." Journal of the European Economic Association 14 (1): 175 - 214.
- Aytekin Balibek, Arzu. 2021. "Public Sector Domestic Debt Survey Results." With contributions of Malvina Pollock and Evis Rucaj and inputs of the Debt Statistics Team of the Development Data Group, World Bank, Washington. DC.
- Bachas, Pierre, Lucie Gadenne, and Anders Jensen. 2020. "Informality, Consumption Taxes, and Redistribution." NBER Working Paper 27429, National Bureau of Economic Research, Cambridge, MA.

- Baldacci, Emanuele, Luiz de Mello, and Gabriela Inchauste. 2002. "Financial Crises, Poverty, and Income Distribution." IMF Working Paper 02/4, International Monetary Fund, Washington, DC.
- Benjamin, David, and Mark L. J. Wright. 2009. "Recovery before Redemption: A Theory of Delays in Sovereign Debt Renegotiations." CAMA Working Paper 2009-15, Centre for Applied Macroeconomic Analysis, Crawford School of Public Policy, Australian National University, Canberra, Australia.
- Binder, Carola. 2019. "Inequality and the Inflation Tax." Journal of Macroeconomics 61 (September), 103122.
- Borensztein, Eduardo, and Ugo Panizza. 2009. "The Costs of Sovereign Default." IMF Staff Papers 56 (4): 683-741.
- Bova, M. Elva, Marta Ruiz-Arranz, Frederik Toscani, and H. Elif Ture. 2016. "The Fiscal Costs of Contingent Liabilities:

- A New Dataset." IMF Working Paper WP/16/14, International Monetary Fund, Washington, DC.
- Brooks, Robert, Robert William Faff, David Hillier, and Joseph Hillier. 2004. "The National Market Impact of Sovereign Rating Changes." Journal of Banking and Finance 28 (1): 233–50.
- Bulir, Ales, and Anne Marie Gulde. 1995. "Inflation and Income Distribution: Further Evidence on Empirical Links." IMF Working Paper 95/86, International Monetary Fund, Washington, DC.
- CAA (Caisse Autonome d'Amortissement). 2019. "Document de Stratégie d'Endettement Public à Moyen Terme (SDMT) 2020–2024." CAA, Cotonou, Benin.
- CAA (Caisse Autonome d'Amortissement). 2021. "Benin Becomes the 1st African Country and One of the First Countries in the World to Successfully Issue an Unprecedented €500 Million SDG Bonds." Press release, July 15, 2021. https://caa.bj/benin-becomes-the-1st-african-country-and-one-of-the-first-countries-in-the-world-to-successfully-issue-an-unprecedented-e500-million-eurobond-on-the-sdgs/.
- Calice, Pietro, Federico Diaz Kalan, and Oliver Masetti. 2020. "Interest Rate Repression around the World." Equitable Growth, Finance, and Institutions Insight, World Bank, Washington, DC.
- Calvo, Sara Guerschanik. 2010. "The Global Financial Crisis of 2008–10: A View from the Social Sectors." Human Development Research Paper HDRP-2010-18, Human Development Report Office, United Nations Development Programme, New York.
- Cision PR Newswire. 2020. "Bank of Thailand Launches World's First Government Savings Bond on IBM Blockchain Technology." News release, October 5, 2020. https://www.prnewswire.com/news-releases/bank-of-thailand-launches-worlds-first-government-savings-bond-on-ibm-blockchain-technology-301145253.html.
- Conceição, Pedro, Namsuk Kim, Ronald U. Mendoza, and Yanchun Zhang. 2009. "Human Development in Crisis: Insights from the Literature, Emerging Accounts from the Field, and the Correlates of Growth Accelerations and Decelerations." Social and Economic Policy Working Paper, Policy, Advocacy, and Knowledge Management, Division of Policy and Practice, United Nations Children's Fund, New York.
- Cruces, Guillermo, and Quentin Wodon. 2003. "Argentina's Crises and the Poor, 1995–2002." *Económica* 49 (1–2): 55–96.
