

The Covid-19 Shock: Learning from the Past, Addressing the Present

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Introduction

There is general agreement that SARS-CoV-2 (that causes Covid-19) has wreaked havoc on the Indian economy, as it has on practically every country in the world. While this is true up to a point, the real story is that the economic damage actually has very little to do with the pandemic itself, and is mainly the consequence of policy responses adopted by various governments to contain and 'flatten' the spread of the disease. It would thus be logical to assume that the longer and more rigorous the containment measures, the greater would be the economic damage.

Now here is a curious fact – while everybody also agrees that India has implemented the most comprehensive and draconian lockdown in the world,² almost all projections for economic growth in 2020-21 place India right up there among the best performing countries in the world. These projections – made by diverse institutions such as the World Bank, IMF (International Monetary Fund), rating agencies, investment banks, etc. – by and large expect India to record positive (albeit small) growth as against a -3% or worse projection for the world as a whole. What makes it even more curious is that while every other country has announced large government interventions to address the economic disruption, the Indian government has not done anything of that kind.

How is this possible? Does India have an inherent resilience that enables it to bounce back strongly from serious setbacks? Or is it that the Indian government is believed to have sagacity and competence greater than the others and that it will do the right thing at the right time? These are burning questions, which demand some reflection.

On the other hand, everybody also agrees that India is experiencing a massive humanitarian crisis, exemplified by the scale of reverse migration that has been and continues to be in progress. Scenes of thousands, if not millions, of migrant labour, often along with their families, trying to go back to their villages any way they can, even walking hundreds of kilometres, are heart-rending. Such scenes have not been seen in the country since the famine of 1965-66, if even then and nowhere near these numbers. The union government continues to remain unmoved, vacillating

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² This is one instance in which India represents the gold standard. On a scale of 1 to 100, India is at 100 whereas all other countries are between 60 and 80.

between insisting on people being restricted to where they are and providing trains to take them home (on payment of course). Surely, a humanitarian crisis of this magnitude deserves a commensurate response; but how much, and for how long?

Consequently, the economic damage is also likely to be very high unless the government simultaneously implements policy measures designed to mitigate the extent of damage. Too much time has already passed without any meaningful policy measures, and much damage may have already happened. The objective of this analysis is to briefly review the current status, and deliberate on what needs to be done, and where we are likely to be in the future.

It appears from close reading that much of the optimism about India's resilience stems from the country's performance during the last two major economic shocks – the Global Financial Crisis (2008) and demonetisation-cum-GST (Goods and Services Tax) (2016-17). In both cases the country recovered rapidly; and, in the case of demonetisation, did not seem to suffer at all initially as per the official national income estimates, but this was illusory. However, circumstances were very different then, and it is important that we draw the right lessons rather than take the outcomes at face value.

The Global Financial Crisis

As far as the financial crisis is concerned, which brought the global financial system to its knees, India was spared from the main contagion largely because our financial system was not particularly integrated with the global. At that time, the Indian economy was at the crest of an extended boom, driven by both strong export growth and buoyant domestic demand. The principal shock was essentially through the trade side, where our exports collapsed, registering a negative growth of around -15% in 2009-10. This was a pure demand shock. Since exports accounted for roughly 21% of GDP (gross domestic product), this translated to a demand reduction of about 3% of GDP for the year. Left to itself, this reduction would have worked through the multiplier and led to a reduction in the GDP growth rate of 9 percentage points, which would have meant at best a zero growth rate for 2009-10, going up to maybe around 4.5% in the following year.

As it turned out, the growth rate in 2009-10 was 4.6%, rising to nearly 10% in 2010-11. This did not happen by itself. The Indian government stepped in with a substantial fiscal stimulus package of nearly 3% of GDP in 2009-10, which was about equal to the demand-depressing effect of the export contraction. Sagacity on the part of the Indian government? Not entirely. A large part of the stimulus actually preceded the crisis as part of the political build-up to the 2009 general elections, but it was fortuitous and the government did carry it through and added an excise cut to top it off.

There are three lessons to be learned from this experience:

- (a) A large exogenous demand shock requires an *equally large* fiscal policy response.
- (b) A fiscal stimulus package takes time to work through the system. Given the normal preparatory work required by the government machinery to convert policy into action, 4 to 5 months can pass before any expenditure is actually made. Thus, such stimuli are always back-loaded in terms of their impact.³
- (c) Direct income support to the poor has a much larger effect on agricultural prices and relatively low multiplier effects on production since 70% of the initial expenditure is on food – a supply-constrained sector.⁴

Demonetisation-cum-GST

The demonetisation episode was a different kettle of fish altogether. In 2016, as in 2008, the economy was well on the upswing of the business cycle with both demand and supply growing strongly in tandem. The demonetisation did not directly affect either demand or supply – a fact that appears to have little recognition in the extant literature. It was a shock to *transactions*. Thus, its impact on the economic system depended largely upon the degree to which different segments of the economy were dependent upon cash transactions.

Unsurprisingly, the informal micro-enterprises sectors, including agriculture, were the worst affected since practically all their transaction, both upstream and downstream, were cash-based. Agriculture was particularly interesting since the traders in agri-markets simply did not have the cash to make their usual purchase.⁵ As a result, farmers faced what was essentially a demand shock, and prices crashed. In stark contrast, the corporate sector was virtually unscathed since almost all its transactions were non-cash.

The small and medium enterprises (SMEs) fell somewhere in between since their transactions were both cash and non-cash, depending upon who they were transacting with. However, as these units were beginning to come to terms with the demonetisation shock, they were hit by the somewhat botched roll-out of GST. These units were in no position to meet the very demanding stipulations of this tax, which resulted in further decimation of this sector.

³ This is the principal reason why the 2009-10 fiscal stimulus had its full effect only in 2010-11.

⁴ About 10% of the 2009-10 fiscal stimulus was on MNREGA (Mahatma Gandhi National Rural Employment Guarantee Act). This step was necessary in any case since 2009 saw one of the worst droughts in recent years and income support to the poor was a moral imperative. However, it should also be acknowledged that a large part of the first-round effects of this increase was dissipated through a sharp increase in food prices. I realise that this goes against the classic Keynesian prescription of “digging holes and filling them up”, but, as I explain later, much depends upon the specific conditions under which the fiscal stimulus is being given.

⁵ Government procurement of agricultural products is only about 8% of total output. Practically all the rest is either self-consumed or sold through private traders.

Ironically, the corporate sector (and some SMEs) actually gained as a fair number of final consumers shifted a part of their purchases from the informal retail system to the formal where payments could be made without cash.⁶ This meant a positive demand shock for corporates and some SMEs and a negative demand shock for the rest.

In all of this, the government was nowhere in sight. Absolutely no policy measures were taken to address the damage that was being done to informal sector; especially to agriculture and the trader class – the traditional support base of the ruling BJP (Bharatiya Janata Party). There was, however, an element of resilience that became evident. Most cash transactions in India are not based on any formal contract but on relationships and trust. As a result, a fair proportion of transactions continued in the cash economy on a 'payable when able' basis. This of course did not work where the informal sector was buying goods and services from the formal. There was, thus, an element of a supply shock to the informal sector from this.

The real problem faced by the informal and SME sectors was servicing of their debt to banks and NBFCs (non-banking financial companies), which had to be paid on time to avoid being classified as 'non-performing assets' (NPAs) and become liable for recovery proceedings. This could have been devastating if it had not been for the existence of MUDRA⁷ loans. Many micro and small units borrowed from this window to meet their debt servicing obligations on existing loans.⁸ This effectively kicked the can down the road, hopefully until the remonetisation process was completed. Nevertheless, a very large number of loans to micro and small companies became NPAs and forced these units to close.

What was surprising was that despite palpable damage to significant parts of the Indian economy, GDP growth in 2017-18 was estimated at 8.2% - the highest since 2012-13. Unfortunately, this was an optical (or more correctly, a statistical) illusion. Apart from agriculture, Indian GDP estimates are primarily based on data from the organised sector, which is extrapolated to cover the informal and SME sectors as well.⁹ Since, as has been already explained, the formal sector actually gained at the expense of the informal and the small, this procedure grossly overestimated the growth rate. Thus, while the higher production of corporates got recorded, the presumptive negative growth of the SME sector was completely ignored.

