Indian Public Policy Review

A Journal of Economics, Politics, and Strategy

VOLUME 1 SEPTEMBER 2020 ISSUE 1

ARTICLES

INTRODUCING THE JOURNAL

The need for a refereed professional academic journal in public policy has been felt for long. There are very few quality journals in India which are rigorous, analytical and easily accessible to scholars as well as policy makers in India's public policy space. First, most international journals on public policy are not India-focussed and many standard journals have a prohibitive submission fees which many young scholars cannot afford. Second, few journals have a rigorous and timely refereeing process and often, authors do not get information on the papers submitted by them for months altogether. Third, there is a considerable gestation lag in the publication of articles resulting in a loss of their timely relevance. Finally, most journals have high subscription fees beyond the reach of many teachers and students in Universities and colleges. With the launching of the Indian Public Policy Review: A Journal of Economics, Politics and Strategy, we hope to provide a journal which will publish analytical policy articles, rigorously refereed by anonymous referees and providing a fast publication outlet.

IPPR will be a peer-reviewed, bi-monthly, online, and an open-access journal. The objective of the journal is to further the cause of both research and advocacy by providing a publication space for articles in economics, politics, and strategic affairs. By launching this journal, we hope to facilitate scholarly communication of research on Indian public policies. The journal will publish analytical papers – both theoretical and applied, with relevance to Indian public policy issues. We hope, this will help the scholars in finding a timely outlet for their research, students in understanding and gaining insights into the complex world of design and implementation of policies and the political economy associated with them and the policy makers to gain insights into the ways to meet the challenges of policy calibration.

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Indian Public Policy Review 2020, 1(1): 1-18

India's Growth Prospects and Policy Options: Emerging from the Pandemic's Shadow

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Abstract

The story of the Indian economy as it unfolds under the impact of COVID-19 is disquieting. Had the economy been strong to start with, the situation would have been different. We have analysed the sharp decline in growth rate since 2011-12 and traced the causes for the slowdown to such factors as unsustainable expansion of credit followed by sharp increase in non-performing assets, and decline in savings and investment rates. We have also noted that centre's gross tax revenues declined sharply on trend basis because of the fall in nominal GDP growth. This led to a squeezing of available fiscal policy space for the central government. Disruptions caused by such decisions as demonetisation also played an adverse role on both income and employment. The lockdown imposed to curb the spread of COVID-19 has put a brake on the economy. The need to kick start the economy and move it forward has become urgent. We have in this context discussed the roles of monetary and fiscal policies. Maintenance of government expenditure at a high level is unavoidable and monetisation of debt is also unavoidable. But policy makers must also be conscious of the fact that there is a limit to monetisation. Wisdom lies in striking the appropriate balance.

JEL: E5, H2, H5, H6

Keywords: COVID-19, GDP growth, Government borrowing, Tax revenue, Debt Monetisation, Fiscal Policy.

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The authors would like to thank Muralikrishna Bhardwaj, Tarrung Kapur, and Ragini Trehan for helpful inputs.

I. Introduction

The outbreak of COVID-19 has taken the world by surprise and its impact is now felt by almost every country. Thus, the world is experiencing an additional slowdown on top of the contracting tendencies already present and India is no exception. The economic crisis that we are facing today is vastly different from any crisis that we have seen recently. This is the first economic crisis in recent memory that has been triggered by a non-economic factor – a pandemic. It has brought to a grinding halt nearly all economic activity.

Many multilateral bodies, financial institutions, and rating agencies have recently reassessed their positions regarding India's growth prospects in 2020-21. The IMF has revised its forecast for 2020-21 from 1.9% in April 2020 to (-)4.5% in June 2020. The World Bank also revised down, India's 2020-21 real GDP growth to (-)3.2% from 2.2% (average) over the same period. In this article, we consider India's growth prospects and policy options as India emerges from the pandemic's shadow. The Indian economy was already on a downslide prior to being impacted by the pandemic's economic shock in 2020-21. Even as the economy emerges from this shock, the underlying downward growth trends and the factors that were driving these would still be there. In considering the policy options for uplifting India's growth to reach closer to its potential, policy reforms to overcome the immediate challenges as also the underlying structural and cyclical factors besetting the growth momentum should be considered.

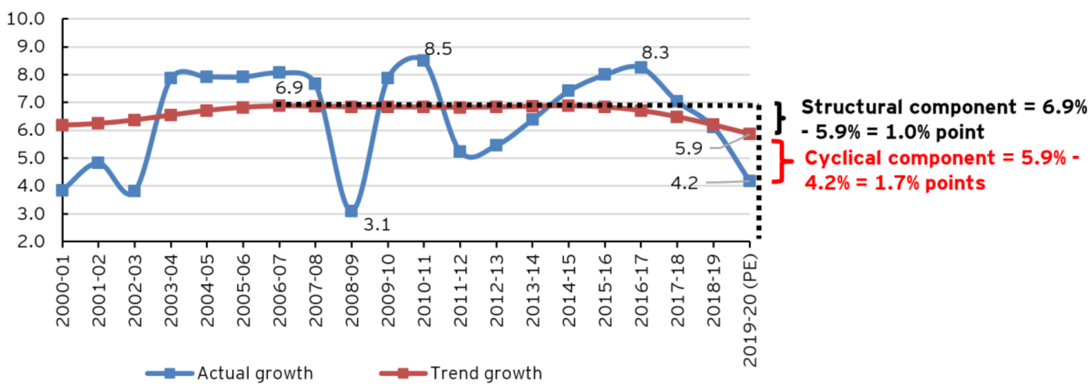
This article is divided into eight sections. Section 1 provides introduction. Section 2 considers the structural and cyclical factors underlying India's growth experience in the past decade preceding the current COVID-19 crisis. Section 3 looks at the economic impact of COVID -19. Section 4 discusses from a fiscal perspective, the types of government expenditures required to stimulate demand in the wake of COVID -19. Section 5 looks at monetary policy options. Section 6 examines the key features of the stimulus package already provided by the central government and also looks at the available fiscal policy options. Section 7 examines strategies for financing the national infrastructure pipeline and its impact on growth in the context of achieving the full potential of the Indian economy. Section 8 provides concluding observations.

II. India's Pre-pandemic Growth Experience: Structural and Cyclical Drivers

Actual and Trend Growth Rates

In order to highlight the impact of structural and cyclical factors driving GDP growth, it is useful to distinguish between actual growth from the underlying trend growth rate (Rangarajan and Srivastava 2017). As Chart 1 indicates, actual growth had peaked at 8.5%[i] in 2010-11. Even more recently, it touched 8.3% in 2016-17. But trend GDP growth[ii] had reached a peak of 6.9% in 2006-07. It remained stable at that level for a number of years but started trending downwards since 2015-16. In 2019-20, the trend growth fell to an estimated level of 5.9%. Demonetisation implemented in November 2016 had a serious disruptive effect on the economy. In the absence of adequate new currency to replace the old demonetised currency, many were put to serious difficulties. Daily wage earners suffered most. There was a conspicuous setback on employment. However, this is not captured in the New Series on National Income. Thus, we can decompose the fall in the real GDP growth to 4.2% in 2019-20 into two parts: (a) a fall in trend growth rate amounting to 1% point and (b) a fall of actual growth rate below trend growth rate amounting to 1.7% points. The first component of fall is due to structural factors, such as the fall in saving rates and the second factor is due to cyclical factors such as fall in export and investment demand. This situation has arisen even before the COVID-19 crisis hit the Indian economy.

