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The Taper This Time

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Abstract

On November 3, 2021, the Federal Open Market Committee announced that it would reduce the scale of its asset purchases by $15 billion a month starting immediately. Do emerging markets, such as India, need to prepare for a replay of the taper tantrum of 2013? We show that emerging markets, including India, have strengthened their external economic and financial positions since 2013. At the same time, fiscal deficits are much wider, and public debts are much heavier. As U.S. interest rates now begin moving up, servicing existing debts and preventing the debt-to-GDP ratio from rising still further will become more challenging. Either taxes have to be raised or public spending must be cut to generate additional revenues for debt servicing.

Keywords: Capital Flows, Emerging Markets, Monetary Policy, Tapering, India

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I Introduction

On November 3, 2021, the Federal Open Market Committee announced that it would reduce the scale of its asset purchases by $15 billion a month starting immediately. Do emerging markets (EMs) in general, and India in particular, need to prepare for a replay of the taper tantrum of 2013?

Most observers of emerging markets have been sanguine to date. "Unlike in 2013, when the Fed signalled tightening during a period of still-uncertain global growth, the global economy is in a better position to accelerate today".[1] "EM relies much less on external funding and portfolio inflows now compared with 2013." "We are not going to see the same tantrum because emerging markets are better prepared than in the past in terms of monetary policy." "The Fed and G7 central banks have learned from the past and they want to take the tantrum out of tapering. They are succeeding in doing so. Markets have been preparing for this for months."[2]

But a few observers (e.g. Singh 2021) are less sanguine. The global growth environment may be less favourable than before COVID, what with supply-chain disruptions, high energy prices and a virus that refuses to disappear. EMs have experienced substantial portfolio capital outflows following the sharp but short period of inflows at the outset of the pandemic. Some (e.g. Colombia) have substantial current account deficits to finance. The Fed, it is said, has fallen behind the curve: reining in inflation will force it to raise interest rates earlier and faster than markets are expecting on the basis of its earlier communication (Lachman 2021). High debts leave emerging markets vulnerable to sharp shifts in borrowing costs when this interest rate increase occurs.

Here we attempt to have it both ways. We show that emerging markets, including India, have succeeded in strengthening their external economic and financial positions since 2013. They have reduced external vulnerabilities by limiting their current account deficits, real appreciation, dependence on portfolio capital inflows, and external financing needs.

At the same time, fiscal deficits are much wider, and public debts are much heavier. Historically, interest rates on government bonds in the United States and emerging markets, including India, move together. As U.S. interest rates now begin moving up, servicing existing debts and preventing the debt-to-GDP ratio from rising still further will become more challenging.

The earlier episode of turbulence precipitated by the Fed's taper talk, in 2013, focused on exchange rates and the external accounts. The next one may instead focus on interest rates and the budgetary accounts. The earlier crisis played out in the short term, while the next one may take longer to unfold. But this last fact doesn't make addressing it any less urgent.

II Previous Experience and Literature

Considerable research effort has been devoted to understanding the impact of the Federal Reserve Board Chair Bernanke's unexpected announcement in May 2013 that the Fed might soon begin to reduce its security purchases. In Eichengreen and Gupta (2015) we constructed a composite index of financial pressure from observations on changes in exchange rates, reserves and stock market yields.

Looking across emerging markets, we found only limited evidence that observable macroeconomic fundamentals (the size of the budget deficit, public debt, foreign reserves, and the GDP growth rate in the prior period) explained cross country variations in the increase in pressure following Bernanke's announcement. Countries with smaller budget deficits, lower debts, more reserves and stronger growth rates in the immediately preceding period do not appear to have been rewarded with small falls in exchange rates, foreign reserves and stock prices starting that May. Exceptions were countries with more real exchange rate appreciation and widening current account deficits prior to Bernanke's announcement, rendering them more dependent on external finance. These variables appear to have turned around subsequently, with uncomfortable economic and financial consequences.

More important, however, was the size of countries' financial markets, measured by the stock of portfolio liabilities (as in Lane and Milesi-Ferretti 2012) and, alternatively, total external private financing (inflows of equity, bonds and loans in the preceding three years). This is consistent with the idea that investors seeking to adjust their portfolios tend to exit from positions in countries with relatively large financial markets, since they can then rebalance without significantly moving prices against themselves.

Aizenman, Binici and Hutchison (2016), focusing on the immediate response of financial variables to the taper announcement, similarly find little sign that stronger macroeconomic fundamentals translated into less deterioration in financial conditions. If anything, they find that emerging markets with relatively robust macroeconomic fundamentals saw a larger deterioration in financial conditions immediately following the announcement. An interpretation, consistent with Eichengreen and Gupta (2015), is that these countries were vulnerable because they had been on the receiving end of larger portfolio capital inflows in the preceding period – inflows that turned around subsequently.

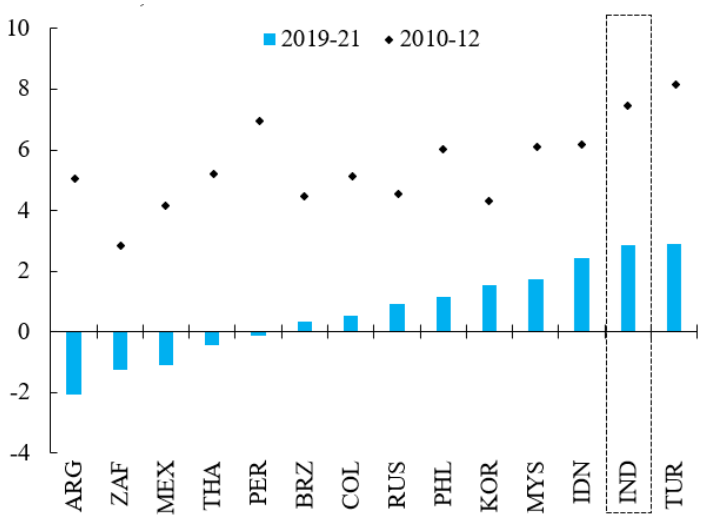
In contrast, Mishra et al. (2014), analysing short-run financial market reactions to the Fed's tapering announcements in 2013-14, do find evidence that emerging markets with stronger macroeconomic fundamentals experienced less deterioration in debt-market conditions, although they find no such evidence for equity markets. Ahmed, Couibaly and Zlate (2017), analyzing a cross-section of 35 emerging markets in the May-August 2013 period, find that financial conditions deteriorated more in EMs that experienced larger private capital inflows and greater real exchange rate appreciation in earlier years, consistent with the conclusions of Eichengreen and Gupta. In contrast with these earlier authors, however, they also conclude that there was a role for macroeconomic fundamentals in shaping the heterogeneous response of EM financial markets. Specifically, higher inflation, more rapidly growing bank credit and a lower stock of foreign exchange reserves in the preceding period translated into greater currency depreciation pressure.