While there is no data to directly estimate the extent of GDP overestimation, two corroborative datasets suggest the damage was significant. Employment data from

⁶ These were consumers who had credit/debit cards. The numbers of such persons was relatively small as a proportion of the population, but their share in total consumption demand was disproportionately large.

⁷ Micro Units Development and Refinance Agency (MUDRA) was set up in 2015 to provide small collateral-free loans to micro units through the banking sector.

⁸ MUDRA loans shot up in 2017-18 after showing tepid performance in the previous two years.

⁹ In the case of agriculture, the GDP estimates measure only production, and not income of farmers or losses arising from increased wastage.

the Periodic Labour Force Survey (PLFS) for 2017-18 indicated that the unemployment rate was 3 percentage points higher than normal. Similarly, household consumption data indicated that per capita monthly consumption expenditure was 2% lower than in 2011-12.¹⁰

The *denouement* came in mid-2018, when GDP growth started slipping steadily. It has now been more than six quarters that the growth rate has declined quarter by quarter from 8% to 4.5%. The damage done to the informal and SME sectors had now started showing up in corporate results as well, through its effect on incomes and demand. It had also shown up in a steady decline in the household savings rate and/or increased borrowings as households attempted to protect their consumption in the face of declining incomes. The government, however, continued to be in a state of denial and took no corrective measure other than an income support scheme for farmers (PM-KISAN).¹¹

The lessons to be learnt from this episode are more complex:

- (a) Not all shocks can be neatly classified into demand or supply shocks. This complicates policy response since the economics literature addresses each kind of shock separately.
- (b) In a scenario of mixed shocks, policy necessarily has to be far more nuanced and targeted, and requires a much higher level of sophistication on the part of the policymakers. It also requires administrative and governance standards of a high order. Of course, this episode sheds no direct light on the quality of policy and governance in India since here was no policy response worth the name.
- (c) The informal sector does have a certain degree of resilience because of its ability to work through social networks and renegotiating informal contracts. Nevertheless, its earnings tend to decline, sometimes sharply.
- (d) The most vulnerable are the SMEs, which have little staying power, and are bound to formal contracts without the clout to renegotiate them. The most damaging of these is servicing of debt taken from the formal sector (banks and NBFCs).
- (e) The corporate sector has greater staying power, but is not immune to the demand destruction that takes place because of the problems faced by the informal and SME sectors.
- (f) In the absence of appropriate policy response, effects of a shock can persist for an extended period. Thus, whether a recovery is V-, W-, U- or L-shaped depends both upon the nature of the shock and the policy response.

The Covid-19 Shock

¹⁰ The 2017-18 Consumption Expenditure Survey data has officially been suppressed by the government.

¹¹ The government's narrative was, is and will continue to be that the demonetisation was a stroke of genius and will have no lasting effect on the economy.

When the Covid-19 pandemic struck India in February 2020, the Indian economy was already in the middle of a prolonged slowdown driven by steadily weakening demand. This was in stark contrast to the two previous crises, when the economy was at or near its cyclical peaks. The implication of this is that the level of resilience and staying power of both enterprises and consumers is much lower in this case than in the previous two. This fact has significant bearing on the ability of the economy to weather and come out of this shock; and, therefore, on the size and duration of the policy response that will be required.

Before we get to this, it is necessary to get some sense of the damage that can be expected. In doing so it makes little sense to use percentages of GDP, since the GDP itself is endogenous to the computations, and will change as assumptions change. It is, therefore, better to work with absolute values and work out the various ratios after all adjustments have been made.

The first thing to note is that a lockdown itself is a pure supply shock.¹² There will be consequences on demand as incomes get affected, but these are secondary effects. As things stand, the supply effect of the lockdown, which affects somewhere between 50 to 55% of the economy on an optimistic basis, leads to a weekly loss to the economy of around Rs. 2 trillion (1% of 2019-20 GDP) in 2019-20 prices. Thus, in the nine-odd weeks that the nationwide lockdown has been in effect since 25 March, the total loss would be Rs. 19 trillion (9.5% of GDP). If one adds to this the partial lockdowns that were implemented by state governments for three weeks prior to the national measure, the total loss to date could be Rs. 23 trillion (11.5% of GDP) or more.¹³ Further damage will occur in the coming weeks depending upon the content and time-path of lifting the lockdown in a phased manner as has been announced by the government. But let us set this aside for the moment and assume that the lockdown is lifted all at once across the entire country on 31 May 2020.

This Rs. 23 trillion represents only the first round effect of the lockdown. This income loss will lead to second round, third round and subsequent round effects as well.¹⁴

¹² There was a demand shock which preceded the lockdown as tourism activity collapsed from early February. This affected only some sectors, such as transport, hotels and restaurants. With the lockdown, all these sectors are included in the supply shock itself.

¹³ An alternative way to assess the damage would be to use the data on employment and an estimate of the productivity of workers. According to the CMIE (Centre for Monitoring Indian Economy) data, over the concerned period, the unemployment rate of *non-agricultural workers* has increased by 18 percentage points, which translates to 120 million workers. Just going by this, the GDP loss would be closer to Rs. 1.65 trillion per week as compared to the Rs. 2 trillion estimated by the production loss method. This would, however, probably be a serious underestimate since a large number of workers who have not lost their jobs are getting paid without producing (that is, productivity of zero), and most of these would be in the highest productivity bracket. Nevertheless, the interested reader can work out what a scenario based on this approach will yield.

¹⁴ This is known as the multiplier effect in economics. In the Indian case, the standard multiplier is estimated at around 3. However, in a shock of this magnitude, the multiplier is not a constant figure as it would be under normal circumstances. Initially people would protect their consumption by drawing down their accumulated savings, but once income flows start, savings will get slowly restored. As a result, consumption will increase at a much slower pace than income. This pattern of behaviour will lead to the multiplier being close to 1 initially, then rising steadily beyond its normal value, and then

This whole process takes between 1.5 to 2 years to work itself through the economy. As a consequence, the total damage in 2020-21 will be Rs. 43.7 trillion minus the damage that will be accounted for in 2019-20. This latter amount is around Rs. 4 trillion;¹⁵ yielding a net effect for 2020-21 of Rs. 39.7 trillion. This number should be seen against the expected addition to GDP in 2020-21 if the pandemic had not happened. If we go by the Budget numbers, the budgeted government expenditure was expected to support a growth rate of 6% in 2019-20 prices, which translates to an additional GDP in 2020-21 of Rs. 16.4 trillion. Thus, if there is no increase in government expenditure beyond the budgeted numbers, the GDP in 2020-21 will be Rs. 23.3 trillion less than the 2019-20 GDP.

This is bad enough, but things will get worse through the impact of the global economy on India. As far as exports are concerned, given that the global economy is expected to contract despite massive fiscal support in most countries, global trade will also contract significantly. Indian exports can hardly expect to remain unscathed. Production for exports is exempted from the lockdown and, therefore, is not included in the above loss calculations. Although there is no estimate at present of the extent to which global trade will decline, it is not unreasonable to assume that Indian exports may go down by at least 12% in 2020-21 compared to the previous year.¹⁶ In such a situation, export earnings will decline by Rs. 3.2 trillion, which will lead to an overall GDP loss of about Rs. 6 trillion in 2020-21, once the multiplier effects are factored in.¹⁷ Added to the lockdown loss, this raises the 2020-21 loss to Rs. 29.3 trillion.

However, the government has made some effort to address this problem. On 25 March the Finance Minister announced the PM *Garib Kalyan Yojana* (PM-GKY), which was ostensibly valued at Rs. 1.76 trillion. Closer inspection suggests that most of the elements of this package were repackaging of provisions already included in the 2020-21 Budget, and only about Rs. 0.8 trillion was the additionality. Since the budgetary numbers are already factored into the expected (pre-Covid) growth numbers, only the additionality can be considered as a stimulus. Since these expenditures have been made relatively early by government standards, the multiplier will leverage the Rs. 0.8 trillion to Rs. 1.76 trillion in 2020-21.

Then in mid-May, the Finance Minister made a series of announcements covering a wide range of initiatives from stimulus to liquidity support to various reform measures, purportedly adding up to a very impressive figure of Rs. 20.7 trillion

settling back to the normal. As a consequence, after the first round damage, the subsequent damage will be back-loaded. This pattern is built into the computations presented here.

¹⁵ This loss in March 2020 means that growth rate for the year 2019-20 will have to be scaled back from the estimated 5% to 2.5%.