Chart 1: Real GDP growth: actual and trend growth (%)



Source (basic data): MOSPI

Saving and Investment Trends

Table 2 gives the sectoral profile of investment rates measured by gross capital formation (GCF) as percentage of GDP at current prices. Comparing investment rates in 2011-12 with those in 2018-19, it is clear that the total investment rate as well as each of its components as divided into households, private corporate sector and the public sector have fallen significantly. The aggregate fall, comparing 2018-19 to 2011-12, is 6.75% points of which 6.2% (including valuables), 1.35% and 0.3% points are due respectively to the households, private corporate and public sectors subject to correction for changes in errors and adjustments. The largest fall is in the household sector. In fact, if we consider the investment trend in the earlier years, there was a sharper fall in the private corporate investment rate relative to GDP. In the 2004-05 base saving-investment series, there is a sharper fall of 8.2% points from 17.3% in 2007-08 to 9.2% in 2012-13. In these years, the 2011-12 base saving-investment series also shows a fall in private corporate investment of 7.4% points.

Table 1: Investment - Total and Sector-wise (% to GDP at current market prices)

Year	Household	Valuables	Private corporate	Public	Errors and Omissions	Total
2011-12	15.90	2.90	13.26	7.54	-0.64	38.95
2012-13	14.73	2.75	13.63	7.23	0.34	38.69
2013-14	12.61	1.44	12.90	7.08	-0.25	33.78
2014-15	12.14	1.68	13.36	7.09	-0.74	33.52
2015-16	9.57	1.48	13.49	7.58	0.00	32.11
2016-17	10.36	1.09	11.57	7.16	1.78	31.95
2017-18	11.19	1.28	11.48	6.87	3.39	34.21
2018-19	11.50	1.06	11.91	7.24	0.50	32.20
2011-12 minus 2018-19 (% points)	4.41	1.84	1.35	0.30	-1.14	6.75

Source (basic data): RBI, CSO; Source (basic data): CSO

A significant change is discernible 2015-16 onwards. The level of household sector investment was at its trough in this year at 9.6%. After this, the household sector investment started to pick up slowly. By this year, investment rates had not fallen in the private corporate or the public sectors. These sectors experienced a fall in their respective investment rates in the subsequent years.

Table 2: Saving: Total and Component-wise (% to GDP at current market prices)

Year	Household Sector (Total)	Household Sector (Financial) Savings	Household Sector (Physical) Savings	Private Corporate Sector	Public Sector	Gross Domestic Savings
2011-12	23.64	7.36	16.29	9.46	1.54	34.65
2012-13	22.48	7.38	15.10	10.00	1.41	33.88
2013-14	20.34	7.41	12.94	10.75	1.03	32.12
2014-15	19.56	7.06	12.50	11.69	0.99	32.24
2015-16	17.97	8.07	9.90	11.90	1.23	31.09
2016-17	18.11	7.45	10.66	11.51	1.73	31.35
2017-18	19.17	7.74	11.43	11.57	1.65	32.39
2018-19	18.88	7.20	11.68	9.73	1.50	30.11
2011-12 minus 2018-19	4.76	0.16	4.60	-0.26	0.04	4.53

Source (basic data): RBI

The gross domestic saving has also fallen over the period 2011-12 to 2018-19 by a margin of 4.53% points of GDP. Almost the entire fall in the saving rate over this period is due to the fall in the physical savings of the household sector amounting to 4.6% points. Thus, it is the household sector's saving and investment behaviour that is largely responsible for the erosion of overall saving and investment rates over this period (Rangarajan and Srivastava 2019). There is some contribution in this of the private sector investment, which also fell but by a much smaller margin.

Growth slowdown: Demand Side

Annual growth data (Table 3) indicate a fall in GDP growth to 4.2% in 2019-20 from the peak of 8.3% in 2016-17. The main sources of this growth erosion can be traced to the fall in investment demand and exports in 2019-20 although growth in private consumption expenditure also fell compared to its level in the preceding year. Growth in gross capital formation and exports was negative at (-) 2.02% and (-) 3.59%, respectively.

Table 3: GDP and its Components (at 2011-12 prices)

(% per annum)

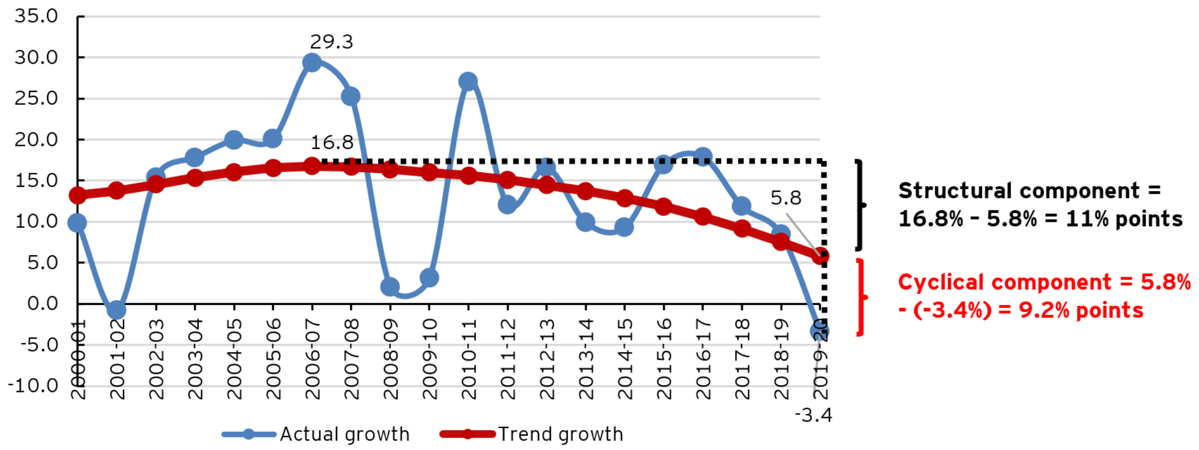
Year	Private final consumption expenditure	Government final consumption expenditure	Gross capital formation	Exports of Goods and Services	Import of Goods and Services	GDP at market prices
2011-12	7.42	6.53	5.47	15.49	20.41	5.24
2012-13	5.47	0.61	4.29	6.81	6.02	5.46
2013-14	7.30	0.57	-3.71	7.79	-8.15	6.39
2014-15	6.39	7.59	7.69	1.78	0.87	7.41
2015-16	7.93	7.46	4.73	-5.65	-5.85	8.00
2016-17	8.13	6.07	3.67	4.98	4.38	8.26
2017-18	6.95	11.79	10.04	4.56	17.41	7.04
2018-19	7.16	10.08	9.52	12.33	8.60	6.12
2019-20	5.28	11.75	-2.02	-3.59	-6.80	4.18

Source (Basic data): National Income Statistics, MOSPI

Erosion in Growth of Centre's Gross Tax Revenues

Another noticeable trend over the years preceding the pandemic has been the persistent fall in the growth of centre's gross tax revenues (GTR). Chart 2 shows that the trend growth rate in centre's GTR has fallen even more sharply. Its peak was 16.8% in 2006-07 and since then the trend growth rate has been falling consistently. By 2019-20, it had fallen to 5.8%, a fall of 11% points. The actual growth rate of centre's GTR in 2019-20 became negative at (-)3.4%. There are two main reasons as to why the trend growth rate of centre's GTR has been falling over such a long period. First, alongside a fall in the real GDP growth rate, there has been a sharper fall, on trend basis, in the nominal growth rate. Second, on trend basis, there has been a steady fall in the buoyancy of centre's GTR with respect to nominal GDP. The differential between nominal and real GDP growth has narrowed because of a fall in the implicit price deflator-based inflation on trend basis.