To the extent to which there is a consensus in the literature, it points to the importance of prior financial conditions (capital inflows and real appreciation in the pre-taper period), financial market structure (the size of financial markets), and perhaps also select macroeconomic variables in helping to explain the differential impact of the taper announcement. In the next section, we, therefore, examine how these determinants have evolved in the eight years since the 2013 taper tantrum.

III Evolution of Conditions

We limit our attention here to 14 of the larger emerging markets. The main omission is China, for which comparable data for certain variables is lacking and which, for a variety of reasons, is a special case.

Figure 1: Real GDP growth rate, percent



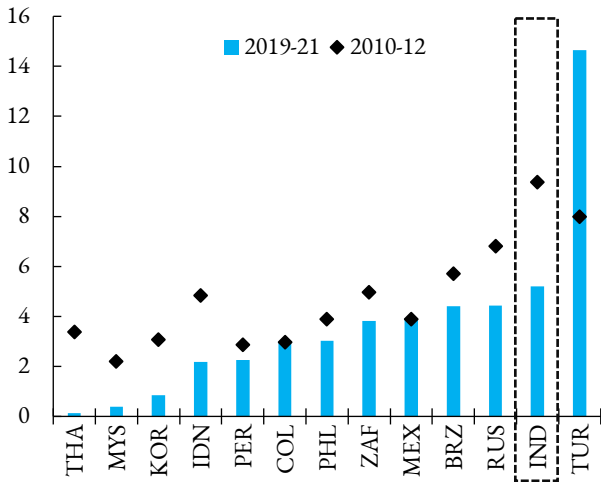
Source: IMF WEO April 2021

Note: 2010-12 reflects average over three years 2010, 2011, and 2012.

One of the observations cited in the second paragraph of our introduction is that the global economy "is in a better position to accelerate today." Growth in emerging markets has of course been much slower in 2019-21 (Figure 1), reflecting the sharp COVID-related contraction in 2020. This difference from 2010-12, though evident across the board, is most apparent in Argentina and South Africa (where the COVID crisis was superimposed on already-existing fiscal and financial problems), in Mexico (where the government was reluctant to take fiscal measures to offset the economic contraction), and in Thailand (which depends on tourism for a significant fraction of GDP and was therefore hit especially hard by the COVID shutdown). But whether or not the shortfall in growth between 2010-12 and 2019-21 is an indication of scope for acceleration now is far from clear. On the one hand, lockdowns obviously depressed realized growth rates in 2020, creating scope for bouncing back now. On the other hand, the slow pace of vaccination in emerging markets, ongoing shipping and supply chain problems, chronic shortages of key inputs such as semiconductors, and shortfalls in human-capital accumulation may continue to slow growth going forward, globally but especially for emerging markets.

Inflation in emerging markets (Figure 2) has visibly declined between the two periods, with the exception of Turkey, where the central bank has been under pressure from the government to loosen monetary policy. If anything, inflation has been too low in certain Asian countries (Thailand, Malaysia, South Korea). For these countries, raising interest rates in response to kindred movements by the Fed might be uncomfortable insofar as it could reinforce a pre-existing problem of "lowflation." Figure 3 confirms that policy rates have been lower in the recent episode than they were in 2010-12, with the sole exceptions of Turkey and Argentina, where inflation is a more serious problem now.

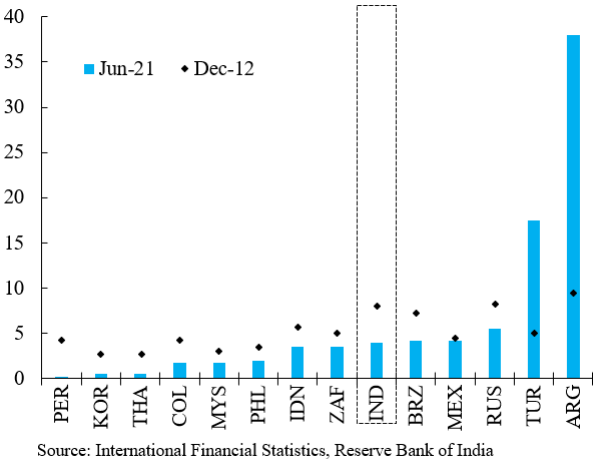
Figure 2: Consumer price inflation, percent, average year-on-year growth rate



Source: HAVER.

Note: 2021 data is for first eight months i.e., January-August 2021. Argentina has been excluded as its average consumer inflation rate during 2019-21 is 47.7 percent (as against 10.1 percent in 2010-12).

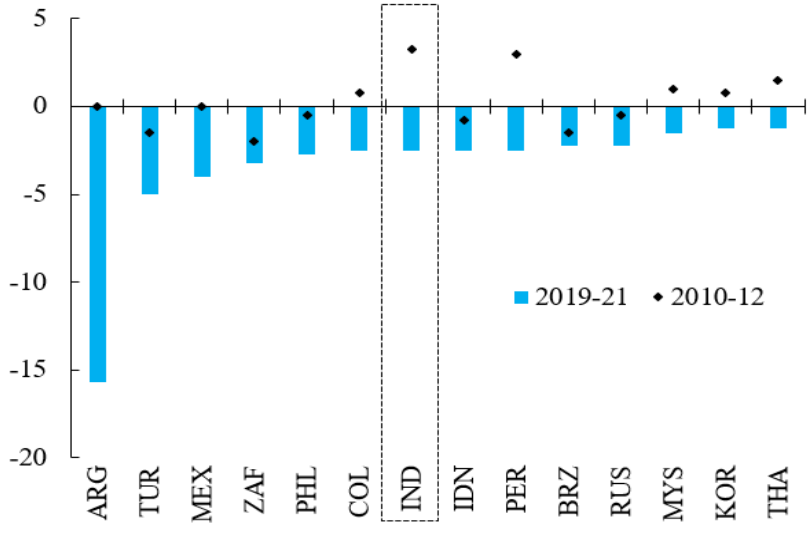
Figure 3: Policy rate, percent p.a.



Note: Argentina has been excluded as its average consumer inflation rate during 2019-21 is 47.8 percent (as against 10.1 percent in 2010-12).

Figure 4 shows how central banks were able to cut their policy rates in response to the 2020 drop in output, something that they were generally not able to do in earlier periods of economic weakness and crisis. The recent policy response reflects the observation, mooted in the second paragraph of our introduction, that emerging markets now have stronger monetary policy frameworks. Central banks have greater anti-inflationary credibility, which allows them to exercise flexibility and cut rates in difficult times.