¹⁶ Although global growth is expected to be -3%, our major export destinations – USA, Europe and the Middle East – are expected to fare worse. In any case, even when the global economy was growing at +3%, our exports were flat. In April 2020, exports declined by 60% and May is expected to show similar results. Therefore, even if exports go back up to the pre-Covid levels from June onwards, the annual export figure will be lower than the 2019-20 figure by 10%.

¹⁷ This is based on the 2019-20 export earnings of US\$370 billion.

(including the PM-GKY numbers). However, the fiscal stimulus component was only Rs. 1.3 trillion in addition to the Rs. 0.8 trillion provided earlier. Even if this entire amount is disbursed in the second quarter of 2020-21, the multiplier inclusive impact will add up to Rs. 2.4 trillion during the year.

Thus, the net negative effect of the lockdown, export slowdown, and the fiscal stimulus provided so far in 2020-21 is estimated to be at least Rs. 25 trillion or a GDP growth rate -12.5% if the government does not increase its expenditure beyond what has been provided so far.

In addition, there will be further residual effects of both the shocks and the stimuli, which will play out in 2021-22 as well. These effects are also not small by any means and work out to minus Rs. 26 trillion. In other words, the growth rate in 2021-22 could well turn out to be very small, maybe even negative depending upon what the government does, despite the favourable base effect. As things stand, and the government retains the 2020-21 expenditure budget for 2021-22 as well, it is likely that 2021-22 will witness a GDP growth rate of -8.8%. This is a frightening thought since it means that the country could experience a full-blown depression – the first in our history as an independent nation.

Trajectory of the economy: A cautionary word

It appears that the government has adopted a wait-and-watch approach in determining its fiscal response to the crisis. While evidence-based policymaking is a good thing and must be encouraged, it is fraught with difficulty in a situation of a sudden and grave crisis. In the first place, the relevant data usually come in with a significant lag, which can delay the response and thereby impose completely avoidable damage to the economy and pain to the people. In the present instance, the quarterly GDP estimate for the 1st quarter of 2020-21 (April-June) will be available only at the end of August. If the government then decides that a major fiscal response is indeed called for, the actual expenditure is unlikely to begin before January 2021. As a result, six valuable months would have been lost.

Moreover, what metric would the government use? Would it be the absolute decline in GDP in the first quarter, the trend in employment, the trend in the growth rate, or something else altogether? The most likely metric, I believe, would be the growth rate. But this would have two serious problems. First, it would delay the response even further. The second is that with a shock of this magnitude, the usual continuity assumptions break down completely, and the GDP growth rate can yo-yo quite dramatically rather than move smoothly in one direction or the other.

In such a situation, it may be better to rely on synthetic estimates based on models to decide on the future course of policy action rather than wait for hard data to become available. An attempt has been made to generate such estimates for the next four years based on a simple dynamic model developed for this purpose. Clearly, the precision of such estimates will not be very good since they cannot take

into account all the complex changes that can possibly occur in the future in numerous variables, but they do give a reasonable feel about the trajectory that can be expected.

These estimates have been based on a number of simplifying assumptions, which need to be understood and kept in mind while interpreting them:

1. The lockdown will be lifted completely across the country on 1 June 2020, and will not be imposed again.
2. Exports will decline by 50% during the first quarter of 2020 and will then recover to the pre-Covid level thereafter and stay at that level for the duration.
3. The core growth momentum stays constant at 6% per year over the entire period.
4. The regular expenditures of the central and state governments will be maintained at the levels budgeted for 2020-21.
5. The additional fiscal stimulus will be limited to what has already been announced by the central government.

The core assumptions (1, 2, and 3) are actually very conservative, and the reality can be much worse. The assumptions on the fiscal stance (4 and 5) enable us to focus attention on these as policy variables for addressing the issue, if the government so decides.

The results of the model are given in Figure 1 below.

Figure 1. GDP trends, 2019-20 to 2023-24

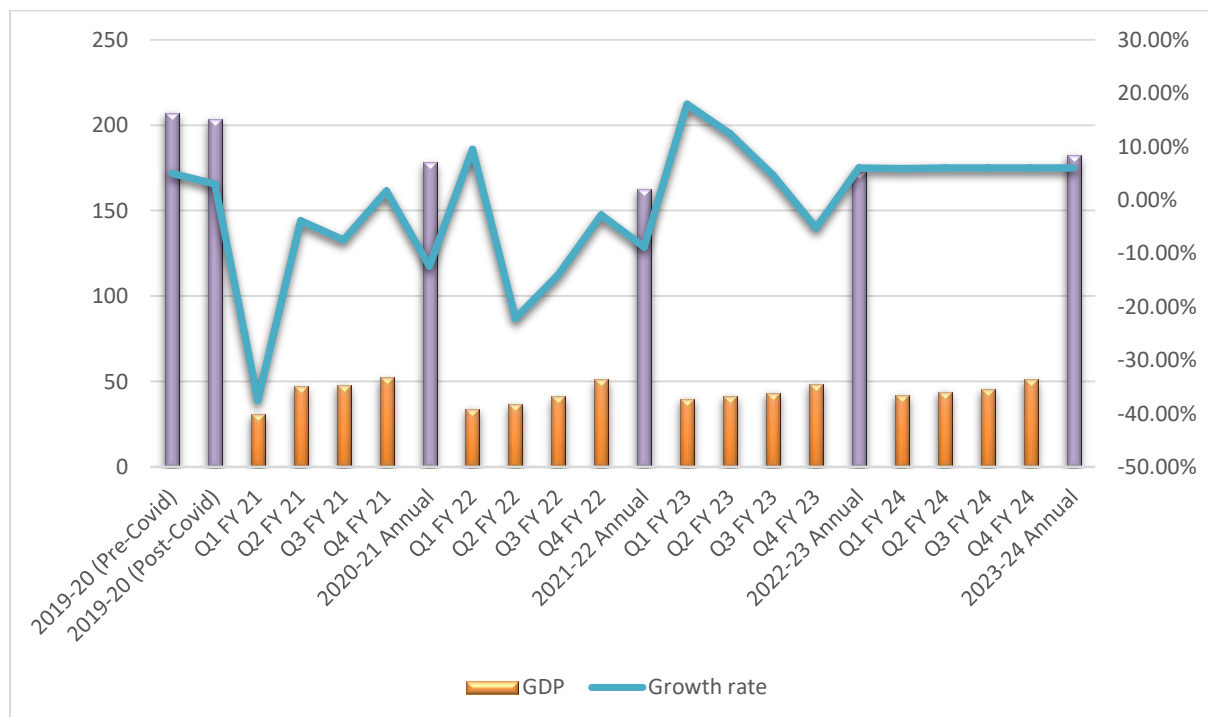


Table 1. GDP Trends 2019-20 to 2023-24

	GDP (Rs. Tr. 19-20 prices)	Growth rate (year-on-year)
2019-20 (Pre-Covid)	207.1	5.0%
2019-20 (Post-Covid)	203.4	3.0 %
Q1 FY 21	30.8	-37.5%
Q2 FY 21	47.2	-3.9%
Q3 FY 21	47.8	-7.5%
Q4 FY 21	52.3	1.7%
2020-21 Annual	178.2	-12.4%
Q1 FY 22	33.7	9.5%
Q2 FY 22	36.8	-22.2%
Q3 FY 22	41.2	-14.0%
Q4 FY 22	51.0	-2.8%
2021-22 Annual	162.5	-8.8%
Q1 FY 23	39.7	17.9%
Q2 FY 23	41.3	12.4%
Q3 FY 23	43.1	4.6%
Q4 FY 23	48.2	-5.2%
2022-23 Annual	172.3	6.0%
Q1 FY 24	42.0	5.9%
Q2 FY 24	43.8	6.0%
Q3 FY 24	45.7	6.0%
Q4 FY 24	51.1	6.0%
2023-24 Annual	182.6	6.0%

The results presented in the figure display a number of very interesting results. First, as has been mentioned before, the view that the Indian economy will recover in 2021-22 is misplaced. Even with favourable assumptions 2021-22 is also likely to show negative growth so that by the end of that year GDP will be 20% lower than 2019-20. Although 2022-23 should show positive growth, this is no cause for the government to go into a self-congratulatory mode. It should be noted that the GDP in this year will continue to be 16% lower than the post-Covid estimates for 2019-20. Even in 2023-24, the GDP will still be roughly 11% lower. At this rate, the 2019-20 GDP will be achieved only in 2025-26.