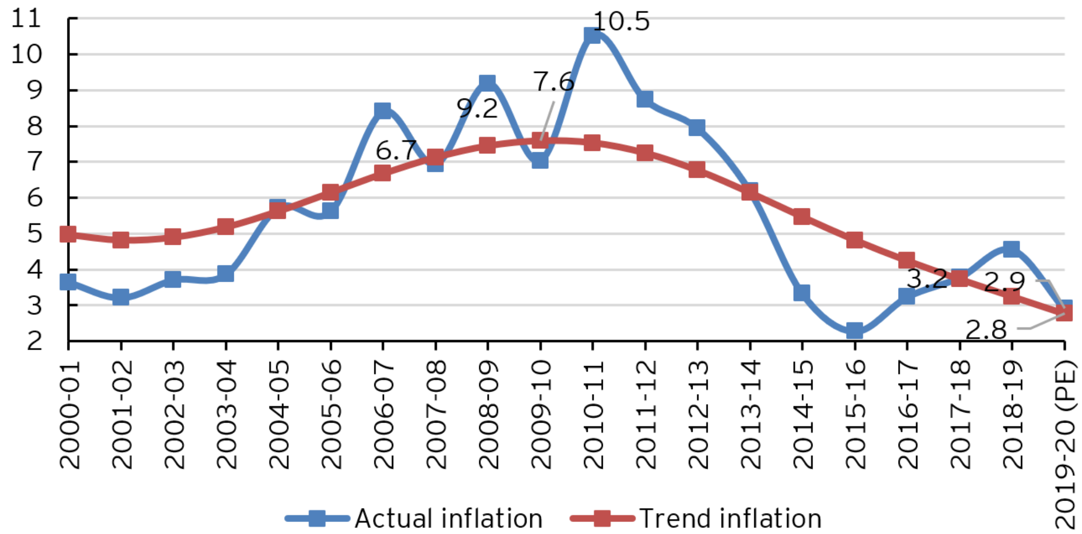
Chart 2: Gross tax revenues of the centre: actual and trend growth (%)



Source (basic data): IPFS, Union budget documents and CGA

The reason why nominal GDP growth fell on trend basis can be traced back to (a) fall in real GDP growth and (b) fall in implicit price deflator-based inflation. In Chart 3, we have shown the movement in implicit price deflator-based inflation on trend basis which shows a sharp fall from a peak of 7.6% in 2009-10 to 2.8% in 2019-20. We have already reviewed the fall in real GDP growth in Chart 1. Clearly, the sharper fall in the IPD-based inflation bears the larger responsibility in explaining the fall in nominal GDP growth relative to the fall in real GDP growth, with all growth rates measured on trend basis.

Chart 3: Implicit price deflator-based inflation: actual and trend growth (%)



Source (basic data): MOSPI

We may note that the negative growth rate of centre's GTR in 2019-20 represents a discontinuity because of the significant CIT reforms undertaken during this year. The revenue loss on account of these reforms would have become part of the base year figure for 2020-21. As such, we would have seen a positive CIT growth in 2020-21 but the onset of COVID-19 has caused another kind of discontinuity in 2020-21 which may adversely affect the growth rate of all central taxes including the CIT revenues. The fact that centre's tax revenues have been exposed to two revenue eroding discontinuities in succession is a major reason that has constrained centre's ability to fight its way out of the economic impact of COVID-19 through a strong fiscal stimulus. In fact, 2020-21 represents a structural break in the economy and normal buoyancy and elasticity analyses may break down since these analyses assume a smooth response function while estimating responsiveness of tax revenues to a percentage change in the tax base which is proxied in this context by nominal GDP.

The NPA crisis

Another structural weakness of the Indian economy in the pre-COVID years relates to the banking sector which witnessed a major crisis of non-performing assets. These rose from 2.28% of total advances of commercial banks in 2007-08 to 9.3% in March 2019. It remained high at 8.3% in March 2020 (Table 4).

Table 4: Credit Expansion: NPA and GDP: 2004-2020

Figures in Lakhs of Crore

Year	2003-04	2007-08	2011-12	2015-16	2018-19	2019-20
Non-Food Credit	8.04	23.17	45.3	71.44	97.3	103.19
Infrastructure	0.37	2.022	6.3	9.6	10.56	10.54
a) Power	0.19	0.93	3.3	5.79	5.69	5.6
b) Telecom	0.08	0.38	0.93	0.91	1.16	1.44
Iron & Steel	0.26	0.82	1.95	3.11	2.83	2.62
Textiles	0.34	0.91	1.59	2.05	2.04	1.92
Construction	0.05	0.27	0.48	0.9	0.99	1.04
Gross NPA Ratio	7.20%	2.30%	2.90%	7.50%	9.30%	8.30%
Credit (growth rate)	21.00%	30.30%	18.30%	12.06%	10.84%	
GDP (Nominal)	27.92	48.99	87.36	137.71	189.71	203.39
GDP (Nominal growth rate)	12.03%	15.14%	14.43%	10.46%	10.95%	7.21%

Source: RBI; RBI Speeches (https://www.rbi.org.in/Scripts/BS_SpeechesView.aspx?Id=1097)

Source (basic data)

An important reason leading to the NPA crisis was the extraordinary credit boom during 2004 to 2016. Between 2003-04 and 2007-08, the outstanding non-food credit expanded by three times. This happened despite credit control measures being taken by the RBI. Between 2007-08 and 2011-12, it again doubled. During the next four years, it increased by 1.5 times. There was substantial flow of credit to certain sectors like infrastructure (roads, power, telecom), iron and steel, mining and aviation. While all these sectors are important for growth, these were also subject to severe output fluctuations. Court judgments had an impact on mining, power and steel sectors (Rangarajan and Sambamurthy 2019). Large Chinese imports affected iron and steel industry.

In extending credit, private sector banks were as 'exuberant' as public sector banks. Some of the private banks including foreign banks had non-performing assets ratio comparable to public sector banks. There was also some regulatory forbearance. Asset Quality Review introduced in 2015 tightened the situation and brought out greater transparency. It led to a doubling of non-performing assets ratio in one year. But by that time, damage had been done and the banks were left with a huge problem.

In resolving this situation, all major stakeholders, the RBI, the central government, and the banks have to play a role. The RBI has the responsibility to monitor macro prudential indicators such as overall credit growth and also to spot excesses, if any, to certain sectors, and groups. Regulatory design needs to reckon financial and business cycles and take remedial measures in time.

Government has the responsibility for overall management of the economy and being owner of the banks. Government may ensure that banks are run in larger national interest, but commercial decisions are best left to bank boards. Banks need to take responsibility for the soundness of credit decisions. They need to define their own risk appetite rather than lean on the big lenders' appraisal. Project appraisal and working capital assessment are quite distinct though related.

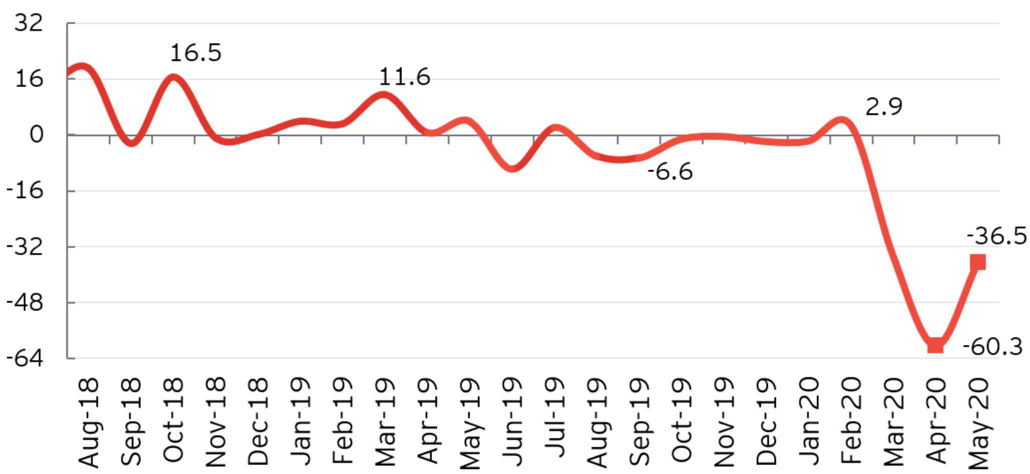
III Economic Impact of the Pandemic

The economic impact of COVID-19 on India can be traced through four channels (1) External Demand (2) Domestic Demand (3) Supply Disruptions and (4) Financial Market Disturbances.