- Cruces, Juan J., and Christoph Trebesch. 2013. "Sovereign Defaults: The Price of Haircuts." *American Economic Journal: Macroeconomics* 5 (3): 85–117.
- Daseking, Christina, Atish Ghosh, Timothy Lane, and Alun Thomas. 2004. "Lessons from the Crisis in Argentina." IMF Occasional Paper 236, Policy Development and Review Department, International Monetary Fund, Washington, DC.
- de la Cruz, Andrés, and Ignacio Lagos. 2020. "CACs at Work: What Next? Lessons from the Argentine and Ecuadorian 2020 Debt Restructurings." *Capital Markets Law Journal* 16 (2): 226–48.
- Depetris Chauvin, Nicolas, and Aart Kraay. 2005. "What Has 100 Billion Dollars Worth of Debt Relief Done for

- Low-Income Countries?" International Finance 0510001, University Library, Ludwig-Maximilians-Universität, Munich. https://ideas.repec.org/p/wpa/wuwpif/0510001 html.
- Diaz-Alejandro, Carlos F. 1984. "Latin American Debt: I Don't Think We Are in Kansas Anymore." *Brookings Papers on Economic Activity* 15 (2): 335–403.
- Duran, Paulina, and Alun John. 2018. "World Bank Launches World-First Blockchain Bond." *Reuters: Banks*, August 23, 2018. https://www.reuters.com/article/us-worldbank-cba-blockchain-idUSKCN1L80DP.
- Easterly, William Russell. 1989. "Fiscal Adjustment and Deficit Financing during the Debt Crisis." In *Dealing with the Debt Crisis*, edited by Ishrat Husain and Ishac Diwan, 91–113. World Bank Symposium Series, vol. 35. Washington, DC: World Bank.
- Easterly, William Russell, and Stanley Fischer. 2001. "Inflation and the Poor." *Journal of Money, Credit, and Banking* 33 (2, Part 1): 160–78.
- Easterly, William Russell, and Klaus Schmidt-Hebbel. 1994. "Fiscal Adjustment and Macroeconomic Performance: A Synthesis." In *Public Sector Deficits and Macroeconomic Performance*, edited by William Russell Easterly, Carlos Alfredo Rodríguez, and Klaus Schmidt-Hebbel, 15–45. Washington, DC: World Bank; New York: Oxford University Press.
- England, Andrew. 2016. "IMF Halts Mozambique Aid after Finding Undisclosed Debts of \$1bn." *Financial Times*, April 18, 2016. https://www.ft.com/content/6c 755214-057f-11e6-9b51-0fb5e65703ce.
- Fang, Chuck, Julian Schumacher, and Christoph Trebesch. 2021. "Restructuring Sovereign Bonds: Holdouts, Haircuts, and the Effectiveness of CACs." *IMF Economic Review* 69 (1): 155–96.
- Farah-Yacoub, Juan, Clemens Graf von Luckner, and Carmen M. Reinhart. 2021. "The Eternal External Debt Crisis: A Long View." Unpublished manuscript, World Bank, Washington, DC.
- Feldstein, Martin S. 2002. "Argentina's Fall: Lessons from the Latest Financial Crisis." Foreign Affairs 81 (2): 8–14.
- Fitch Ratings. 2016. "Fitch Downgrades Mozambique's LTFC IDR to 'RD'." Rating Action Commentary, November 30, 2016. https://www.fitchratings.com/research/sovereigns/fitch-downgrades-mozambique-ltfc-idr-to-rd-30-11-2016.
- Friedman, Irving Sigmund. 1983. The World Debt Dilemma: Managing Country Risk. Philadelphia: Risk Management Association
- Furceri, Davide, and Aleksandra Zdzienicka. 2012. "How Costly Are Debt Crises?" *Journal of International Money and Finance* 31 (4): 726–42.