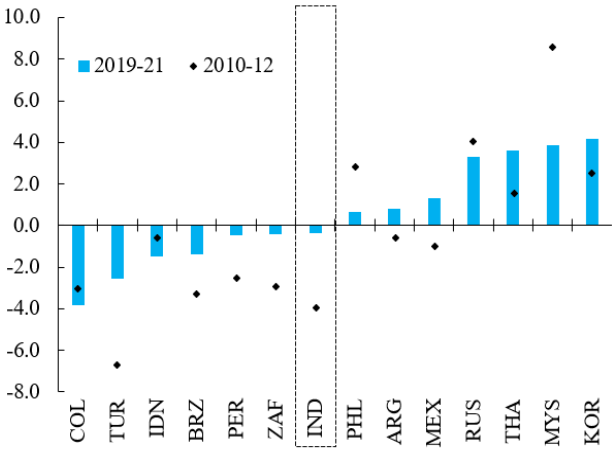
Figure 4: Change in policy rate, percentage points



Note: 2019-21 change reflects the difference between June 2021 and January 2019 policy rates while 2010-12 reflects the difference between December 2012 and January 2010.

Current account balances as a share of GDP are also stronger now than in 2010-12 (Figure 5), though there are exceptions (Indonesia, Colombia and most prominently Malaysia, where the current account surplus was an extraordinary 9 percent of GDP in 2010-12, buoyed by strong prices for commodity exports). Overall, this is consistent with the observation that external positions have strengthened. Consistent with this, the real exchange rate appreciation has been limited or been avoided more successfully this time (Figure 6), the Philippines being the exception.[3]

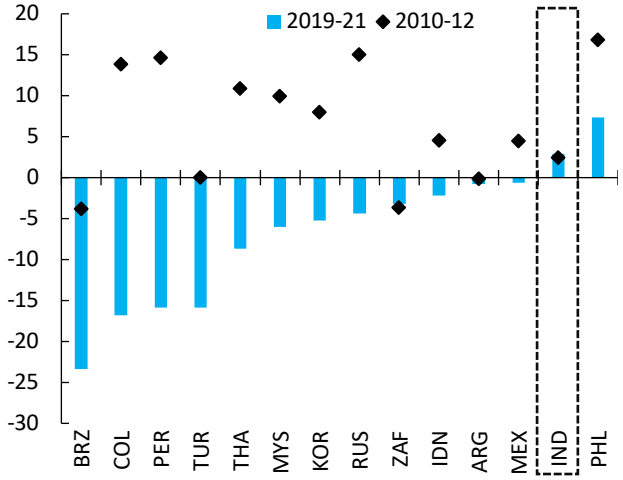
Figure 5: Current account balance, percent of GDP



Source: IMF WEO April 2021

Note: 2010-12 reflects average over three years 2010, 2011, and 2012.

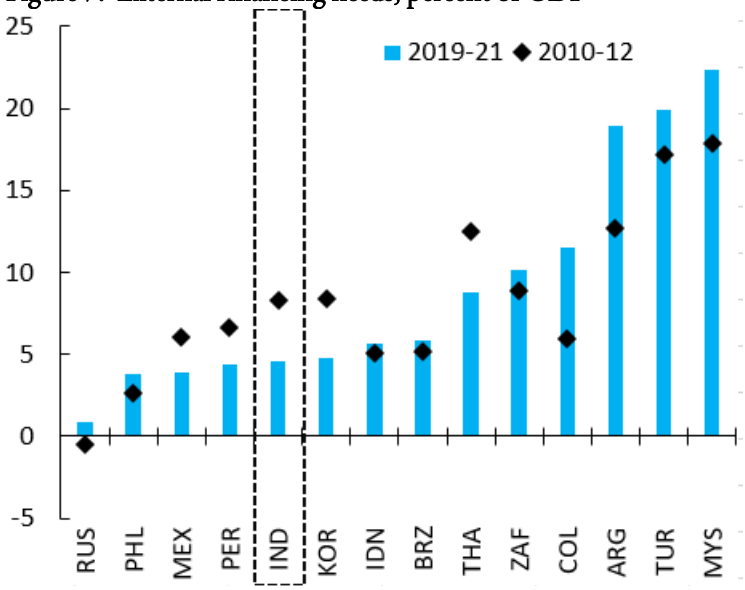
Figure 6: Real effective exchange rate, *Percent, (+) appreciation/ (-) depreciation*



Source: HAVER, Bruegel.

Note: 2010-12 denotes percentage change in December 2012 REER over January 2010 REER, and 2019-21 denotes percentage change in August 2021 REER over January 2019 REER.

Figure 7: External financing needs, percent of GDP



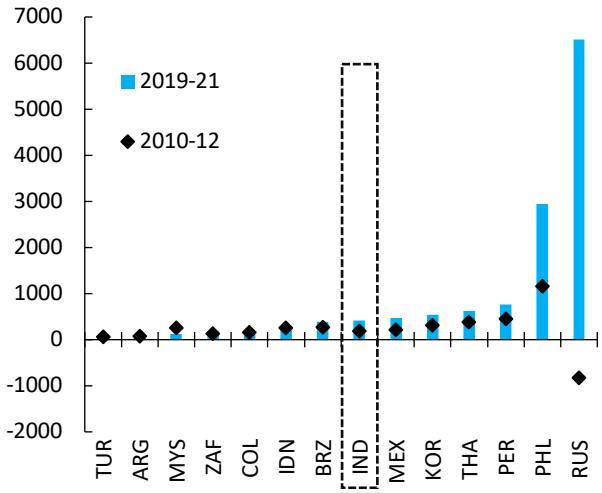
Source: IIF, HAVER.

Note: External financing needs *equals* Short-term external debt *plus* current account deficit.

Figure 7 shows external financing needs (short-term external debt plus the current account deficit). Financing needs are highest – and significantly higher than in 2010-12 – in Colombia, Argentina, Turkey and Malaysia. Were U.S. interest rates to now rise faster than previously expected, these countries could find it difficult to attract foreign finance on the requisite scale, which is in the range of 10 to 20 percent of GDP.

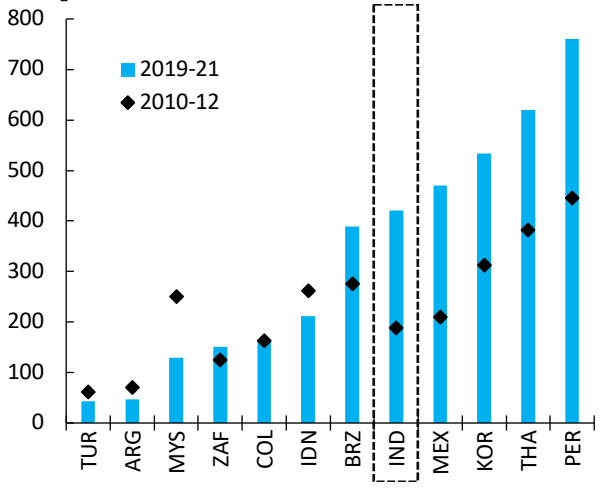
Foreign reserves become a vital buffer when external financing turns scarce.[4] Figures 8 and 9 show reserves relative to external financing needs, as just defined, with and without two outliers, Russia and the Philippines, where reserves are exceptionally large. They show that reserve adequacy has improved everywhere but in the anomalous case of Malaysia. They also flag Turkey and Argentina as two cases where reserves are inadequate to finance the current account plus maturing short-term external debt.