External Demand

As the economies of the developed countries slow down and move into recession, their demand for imports of goods will go down and this will affect our exports which are even now not doing well. In fact, after six months of negative growth, it was only in February 2020 that the Indian exports showed positive growth. Since February 2020, the growth rate has turned again negative. In April 2020, it was as high as 60% (Chart 4). The pace of contraction reduced to 36.5% in May 2020. The extent of decline will depend on how severely the other economies are affected. Growth rate of advanced countries is expected to be negative at (-) 8%[iii]. Not only merchandise exports, but also service exports will suffer. Besides IT industry, travel, transport and hotel industries will be affected. The only redeeming feature in the external sector is the fall in global crude oil prices. India's oil import bill will come down. But this will affect adversely the oil exporting countries which absorb Indian labour. Consequently, remittances may slow down.

Chart 4: Monthly growth (y-o-y) in merchandise exports



Source: Ministry of Commerce and Industry, GoI

Domestic Demand

Domestic demand comprises three elements – private consumption expenditure, public consumption expenditure and investment. As growth slows down, naturally private consumption expenditure will also show a declining trend. Perhaps, some sectors will be affected more severely than others. For example, as people travel less because of lockdown, the transportation industry – road, rail and air – will have a severe setback. Public consumption will be high because of various expenditures that the government has to undertake. Investment demand can be broken into private investment and public investment. There is an attempt to increase public investment. This aspect is discussed in detail in the subsequent sections. The 2019-20 CIT rate reform provides additional incentive for investment in manufacturing. However, private investment may take time to pick up (Rangarajan and Srivastava, October 2019).

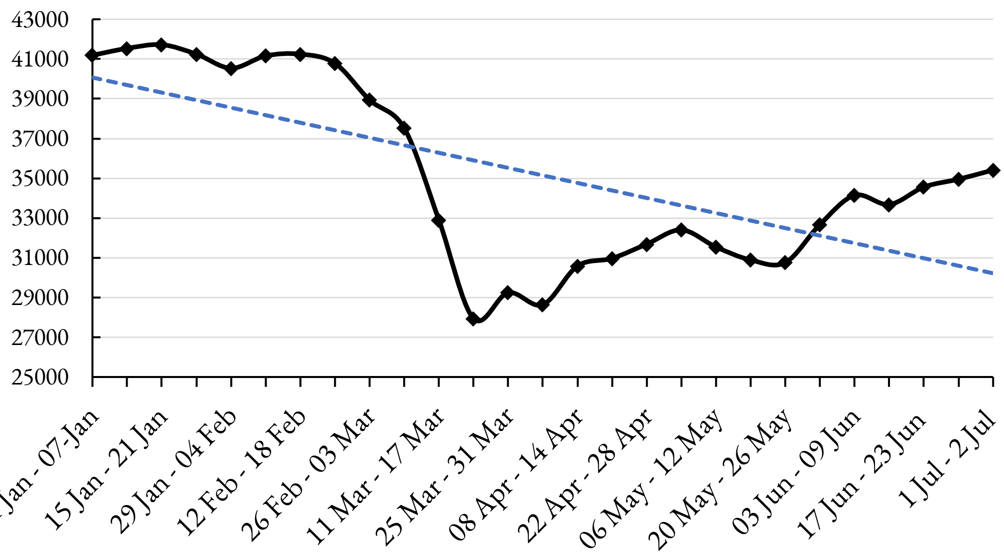
Supply Disruptions

Supply disruptions can occur because of the inability to import or procure inputs. The break in the supply chain can be severe. It is estimated that nearly 60%of our imports are in the category of 'intermediate goods'. Imports from countries that are affected by the virus can be a source of concern. Domestic supply chain can also be affected as inter-state movement of goods has also slowed down because of lockdown restrictions.

Financial Market Disturbances

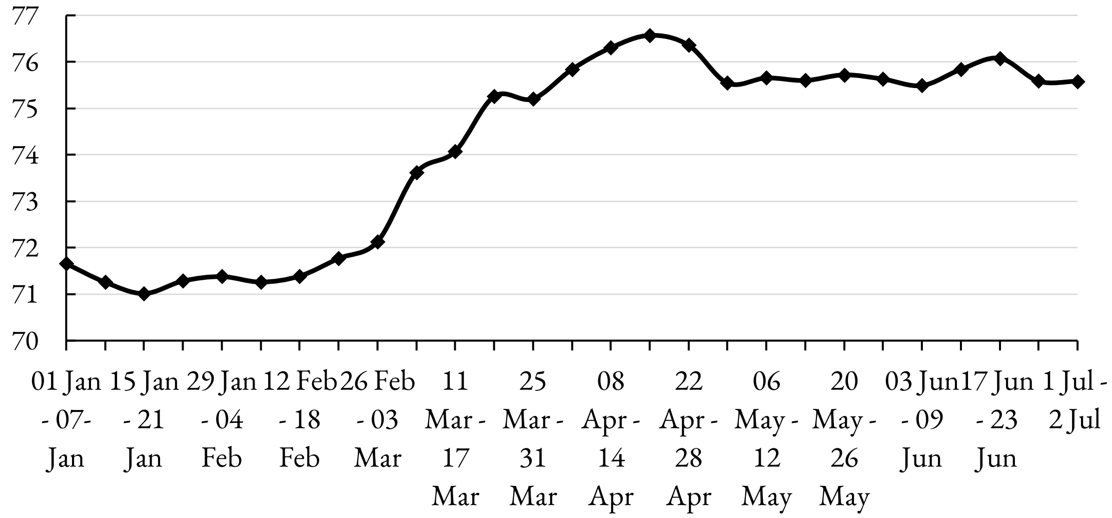
Financial markets are the ones which respond quickly and sometimes irrationally to a pandemic like COVID-19. The entire reaction is based on fear. The stock market in India initially collapsed (Chart 5). The indices touched a three-year low. However, they have recovered. It is difficult to understand the factors that move the stock market. Foreign Portfolio Investors initially showed great nervousness and the safe haven doctrine operated. In this process, the value of the rupee in terms of dollar fell (Chart 6). But it has also stabilized. The revival of the stock market in India and abroad has led the IMF to remark that "the rebound in financial market sentiment appears disconnected from shifts in underlying economic prospects" (IMF 2020).

Chart 5: S&P BSE Sensex Closing Value (Weekly)



Source: BSE Official Website bseindia.com

Chart 6: Exchange rate movement (weekly)



Source: FBIL India Pvt. Ltd. www.fbil.org.in

IV. Demand for Government Expenditures

COVID-19 has brought in its wake three sets of government expenditures which have become necessary. These are: 1) health care expenditures, 2) relief to people directly affected such as daily wage earners and migrant labour, and 3) expenditure to stimulate demand and revive affected sectors. The government must immediately address the first two categories. There is some concern among experts on the extent of testing that is being done currently. Many experts feel that the magnitude of testing must increase manifold. The first priority is to mobilise adequate resources to meet all health-related expenditures including extension of hospital facilities and supply of accessories/equipment like ventilators, masks, sanitisers, and material inputs for tests. The challenge here is not only fiscal but also organisational. The second set of expenditures tries to take care of people who have been directly affected by the lockdown. Here again there is a feeling that problems of people thrown out of employment have not been adequately addressed. It has been a heart-rending sight to view the migrant labour walking all the way to their home states from their places of work. More needs to be done on this front. Hunger needs to be fought as vigorously as the virus. The third category of expenditures is equally important. Here both RBI and Government have important roles to play. The focus has to be on the much- needed incentives to kick start the economy.

The first two categories of expenditures are paramount. They are the first charge on the government. Government cannot stint. In relation to these expenditures, the state governments have to bear the brunt. As yet, we do not have in a consolidated form, expenditures under these categories by centre and states. 'Stimulus' expenditures are directed towards improving demand and offsetting disadvantages imposed on business entities to start activities. It needs to be understood that in the Keynesian sense, all increase in expenditures act as a stimulant of demand. That is how the expression 'Digging holes and filling them up' came into usage. In a broader sense, even increased expenditures in health care are demand enhancing. However, analysts do make a distinction among expenditures depending on the fiscal multiplier. The expenditure under the category of 'stimulus' will be determined not only by what is needed but also what is feasible.

