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## Keeping Public Debt Sustainable in an Equitable Way



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role that fiscal support played in mitigating these effects (Furceri, Loungani, Ostry, and Pizzuto 2021a; 2021b). The policy message is that more inclusive and targeted fiscal policies are needed in coming years if governments wish to achieve public debt sustainability without exacerbating inequality.

### INCREASE IN DEBT

Projections reported by the IMF's October 2021 *Fiscal Monitor* suggest that by the end of 2021, debt as a share of GDP will be 18 percentage points higher than pre-pandemic levels for advanced economies on average, 10 percentage points higher for emerging markets, and 6 percentage points higher for low-income developing countries (IMF 2021a). Though justified, the higher fiscal debts have increased the vulnerability of countries to shifts in market sentiment and reduced the buffers available in the event of future crises and recessions.

The situation is made more difficult by the fact that the record of economists to project the course of the debt-to-GDP ratio leaves much to be desired. Estefania Flores et al. (2021) found that both public and private sector forecasters have been optimistic in their debt projections over the past two decades, with realized debt ratios at the five-year horizon being about 10 percentage points higher than forecasts. If debt projections turn out to be optimistic, market confidence may falter, leading to abrupt changes in debt financing costs (Ostry et al. 2010; Ghosh et al. 2013; Chamon and Ostry 2021). Thus, realistic forecasts are essential for assessing vulnerabilities, particularly when debt is already very high, as it is today.

While these concerns would appear to suggest that a quick turn to austerity would be the best course of action, many observers, including the IMF, urge caution. The IMF's Managing Director, for instance, has argued that:

“Exceptional fiscal and monetary measures have gone a long way toward helping people and businesses survive the pandemic ... Going forward, it will be critical for countries not to withdraw support prematurely, and importantly, to continue to target the measures in a way that helps the most vulnerable.” (Georgieva 2020).

The Covid-19 pandemic has claimed over 5 million lives thus far. This grim figure would have been higher still without the strong and timely fiscal support provided by governments around the globe, including support for the health sector and the development and deployment of vaccines. The IMF has noted that “In 2020, fiscal policy proved its worth. The increasing public debt in 2020 was fully justified by the need to respond to Covid19 and its economic, social, and financial consequences” (Gaspar 2021).

How to keep debt sustainable is becoming a policy imperative, made all the more challenging by the lingering effects of the pandemic, particularly on low-income groups. In this article we summarize our recent work on the distributional effects of past major epidemics in this century prior to Covid-19 and the



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Our recent work on the effects of major 21st century epidemics prior to Covid-19 supports this line of argument. We find that these major epidemics had adverse distributional consequences, but these consequences were mitigated by strong fiscal support.

### PANDEMICS AND INEQUALITY

We have studied five major epidemics since 2000: SARS (2003), H1N1 (2009), MERS (2012), Ebola (2014), and Zika (2016)—for convenience we henceforth refer to them as pandemics. H1N1 was the most widespread with over 6½ million cases across 148 countries, while the other four affected fewer countries and were more confined to specific regions—SARS and MERS in Asia, Ebola in Africa, and Zika in the Americas. In terms of mortality rates, MERS and Ebola were the most deadly, followed by SARS, H1N1, and Zika.

We have constructed a (0,1) dummy variable, the “pandemic event,” which takes the value 1 for countries that were declared by the WHO to be affected by a particular pandemic. This gives us a total of 225 pandemic events. The effect on these events on real GDP and inequality was traced out using local projections (Jorda 2005). Figure 1 shows that real GDP falls in the aftermath of a pandemic event while inequality—measured by the Gini coefficient—increases.

In our work we show that similar results hold for other measures of inequality: the share of income going to the bottom income declines after a pandemic event, as does labor’s share of income. We also present evidence on the likely channels through which these adverse distributional effects occur. Specifically, those with low educational attainment (a proxy for skills) experience a significant decline in their job prospects—measured by the employment to population ratio—after a pandemic.

### FISCAL SUPPORT AND INEQUALITY

Governments are not helpless if they wish to mitigate the adverse distributional consequences of pandemics. We find that the effects on inequality are governed by the fiscal response governments choose to adopt.

As was the case with Covid-19, the typical response to past pandemics has been to provide fiscal support. Following a pandemic event, the fiscal balance is weakened (reflecting both increased expenditures and lower taxes), so that five years after the start of the pandemic, the fiscal balance (as a percent of GDP) is on average about 2½ percentage points lower than at the outset. Government total health expenditures increase for four years after the start of a pandemic before returning to normal.