Figure 8: Reserve adequacy



Source: HAVER.
Note: Reserve adequacy = 100* Reserves/(short-term external debt plus the current account deficit).

Figure 9: Reserve adequacy [without outlier: RUS, PHL]

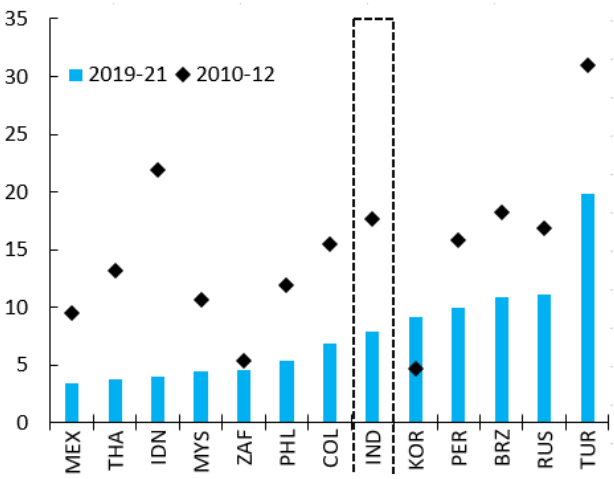


Source: HAVER.
Note: Reserve adequacy = 100* Reserves/(short-term external debt plus the current account deficit).

Turning to financial conditions, Figure 10 shows that credit growth is more subdued than in 2010-12 virtually across the board, the only exception being Korea, where credit growth in 2010-12 was anomalously low. The same is true of cumulative portfolio capital inflows (an important source of domestic credit growth): as a share of GDP, cumulative portfolio inflows are uniformly smaller in 2019-21 than 2010-12 (with the exception of Russia, Figure 11)[5].

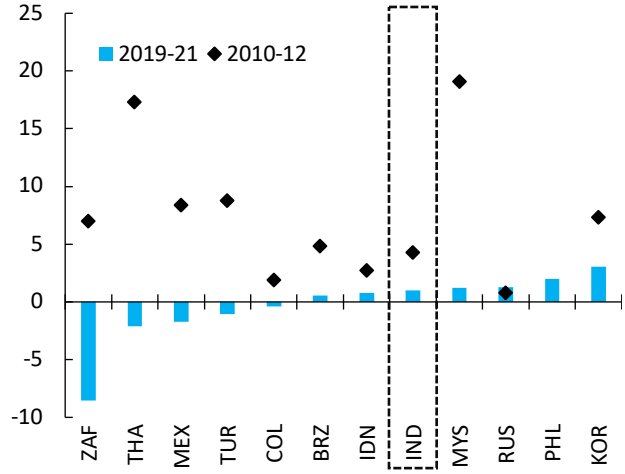
It follows that the debt situation paints a mixed picture, what with emerging market governments running larger budget deficits in response to COVID-19 but private credit growth remaining relatively subdued. General government debt as a share of GDP (Figure 12) is higher essentially everywhere, reflecting recourse to deficit spending during the COVID crisis (Figure 13).

Figure 10: Private sector credit growth rate, percent



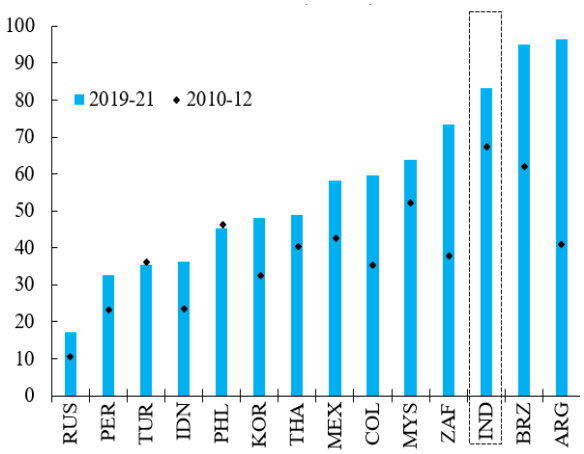
Source: HAVER.
Note: We report average of monthly year-on-year growth rates. For Argentina, we have year-on-year growth rates of quarterly credit levels.

Figure 11: Cumulative portfolio inflows (net), percent of GDP



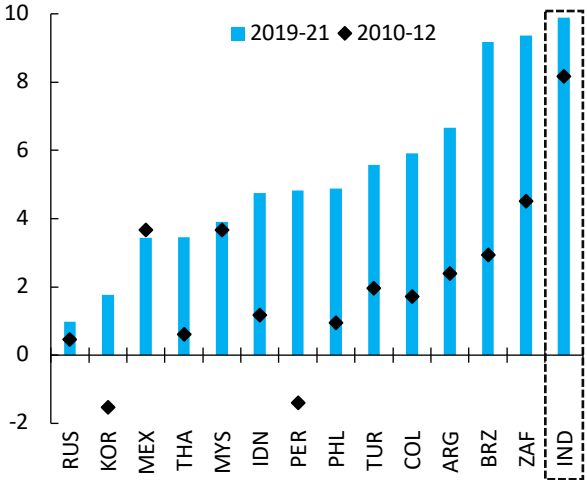
Source: IIF, IMF WEO April 2021.
Note: To express as percentage of GDP, cumulative portfolio flows over 2019-21 are divided by 2021 nominal GDP estimate by IMF April 2021 WEO while 2010-12 flows are expressed as a fraction of 2012 nominal GDP. The Philippines' data is not available for 2010-11.

Figure 12: General government debt (gross), percent of GDP



Source: IMF WEO April 2021.
Note: 2010-12 reflects the average over three years 2010, 2011, and 2012.

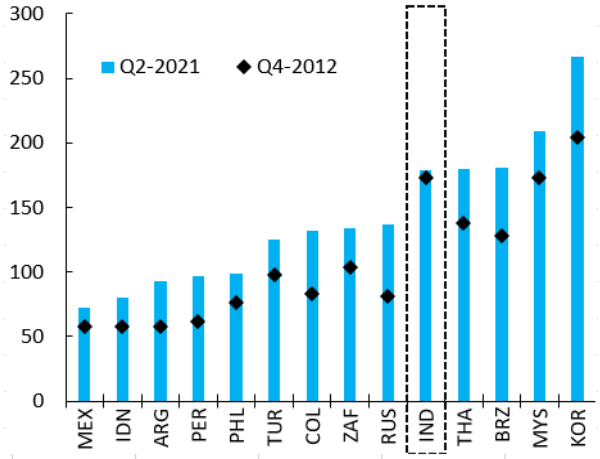
Figure 13: General government budget deficit, percent of GDP



Source: IMF WEO April 2021.
Note: General government budget deficit is net borrowing (as mentioned in IMF WEO). A (-) ratio denotes net borrowings while a (+) ratio denotes net lending. 2021 are IMF WEO April 2021 estimates while for ARG, COL, MYS, PER, RUS, KOR estimates start after 2019. 2010-12 denotes average over 2010, 2011 and 2012 while 2019-21 is average over 2019, 2020 and 2021. ARG average is until 2020 as 2021 data is not available.

