

Against this background, we document stylized facts on the recent evolution of sovereign debt and fiscal deficits in India and ask the following questions: What are the costs of high debt levels in India? Are there any silver linings? And what lies ahead? We analyze macroeconomic outcomes during and after debt “surges,” “stabilization,” and “reduction” periods in India and other countries and ask whether past experiences with surges and reductions shed light on different policy options and the tradeoffs for India during the post-pandemic recovery.

The COVID-induced surge in debt in India was unique compared to its own history, but also bigger than that for the average emerging market (EM) economy. The drivers of the debt surge were different too. Both fiscal expansion and the collapse in growth played a proportionately larger role in India compared with the average EM, even as higher inflation played a greater role in reducing debt in India.

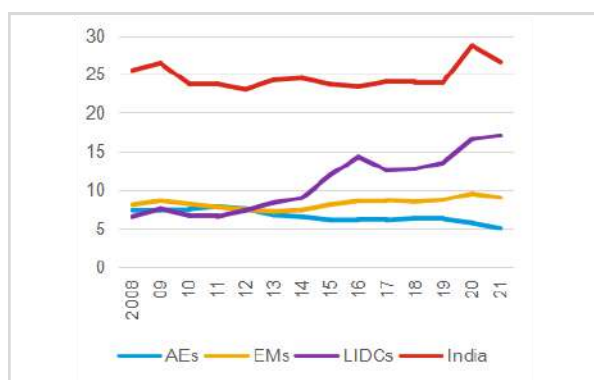
Notwithstanding the high level of sovereign debt, there are a few silver linings for India.

The share of sovereign debt held by foreigners—an important predictor of crises in the literature—is low. Moreover, although global waves of debt surges have been followed by restructuring or default, India has not had any such episode so far. Furthermore, long-term real rates remain low in India, comparable to the median EM. That said, we find substantial heterogeneity across countries. While India was closer to the 25th percentile during the last decade, it has now caught up with the median.

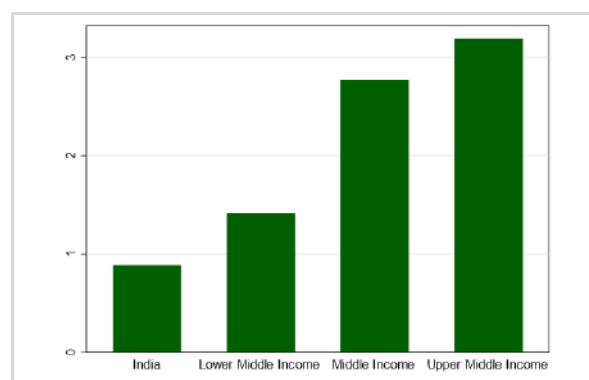
We document substantial costs of high debt. A major one is foregone resources on account of strikingly high interest payments, which at almost 30 percent of overall revenues during COVID, are close to three times higher for India than the typical EM (Figure 2). Unlike debt to GDP ratios which entail a stock variable in the numerator and a flow one in the denominator, these interest expenses to government revenues ratios comparing two flow variables tend to provide a cleaner measure of the burden of high public debt on a yearly basis.

High interest payments, less space for countercyclical policies, crowding out of social spending

Figure 2



¹ PPP -GDP weighted averages across country groups. Source: IMF World Economic Outlook Database.