V. Monetary Policy

Monetary Policy measures have come in quick succession post COVID-19. The Monetary Policy Committee was convened once ahead of its scheduled date. Thus, the RBI has been proactive. The various measures taken by RBI fall under three categories – (a) policy rate changes (b) augmenting liquidity and (c) regulatory adjustments. The policy rate under the Liquidity Adjustment Facility has been brought down to 4.0%in May 2020 from 5.15%in mid-March 2020. The magnitude of the last reduction was 40 basis points, and that of the previous one was 75 basis points. The reverse repo rate now stands at 3.35%. The stance of monetary policy is accommodative. The reduction of policy rate started even before the advent of COVID-19 and it gathered momentum from end- March 2020. The low reverse repo rate is expected to discourage banks from placing 'surplus' funds with the RBI. The regulatory adjustments are expected to provide relief to banks so that their ability to expand credit may be facilitated. The number of refinance facilities introduced by RBI are expected to accelerate the flow of credit to MSMEs, Mutual Funds and NBFCs.

One of the important elements in the monetary policy package is to augment the liquidity in the system. This should enable the banks and other financial institutions to expand credit. Another objective is to direct the liquidity in certain directions. Open market operations and augmentation of foreign exchange reserves lead to increase in durable liquidity. From end March 2020 to early July 2020, the foreign exchange reserves of RBI have increased from $ 476 billion to $ 513 billion. This will enhance liquidity. The RBI also reduced the CRR from 4% to 3% which had the effect of increasing primary liquidity by as much as Rs. 1,37,000 crores. The RBI has been announcing from time to time its schedule of open market operations. The RBI has been conducting Long Term repos. In a slight modification, in March 2020, the RBI announced Targeted Long-Term Repo Operations where it specified that the liquidity availed under this facility had to be invested in investment grade corporate bonds and commercial paper. The RBI also extended additional refinancing facilities to SIDBI and EXIM Bank.

Regulatory changes to help the flow of credit were of several types. One important measure was the moratorium on instalments falling due in term loans. Initially it was given for three months and later extended to another three months. Other measures include deferment of interest on working capital facilities and easing of working capital financing without the downgrade of asset classification. There are several more which are not listed here.

Two questions arise with respect to monetary policy measures. First, are they adequate and in the right direction? Second, what will be their effect on the overall economy? The policy rate at 4% is perhaps the lowest it can get, given India's conditions. While the industry and others welcome lowering of the rate, the savers have their own concerns. World over, there is a continuing debate whether savings are interest sensitive. While there can be some doubt about the impact on overall savings, financial savings are impacted, and this is particularly so when returns on alternative assets like gold are rising. In any case, savers are already feeling the pinch. The various liquidity enhancing measures taken together amount to our model of 'Quantitative Easing'. We have to note that 'quantitative easing' took a long time to have an impact on the developed economies post 2008. While the direction of monetary policy may be right, there are two concerns. First, it is not clear whether availability of credit is the most binding constraint on growth. But more importantly, policy makers should not put too much pressure to lend. Making resources available is important and that the central bank should certainly do. It is in that sense, the measures taken so far are in the right direction. But bankers must not abdicate their responsibility to exercise judgement. Bankers should not be either adventurous or timid. The loans of today should not become NPAs of tomorrow. This is certainly not an argument against lending. It is only a note of caution. Second, the central bank needs to keep a tab on the extent of liquidity it is injecting. It is not only the private sector that is looking for liquidity but also the government. Expansion in liquidity unaccompanied by a real sector response in terms of output can lead to problems subsequently, not necessarily in this year. It may also have to be noted that the expansion in money supply depends not only upon the initial injection of liquidity by the central bank but also on subsequent credit expansion. This is elaborated in the next section on fiscal policy. It has been questioned as to why monetary policy has not had any effect so far. It may be noted that unless the lockdown is lifted, and production starts moving, banks cannot lend. They may sanction the loans but would release them only when production starts. Without action on withdrawing the lockdown, the economy cannot move fast.

VI. Fiscal Policy

Fiscal policy has an important role to play in the situation in which India and other countries are currently placed. However, the ability to play a big role is constrained by the fact that the fiscal position of the government of India was difficult even before the advent of COVID-19. The fiscal deficit of central government for 2019-20 turned out to be higher. It stood at 4.6%[iv]. In fact, even without COVID-19, the fiscal deficit of the centre for 2020-21 would turn out to be higher. With COVID-19, the situation gets worse. The revenue calculations of the Budget were made on the assumption that the nominal income of the country would grow at 10%. With low expectations of real growth, nominal income may grow at best at 5%[v] in 2020-21. There will thus be a deep decline in nominal growth. Analysts estimate that the tax and non-tax revenue and non-debt capital receipts in the current fiscal may fall well short of the budget estimates by a margin of close to Rs. 5.0 lakh crore. This shortfall may amount to about 2.4% of GDP. The central government has already announced a revised borrowing program for 2020-21 according to which the estimated fiscal deficit may amount to 5.7% of GDP. This deficit will have to be further increased to accommodate the additional burden arising on account of additional stimulus package and to finance the National Infrastructure Pipeline. There may also be scope for some expenditure restructuring.

The series of stimulus measures announced by the FM are a mix of already budgeted expenditure, additional expenditure, extension of credit facility with government guarantee for certain select sectors and a host of reform measures that are indeed welcome (Rangarajan and Srivastava 2020). Perhaps, it would have been useful if a more analytical distinction of expenditures had been given. Analytically, the overall stimulus package of Rs. 20.97 lakh crore can be divided into a budgetary and a non-budgetary part. The non-budgetary part, accounting for nearly 85% of the overall package, consists mainly of liquidity enhancing measures for banks and NBFCs which may facilitate the financial sector in playing a key role to kickstart the economy. The credit guarantee provided by the government under the various schemes announced recently are of central importance in this context. In fact, for certain schemes, the government has come forward to provide 100% guarantee which should quicken the pace of credit sanction and delivery by banks. This will have any fiscal implications only in the subsequent years. Production of goods and services is inter-related in an economic system. Once production starts, different sectors will be mutually supporting since different industries and service providers are locked in an input-output system.

The budgetary part amounts only to about 15% of the overall package. This can be further divided into government expenditure which was already budgeted in the 2020-21 budget and expenditures constituting genuine additionality. The latter component is only 10% of the overall package equivalent to nearly 1% of GDP. Adding this to the enhanced level of 5.7% of GDP, centre's fiscal deficit may be close to 7% of GDP. In fact, the actual deficit may turn out to be higher.

With this high fiscal deficit, the composition of government expenditure becomes critical. Some of the establishment expenditures and subsidies especially those linked to petroleum prices like fertilizer and petroleum subsidies may be reduced while expenditure on health-related items may be increased. The central government has announced freezing of increments of dearness allowance and dearness relief components in the case of salaries and pensions respectively.

According to the National Infrastructure Pipeline, centre's budgetary contribution to infrastructure is estimated at 1.25% of GDP on an annual basis. This is less than 18% of the estimated fiscal deficit of the centre in 2020-21, indicating a very poor quality of fiscal deficit. One dimension of expenditure restructuring should be to front load infrastructure spending including that on health infrastructure thereby taking advantage of the higher multiplier effects associated with capital expenditures. Investment augmentation is also demand supporting and employment and income generating.

Support to demand will come not only from the centre but also from the states and the public sector undertakings. States have been allowed to borrow an additional 2% of their respective GSDPs subject to certain conditions. In fact, at the present juncture these conditions are not required since the enhancement of the borrowing limit is for one time while the reforms linked to conditions are permanent in nature. In any case, states should be encouraged to support demand by going up to the full extent of the enhanced limit.