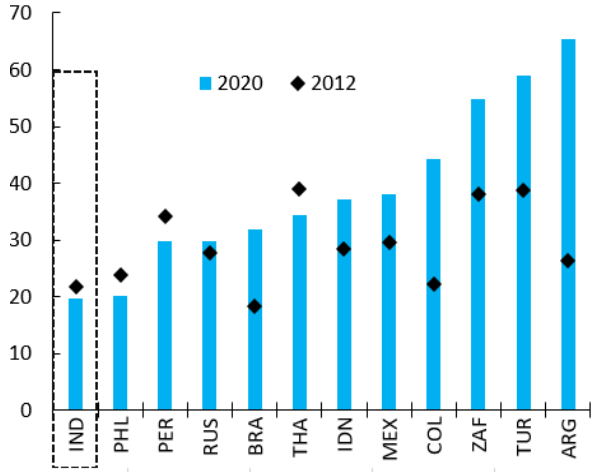
Total debt (including the household and non-financial corporate sectors as well as government) as a share of GDP is higher across the board (with one exception to which we will return, Figure 14). Total external debt (including households, government and non-financial firms) is also higher with a few exceptions (Figure 15).

Figure 14: Total debt, percent of GDP



Source: IIF, HAVER.
Note: Total debt includes household, government, and corporation (non-financial) debt.

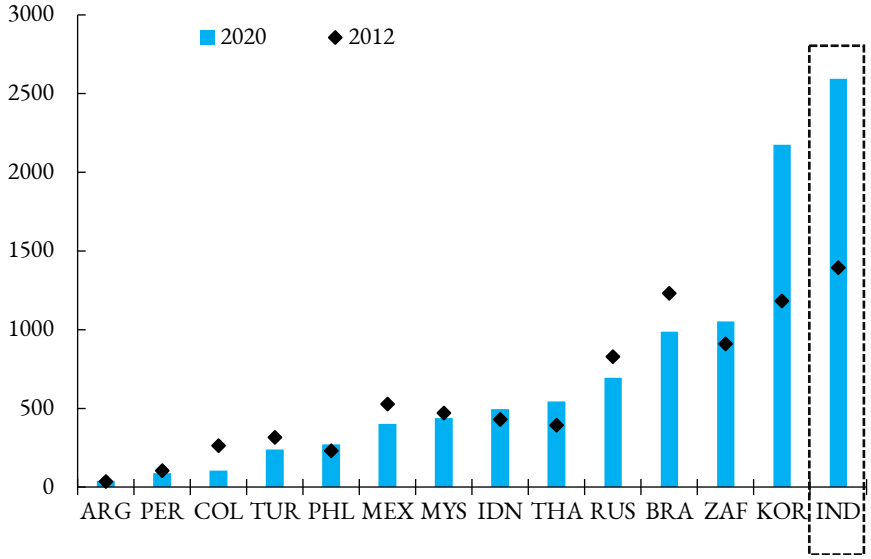
Figure 15: External debt stocks, percent of GNI



Source: WDI.

Given the emphasis in Eichengreen and Gupta (2015) on the size of financial markets as a source of vulnerability when international investors are rebalancing away from emerging markets, it is worth asking finally how financial market capitalization has evolved since 2010-12. Figure 16 shows that there have been relatively small changes in market capitalization measured in U.S. dollars, with the exception of India and South Korea, where market capitalization has increased quite significantly, making for increased vulnerability to normalization of U.S. monetary and financial conditions if our earlier story continues to hold.

Figure 16: Market capitalization, USD billions



Source: WDI
Note: For Argentina, we have data until 2019.

In sum, emerging markets as a class have made progress in strengthening their economies and financial systems in advance of another episode when the Federal Reserve and other central banks taper their asset purchases and raise interest rates. Most of the progress is on the external side. Current

account deficits are smaller, and real exchange rate appreciation raising fears of overvaluation has been less. Portfolio capital inflows and credit growth have been more subdued than in the past.

But not all entries are on the positive side of the ledger. External financing needs show no clear pattern – lower in some countries, higher in others. Nor are changes in reserve adequacy (reserves relative to external financing needs) uniformly positive; this is improved in roughly half our countries but unchanged or worse in the others. Turkey and Argentina are in the most delicate position, with two of the largest external financing needs going forward and inadequate foreign reserves.

Most obviously, the governments of emerging markets are exiting the COVID crisis more heavily indebted. An increasing fraction of this debt is denominated in domestic currencies, which is reassuring. But a significant fraction, in many national cases, is still sold to foreign investors (Eichengreen, El-Ganainy, Esteves and Mitchener 2021), who may seek to rebalance away from emerging markets as interest rates begin to rise in the U.S. and other advanced countries.

IV The Situation in India

In the preceding analysis, India is toward the middle or on the favourable end of the spectrum in terms of most indicators of emerging market financial vulnerability. The current account deficit is small. Real exchange rate appreciation has been limited. Cumulative portfolio inflows have been smaller relative to GDP than in 2010-12. External debt stocks are low by emerging market standards. External financing needs are limited and smaller relative to GDP than in 2010-12. Reserve cover is improved.

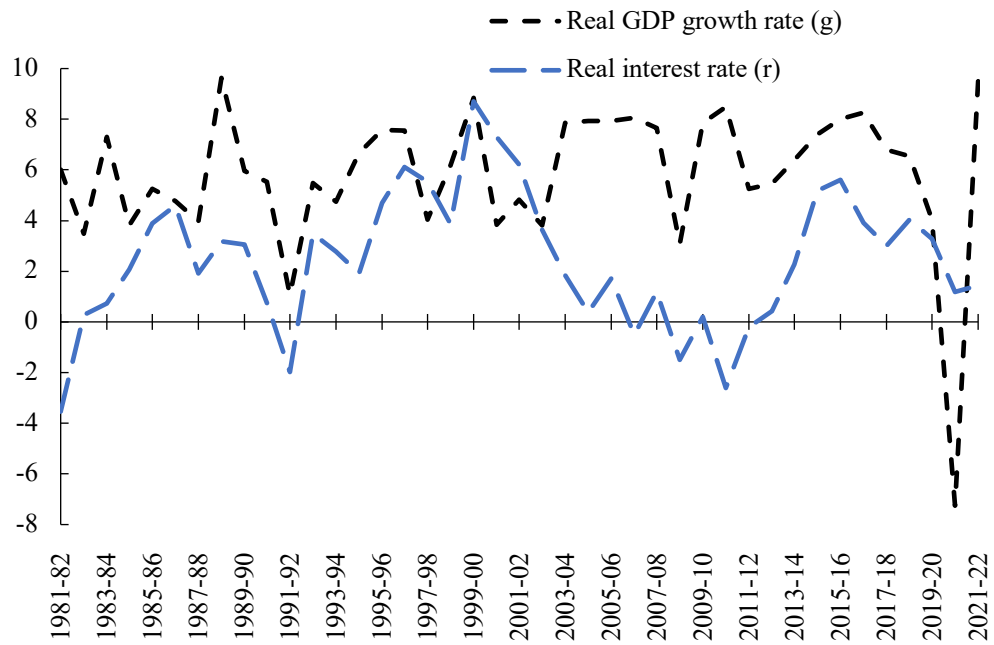
Where the country stands out is in fiscal stance. The general government debt and deficit as shares of GDP are high by international standards. The country's debt-to GDP-ratio in the last decade (averaging 68 percent) and fiscal deficit-to-GDP ratio (averaging at around 7 percent) are high among comparators. Tax revenues as a share of GDP have been stagnant or have risen only slowly. Tax effort so measured has been below the average of other countries at similar income levels; direct tax collection has been particularly low. Recurrent expenditure (committed, non-discretionary, or revenue expenditure) accounts for a majority of general government expenditure, while capital spending on infrastructure is only about 3.5 percent of GDP.