However, this average fiscal response has varied considerably across pandemic events. We have exploited this variation to see whether the impact on

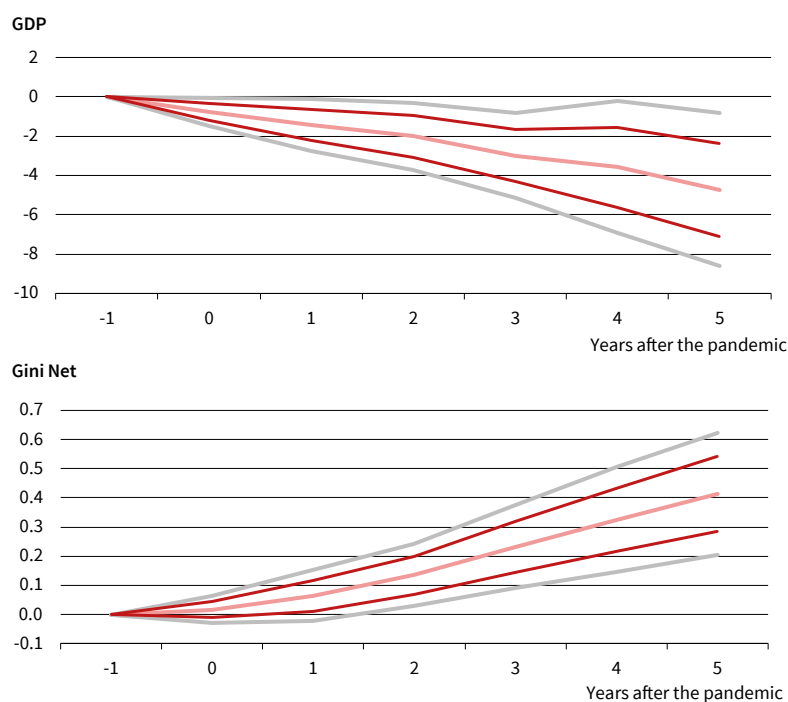
inequality is different in episodes characterized by strong austerity compared with other episodes. Figure 2 shows the impact of pandemics on inequality based on the quartiles of the fiscal response.

It is evident that the increase in inequality is very sharp in cases of austerity and declines as fiscal support is more forthcoming. In cases where governments were willing and able to provide very strong fiscal support, there is essentially no increase in inequality.

Work by others using different methods has reached similar conclusions on the importance of maintaining fiscal support. For instance, in its 2020 Trade and Development Report, UNCTAD states that its “model simulations indicate that an early return of austerity would set off a vicious circle of low employment generation, wage stagnation, slower economic growth and higher pressure on government budgets.” In addition to lowering global growth and raising global unemployment, “labor income shares will also decrease, by more than 3 percentage points globally, implying a transfer of income from workers to profit earners of approximately USD 40 trillion by 2030.”

The experience following the Global Financial Crisis also offers a cautionary tale of the dangers of premature fiscal consolidation. In 2010, misled by forecasts of a strong recovery, many advanced economies made a U-turn in their fiscal stance, a pol-