- Gelpern, Anna, Sebastian Horn, Scott Morris, Brad Parks, and Christoph Trebesch. 2021. "How China Lends: A Rare Look into 100 Debt Contracts with Foreign Governments." CEPR Discussion Paper DP16331, Center for Economic Policy Research, London.
- Government of Benin. 2019. "Le Bénin effectue la première émission obligataire inaugurale en euros de l'histoire des émissions internationales africaines" [Benin makes the first inaugural eurobond issue in the history of African international bond issues]. Communiqué,

- March 20, 2019. https://www.gouv.bj/actualite/234 /le-benin-effectue-la-premiere-emission-obligataire -inaugurale-en-euros-de-lhistoire-des-emissions-inter nationales-africaines/.
- Government of Benin. 2021a. "Investor Presentation." Government of Benin, Cotonou. https://odd.gouv.bj/wp -content/uploads/sites/13/2021/07/Benin-IP-July -2021-2021.07.12-FINAL_WEBSITE.pdf.
- Government of Benin. 2021b. "Le Bénin réalise la première opération obligataire internationale d'Afrique de l'année avec l'émission d'un milliard d'euros, en deux tranches de maturités finales 11 ans et 31 ans" [Benin carries out the first African international bond transaction of the year with an issue of one billion eurobonds, in two tranches, with maturities of 11 years and 31 years]. Communiqué, January 14, 2021. https://www.gouv.bj/actualite/1128 /le-benin-realise-premiere-operation-obligataire-inter nationale-afrique-annee-avec-emission-milliard-euros -deux-tranches-maturites-finales-11-31-ans/.
- Graf von Luckner, Clemens, Josefin Meyer, Carmen M. Reinhart, and Christoph Trebesch. 2021. "External Sovereign Debt Restructurings: Delay and Replay." VoxEU (blog), March 30, 2021. https://voxeu.org/article/external -sovereign-debt-restructurings-delay-and-replay.
- Hausman, Ricardo, and Andrés Velasco. 2003. "Hard Money's Soft Underbelly: Understanding the Argentine Crisis." Brookings Trade Forum: 2002, edited by Susan M. Collins and Dani Rodrik, 59-104. Washington, DC: **Brookings Institution Press.**
- IEG (Independent Evaluation Group). 2006. "Debt Relief for the Poorest: An Evaluation Update of the HIPC Initiative." World Bank, Washington, DC. https://ieg .worldbankgroup.org/sites/default/files/Data/reports /hipc update evaluation.pdf.
- Ilzetzki, Ethan, Carmen M. Reinhart, and Kenneth S. Rogoff. 2019. "Exchange Arrangements Entering the Twenty-First Century: Which Anchor Will Hold?" Quarterly Journal of Economics 134 (2): 599-646.
- IMF (International Monetary Fund). 2015. "Republic of Mozambique: Fourth Review under the Policy Support Instrument; Debt Sustainability Analysis." IMF Country Report 15/223, IMF, Washington, DC.
- IMF (International Monetary Fund). 2016. "Republic of Mozambique: Request for an 18-Month Arrangement under the Standby Credit Facility: Debt Sustainability Analysis." IMF Country Report 16/9, IMF, Washington,
- IMF (International Monetary Fund). 2018. "Republic of Mozambique: Staff Report for the 2017 Article IV Consultation; Debt Sustainability Analysis." IMF Country Report 18/65, IMF, Washington, DC.
- IMF (International Monetary Fund). 2019. "Republic of Mozambique: Request for Disbursement under the Rapid Credit Facility; Debt Sustainability Analysis." IMF Country Report 19/136, IMF, Washington, DC.
- IMF (International Monetary Fund). 2020a. "The International Architecture for Resolving Sovereign Debt Involving Private-Sector Creditors: Recent Developments, Challenges, and Reform Options." IMF Policy Paper 2020/043, IMF, Washington, DC.

- IMF (International Monetary Fund). 2020b. "Benin: Sixth Review under the Extended Credit Facility Arrangement and Request for Augmentation of Access; Debt Sustainability Analysis." IMF Country Report 20/175, IMF, Washington, DC.