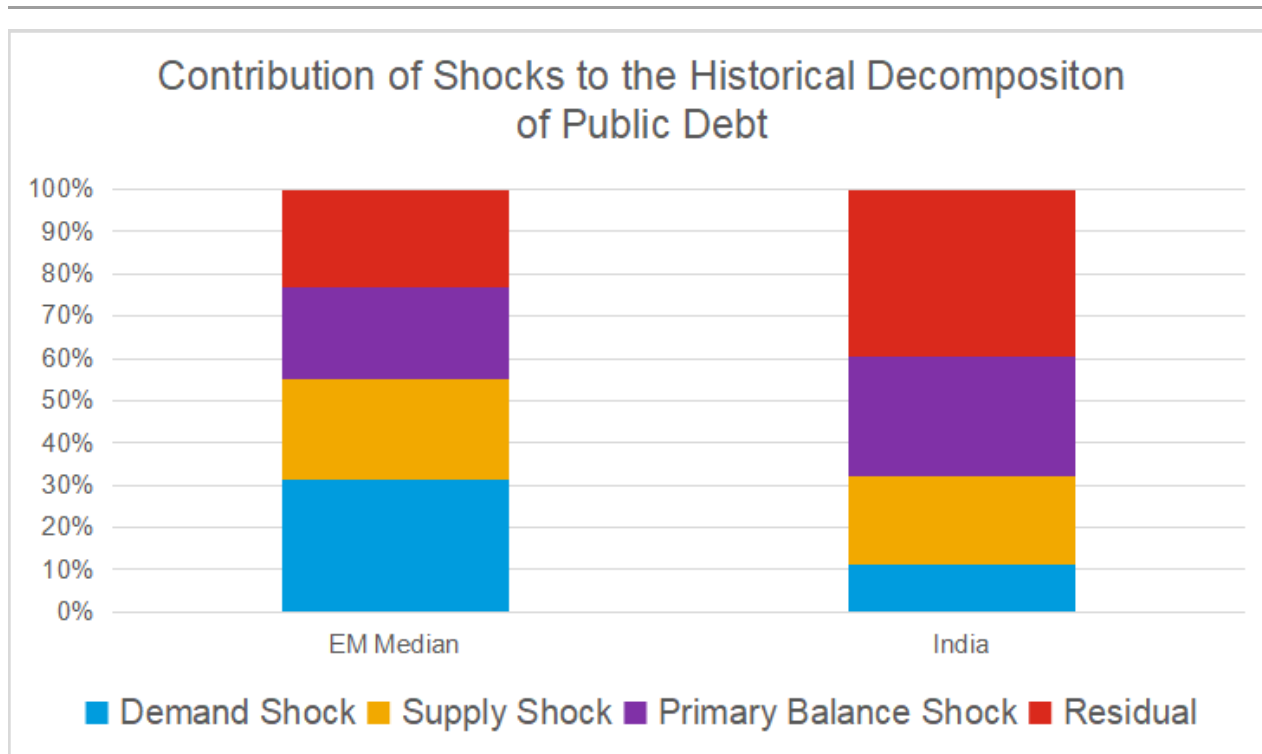
² Source: World Bank World Development Indicators, 2019.

High expenditures on interest payments reduce the resources available for countercyclical fiscal policies in the event of negative shocks such as COVID, as well as for social spending in critical areas such as health and education, where India’s public spending remains markedly below peers.

Indeed, our analysis suggests that business cycle fluctuations explain a smaller fraction of the variation in debt in India compared with peers, reaffirming the limits to countercyclical fiscal policy on account of high debt levels (Figure 3).

Limited Fiscal Space in India: Business cycle (demand and supply) shocks account for a much lower fraction of debt fluctuations in India

Figure 3

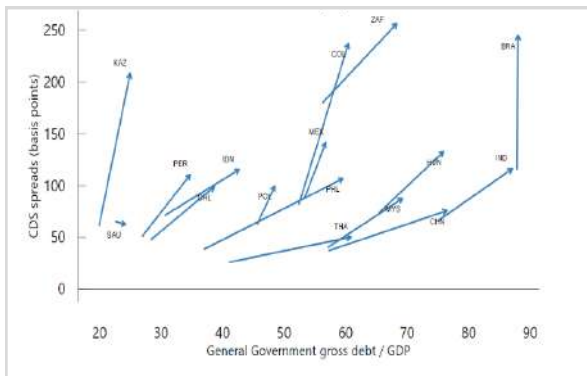


Notes: Historical decomposition based on a VAR identified using narrative sign restrictions. The primary balance shock is orthogonal to business cycle (demand and supply) shocks. Sample: 33 EMs from 1990-2020.

Simple calculations suggest that reducing India’s interest payments to revenue to the EM average of 10 percent would release resources of close to INR 6-8 trillion, a figure comparable to India’s pre-COVID general government education expenditure, and about three times its health expenditure.