Figure 1  
The Aggregate and Distributional Effects of Pandemics

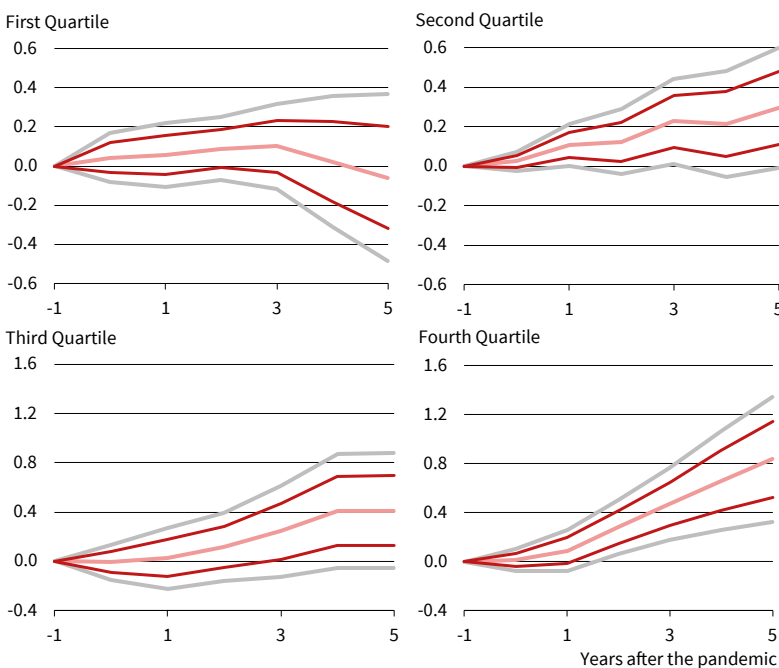


Note: Impulse response functions are estimated using a sample of 176 countries over the period 1980–2019. The graphs show the response (light red line) and 90 percent confidence bands (grey lines). The dark red lines correspond to 68% confidence bands. The x-axis shows years (k) after pandemic events; t=0 is the year of the pandemic event. Estimates based on  $y_{i,t+k} = \alpha_i k + \gamma_t k + \beta^k D_{i,t} + \theta^k X_{i,t} + \epsilon_{i,t+k}$ .  $y_{i,t}$  is alternatively, the real GDP or Gini coefficient for country i in year t;  $\alpha_i$  are country fixed effects;  $\gamma_t$  are time fixed effects;  $D_{i,t}$  is a dummy variable indicating a pandemic event that affects country i in year t.  $X_{i,t}$  is a vector that includes two lags of the dependent variable and two lags of the pandemic dummy.

Source: Furceri, Loungani, Ostry and Pizzuto (2021a; 2021b).

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Figure 2  
Impact of Pandemics on Net Gini: The Role of the Fiscal Response



Note: Impulse response functions are estimated using a sample of 176 countries over the period 1980–2019. The graphs show the response (light red line) and 90 percent confidence bands (grey lines). The dark red lines correspond to 68% confidence bands. The x-axis shows years (k) after pandemic events; t = 0 is the year of the pandemic event. Estimates based on  $y_{i,t+k} = \alpha_i + \beta y_{i,t} + \theta D_{i,t} + \epsilon_{i,t+k}$ .  $y_{i,t}$  is the Gini coefficient for country i in year t;  $\alpha_i$  are country fixed effects;  $\beta$  are time fixed effects;  $D_{i,t}$  is a dummy variable indicating a pandemic event that affects country i in year t.  $X_{i,t}$  is a vector that includes two lags of the dependent variable and two lags of the pandemic dummy. The model is estimated separately for the different quartiles of countries' fiscal balance (as % of GDP).  
The threshold values by quartile are the following: -4.42%: first quartile; -2.35%: second quartile; third quartile: -0.13.  
Source: Furceri, Loungani, Ostry and Pizzuto (2021a; 2021b). © ifo Institute

icy decision many regard as contributing to the tepid recovery in growth and in debt-to-GDP ratios (Stiglitz 2012; IEO 2014). The turn to austerity also led to cutbacks in governments' health expenditures, which affected in part their ability to respond adequately to the Covid-19 pandemic (OECD 2016; Soener 2020).

**EQUITABLE MANAGEMENT OF PUBLIC DEBT**

Do countries, however, truly have the options to keep public debt sustainable while addressing the distributional consequences? Three points are worth considering as part of the answer to this question. First, just as humility is needed about the ability of economists to forecast debt-to-GDP ratios, humility is needed about the ability of economists to judge sustainable levels of the debt-to-GDP ratio. In particular, there appears to be little evidence of a mechanical relationship between debt-to-GDP ratios and growth outcomes or the occurrence of financial crises. Second, the debt situation differs across country groups (advanced vs. emerging vs. low-income) and within country groups. Hence, the policy options available have to be thought through on a case-by-case basis. Third, while a country's own policies are important in keeping its debt sustainable, global initiatives that ease countries' fiscal burdens can also help. We de-

velop each of these points in the remainder of this article.

First, the notion that abrupt moves to sharp austerity can be expansionary (i.e., raise output and employment) in the short-run has received little empirical support. In their authoritative study of the effects of austerity, Alesina, Favero, and Giavazzi (2020) have found that both expenditure-based and (especially) tax-based austerity programs have depressed output over the first two years after introduction, with the recessionary effects continuing for as long as five years in the latter case. On average, a consolidation of 1 percent of GDP also increases the long-term unemployment rate by a 0.6 percentage point and raises the Gini coefficient by 1.5 percent within five years (Ball et al. 2013; Ostry, Loungani, and Berg 2019).