- IMF (International Monetary Fund). 2021. "Ghana, 2021 Article IV Consultation: Press Release, Staff Report, and Statement by the Executive Director for Ghana." IMF Staff Country Report 21/165, IMF, Washington, DC.
- IMF (International Monetary Fund) and IDA (International Development Association). 2005. "Rwanda: Enhanced Heavily Indebted Poor Countries (HIPC) Initiative, Completion Point Document." IMF and IDA, Washington, DC. https://documents1.worldbank.org/curated /en/671031468777935571/pdf/316780Completion 0Point0Doc.pdf.
- IMF (International Monetary Fund) and World Bank. 2019. "Heavily Indebted Poor Countries (HIPC) Initiative and Multilateral Debt Relief Initiative (MDRI): Statistical Update." IMF Policy Paper 19/028, IMF, Washington, DC.
- Janetsky, Megan. 2021. "Colombians Revive Protests amid New Tax Plan." VOA News, July 21, 2021. https://www .voanews.com/a/americas_colombians-revive-protests -amid-new-tax-plan/6208524.html.
- Jensen, Anders. 2019. "Employment Structure and the Rise of the Modern Tax System." NBER Working Paper 25502, National Bureau of Economic Research, Cambridge, MA.
- Kose, M. Ayhan, Peter S. O. Nagle, Franziska L. Ohnsorge, and Naotaka Sugawara. 2020. "Can This Time Be Different? Policy Options in Times of Rising Debt." Policy Research Working Paper 9178, World Bank, Washing-
- Kose, M. Ayhan, Franziska Ohnsorge, Carmen M. Reinhart, and Kenneth S. Rogoff. 2021. "The Aftermath of Debt Surges." Policy Research Working Paper 9771, World Bank, Washington, DC.
- Lienau, Odette. 2008. "Who Is the 'Sovereign' in Sovereign Debt? Reinterpreting a Rule-of-Law Framework from the Early Twentieth Century." Yale Journal of International Law 33 (1): 63-111.
- Lienau, Odette. 2014. Rethinking Sovereign Debt: Politics, Reputation, and Legitimacy in Modern Finance. Cambridge, MA: Harvard University Press.
- Ma, Lin, Gil Shapira, Damien de Walque, Quy-Toan Do, Jed Friedman, and Andrei A. Levchenko. 2021. "The Intergenerational Mortality Tradeoff of COVID-19 Lockdown Policies." Policy Research Working Paper 9677, World Bank, Washington, DC.
- Mbaye, Samba, Marialuz Moreno Badia, and Kyungla Chae. 2018. "Bailing Out the People? When Private Debt Becomes Public." IMF Working Paper 18/141, International Monetary Fund, Washington, DC.
- MEF (Ministry of Economy and Finance, Benin). 2021. "Strategie Annuelle d'Endettement de l'État: Annexée à la loi finances, gestion 2021." MEF, Cotonou, Benin.
- Meyer, Josefin, Carmen M. Reinhart, and Christoph Trebesch. 2019. "Sovereign Bonds since Waterloo." NBER Working Paper 25543, National Bureau of Economic Research, Cambridge, MA.

- Moody's Investors Service. 2019. "Sovereigns, Emerging Markets: Risks from Financial Misreporting Vary, Disclosure Has Major Credit Implications." Sector In-Depth. Report 1146743, Moody's, New York.
- Munevar, Daniel. 2021. "Sleep Now in the Fire: Sovereign Bonds and the Covid-19 Debt Crisis." Eurodad Report, May 26, European Network on Debt and Development, Brussels. https://www.eurodad.org/sovereign_bonds _covid19.
- Mussa, Michael. 2002. Argentina and the Fund: From Triumph to Tragedy. Policy Analyses in International Economics Series, vol. 67. Washington, DC: Institute for International Economics.