What is worse, the per capita GDP would be 6% lower in 2025-26 as compared to 2019-20. In other words, if the government feels that it has done enough to tackle the crisis, the country stands to lose six years of GDP and seven years of per-capita GDP growth, with all its attendant costs and hardships. In other words, the likely recovery path is not a V, but an elongated U, maybe even closer to an L.

Second, the quarterly growth performance can be very erratic; swinging from negative to positive, back to negative, and finally to positive. Therefore, using this as a metric to determine policy action could lead to misplaced decisions. The reasons for the erratic behaviour of the growth rate call for some explanation. The principal reason is that the multiplier processes are likely to be very different for the negative shocks arising from the lockdown and export contraction, and the positive shocks from government action. As has been explained in footnote 14, after the initial shock, the subsequent rounds of the multiplier are likely to be reverse S-shaped, which means the negative secondary effects will tend to be back-loaded. The positive multipliers that apply to the fiscal stimulus packages, on the other hand, will display monotonic behaviour and will, therefore, tend to be front-loaded.¹⁸

The second reason is that it has been assumed that the lockdown, export contraction, and the first stimulus all occur in the first quarter of 2020-21, while the second stimulus is in the second quarter. This causes discontinuity in the series and thereby creates base effects that are reflected in the growth rates.

A final word of caution is called for at this stage. In an important sense, the trajectory described in the figure, although frightening, is really a *best case scenario*. Things can get much worse. All the simplifying assumptions made above involve large downside risks. The lockdown may be phased out gradually depending on state government decisions; lockdown may be imposed again if the pandemic spikes up; exports can continue to sink because of global recession; and the core growth momentum of 6% may weaken if investor confidence is impaired. In addition to these, there is one other danger that the government needs to be aware of: *the spending capacity of state governments*.

The state government expenditure effect arises from our specific form of fiscal federalism. Most people do not realise that states have very little upward flexibility in terms of their expenditures and face what is referred to as a “hard budget constraint”. This means that a state cannot spend more than the sum of their tax receipts and the amount of market borrowings *approved by the Centre* on their own expenditure heads.¹⁹ Despite the fact that states have borne almost the entire cost of dealing with

¹⁸ At this point it should be mentioned that the multipliers that apply to different forms of government expenditures are different. In particular, transfer payments, such as cash transfers, have lower multipliers than government purchases of goods and services, such as public investment or MGNREGA. However, in the model, the higher multiplier has been applied uniformly to all fiscal stimuli without breaking them down into the component parts.

¹⁹ States actually do spend more than that on Centrally Sponsored Schemes (CSS), which are schemes implemented by states but funded by the Centre. These are also included in state budgets.

the pandemic, both at the medical and the humanitarian levels, the Centre has approved an increase in the states' annual borrowing limits for 2020-21 by only 2% of 2019-20 GDP or Rs. 4 trillion. According to the model results, the states will lose Rs. 4.2 trillion in taxes during the course of the year compared to their budget estimates.²⁰ Thus, it is inevitable that all states will have to cut back on their development spending in order to accommodate the costs of disease management and welfare support. As a result, the core growth momentum is bound to be somewhat lower than the assumed 6%.

A bigger problem can occur in 2021-22 if the Centre insists on returning to the FRBM (Fiscal Responsibility and Budget Management Act) -mandated 3% of GDP for state government borrowings. This, taken with the further loss of taxes, will force the states to reduce their expenditure by about Rs. 3.5 trillion compared to 2020-21, which will reduce the GDP by another Rs. 5 trillion after working through the multiplier. As a result, GDP in 2021-22 could end up being Rs. 157.5 trillion as against the Rs. 162.5 shown in Figure 1, which would make the growth rate -12%. Further, a part of this effect will persist in 2022-23 as well, bringing down the GDP for that year to Rs. 167 trillion.

Pathway to recovery

Given the magnitudes involved, the central government really has no option but to intervene massively, fast and on a sustained basis. However, both the quantum and the time-phasing of fiscal interventions have to be thought through carefully since any error on either count can have large unintended consequences. It is useful to think of the recovery process in three distinct phases – survival, revival, and recovery.

The survival phase

In the immediate context, while the lockdown is in place, there should be two principal concerns. The first imperative is survival of those who have either lost or seen serious erosion of their incomes thereby compromising their ability to access adequate amounts of essentials. This not only ensures survival of such people, but also ensures that there is no crash in the prices of essentials, which would seriously compromise the economic health of the sectors producing such goods and services. This is particularly important for agriculture, which has been in serious distress for the last six years. There are fears that high levels of income support may trigger off food inflation as had happened in 2009-10. This is a completely misplaced fear since 2009-10 saw the worst drought in 35 years, while this year has had a bumper

²⁰ The breakdown of the total economic loss of Rs. 40 trillion from budget assumptions is: about Rs. 4.2 trillion loss in state government taxes, Rs. 3 trillion in central taxes, roughly Rs. 2.5 trillion loss to the gross profits of companies, and the remaining Rs. 30 trillion is the loss to households from wages, salaries and mixed income of the self-employed.

harvest. The far greater probability is that without adequate income support, farm prices will decline.²¹

The PM *Garib Kalyan Yojana* (PM-GKY) announced on 25 March 2020 is meant to address this issue along with measures being taken up by state governments. The amounts involved so far are both meagre and largely misdirected.²² The question then is: how large should this package be, and towards whom should it be directed?

To begin with, it should be noted that agriculture is the least affected of all the sectors of the economy and does not really need support for farmers to survive. The crucial element here is to ensure that farm prices do not crash and wipe out the gains from a very healthy harvest. This will depend mainly on two things: (a) supply chain glitches are resolved immediately, which is an administrative issue and does not require much by way of financial support; and (b) demand for agricultural products is not allowed to fall because of lack of income among the consuming classes, particularly the poor who are the main consumers. This then puts the onus back on income support for those who have lost jobs.

There is, however, one component of agriculture which may need immediate support – producers of non-food (cash) crops, such as cotton, jute, tobacco, etc. Since the user industries are locked down, these products may not get sold immediately and may see price erosion. Some income support for such farmers makes sense. If the agricultural sector is kept afloat, the rest of the rural economy will also, by and large, survive.²³ There will of course be residual damage, but much of this can be managed through a significant up-scaling of MNREGA; although this will come at a later phase.²⁴

The real damage of the lockdown is in the urban and peri-urban areas of the country. Almost all of the job and livelihood losses are in these locations, although they do have implications for rural India as well since a significant proportion of the urban job/livelihood losses are of migrants. Most of them have their families back in their villages and support them through remittances from their earnings. These remittances have completely dried up now putting both the workers and their families under serious stress.

Government transfers into *Jan Dhan* bank accounts are not a bad way to tackle this problem given the urgency, but it involves serious levels of exclusion

²¹ The agriculture sector is already facing this problem with mandi prices falling for a wide range of agricultural products.

²² The PM-GKY, which amounts to about 0.8% of GDP, is a repackaging of existing schemes and some additionality. The additionality is only about 0.4% of GDP. There is as yet no estimate of the costs being borne by the states.

²³ Rural India is by and large used to periodic supply shocks from weather-related events and, therefore, coping mechanisms exist.

²⁴ Up-scaling will not only involve a large increase in the volume of works taken up, but also increase in the number of days of work per household from the present limit of 100 per year to at least 150. But this can happen only when the central government permits such work.

errors.²⁵ However, the amounts provided under PM-GKY are risible.²⁶ The minimum amounts that need to be deposited are Rs. 5,000 per month in rural accounts and Rs. 6,000 in urban accounts of workers who have lost their jobs.²⁷ If we take the estimate of 120 million job losses, this involves payment of Rs. 0.12 trillion per week until employment picks up. The only problem is how to identify those who have lost jobs or are unemployed. This is an administrative issue, but is not insuperable provided the government is willing to tolerate a certain amount of inclusion errors. For the future, however, it may be desirable to implement a voluntary system of registration which will help in reaching out to such people quickly and in a targeted manner.

The second imperative is survival of production capacities in the non-essentials sectors. Given the duration of the lockdown, there is a real danger that a very high proportion may close down permanently, especially among the MSMEs (micro, small, and medium enterprises). In such a situation, the road to recovery will be very long and excruciatingly slow since it will depend upon new entrepreneurs to enter and make fresh investment.