Even as the discussions have centred around the need for India's fiscal architecture to be put on a sustainable footing, COVID-19 has further widened the budget deficit and elevated the debt. These totalled 12.3 percent and 89.6 percent of GDP, respectively, in 2020-21, and are projected to moderate slightly to 10 percent and 86.6 percent, respectively, as GDP recovers this fiscal year.[6] The general government primary deficit, net of interest payments, was 7.4 percent of GDP in 2020 and is estimated to be 5.7 percent in 2021 (IMF 2021).[7]

The good news is that debt and deficit ratios do not figure prominently in analyses of the 2013 taper tantrum.[8] It is further reassuring that general government debt is held mainly at home and denominated in rupees. Earlier experience suggests that countries that relied on capital inflows, selling debt to foreigners, especially debt denominated in foreign currency, experienced difficulties when global interest rates rose. RBI (2021) estimates that external government debt as of 2021 is just 4 percent of GDP. (Compare Figure 12 above, which confirms that this is only a small share of total

government indebtedness.) More than three-quarters of this is external debt on government account under external assistance – concessional assistance from official creditors who are unlikely to cut and run

Figure 17: Interest-growth differential



Source: CEIC, MoSPI, RBI.
Note: Real interest rate is nominal interest rate *less* GDP deflator growth rate. Nominal interest rate is weighted average yield of central government securities. For 2020/21, we consider RBI's real GDP forecast and assume a 24-basis point increase in nominal yields (based on trends in yields of different tenors observed between April 2021 and July 2021).

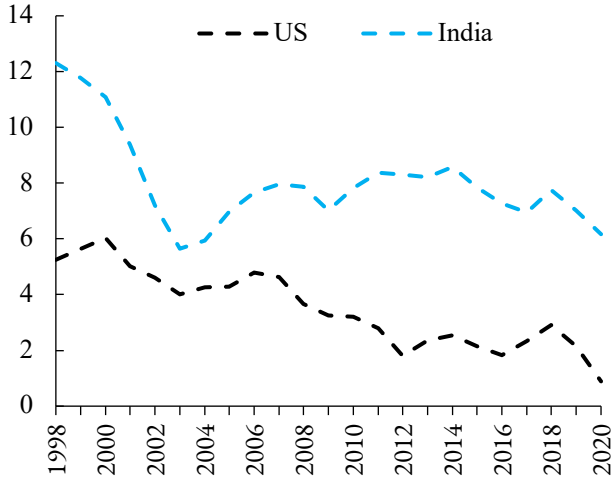
The bad news is that a debt-to-GDP ratio of 87 percent is high by the standards of emerging markets. Most economists would agree that it would be risky to let it go higher. Since the turn of the century, the real-growth-rate-real-interest rate differential has averaged around 5 percentage points. This means that India can run a primary deficit of 4.5 percent of GDP without seeing its debt/GDP ratio move higher.[9] Compare the IMF estimate of 5.7 percent for 2021, noted above.

Moreover, GDP growth slowed significantly, to just 4 percent in 2019 – that is, already prior to the COVID crisis – from nearly twice that rate in the golden years 2014-16. IMF (2021) in its October 2021 Article IV consultation with India suggests that growth, after bouncing back from the COVID-19 recession at a roughly 9 percent rate in 2021/22 and 2022/23, will run at around 6 percent in the medium term, meaning between 2023/24 and 2026/27, roughly matching the 2017-18 average. If this is correct (and we hasten to emphasize that this is the IMF's forecast, not necessarily ours), then cutting the primary deficit below 4.5 percent of GDP may be required to stabilize the debt/GDP ratio.[10]

Similarly, if interest rates now go up owing to global factors, the real-interest-rate-real-growth-rate differential could turn even less favourable. Figures 18 and 19, and the accompanying Table 1, show that yields on the Indian government's 10-year securities co-move with US 10-year Treasury yields. [11] The elasticity with respect to U.S. rates approaches unity; this is true in both nominal and real terms.[12]

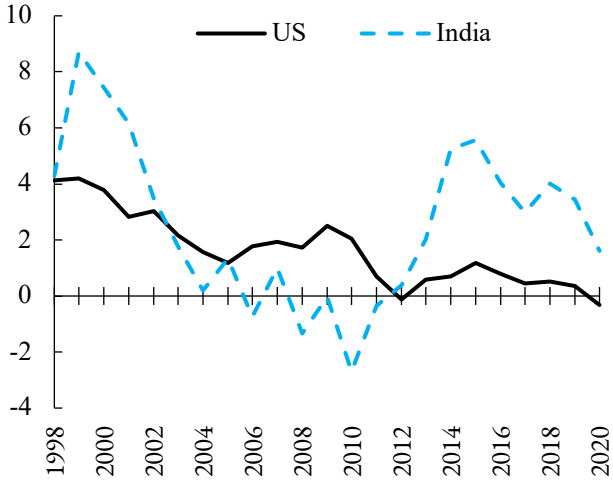
If U.S. yields are now going up, this suggests that even stronger steps will be needed to stabilize the debt/GDP ratio. With a growth rate of 6 percent and a real interest rate of 2 percent, the deficit would have to be cut to roughly 3.6 percent of GDP to stabilize the debt/GDP ratio.[13]

Figure 18: 10-year nominal government bond yield, percent per annum



Source: CEIC, IMF, RBI.

Figure 19: 10-year real government bond yield, percent per annum



Source: CEIC, IMF, RBI, WDI.
Note: Real yields are nominal yields *less* GDP deflator growth rate.