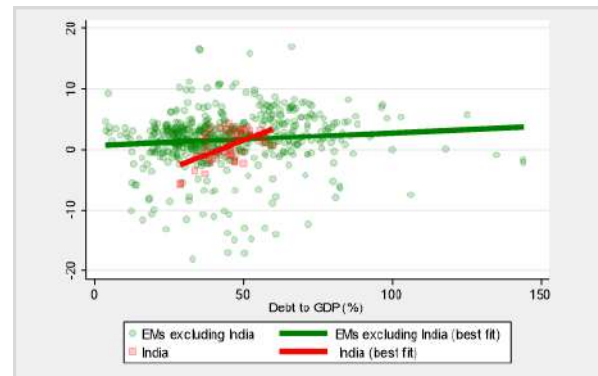
Another cost of high public debt in India is its impact on borrowing costs. Although real rates in India are low and in line with the median EM, we find that they have increased over time, and that the elasticity of borrowing costs to a unit increase in debt is higher for India than the typical EM (Figure 4).

CDS spreads and Debt ^1



¹ Each arrow represents a country. The beginning of the arrow represents the debt and spread pre pandemic, and the end of the arrow their values in 2022). Source: IMF World Economic Outlook Database, Bloomberg (for CDS spreads)

Long term real rates more sensitive to Debt levels in India ^2



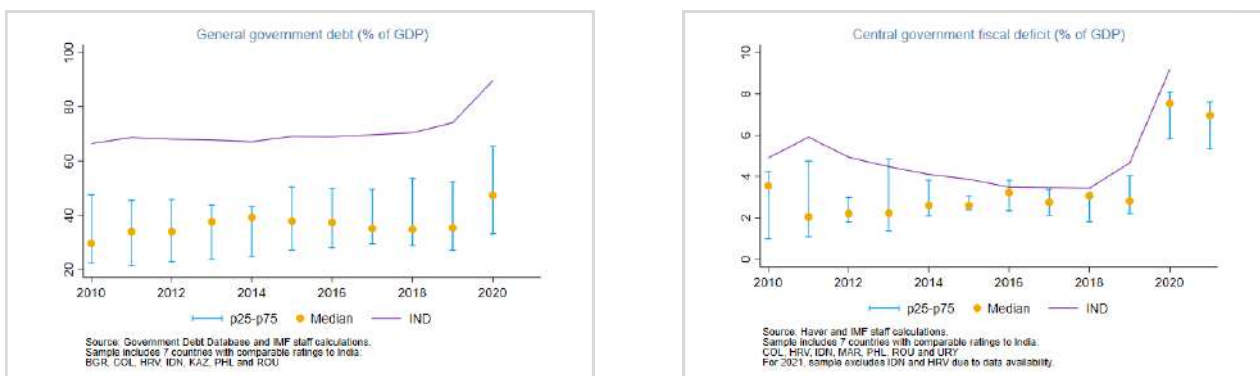
² Based on an unbalanced panel of 19 EMs. Simple scatter plot not controlling for fixed effects. Numbers reported in the text are based on regressions with country fixed effects. Sources: IMF World Economic Outlook Database, IMF International Financial Statistics (IFS) database, Bloomberg, Haver, Jorda-Schularick-Taylor Macro history database, OECD, Mauro et al (2015), Global debt database

For example, on average, an increase in debt to GDP by 1 percentage point (pp) increases long- term borrowing costs by 0.19 pp in India, while for a median EM, it increases by only 0.01 pp.

Finally, public debt exemplifies an important factor in the assessments of rating agencies too, where India’s debt and deficits stand out as being markedly higher than similarly rated peers (Figure 5).