As we learnt from the demonetisation episode, the real danger arises from their inability to service their debts. The danger is much greater now than before. In any event, the most efficient way of addressing potential damage to production entities across the board is to concentrate, or aggregate, the damage into the financial sector. The advantages of doing so are:

1. The government simply does not have the reach to address a very large number of production entities (around 15 million). Using the FIs (financial institutions) as the front end addresses this problem.
2. The government has no idea about the amounts that each of these entities need. This information is by and large available in the FIs.
3. The decision as to whether the support can be a loan or given as a grant can be deferred until such time as things become clearer.

The RBI (Reserve Bank of India), which has clearly learned this lesson from the demonetisation episode, reacted quickly by allowing FIs such as banks, NBFCs and MFIs (micro finance institutions) to give a three-month moratorium on servicing of their standard loans at their discretion, and has provided significant amounts of extra liquidity to meet this requirement. Unfortunately, this is inadequate and, indeed, faulty in several ways.

²⁵ There is by now considerable work in identifying alternative mechanisms which would address this problem. Ration cards and MNREGA lists in combination with Jan Dhan accounts appear to offer a better option.

²⁶ PM-GKY transfers Rs. 500 or Rs. 1,000 per month into Jan Dhan accounts for a three-month period.

²⁷ These numbers are on the basis of the poverty line.

First, the financial sector as a whole was risk averse to begin with, and has become even more risk averse now. It is more than likely that if the moratorium is to be decided by FIs, it may not be extended to the firms that need it the most, namely the MSMEs. This fear is not unfounded since data from a sample of banks indicate that less than 70% of the loan accounts are under moratorium, with some banks being lower than 20%. However, if FIs were truly rational, they would realise that a blanket moratorium would be more positive than a selective one, on their financial position over time. The reason is that not granting a moratorium will inevitably mean that the loan will become an NPA within the next three months, whereas if the moratorium is granted there is some probability that it will not. But risk aversion precludes such logic.

Overcoming extreme risk-aversion can be done in two ways – by issuing guarantees or by making the moratorium mandatory. Neither of these options is within the ambit of the RBI. It can only grant regulatory forbearance, which it has done. It is for the government to take it further. The government has belatedly given some guarantees in the May package, but much of the damage has probably already occurred.

Moreover, guarantees address risk aversion at the institutional level to an extent,²⁸ but do nothing to overcome individual risk-aversion of the financial sector executives. Making the moratorium mandatory is much to be preferred since it completely de-risks both the institution and the individual since there is no discretion involved and the responsibility vests in the government.

Second, the RBI directive permits the FIs to cumulate the interest due during the moratorium period and add it to the principal, while re-computing the repayment schedule. Moreover, it is not clear whether the repayment period is being extended or not. Both these features will lead to a situation where the debt servicing costs will go up sharply at a time where neither production nor sales would have returned to their pre-lockdown levels. This will again give rise to completely avoidable NPAs.

The sensible thing to have done would be to declare the moratorium period as a “standstill”, which means in effect that this three-month period supposedly does not exist²⁹. As a result, the loan servicing terms both in the size of the EMIs (equated monthly instalments) and the repayment period remain unchanged once the period is over. There is of course a cost – during this period the FIs will not earn interest income but will need to continue servicing their own interest payment obligations to depositors or bond holders. On the other hand, their loan books will be larger later than would otherwise be the case, which is a benefit to them. The difference can be considered for repayment by the government. In the May package, the government has extended the moratorium for three more months, and has mandated that the

²⁸ FIs will worry about the inevitable government audit that will be made consequent to such guarantees being invoked. Such audits are quite rightly feared given the past track-record.

²⁹ An equivalent of this exists in labour laws (and is often used by the government itself on labour matters). It is called *dies non*, and applies to periods of strikes where the labour does not get paid but the time does not count as a break in service.

accrued interest be converted into a term loan repayable over the remaining six months. This takes care of some of the problem but does not really reduce the interest burden of the borrowers.

Third, the moratorium is not extended to loans taken by NBFCs and MFIs from banks. Since about 40% of the loans taken by these institutions are from banks, this is a huge burden for them which they will not be able to bear given that their reserves are far lower than those of banks. Moreover, these institutions have much greater exposure to MSMEs than banks do, and this stipulation will require them to call in their loans and not give any moratorium to their customers. This will lead to a bloodbath in the MSME sector. In the May package, the government has not corrected the problem but has opened a liquidity window for supporting NBFCs by banks through purchase of NBFC bonds. However, it is clear that smaller and weaker NBFCs will not get this support either and will be left to fend for themselves, which will then get reflected on their clients.

Already too much time has passed, but nevertheless these infirmities in the RBI order and some of the liquidity support extended by the government must be corrected immediately. However, this is not enough. In order for production units to survive until production resumes, they will need to continue payments on a number of cost items such as rents, utilities, and some part of their workers' wages. In order to cover these, the FIs will have to give additional loans since most of the working capital would have already been used up. These amounts are not that large, and an additional 20-25% of existing working capital limits may suffice. Fortunately, the government has addressed this problem. Since the demand for term loans are going to be very subdued, the banks should be able to manage this without too much trouble.

Liquidity support apart, the single most important step that the government must take is for the central government to immediately pay off all its unpaid dues. Overdue payments by the Centre to states, tax payers, exporters and, most importantly to its suppliers and vendors, add up to somewhere around 1% of GDP or Rs. 2 trillion, which should, for the moment, relieve their stress. These payments can be made quickly since they are already committed and approved; and, therefore, do not need to go through the normal tedious government processes. The government has announced that it will pay the outstandings to its vendors in 45 days, but the quantum involved is not clear. It seems likely that it will be only a small part of its overall dues, otherwise it would have been announced with great fanfare. However, this should not be done at the cost of the expenditure programme contained in the Budget.

During this three-month period, therefore, the fiscal support needed, over and above clearing all its dues, is not large since it is essentially to ensure that the poor and the unemployed do not have to suffer needlessly. An approximate estimate of the additional fiscal support required is around Rs. 2 trillion, including Rs. 0.8 trillion

contained as a part of PM-GKY. Since most of this is direct benefit transfers (DBT), it can and should be released immediately.

The revival phase

The next stage begins as the lockdown is lifted and normal economic activity is allowed to resume from June 2020, and should last about four months. At this point, all production entities will require significant additions to their working capital to resume production. Unfortunately, almost all of them by now will have hit their working capital limits and would have borrowed additionally to keep afloat. The FIs will be reluctant to increase these limits for the weaker and smaller entities. Again there is a strong case to be made for a mandatory increase (say doubling) of the working capital limits for all existing standard loan accounts. This can easily be accommodated by the banks since they will be flush with funds and there will be virtually no demand for fixed capital loans. However, in this case there may be large losses arising from loans being taken without the ability to service them, and the government will have to backstop this process by guaranteeing any erosion in the capital base of the FIs through recapitalisation or other means.³⁰

This is the point at which the principal constraint starts shifting from supply to demand. Demand stimulus needs to begin in right earnest since producers will need to see credible evidence of demand for their goods and services before they resume operations. Commodity producers in particular will wait and see until their inventory holdings start coming down steadily. However, care needs to be taken to ensure that the stimulus is not overdone since production recovery will be relatively slow. By now considerable damage would have occurred to both the production and supply chain systems, and these would need to rebuild themselves before the real recovery phase starts. Many prices will have to be renegotiated and contracts redrawn. Labour will need to be persuaded to return to work, which will not be easy since the fear of infection will continue practically unabated. In a situation of this kind, excessive fiscal stimulus will quickly run into a supply constraint and trigger off inflation.

Income support through *Jan Dhan* accounts will also have to be continued during this period, but possibly at a somewhat lower level in rural areas. Additional income support should be provided through a substantial up-scaling of MNREGA.³¹ The May package does contain an additional allocation of Rs. 0.4 trillion for this purpose. The main problem in doing so is that 40% of the costs of MNREGA works are borne by

³⁰ In the case of public sector banks (PSBs) this problem can be handled by a process of steady recapitalisation. For private FIs, however, it will have to be through 100% guarantees of such mandated loans, unless the government is willing to implement some variant of TARP (Troubled Assets Reconstruction Program) implemented by the US government in the aftermath of the financial crisis.