- OECD (Organisation for Economic Co-operation and Development). 2021. "International Community Strikes a Ground-Breaking Tax Deal for the Digital Age." Topics: Tax, October 8, 2021. https://www.oecd.org/tax/inter national-community-strikes-a-ground-breaking-tax -deal-for-the-digital-age.htm.
- Perry, Guillermo E., and Luis Serven. 2002. "The Anatomy and Physiology of a Multiple Crisis: Why Was Argentina Special and What Can We Learn from It?" World Bank, Washington, DC.
- Phillips, David, Ross Warwick, Maya Goldman, Karolina Goraus-Tańska, Gabriela Inchauste, Tom Harris, and Jon Jellema. 2018. "Redistribution via VAT and Cash Transfers: An Assessment in the Low and Middle Income Countries." CEQ Working Paper 78, Commitment to Equity, Inter-American Dialogue, Washington, DC; Center for Inter-American Policy and Research and Department of Economics, Tulane University, New
- Pigato, Miria A., ed. 2019. Fiscal Policies for Development and Climate Action. International Development in Focus Series. Washington, DC: World Bank.
- Pitchford, Rohan, and Mark L. J. Wright. 2012. "Holdouts in Sovereign Debt Restructuring: A Theory of Negotiation in a Weak Contractual Environment." Review of Economic Studies 79 (2): 812-37.
- Primo Braga, Carlos A., and Dörte Dömeland, eds. 2009. Debt Relief and Beyond: Lessons Learned and Challenges Ahead. Washington, DC: World Bank. https:// openknowledge-worldbank-org.libproxy-wb.imf.org /handle/10986/2681.

- Ravallion, Martin, and Shaohua Chen. 2009. "The Impact of the Global Financial Crisis on the World's Poorest." VoxEU (blog), April 30, 2009, https://voxeu.org/article /impact-global-financial-crisis-world-s-poorest.
- Reinhart, Carmen M., Vincent Reinhart, and Kenneth S. Rogoff. 2015. "Dealing with Debt." Journal of International Economics 96 (Supplement 1): S43-S55.
- Reinhart, Carmen M., and Kenneth S. Rogoff. 2009. This Time Is Different: Eight Centuries of Financial Folly. Princeton, NJ: Princeton University Press.
- Reinhart, Carmen M., and M. Belen Sbrancia. 2015. "The Liquidation of Government Debt." Economic Policy 30 (82): 291–333.
- Reinhart, Carmen M., and Christoph Trebesch. 2016. "Sovereign Debt Relief and Its Aftermath." Journal of the European Economic Association 14 (1): 215-51.
- Reuters. 2021. "Ghana Raises \$3 Billion via 4-Year Zero-Coupon Bond." Middle East & Africa, March 30, 2021. https://www.reuters.com/article/uk-ghana-economy -bonds/ghana-raises-3-billion-via-4-year-zero-coupon -bond-idUSKBN2BM2XQ.
- Romer, Christina D., and David H. Romer. 1998. "Monetary Policy and the Well-Being of the Poor." NBER Working Paper 6793, National Bureau of Economic Research, Cambridge, MA.
- Schlegl, Matthias, Christoph Trebesch, and Mark L. J. Wright. 2019. "The Seniority Structure of Sovereign Debt." CESifo Working Paper 7632, Munich Society for the Promotion of Economic Research, Center for Economic Studies, Ludwig-Maximilians-Universität and Ifo Institute for Economic Research, Munich.
- Schumacher, Ingmar. 2014. "On the Self-Fulfilling Prophecy of Changes in Sovereign Ratings." Economic Modelling 38 (February): 351-56.
- Schumacher, Julian, Christoph Trebesch, and Henrik Enderlein. 2021. "Sovereign Defaults in Court." Journal of International Economics 131 (July): 103388.
- World Bank. 2021a. Debt Transparency in Developing Economies. Washington, DC: World Bank.
- World Bank. 2021b. Macro Poverty Outlook. Washington, DC: World Bank. https://thedocs.worldbank.org/en/doc /77351105a334213c64122e44c2efe523-0500072021 /related/mpo-sm21.pdf.