Public debt and deficits in India are much larger than similarly rated emerging market peers

Figure 5

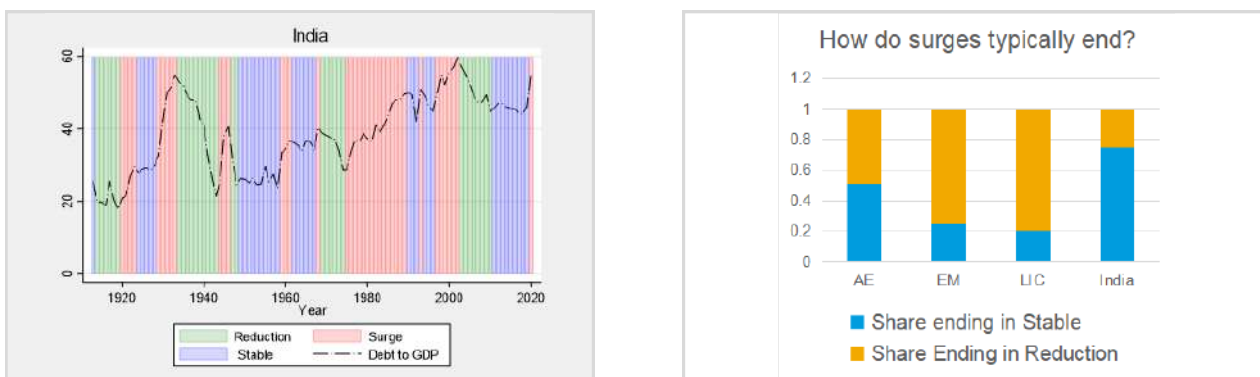


In order to understand where to go from here, we look at India’s own history and also draw on cross-country experiences. Since 1913, India has had nine episodes of debt surges, five episodes of reduction, and six episodes of debt stabilizations.

Surges have typically ended in stabilizations in India, whereas in an average EM, 75 percent of surges end in reductions (Figure 6). In other words, India has been able to sustain debt at high levels without default or restructuring. Across reduction episodes, India reduced debt ratios by 2 pp per year, compared to more than double the figure for the average EM.