VII. Financing of National Infrastructure Pipeline

An important source of generating demand can be through the successful financing of the proposed National Infrastructure Pipeline, which is planned over the period from 2019-20 to 2024-25. It is meant to be financed by the central and state governments along with their public sector enterprises as well as the private sector. The time path of the ambitious infrastructure investment plan amounting to INR 111 lakh crore is such that it peaks in two years, namely, 2020-21 and 2022-23 (Chart 7). As chart 8 indicates, the investment peak is even more marked in the case of construction (EY Economy Watch 2020). Successful financing of infrastructure in the current year and the next can be an important strategy for uplifting the economy out of the pandemic's shadow.

Chart 7: GFCF in infrastructure spending excluding construction (INR lakh crore)

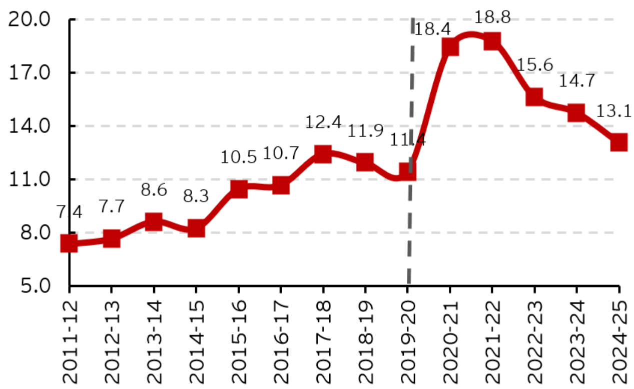
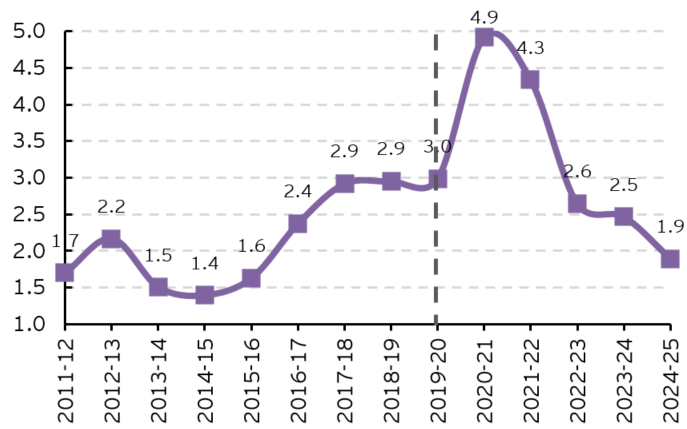


Chart 8: GFCF in construction sector (INR lakh crore)



Source: NAS (2019), MoSPI, NIP - GoI, Input-Output transactions table (2015-16), Brookings India

Public Sector Borrowing Requirement (PSBR)

The combined fiscal deficit of the centre and states alone may amount to 12% of GDP in 2020-21. Besides, the total public sector borrowing also includes the borrowing by central and state public sector undertakings. Thus, the total PSBR may well exceed available sources of financing consisting of the financial savings of the household sector and the savings of the public sector and net capital inflows (Rangarajan and Srivastava 2020). In this context, monetising debt has become unavoidable. The centre must be forthcoming on these issues while recognizing that extraordinary situations call for extraordinary solutions.

How high can fiscal deficit go? The IMF, in its June 2020 update of the WEO estimated the fiscal deficit of India and China at 12.1%of GDP. All the other countries except USA and a few other countries have a deficit lower than this. US has a complicated procedure in determining the budget. It is not clear how far the President will succeed in pushing the expenditures. Besides dollar as a reserve currency has its own advantages. Coming back to India's fiscal deficit, there are not adequate resources to support a fiscal deficit of nearly 12.0% of GDP. Financing of the NIP may require it to be increased further. All this will require substantial support from RBI which will have to take it on itself either directly or indirectly, a part of the central government debt. The question ultimately relates to the extent of debt monetisation that may be undertaken.

Monetisation of debt can be either direct or indirect. In the indirect mode, the RBI provides liquidity to banks which then take on, a part of the debt. In the direct mode, the RBI takes on the debt directly from government at an agreed rate. It took India long to move away from the automatic monetisation of debt. It happened in early 1990s. Even if RBI wants to support the borrowing programmes, it should not do so directly. The indirect method is preferable as the market still sends out the signals on interest rate. In both cases, the RBI is the provider of liquidity. In fact, government wants to borrow more at a lesser rate!

Another question pertains to whether the increase in primary liquidity (Reverse Money) automatically lead to an increase in money supply. It depends upon the money multiplier which again depends on credit expansion by the banking system. In fact, the post 2008 phenomenon in the U.S. and other developed countries is a good example. Despite "Quantitative Easing", there was no price increase because lending was poor and money supply expansion was limited. This need not necessarily be the case in India. There is a strong pressure on the banks to expand credit. Therefore, the expected increase in money supply can be substantial, leading to inflation although with a lag. This possibility cannot be ruled out. After all, many analysts forecast nil or negative increase in overall output in 2020-21. In that context, a substantial increase in money supply can lead to inflation. The only way to avoid such a situation is to ensure that credit expansion is prudent and justifiable.

Limit to Monetisation of Debt

To argue as if there is no limit to monetisation of debt is to ignore our own history. The critical concern is the impact of excessive liquidity on the economy. Money stock once increased stays. Increase in money and credit only facilitate expansion in output. If output increase slackens, increased stock of money cannot but have an impact on prices. The fear of inflation in the current year may seem unrealistic. But it can come with a lag. The high inflation post 2011 was preceded by a hefty fiscal deficit. Given the current situation of economic slack, some degree of monetisation of debt is acceptable. But to assume and act as if there is no limit to monetisation of debt is equivalent to storing up problems for tomorrow. Thus, the approach should be to keep government expenditures at a high level with a cautionary note on monetisation of debt.

Reforms: The Next Round

Even as we take steps to kick start the economy, we must consider the shape of the next round of reforms which would pave the way for sustained growth in the post-COVID era. However, in the case of reforms, we have reached a new stage. General reforms cutting across industries and sectors have been critical in the early stages. The earlier regime of controls and permits had to be brought to a close. But now reforms have to focus on specific sectors. Applying the general principles of liberalization to sectors such as agriculture and more particularly agricultural marketing, power sector, and telecom have assumed importance. Labour market reforms are needed across all the states. But labour reforms are introduced better when the economy is in an upswing. Consensus building is critical before introducing labour reforms. Land markets need to be freed up consistent with the concerns of small and marginal farmers. Financial and banking sector reforms must continue. The major objective must be to improve the efficiency of the functioning of banks and other institutions. Recapitalization of banks and regulation of bad debts must get priority. The reform measures announced recently by the government such as private operations in coal mining are truly in the spirit of liberalisation. They need to be implemented with dedication and commitment.

India's Growth Prospects

Although many national and international agencies have projected a sharp contraction in 2020-21, ranging from (-) 3.2% (The World Bank) to (-) 6.8% (SBI), there are reasons to believe that the outcome may be better than these strong contractionary prospects. We may note that some key sectors like agriculture and related sectors, public administration, defence services and other services may perform normally or better than normal given the demand for health services. Further, goods and services categorised as essential goods and services in other sectors, technically called 'permitted goods and services' together with agriculture and public administration, defence and other services, may have a weight in the range of 40-45% of total output (Virmani 2020). These were fully operational even in the first quarter of 2020-1. Thus, nearly half of the economy may perform normally or better than normally over the full year 2020-21. Secondly, already some green shoots have become visible. GST revenues were close to INR 90,917 crore in June 2020, which is very close to the benchmark of INR1,00,000 crore. PMI manufacturing in June 2020 was 47.2, again close to the benchmark of 50. Thirdly, given the current geo-political situation, the government at the central and state levels have become very active in attracting investment from abroad. The major reforms in the corporate tax rates in 2019-20 will also facilitate relocation of various production platforms to India. Thus, a small positive growth may not be ruled out.