³¹ See footnote 23.

state governments, and these are all upfront costs.³² As has already been mentioned, state government budgets are already seriously stressed and will get worse going forward. It is extremely doubtful that they would be able to ramp up MNREGA works to the scales needed by the crisis. Therefore, the sensible thing to do would be for the Centre to pick up at least the materials costs until such time as the states' fiscal position improves.

However, the MNREGA route will be of consequence only to rural workers and those migrant workers who have managed to return to their villages. The bulk of the unemployed, however, will continue to be in urban areas, and there is no workfare programme which can address their needs. Therefore, the income support programme will need to continue at the higher level for urban *Jan Dhan* accounts of the unemployed. Thus, the outlay on this account may reduce to not lower than around Rs. 0.08 trillion per week over this period, which can last for up to four months after lifting of the lockdown.

Thus, if all the elements of demand support are added up, the total for this four-month period comes to about Rs. 2.5 trillion, including the fiscal support contained in the May package. But even with this order of fiscal support and the liquidity provisioning by the RBI, primary damage to the economy will continue for two distinct reasons. First, a part of the production capacity would have already closed and will not be revived. Second, frictional problems (including return of migrant workers) with production revival will delay the process of ramping up production in the surviving enterprises. Both these factors are difficult to assess at this stage, but the magnitudes involved will need to be estimated for determining the eventual size of the fiscal support package.

There are, therefore, three steps that the government needs to urgently take up during this period. First, it is imperative that the government announces at least the minimum dimensions of the proposed demand support package at this time, even though the actual spend will happen later. Otherwise producers will be reluctant to bear the costs of starting up since they may not see the demand at the end of the road. This then causes a "chicken-and-egg" problem since producers will wait to see demand, but demand will not be created until production resumes and new incomes are generated.

Only the government can break this logjam by assuring adequate demand support. Since the estimated primary damage in the first two months is Rs. 20 trillion, the announced fiscal support to demand should be at least Rs. 10 trillion (including the Rs. 5 trillion provided through income support and clearing of outstanding dues) in

³² In MNREGA, all costs relating to land, capital, management and materials are by states. The Centre only pays the wages, and that too *ex post facto*.

2020-21 itself, with assurance of more to follow if circumstances so demand.³³ The bulk of the remaining Rs. 5 trillion for the remainder of the year should be in direct government expenditures on goods and services (including MNREGA) since this has a higher multiplier than simple income support, although it may take longer to implement on the ground.

At this point a word of caution is called for. Indian businesses across the board have been demanding tax cuts as a part of the fiscal stimulus. This is self-serving and must be resisted. The government has already given a sizeable cut in corporate income taxes in September 2019, and anything more is unnecessary. Moreover, cuts in personal income taxes benefit only a very small and affluent class of people, who are also the least affected by the lockdown. This would, however, reduce government tax receipts and constrain its ability to support the poor and the unemployed who need it the most.

The second step is to carefully track the process of recovery since, as has been mentioned, this will determine the total magnitude of the primary damage. The GST data should prove invaluable in estimating the proportion of enterprises which restart at any point in time and also the value of transactions that they undertake. This should provide sufficient information to compute the pace at which income generation is being restored and how much residual damage continues to occur. The GSTN³⁴ should be charged with this task so that the government can track progress practically on a daily basis.

The third step is for all government Ministries/Departments to be charged with preparing projects and schemes in their respective jurisdictions and obtaining all necessary approvals so that a shelf of projects is available to government for actual funding once the recovery phase starts. Unless this is done, as we know from experience, the actual expenditures will get delayed and further damage will take place.

The recovery phase

Up to this point, the fiscal requirements are not that large. All the heavy lifting would have been done by the financial sector and state governments. However, once economic activities, particularly production, are ready to take off, the central government will have to step in with a large and sustained fiscal stimulus of the classical variety.

³³ Ideally the demand support should be much larger, but there are limitations on how much the government can spend in such a short period of time due to inherent rigidities in government processes and procedures.

³⁴ The Goods and Services Tax Network (GSTN) is a quasi-government agency that manages all GST transactions and is the custodian of the data.

By this time, the aggregate loss of incomes would have become much larger, possibly more than Rs. 20 trillion (10% of GDP). Moreover, most households would have seen significant erosion in their savings. As a result, even though fresh income streams may come on line, households will first try to rebuild their asset base. Thus, production activities will be constrained by insufficient demand, and the government will have to lead the recovery process. Again, this should not be a large, 'big bang' intervention. If all goes well, the multiplier process should now be functional since supply responses can happen, and the government will have to build on this by calibrated, but sustained, fiscal expansion over the next three years or so in order to bring the economy back to some semblance of normality.

If, in the current year, such additional government expenditure (including expenditures by state governments) is Rs. 10 trillion, then the total GDP loss for the year could possibly be contained to around Rs. 10 trillion or a growth rate of -5.7%. The reason why the loss will be more than half of the primary damage despite fiscal support being more than half is that the damage is front-loaded while the fiscal support will be back-loaded. As a result, the multiplier effects will not be symmetric, leading to such an outcome.

The recovery phase does not end here. Even after the Rs. 10 trillion fiscal stimulus in 2020-21, the residual damage that will play out in 2021-22 will be at least Rs. 26 trillion. The remaining multiplier effect of the 2020-21 fiscal stimulus could be around Rs. 12 trillion and the growth momentum about Rs. 10 trillion, which will still leave a hole of Rs. 4 trillion to be filled in the 2021-22 budget. Experiments with the model suggests that to avoid negative growth in 2021-22, the government will have to implement a minimum fiscal stimulus of Rs. 14 trillion or 7% of GDP in 2020-21.

As an alternative for covering this gap, the government can continue with the fiscal stimulus in 2021-22 amounting to at least Rs. 2.6 trillion (at 2019-20 prices) over and above the expenditure plan contained in the 2020-21 Budget. The time-path of GDP with this option is given in Figure 2. As can be seen, with this strategy the GDP growth in 2021-22 would be flat (that is, 0%). It will also lead to regaining the 2019-20 level of GDP in 2022-23 and returning to a growth path of 6% thereafter. Restoration of the fiscal consolidation process can begin only after that.