Sovereign Debt Episodes and Transitions from Surges in India

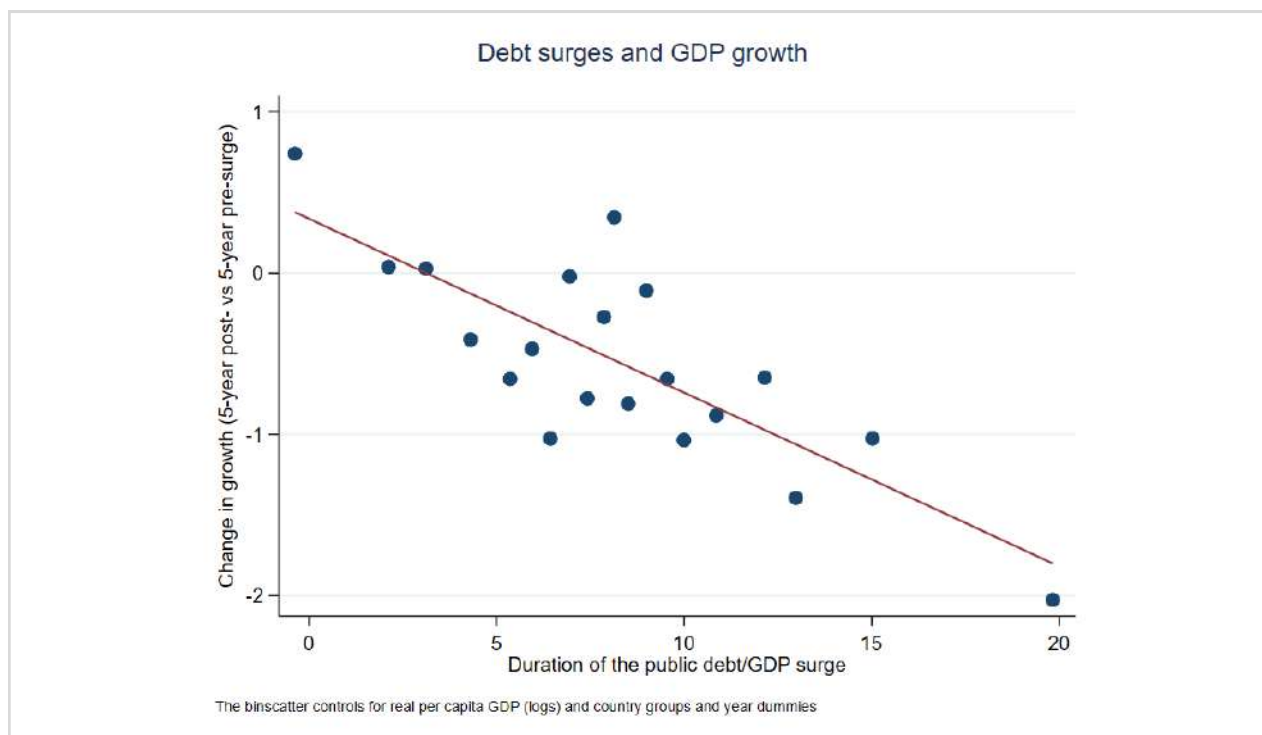
Figure 6



Source: IMF World Economic Outlook Chapter 3, April (2023).

We also find that debt surge episodes are associated with worse macroeconomic outcomes—low economic growth and public investment—compared with debt reduction episodes.

Moreover, cross-country evidence suggests that the greater the magnitude of the rise in debt, and longer lasting the episode, the greater the associated reduction in growth around the surge (Figure 7).



Dep. Var.: Change in growth around surges	(1)	(2)	(3)	(4)	(5)
Change in debt (surge)	-0.0132* (0.007)		-0.0076 (0.009)	-0.0063 (0.007)	-0.0076 (0.008)
Real GDP per capital (logs)	-0.1961* (0.109)	-0.1745* (0.105)	-0.1837* (0.109)	-0.3285 (0.218)	-0.4196 (0.256)
Duration of the debt surge		-0.1250*** (0.025)	-0.0970*** (0.034)	-0.1166*** (0.029)	-0.0868*** (0.032)
Observations	331	331	331	302	300
R-squared	0.059	0.079	0.093	0.102	0.301
Country groups FE	N	N	N	Y	Y
Year FE	N	N	N	N	Y

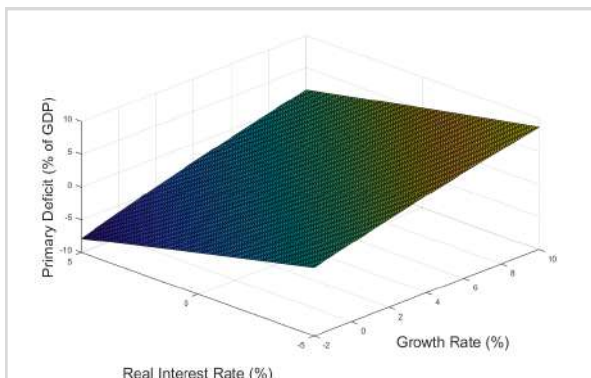
Source: Global Debt Database, World Economic Outlook Database, author calculations (see World Economic Outlook, April 2023, Chapter 3 for details)

How much debt could India reduce? One way to approach this question is to look at interest payments and additional budgetary resources that could be generated by lower sovereign borrowing.

For example, getting interest payments down to 22 percent (still much higher than the EM average of 10 percent) would require reducing the debt ratio to 70 percent, bringing it closer to the median for similarly rated peers.

More India grows out of debt, lesser the required adjustment.
Possible Scenarios to reduce debt by 20 percentage points in 10 years