VIII. Concluding Observations

The story of the Indian economy as it unfolds under the impact of COVID-19 is disquieting. Had the economy been strong to start with, the situation would have been different. We have analysed the sharp decline in growth rate since 2011-12 and traced the causes for the slowdown to such factors as unsustainable expansion of credit followed by sharp increase in non-performing assets and decline in savings and investment rates. We have also noted that centre's gross tax revenues declined sharply on trend basis because of the fall in nominal GDP growth. This led to a squeezing of available fiscal policy space for the central government. Disruptions caused by such decisions as demonetisation also played an adverse role on both income and employment. The lockdown imposed to curb the spread of COVID-19 has put a brake on the economy. The need to kick start the economy and move it forward has become urgent. We have in this context discussed the roles of monetary and fiscal policies. Maintenance of government expenditure at a high level is unavoidable and monetisation of debt is also unavoidable. But policy makers must also be conscious of the fact that there is a limit to monetisation. Wisdom lies in striking the appropriate balance.

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Notes

[i] This analysis is based on using the 2011-12 base GDP at market price series. In the earlier 2004-05 base GDP series, the growth rate was higher at 9.3% in both 2005-06 and 2006-07, 9.8% in 2007-08, and 10.3% in 2010-11. This also implies that the trend growth rate was higher in the 2004-05 base series as compared to 2011-12 base series.

[ii] Estimated using Hodrick-Prescott filter

[iii] World Economic Outlook Update, IMF, June 2020

[iv] Monthly Accounts, Controller General of Accounts (CGA), Government of India

[v] This is implicit in the stimulus package announced by the FM in May 2020; https://pib.gov.in/PressReleasePage.aspx?PRID=1624651 ; https://static.pib.gov.in/WriteReadData/userfiles/Aatma%20Nirbhar%20Bharat%20%20Presentation%20Part%205%2017-5-2020.pdf

Indian Public Policy Review 2020, 1(1): 19-27

India: Accelerating Growth, Creating Well-paid Jobs for the Masses

Arvind Panagariya*

Abstract

Transformation of Indian economy to a modern, urban and industrial one at a fast pace requires the creation of a policy environment that would accelerate the growth of medium and large enterprises, especially in labour intensive sectors such as apparel, footwear, furniture and numerous light manufactures. Key policy reforms required for the emergence of these enterprises include opening the economy to foreign trade and investment wider, flexible labour markets, availability of land to businesses at reasonable prices and low rental housing for migrant workers taking up jobs in the enterprises. Considering the complexity of undertaking multiple reforms involving both Centre and States, an option may be to create Autonomous Employment Zones, spread over areas of 500 square kilometres or more with full autonomy to implement their own labour and land laws, as is the case in Shenzhen in China. The zones can also be designed such that imports and exports can move rapidly into and out of it. These zones may help bring many multinationals currently looking for locations other than China. The paper also lists a number of reforms in education, privatization, food procurement and public distribution system, power sector, civil service, tax administration, and fiscal and monetary policies. I discuss these reforms in detail in my recent book, *India Unlimited*.

JEL: F1, F4, J2, R3

Key Words: Economic Reforms, Growth Acceleration, Openness, Transformation.

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Introduction

Even in India, where growth used to be routinely derided, it has now come to be widely seen as essential to bringing prosperity. The view that a faster march to prosperity requires faster growth is no longer to be defended at length. An additional important but still insufficiently appreciated lesson from available evidence is that spreading prosperity over a large proportion of the population requires that growth translate into high-productivity, high-wage jobs for the masses. Therefore, in addition to the magnitude of growth, its concentration in industries that create more jobs per unit of capital matters as well.

Two recent challenges India has faced further underlined the urgency of growth acceleration and creation of decent jobs. The first of these challenges came from the New Corona Virus (NCOV) that translates in the Corona Virus Disease 2019 (COVID-19). With the vast proportion of its workforce either self-employed or employed in tiny enterprises at subsistence wages, temporary discontinuation of economic activity during the crisis exposed a disproportionately large population to extreme economic hardship. This population had no or limited savings to fall back on and therefore became wholly dependent on transfers by the government, which were also inevitably limited in scope due to tight fiscal constraints that the government faces.

The second challenge, which has arisen concurrently with NCOV challenge, is from China. China's Gross Domestic Product (GDP) at $14.1 trillion in 2019 is now second to only that of the United States at $21.4 trillion the same year. Given that the difference in the expected growth rates of the two countries in the coming decades will be anywhere around 3 to 4 percentage points, China sees itself closing the remaining gap between it and the United States in 10 to 15 years. Given this fact and an extremely ambitious leader at the helm, China now seeks a new global order in which it will be at the apex. A critical first step towards achieving this ambition is for China to become the undisputed regional power in Asia. It is as a part of this first step that China has begun to challenge nearly all its neighbours in South China Sea, East China Sea and most recently along its southwestern border.

If India is to guard its strategic interests in the years to come, it will need to arrest the rise of China to the status of undisputed regional power of Asia. While it can do so in the short run through closer ties with the United States, Japan and Australia, in the longer run, it will need to bridge the gap in economic size between it and China. With its population predicted to cross that of China in less than a decade, it needs to become China's economic equal or at least near equal to stand up to the challenge it poses in the long run. This strategic consideration makes the need for acceleration in the growth rate to near-double-digit level ever more urgent.

Preponderance of Tiny Economic Units

To understand what India needs to do to meet these challenges, the bottom-line question we must ask is why is it that after 70 years of development effort and substantial economic reforms since 1991, such a large proportion of Indians remains in a vulnerable state. In my recent book *India Unlimited: Reclaiming the Lost Glory*, I systematically show that the single most important factor behind our continuing woes is the preponderance of small, indeed, tiny economic units and near absence of medium and large enterprises, especially in labour-intensive sectors (Panagariya 2020).

Thus, for example, agriculture, which employed 42.5% of India's workforce in 2018-19, is populated by 70 million agricultural land holdings that are all less than half hectare in size as per the latest Agricultural Census conducted in 2015-16. The average size of these 70 million land holdings, accounting for 48% of all holdings, is 0.23 hectare. If per-hectare value added on these farms is assumed to be the same as the overall value added per hectare, these farms cannot give a family of five more than half of India's official poverty-line income.

In a similar vein, tiny enterprises dominate in industry and services. The latest available Economic Census, conducted during 2013-14, identified 58.5 million establishments. Of these, 89.39% were private proprietorships, 0.74% private partnership and only 0.33% private companies. The remainder 9.46% establishments were government establishments including public sector enterprises (PSEs), private self-help groups, private cooperatives, non-profit institutions and private miscellaneous entities. In terms of employment, 78.50% were in private proprietorships, 2.54% in partnerships and only 3.88% in private companies. Surprisingly, at 7.24%, government establishments including PSEs were twice as large as private companies as employers.

A follow up survey conducted in 2015-16 provides further details on the nature of employment of the vast majority of non-agricultural workers (National Sample Survey Office 2017). The survey covers unincorporated enterprises only, which account for about 85% of the workforce covered by the Economic Census. The survey divides these enterprises into own-account enterprises (OAEs) and establishments. The former does not employ a single hired worker on a regular basis while the latter employs one or more such workers. In 2015-16, 62.1% of all workers in unincorporated enterprises were employed in OAEs and 37.9% in establishments. Annual value added per worker was 73,951 rupees in OAEs and 152,723 rupees in Establishments. Only 26.4% of the workers in all unincorporated enterprises taken together were hired workers with the rest being principally self-employed. Annual emoluments of the hired workers at 2015-16 prices amounted to just 87,544 rupees.