These short-run costs must be balanced against the potential longer-term benefits that consolidation can confer. There is little theoretical basis or empirical support for setting a public debt target at some particular level (such as 60 percent of GDP under the Maastricht criteria or the 90 percent of GDP threshold discussed in Reinhart and Rogoff 2010). What appears to be more important is the pace of fiscal consolidation, one that is not too slow to give markets concern but not too fast to derail recovery. Markets generally attach low probabilities of a debt crisis to countries with a strong record of being fiscally responsible (Mendoza and Ostry 2007), which gives them latitude to run deficits even when the debt level is high (Ostry et al. 2010; Ghosh et al. 2013). Such countries gain little from debt reduction in terms of insurance against a future fiscal crisis; for example, moving from a debt ratio of 120 percent of GDP to 100 percent of GDP over a few years yields only a small reduction in crisis risk (Baldacci et al. 2011). Set against the small insurance benefit, the costs of the tax increases or expenditure cuts required to bring down the debt can be much larger (Ostry, Ghosh, and Espinoza 2015). Hence, while countries need to bring public debt ratios over time from their high levels, there is no reason to push for quick attainment of a particular public debt target.

Of course, the extent to which countries can continue to provide fiscal support—or the pace at which they have to wind it down—differs across and within country groups, which is our second point. A case can be made that there is still room for fiscal support in many economies if low long-term interest rates persist. This can moderate debt-service burdens and allow governments to continue extending the maturity of government bonds, though caution is warranted where fiscal buffers have been eroded (Chamon and Ostry 2021). In low-income countries, these policy options are much less readily available, and the alleviation of financing constraints would require greater support from the global community.

## GLOBAL FISCAL INITIATIVES

This brings us to the third point, namely that a country's own efforts can receive invaluable help from a variety of global initiatives to bolster their fiscal positions. One prominent recent example is the July 2021 agreement among 130 countries and jurisdictions, representing more than 90 percent of global GDP, to establish a new framework for international tax reform (OECD 2021). The framework aims to ensure that large multinational enterprises, including digital companies, pay tax where they operate and earn profits, regardless of whether firms have a physical presence there. The countries have also agreed to the introduction of a global minimum corporate tax rate, which countries can use to protect their tax bases from competition over the corporate income tax. If implemented quickly, the framework can provide many governments with necessary revenues to modulate the pace of fiscal adjustment during the post-Covid recovery period.

Countering tax avoidance can be particularly important for many low-income countries, particularly in sub-Saharan Africa, which is estimated to possess 30 percent of global mineral reserves. However, an IMF study (Albertin et al. 2021) found that “governments in sub-Saharan Africa—now under tremendous pressure to raise public spending in response to the pandemic—are losing between USD 450 and USD 730 million per year in corporate income tax revenues as the result of profit shifting by multinational companies in the mining sector.” Tax revenues are lost because countries try to attract inbound investment by lowering taxes, “which has stoked unhealthy regional tax competition” and because international profit shifting by multinational companies has reduced the tax base in mineral-producing countries.

While restoring tax revenues through global tax agreements and other means remains the preferred means of placing public finances on a sound footing, some governments are also likely to need help from the global community in coordinating “prompt and efficient debt relief and restructuring,” as argued by Kose et al. (2021). As they note, “on occasion, through well-coordinated umbrella initiatives, the global community has been able to help restore fiscal sustainability,” for example through the Multilateral Debt Relief Initiative from 2005, the HIPC Initiative from 1996 and the Baker Plan from 1989–94. Ongoing initiatives such as the G20's Common Framework can provide similar assistance to some countries with a particularly difficult debt overhang.

## CONCLUSIONS

While it is too early to tell what impact Covid-19 will ultimately end up having on inequality, the indications

thus far from real-time studies suggest that many of the channels that raise inequality over time are already operative (Crossley, Fisher, and Low (2020), and Hacıoglu, Känzig, and Surico (2020) and Aspachs et al. 2020). At the same time, there are already some examples of the potency of fiscal policies in reversing some of the increases in inequality arising thus far during the Covid-19 pandemic (e.g., Surico, Känzig, and Hacıoglu (2020) for the case of the United Kingdom). Aspachs et al. (2020) have documented how public transfers were very effective in offsetting most, though not all, of the increase in wage inequality in the early months of the Covid-19 crisis. Likewise, Balasubramanian et al. (2020) discuss the effectiveness of electronic direct benefit transfers in protecting many vulnerable segments of the population in India from the effects of Covid-19. Instead of a premature return to austerity, countries would do better by anchoring their fiscal plans in a credible medium-term framework and orienting public expenditures over the coming years toward productive investments in digital and green infrastructure (Gaspar 2020). By building market confidence in fiscal sustainability and boosting growth, respectively, these two steps can bring down the debt-to-GDP ratio over time in a more durable way than sharp fiscal consolidations, which risks causing an immediate fall in output and keeping the debt-to-GDP ratio unchanged or even raising it.

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