Figure 8

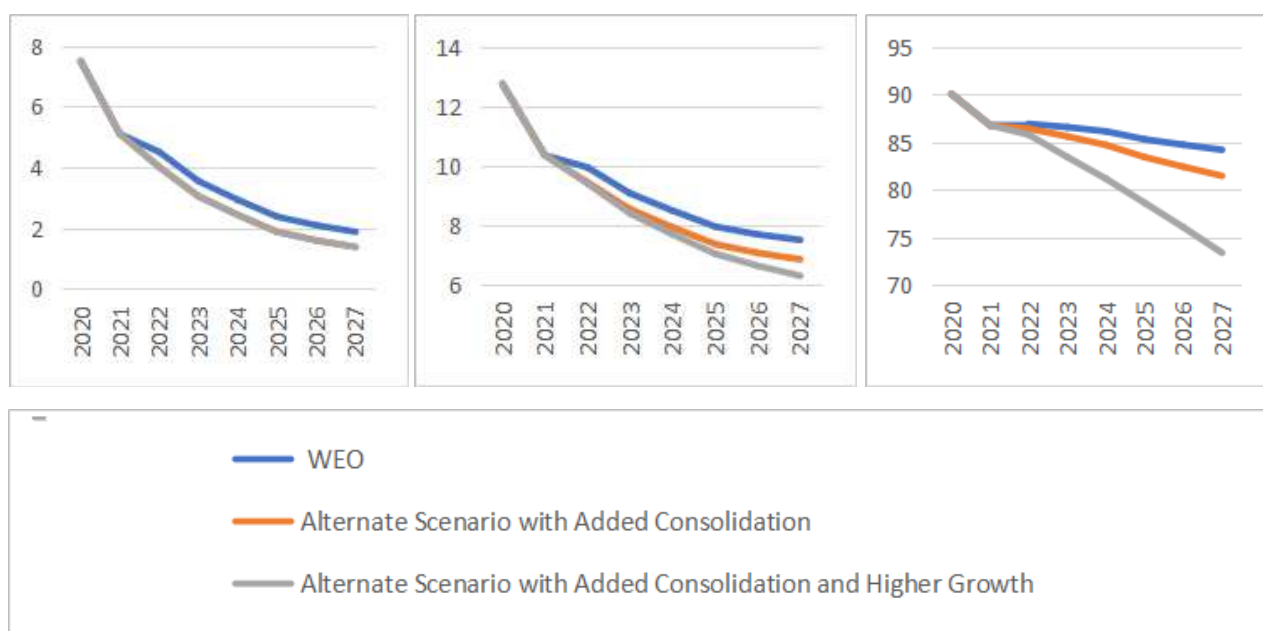


		Real Interest Rate		
		-2%	0%	2%
Growth	5%	3.32	1.81	0.30
	7%	4.69	3.23	1.74
	9%	6.00	4.57	3.13

Notes: Simulations based on debt dynamics accounting identities (IMF World Economic Outlook Chapter 3, April (2023)).

What is a possible path and how long would it take to get there? The higher the growth rate and the lower the borrowing costs, the lower the need for fiscal adjustment. Simulation exercises suggest that if we assume constant values for real GDP growth rate at 7 percent and real rate at 2 percent in line with the IMF World Economic Outlook (WEO) assumptions, a general government primary and fiscal deficit of lower than 1.7 percent and 5.9 percent of GDP, respectively, would be needed every year to reduce debt ratios to 70 percent in the next 10 years (and interest payments to 22 percent of revenues).