Figure 2. GDP trends with stimulus in 2020-21 and 2021-22

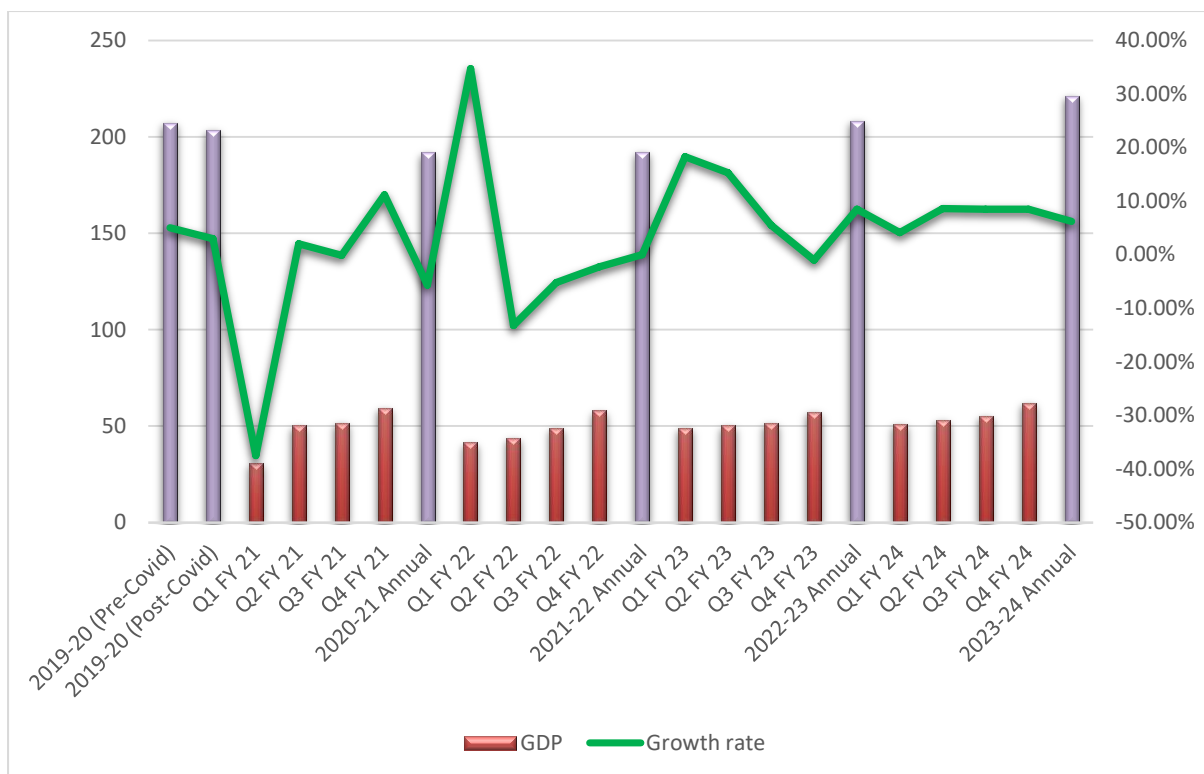


Table 2. GDP trends with stimulus in 2020-21 and 2021-22

	GDP (Rs. Tr. 19-20 prices)	Growth rate (year-on-year)
2019-20 (Pre-Covid)	207.1	5.0%
2019-20 (Post-Covid)	203.4	3.0%
Q1 FY 21	30.8	-37.5%
Q2 FY 21	50.1	2.0%
Q3 FY 21	51.7	-0.1%
Q4 FY 21	59.2	11.2%
2020-21 Annual	191.8	-5.7%
Q1 FY 22	41.4	34.7%
Q2 FY 22	43.6	-13.2%
Q3 FY 22	49.0	-5.2%
Q4 FY 22	57.9	-2.3%
2021-22 Annual	191.9	0.0%
Q1 FY 23	49.0	18.3%
Q2 FY 23	50.2	15.3%
Q3 FY 23	51.6	5.5%
Q4 FY 23	57.3	-1.0%
2022-23 Annual	208.2	8.5%
Q1 FY 24	51.0	4.1%
Q2 FY 24	53.0	8.6%
Q3 FY 24	55.2	8.5%
Q4 FY 24	61.8	8.5%
2023-24 Annual	221.0	6.2%

However, these projections (and those in Figure 1) do not take into account two important dimensions that are endogenous to the recovery process and cannot easily be addressed in macroeconomic models such as this.³⁵ The first is the distributional changes that will occur in the economy, which will lead to changes in aggregate savings-consumption behaviour. The clues to what these may be are to be found in the demonetisation episode. It seems almost inevitable that income distribution in the country will become even worse than it is today.³⁶ As a result, the formal sector will recover rapidly and the MSME sector will be in dire trouble, which will perpetuate and probably steadily worsen the distributive asymmetry over time. As a result, consumption growth will be lower than has been assumed in the model on the basis of historical trends and, as a result, the multiplier will become progressively weaker. This can only be corrected by the government continuing the fiscal stimulus for a longer period in expenditures that directly help smaller firms in labour-intensive activities, such as MNREGA, rural roads, minor irrigation, low-cost housing, etc.

The second is that the model assumes that the production capacity of the economy remains unimpaired over the entire process. The moratorium and various liquidity support measures announced by the RBI and the government are designed to address this issue. However, as has already been mentioned, a fair amount of damage would have happened already, and more can be expected in the course of the current year until the full effects of the enhanced stimulus play out in 2021-22. Therefore, regaining the 2019-20 level of GDP in 2022-23 may not actually happen simply because of non-availability of production capacities unless sufficient private investment takes place during this full period. Sadly, this appears unlikely.

Financing the recovery

The results of the model presented in the previous parts of the series, no matter how approximate or contestable, face the government with a stark choice – either do nothing more than what has already been announced and prepare for a long period of sub-par per capita GDP; or act immediately with a large fiscal stimulus and hope to get back to a positive growth path in two years. It appears that the government is deeply concerned about, and therefore constrained by, the deterioration of its fiscal position. It seems to believe that this will affect its global standing as a responsible fiscal manager and thereby attract a down-rating by global rating agencies. It seems doubtful, however, that the government has actually estimated the longer-run effects

³⁵ These are over and above the model assumptions discussed earlier.

³⁶ Post-demonetisation, the real wage rates dropped sharply. In the model it has been assumed that real wages remain constant.

of its current stand and that of any counterfactual. It is, therefore, necessary that the financial consequences of the alternative paths be examined so that the government can take an informed decision.

As far as financing of the recovery path is concerned, there are three distinct players that are involved: the financial sector, state governments, and the central government. Each of them has a key role to play at different phases of the recovery process. As has been described in the earlier sections, in the survival phase the main actors are the state governments and the financial sector; the former for lives and the latter for enterprises. All three players will be involved in the revival phase. In the recovery phase, it will be the state and central governments with the onus shifting towards the role of the Centre.

As far as the financial sector is concerned, it is practically impossible to predict the hit it will take on its profit-and-loss account and balance sheet at this stage. However, some qualitative assessment can be made. To begin with, this sector was already in trouble even before the pandemic and lockdown struck. NPAs were high at around 9%, and were expected to go up by around 2 percentage points on account of major slippages in MUDRA loans, for which forbearance had been granted by the government since September 2019 until 1 April 2020.³⁷ The asset quality recognition of these loans has now been further postponed by another six months. It is now almost a certainty that most of these MUDRA loans will become NPAs after 1 October 2020, when the forbearance is lifted.

An important component of the liquidity support provided by the government in May 2020 is a window of Rs. 3 trillion for non-collateralised loans to MSMEs with a tenor of four years. It is more than likely that this facility will also be used like the MUDRA loans earlier to kick the can further down the road. As a result, this will continue to mask the true damage contained in bank balance sheets for at least one year more when the recognition begins to happen. However, this is a small price to pay for keeping the standard loan accounts alive. Something similar is true for all the other liquidity measures as well.

Going forward, the degree of damage that will occur to currently standard accounts in the entire financial sector depends mainly on the pace at which the economy recovers its growth path. The quicker the recovery, the less will be the damage. If the recovery path is protracted as in the case of the baseline scenario, considerable damage will occur to the financial sector, which will seriously compromise its ability to support investments, thereby making the recovery even slower and more painful than shown in Table 1. The relatively quick recovery of the second scenario may actually be absorbed by the financial sector with some help from the government, and investment support may be forthcoming. In either event, setting the financial sector back on its feet will need large and sustained central government support.

³⁷ It may be recollected that a large proportion of these loans were taken by MSMEs to roll over their past loans during 2017, in the aftermath of the demonetisation.

It is fortunately possible to be much more precise with the financial position of the government. The first question that needs to be answered is: how much additional resources does the government (both Centre and states) need to raise to provide the fiscal stimulus in the two alternative scenarios outlined earlier? It should be remembered that a key assumption of the model is that the basic expenditure of government is held constant at the 2020-21 BE (budget estimate) level in real terms through the four years being considered (Assumption 3). Thus, the change in expenditure is only the stimulus provisions. Second, the change in fiscal deficit does not take into account revenue loss on account of revenue sources other than taxes. This is not of much consequence for states, but is significant for the Centre.³⁸ Third, it is assumed that no changes in tax rates are made by either the central or state governments.³⁹ The results of this exercise are presented in the table below.

Table 3. Change in consolidated fiscal deficit from 2020-21 BE
(All figures in Rs. Trillion at 2019-20 prices)

	Current stimulus			Proposed stimulus		
	Δ Exp.	Δ Taxes	Δ FD	Δ Exp.	Δ Taxes	Δ FD
2020-21	2.1	-7.5	9.6	10	-5.4	15.4
2021-22	0	-10.3	10.3	2.6	-5.4	9.0
2022-23	0	-8.6	8.6	0	-2.5	2.5
2023-24	0	-6.7	6.7	0	-2.4	2.4

As can be seen, in the current year the consolidated deficit will rise significantly with the proposed stimulus by about Rs. 5.8 trillion. This is despite the stimulus being Rs. 7.9 trillion higher. Thus, a part of the additional stimulus will be financed by additional tax collections arising from the higher growth generated. More importantly, in the subsequent years, the deficit will be much lower with the proposed stimulus. Thus, over the four-year time horizon being considered, the fiscal deficit will be nearly Rs. 6 trillion lower. What this means in effect is that the government's view that an enhanced fiscal stimulus is unaffordable is completely misplaced if one takes a somewhat longer time-horizon than just the current year.