Table 1: Regression results

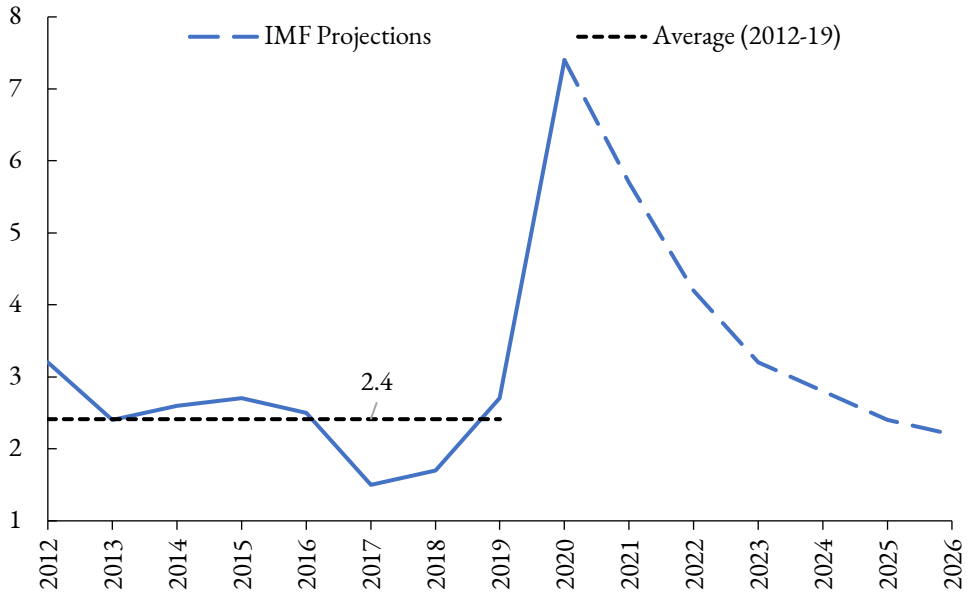
	Dependent variable: India 10-year Government bond yield		
	Nominal	Nominal adjusted for depreciation rate	Real
US 10-year Gov bond yield (nominal)	0.78***	0.93	
	(3.86)	(1.46)	
US 10-year Gov bond yield (real, GDP deflator based)			0.89**
			(2.76)
Constant	5.40***	1.53	1.12
	(8.99)	(0.54)	(1.57)
Observations	24	24	24
Adjusted R^2	0.36	-0.01	0.15

Robust t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
Note: Temporal coverage: 1997-2020 (annual). In column (2), we adjust nominal Indian government bond yields by subtracting annual deprecation rate. Depreciation rate is computed as annual percentage change in INR/USD exchange rate. We consider changes in end-of-period values of exchange rate.

With GDP projected to bounce back post-COVID, there is no immediate crisis of debt sustainability. If growth does, in fact, run at 8 percent in 2022 as lockdowns are relaxed and conditions normalize, the debt ratio will fall in the short run.

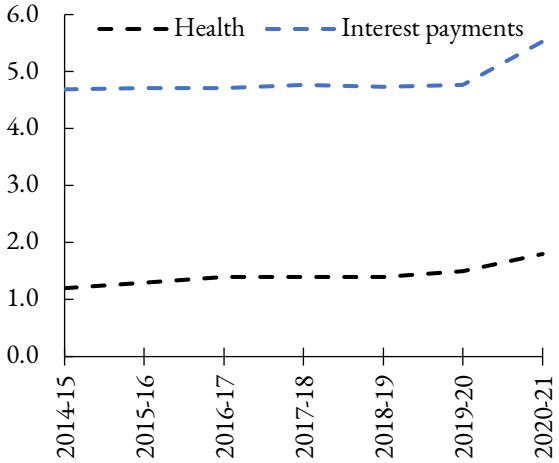
But there are reasons to worry about the medium term. The IMF in its *Fiscal Monitor* and latest Article IV consultation with India imagines that the primary deficit as a share of GDP will fall back to its lower 2012-2019 average of 2.4 percent by 2026. The question is how. Tax to GDP ratios generally do not increase rapidly or sharply in the short run.[14] Thus, IMF (2021) projects general government revenue as a share of GDP as rising very slightly from 19.2 percent this year to 19.8 percent in 2022-26.

Figure 20: General government primary deficit, percent of GDP



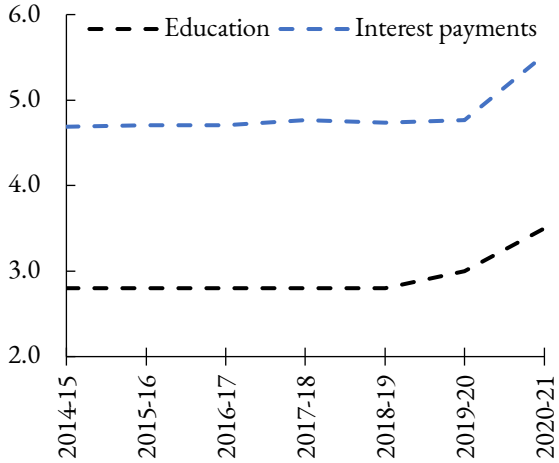
Source: IMF Staff estimates and projections (IMF fiscal monitor October 2021).

Figure 21: General government health expenditure, percent of GDP



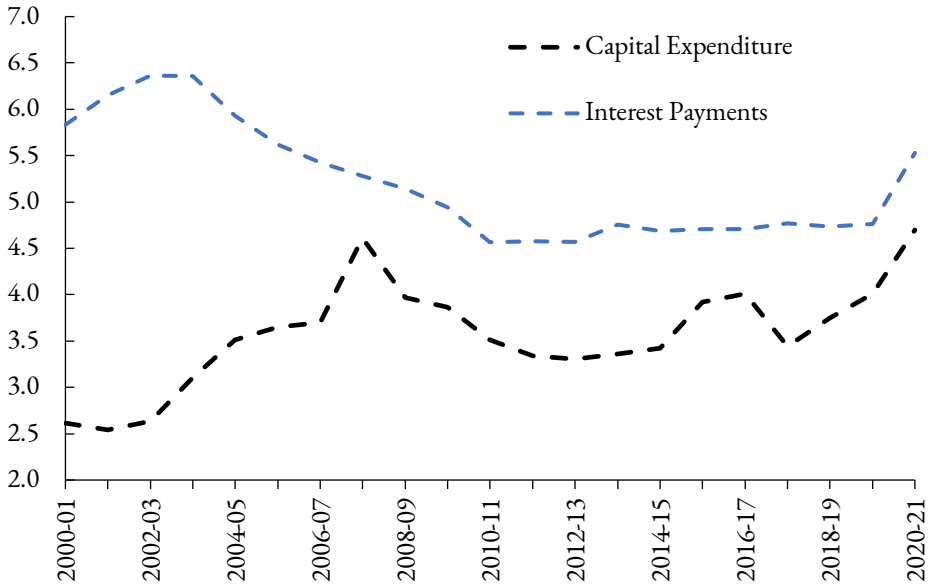
Source: Economic Survey 2020-21, MoSPI, RBI.
Note: 2019-20 are revised estimates and 2020-21 are budgeted estimates. Ratios are based on GDP estimates for 2020-21 data released by MoSPI.