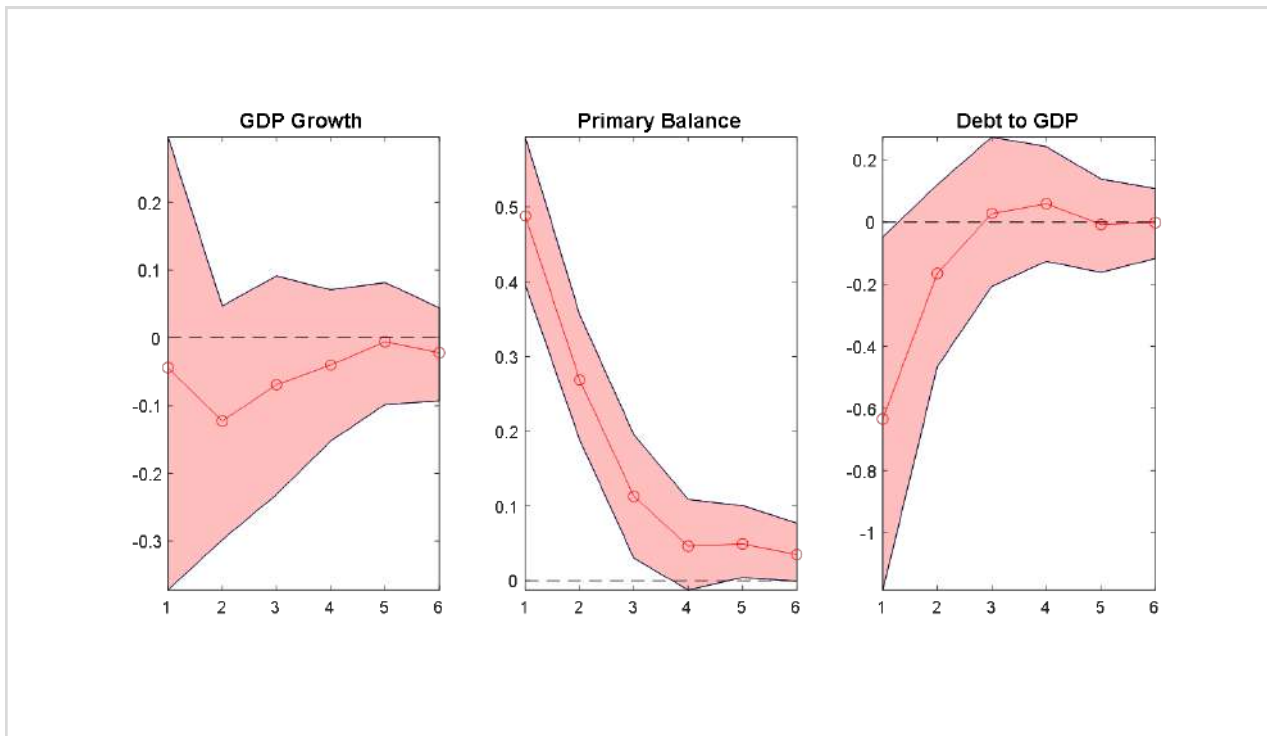
This would require a sharp adjustment when compared with the FY 2022-23 primary and fiscal deficit at projection of 4.5 percent and 9.9 percent, respectively, according to the World Economic Outlook. Importantly, the higher the growth rate and the lower the interest rate, the less the required adjustment. For example, a growth rate of 9 percent or a real rate of 0 percent would open up more space with a primary deficit of more than 3 percent of GDP instead of 1.7 percent, still ensuring the same debt reduction (Figure 8).



Notes: The alternate scenario with added consolidation assumes a primary deficit 0.5 percentage points below the WEO projection for years 2022-2027. The alternate scenario with higher growth and added consolidation assumes, in addition to the above consolidation, a 9% growth rate for years 2022-2027. The alternate scenario with only consolidation reduces debt to 80% by 2030, whereas the scenario with consolidation and high growth reduces debt to 68%

While the calculations above assume constant primary and fiscal deficits, allowing for some transitional dynamics and smoothing the adjustment path, we report in Figure 9, illustrative scenarios for debt and fiscal consolidation for India over the next five years. Indeed, evidence across emerging economies suggests that primary balance consolidations outside of recessions could, in fact, be successful in reducing debt, and do not tend to be detrimental to growth as multiplier effects roughly balance the positive impulse from other channels such as higher confidence (Figure 10).

The composition of revenues and expenditures during consolidations also has a significant bearing, and there is evidence suggesting that consolidations that are more geared towards cutting government consumption rather than government investment tend to have lower output costs, or even positive effects on output.



Notes: Impulse response to a primary balance consolidation shock identified in a structural vector autoregression with narrative sign restrictions. Sample includes 33 emerging economies from 1990–2019. The model includes five variables: GDP growth, primary balance to GDP, debt to GDP, inflation, and effective interest rate on debt.

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*1 Emails: pmishra@imf.org; npatel@imf.org. This paper is a revised version of the article published by the [Center for the Advanced Study of India](#) based on a larger project at Systemic Issues Division in the Research Department at the IMF, to understand the evolution of public debt in the post-pandemic world across countries with a team including Sakai Ando, Josef Platzer, Adrian Peralta Alva, and Andrea Presbitero. We thank Santiago Acosta-Ormaechea, Elif Ceren, Nada Choueiri, Adrian Peralta-Alva, Dinar Prihardini, Francisco Roch, Krishnamurthy Subramanian and Jarkko Turunen for helpful comments, and Swapnil Aggarwal, Chenxu Fu and Manzoor Gill for excellent research support. All errors remaining are our own. views expressed here are those of the authors and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

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