The argument becomes even more compelling if one considers the consolidated fiscal deficit to GDP ratio (or the CFD ratio) – an indicator that the government sets much store by due to the prodding of the ratings agencies. Currently this ratio is

³⁸ The central government budget has large non-tax revenue projections from dividends and disinvestments. These too are likely to be adversely affected, but are not included in these calculations.

³⁹ This is of course not strictly accurate since the Centre has raised taxes on petroleum and some states have raised taxes on potable alcohol after the budget. While the former has not materially affected the retail price of petroleum (due to softening of global oil prices), the latter has raised the retail price significantly. This could have a further depressive effect on aggregate demand depending upon the price elasticity of demand.

budgeted to be 6.5%. This ratio will certainly rise whatever the government does, but it is the relative magnitudes that are of interest.

Although in 2020-21, the proposed stimulus will give a CFD ratio of 15.4% as compared to 13.2% for the current package; in 2021-22 it drops off to 12.2% compared to 15%; in 2022-23 these numbers become 10.1% vs. 13.1%; and in 2023-24 they are 7.5% vs. 9.0%. This should gladden the hearts of rating agencies since the fiscal consolidation process is much more pronounced for the proposed than for the current.

The other big question bothering the government is how it would raise resources to finance a larger stimulus package. This worry is being fanned by financial experts and economists who question the “fiscal space” available to government. What exactly this means no one seems to very clear about or for that matter agree on, but it is an evocative term. However, as has been discussed earlier, the notion of “fiscal space” does make sense for states since they are constrained in how much they can borrow by central *diktat*. But it certainly does not make sense for the central government. An entity which has the power to print money can never be “fiscally constrained” in an unqualified sense.

For this year (2020-21), the Centre has already announced an additional borrowing programme of Rs. 4.2 trillion and has permitted the states to borrow a similar amount in addition to their original borrowing limits. As things stand, with the current stimulus package, the additional Rs. 4 trillion that the states can borrow will not even cover their tax losses, which are estimated at Rs. 4.3 trillion. What this means is that the states will have to *reduce* their expenditure by Rs. 0.3 trillion, which in turn means the effective fiscal stimulus will not be Rs. 2.1 trillion, but Rs. 1.8 trillion. This will make the growth prospect even weaker.

In case of the central government, the projected tax loss is Rs. 3.1 trillion, which leaves Rs. 1.1 trillion for other purposes. However, as has been mentioned in footnote 37, there will also be losses in non-tax revenues; which may actually leave very little to finance the stimulus. It is almost certain that the Centre will have to borrow more to finance its current package.

Raising this quantum of additional borrowing (around Rs. 9 trillion for centre plus states) may not be very difficult or expensive in terms of the yields on government bonds. At present, the banks have parked nearly Rs. 8.5 trillion in the reverse repo account of the RBI. They should be only too happy to shift from the 3.45% interest they earn in reverse repo to at least 6% that will get from government securities. During the course of the year, as the liquidity components of the government’s package kick in, this amount will become larger.

It is, however, indubitably true that a major part of the additional Rs. 8 trillion required for the proposed package will put a strain on the market and will require yields to go

up significantly.⁴⁰ This will, in turn, push up all other interest rates – a disastrous prospect in a situation of already impaired investor confidence. This then is a text-book situation for *monetisation of the deficit*.⁴¹

The possibility of monetisation has been under active discussion in India during the last few weeks. There are three arguments that are put forward against monetisation. The first is that this will set a bad precedent and the government may get addicted to this form of financing its deficit into the indefinite future.⁴² The outcome, as the critics put it, would be to “jeopardise the hard-earned victory” against fiscal profligacy. Such a view can be described in another, less flattering, way – it is a willingness to sacrifice the economy and human lives at the altar of fiscal probity. It also does not reflect well on the government of the day.

The second argument is that monetisation is inter-generationally iniquitous in that it involves borrowing from future generations to pay for the present. While this is certainly true under normal circumstances, it does not apply in a crisis of this magnitude. If the absence of a money-financed stimulus leads to a sharp reduction in investments, as it is very likely to do, future generations will pay an even bigger price.

The third, and most popular, argument is that monetisation of the deficit will lead to excess money supply in the economy and thereby to inflation. The 2009-10 experience is often offered in support of this view.⁴³ While this sounds eminently reasonable, it has a fatal flaw in that it does not consider the counterfactual. The notion of excess money supply is not about the absolute supply of money, but the money supply relative to the GDP. In the present context, the choice is between (a) not providing the extra stimulus and keeping the money supply constant, on the one hand; and (b) providing the stimulus and allowing the money supply to rise, on the other. The relevant figures for the two options 2020-21 are as follow:

⁴⁰ It is conceptually possible to create some more borrowing space by reducing the Cash Reserve Ratio (CRR) of banks, but it is very unlikely that the banks will actually allow their cash liquidity position to go down significantly since cash withdrawals from banks have gone up sharply in the last two months as people draw down their savings to finance their consumption needs.

⁴¹ Monetisation means that the government sells bonds directly to RBI for cash and not go to the market.

⁴² The great advantage of monetisation over market borrowings is that it is virtually costless to the government. Although the government does pay interest to the RBI, practically all of it comes back in the form of higher dividends. Thus, the only cost that is borne is the repayment of the principal, but that would happen many years later depending upon the tenor of the bonds. To address even this cost, Dr. Rathin Roy of the National Institute of Public Finance and Policy (NIPFP) has been advocating the use of ‘consoles’, which are bonds into perpetuity, and therefore the principal is never paid back. The problem with this is that consoles cannot be traded in the market and, therefore, cannot be used to reduce the money supply if needed.

⁴³ Inflation did spike in 2009-10 when the government increased its fiscal deficit by 3 percentage points. But, there was no monetisation of the deficit.

Option (a): Change in money supply = 0; Change in GDP = - Rs.25.2 trillion⁴⁴;
Excess money supply = Rs. 25.2 trillion

Option (b): Change in money supply = Rs. 8 trillion; Change in GDP = - Rs.11.6 trillion⁴⁵; Excess money supply = Rs. 19.6 trillion

In other words, the excess money supply will be far higher (by Rs. 5.6 trillion) if the additional fiscal stimulus is not given than if it is. By the theory and logic of the Quantity Theory of Money espoused by the critics of monetisation, inflation should then be higher in the former case than in the latter.⁴⁶

In short, there is no compelling reason why a substantial fiscal stimulus should not be given, but many why it should. The government needs to take heed of the consequences of not providing sufficient stimulus and shed its diffidence. Too many lives and livelihoods are at stake.

APPENDIX: The model structure

The model used in this series uses the simplest possible specification that can address the issues under consideration. It is based on one key assumption: the investment rate (Investment/GDP ratio) is constant. This assumption essentially means that the growth rate of potential output is also constant. The model is calibrated to yield an annual growth rate of 6%, which we refer to as the core momentum.

Thus, the potential supply side becomes a 6% annual growth rate applied to the actual GDP of the previous year. The annual estimate of potential supply is then allocated across the four quarters by using seasonality factors computed from historical data. The actual output of the economy is assumed to deviate from the potential supply *only if* there are exogenous shocks to demand. Thus, in the absence of any demand shocks, the economy would be in a steady-state growth path of 6%.

Since the investment rate is held fixed, demand shocks can originate in consumption, exports, or government expenditures.⁴⁷ These shocks have been computed separately and allocated across the quarters depending upon their point of origination and duration of persistence. Thus, the negative lockdown and export shocks are limited to the first quarter 2020-21, while the positive fiscal stimulus shocks are spread out over multiple quarters.

⁴⁴ See Table 1.

⁴⁵ See Table 2.

⁴⁶ None of this is actually true, since the actual outcome will probably be deflationary in both cases, but it does highlight the dangers of fuzzy theorising.

⁴⁷ In National Income Accounts, the external sector has imports as well. However, in this context, imports are not a source of shock and are determined endogenously.

Each shock is then projected to propagate through the next six quarters through the multiplier process. The quarterly break-up of the propagation process is pre-specified so that the total across the quarters adds up to 2. This quarterly break-up is not the same for negative and positive shocks. The negative multiplier peaks in the third quarter following the shock and reduces thereafter, whereas the positive tapers off steadily.

The net effect of all the shocks in each quarter is deducted from the potential supply to yield the estimate of actual GDP in that quarter. This procedure is then iterated over the entire time horizon to yield the actual GDP series. All other variables are computed from these GDP estimates using historical ratios.