Figure 22: General government education expenditure, percent of GDP



Source: Economic Survey 2020-21, MoSPI, RBI.
Note: 2019-20 are revised estimates and 2020-21 are budgeted estimates. Ratios are based on GDP estimates for 2020-21 data released by MoSPI.

Figure 23: General government capital expenditure, percent of GDP



Source: MoSPI, RBI.
Note: 2019-20 are revised estimates and 2020-21 are budgeted estimates. Ratios are based on GDP estimates for 2020-21 data released by MoSPI.

It follows that making a dent in the deficit will require spending restraint. The IMF imagines that general government expenditure as a share of GDP will fall from 30.4 percent this year to 27.9 percent by 2026, basically returning it to pre-crisis levels. This is optimistic. Subsidies, some of which were raised during the pandemic, will have to be cut, which is easier said than done politically. The need for health expenditure will rise as a result of COVID-19 and its legacy. More spending will be required in order to make up for the loss of education and human capital formation due to school closures, or else potential growth will suffer. There is the ongoing need for public investment in infrastructure. These public services are all important inputs into economic growth, and demands for health and education services are likely to rise further as shares of GDP as India makes the transition from a low-

to a middle-income economy. When required to reduce public spending as a share of GDP, governments tend to reduce capital expenditure, which is counterproductive from the standpoint of economic growth. The IMF projects a fall in capital expenditure by the government as a share of GDP between now and 2026. Following this avenue would be a mistake.

This leaves the question of what to cut. Saying "cut food, fertilizer and fuel subsidies" (as the IMF is advising) is easy.[15] Doing it is hard.

V Conclusion

Economic policymakers, it is said, are good at preventing the last crisis. In the current conjuncture, the last crisis is the taper tantrum of 2013, what with the U.S. Federal Reserve now again tapering its asset purchases and looking to raise interest rates. But since 2013 emerging markets as a class have taken significant steps to limit their vulnerability to those events. As we have shown, they have reduced external vulnerabilities by limiting their current account deficits, real appreciation, dependence on portfolio capital inflows and external financing needs. There are some worrisome exceptions – we have highlighted the cases of Turkey and Argentina – but this successful strengthening of external positions is widespread. We include India under this heading of "last crisis solved."

But what about the next crisis? Where emerging markets are weaker is in terms of public-sector indebtedness. This is an unavoidable consequence of the COVID crisis and lockdown, but it is worrisome nonetheless. India falls under this heading, given its large deficits and debts by emerging-market standards. This does not imply an impending crisis, since growth should bounce back in the short run and because the debt is denominated in domestic currency and held heavily at home. But it points to even more formidable fiscal challenges going forward.

The post-COVID growth environment could be less favourable than in the halcyon days of 2014-16. Global supply chains have suffered disruptions, potentially causing the growth of global trade to slow. Human capital accumulation, imparted via schooling, has been interrupted. And the virus is still with us. Meanwhile, interest rates in the U.S. are poised to begin moving up, which will make for higher interest rates in India, as we have shown above. Even without these unfavourable growth and interest-rate developments, it would have been necessary to cut the government's primary budget deficit to prevent the debt-to-GDP ratio from moving higher. With these developments, larger cuts will be required. With revenues as a share of GDP rising slowly at best, spending economies will be required. But cutting spending on health, education and infrastructure formation would be counterproductive from the standpoint of growth and hence from that of fiscal consolidation. This leaves reductions in, inter alia, food, fuel and fertilizer subsidies. Accomplishing this, clearly, is a challenging economic and political task.

What happens when public debt relative to the resources that the government is able to mobilize rises even higher? Either taxes have to be raised or public spending must be cut to generate additional revenues for debt service. If this proves politically impossible, governments have responded, historically, in two ways. When the debt is held externally, they restructure. When it is held internally, they inflate. You can draw your own conclusions.

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Notes

[1] Niziolek (2021).
[2] The last three quotations are from Meskin (2021) citing Luiz Peixoto of BNP Paribas, Elina Ribakova of the Institute of International Economics, and Simon Quijano-Evans of Gemcorp Capital, respectively.
[3] India saw portfolio capital inflows rather than outflows in 2019-21 (as described below), which helps to explain the comparative strength of the real exchange rate in this period.
[4] Official reserves relative to GDP are in fact little different than in 2010-12, except in Colombia, where they are higher and Malaysia and the Philippines, where they are lower. Lower reserves in the Philippines are consistent with the immediately preceding observation of greater real appreciation, while lower reserves in Malaysia are consistent with reversion of the current account balance to more normal levels.
[5] India, in fact, saw portfolio capital inflows in 2019-21 when so many other emerging markets saw outflows. This reflected a sharp rebound in economic activity as the lockdown restrictions were lifted before the second wave hit, and strong corporate earnings. Equity prices too rose faster in India than in other emerging countries.
[6] IMF WEO April 2021 estimates.
[7] The distinction between the primary and overall budget deficits is important, given the government's unusually heavy debt.
[8] The one exception is Mishra et al. (2014), who report one regression coefficient suggesting that countries with larger budget deficits saw more currency depreciation in reaction to 2013-14 tapering announcements.
[9] This follows from the standard equation for debt dynamics: $\Delta b = d + (r - g)b$, where the change in the debt b is the sum of the primary budget deficit d and the existing debt multiplied by the difference in the real interest rate r and the real GDP growth rate g. With a value for r-g of 5, as posited in the text, and value for b of 0.9, the product yields a value for d of 4.5 percent of GDP in a steady state.
[10] Economic Survey 2020-21 argues that India's debt to GDP ratio is likely to remain stable even under the worst-case scenarios of high primary deficits, low real GDP growth rate, and high nominal interest rates. Chapter 2, "Does Growth Lead to Debt Sustainability? Yes, But Not Vice-Versa!", Volume 1, Economic Survey 2020-21, Ministry of Finance, Government of India.
[11] Kapur, John and Mitra (2018) find that, "an increase of 100 bps in the 1-year US Treasury bond yields pushes up domestic G-Sec yields by around 25-30 bps, with a somewhat higher impact on longer-maturity bonds, providing some evidence to the global financial cycle".
[12] If we deflate nominal yield using consumer prices, the co-movement is weaker, but this is likely to be driven by volatility in food prices with a heavy weight in the CPI.
[13] Again, this follows from setting the left-hand side of the equation in fn. 9 to zero and inserting these parameters.
[14] In addition, tax revenues, such as the privatization receipts, could be raised, although this is unlikely to finance a sustained reduction in the deficit as opposed to providing a one-time boost.
[15] "On the expenditure side, food subsidies, grants to States, and capital expenditure are projected to decline relative to GDP." IMF (2021), p. 14.