Criticality of Medium and Large Enterprises in Labour-intensive Sectors

These data confirm that workers in India are disproportionately employed in small enterprises, which exhibit low value added per worker and low wages. Larger companies that exhibit high value added per worker employ very small proportion of India's workforce. Even the few medium and large enterprises that exist are predominantly in sectors such as petroleum refining, auto and auto parts, fertilisers and chemicals in which technology forces a minimum scale. When it comes to apparel, footwear, furniture and light manufactures, micro and small enterprises dominate.

It is not that small enterprises are always characterised by low labour productivity. In fact, in many countries, they exhibit average labour productivity that is many times that observed in India. The key determinant of labour productivity in small enterprises is the presence of medium and large enterprises. Broadly speaking, small enterprises (with less than 50 workers) exhibit high average labour productivity when they operate in an environment in which medium and large enterprises (with 50 or more but fewer than 200 workers and 200 or more workers, respectively) have a sizeable presence. For instance, in 2005, approximately half of China's manufacturing workforce was employed in large enterprises and another quarter in medium enterprises. The corresponding proportions in India were 10.5% and 5.5% implying that a gigantic 84% of the workers in manufacturing were in small enterprises (Hasan and Zandoc 2013). With their large shares in the workforce, medium and large enterprises in China effectively define the ecosystem within which small enterprises operate. The latter must either become ancillaries of the former or compete against them. Either way, they must adopt technologies and cost-saving management practices necessary to survive side by side with their medium and large counterparts. Unsurprisingly, average labour productivity in small enterprises in China turns out to be many more times that in India.

If India can make the policy environment conducive to the emergence of many more medium and large enterprises, especially in labour-intensive sectors, a significant proportion of the workforce currently in the unincorporated enterprises would move to these enterprises to take advantage of higher wages that the latter would pay. That in turn would tighten the labour market for the unincorporated enterprises, forcing them to take productivity-enhancing measures. The process will also pave the way for some workers to migrate out of low value-added farming.

It deserves emphasising that for this process to work its way, production structure must shift heavily towards labour-intensive manufacturing and services. There are two critical reasons behind this proposition. First, India is a capital-scarce and labour-abundant country. Therefore, capital needs to be deployed where employment per-unit of capital is high. Today, the bulk of India's capital is deployed in highly capital-intensive sector. This leaves very little capital for the labour-intensive sectors, which crowds out medium and large enterprises that are by nature more capital intensive than their small-scale counterparts within the same sector. A swath of small enterprises in labour-intensive sectors with low labour productivity, low wages and low product quality is the end result.

The second reason why a substantial shift to labour-intensive sector is required is that the bulk of India's workforce lacks skills necessary for employment in high-tech manufacturing or services sectors. It is heroic to think that at least half of the 42.5% of the workers currently in agriculture, who need gainful employment, can be absorbed in sectors such as pharmaceuticals, information technology, petroleum refining, chemical and machinery sectors. Instead, it will have to be sectors such as apparel, footwear, furniture and other light manufactures, for which workers with no or limited skills can be trained in relatively short time, that have the ability to employ these workers at decent wages.

Export Orientation, Not Import Substitution

A robust empirical regularity is that medium and large enterprises operate in the global marketplace. Today, even India's $2.7 trillion economy does not offer a large enough market for most products to fully exploit scale economies. For instance, India has promoted its auto industry through prohibitive trade barriers. Yet, after 70 years, it has not been able to achieve the quality and cost to be competitive in the world market. Its share in global auto exports remains less than 1%. An argument can be made that the industry got a free ride on other sectors that helped increase incomes that generated steadily rising demand for automobiles. For comparable cars, Indian auto industry charges Indians customers prices that are one and a half times those prevailing in other countries. If the infant industry argument had any merit, by now this infant should have been ready to face foreign competition. It is not.

The story is not very different in electronics industry. The efforts to build up this sector via import substitution had begun in 2014-15. But trade data do not offer much comfort in this sector either. In 2011-12, exports of electronic items in current dollars had stood $8.85 billion. In real terms, this value was larger than thee exports of these items in 2018-19 at $8.88 billion. In the meantime, imports have gone up from $34.13 billion to $55.63 billion over the same period. A genuinely flourishing electronics industry that can capture the global markets has simply not emerged.

To create enterprises that are competitive in the global marketplace, India needs a clear strategy of outward orientation. That means rolling back tariff increases introduced in the past three to four years and cutting them further. The commitment should be to bring all tariffs down to 7% in five years or sooner. Any protection to domestic goods against foreign goods should be provided through depreciation of the rupee, which helps equally domestically produced exportable and import-competing goods.

India also needs to pay particular attention to trade facilitation. Imports and exports require a large number of permissions from different ministries, which slows slowdown their movement. This is particularly problematic in the case of exports since exporters must in any case meet the demands of their customers and governments in the destination countries. There is no reason for the exporting country government to heavily regulate the movement of exports. There also remain many bottlenecks at Indian ports translating into significantly slower movement of goods into and out of India.

When it comes to trade, so far, India has always gone for a war room for monitoring imports. What we need instead is a war room for exports. Such a war room should be overseen directly by the Prime Minister in the way President Park Chung-hee, the maker of modern South Korea, did in the 1960s and 1970s. Beginning in 1965, Park held monthly meetings of all parties responsible for export performance including exporters, industry associations and various government agencies and oversaw the progress. If exports were not moving forward, he probed what the obstacles were and made sure that those obstacles were removed.

Factor Market Reforms

Rigidities in labour markets as an obstacle to the emergence of medium and large enterprises in labour-intensive sectors in India have been discussed at length and I need not go into their details here. Sadly, however, lately land markets have appeared as an additional major obstacle. Large enterprises need large chunks of urban land and this has become progressively difficult over time. With no conclusive land titles, disputes on the ownership of land are endemic in India. Therefore, creating a large piece of land by purchasing and pooling a number of smaller contiguous parcels of land has always been a challenge for private entrepreneurs in India. But in the past, it was relatively easy for the government to acquire land on behalf of the industry. But the Land Acquisition Act of 2013 put an end to that flexibility. This law makes it nearly impossible for the government to acquire land on behalf of industry. Indeed, it has made land acquisition for even public projects difficult as well as costly. As a result, even building roads has become excessively costly in India.

The government can alleviate the land constraint to some degree by bringing on the market unused land it owns. Many of public sector enterprises including those designated as "sick" own much more land than they need. Many educational institutions also own land far in excess of their needs. Many government ministries including defense, railways and civil aviation own unused urban land. State government may similarly own land that they do not expect to use. All this land can be brought on the market through auction. State governments can introduce additional flexibility in land markets by liberalizing the rules for conversion of agricultural land for alternative uses on the periphery of cities. A final important step towards greater flexibility will be to relax the floor space index to allow for significantly taller buildings in and around the city centres of different cities.

India has made considerably more progress in reforming financial markets than labour and land markets. Even then, much remains to be done in this area. While the immediate concern is with restoring the health of banks and non-bank financial companies, the key longer-term reform is privatisation of banks. In addition to the fact that private sector banks outdo public sector banks along all major parameters of efficiency, public ownership of banks gives rise to serious governance issues. Public sector bank employees are subject to vigilance investigation, which ties the hands of their senior staff in ways that is costly to the taxpayer. The regulatory powers of the Reserve Bank of India over public sector banks are far weaker than over private sector banks, which creates an undesirable asymmetry in regulation. At the same time, public sector banks are subject to one set of regulations by the RBI and another set of regulations by the government. Finally, with the ownership of public sector banks, the government ends up being the policy maker, regulator and service provider. This is not a feature of a good governance system.

Urbanisation

I noted earlier that 70 million or 48% of all Indian land holdings are less than half hectare with average size of these holdings being less than a quarter hectare. These holdings yield such low income to families dependent on them that even doubling or tripling that income cannot make them prosperous. Many of these farmers would like to migrate to better jobs in industry and services. In so far as such job opportunities exist in cities, their migration will require greater urbanisation.

Unfortunately, Indian cities have not been friendly to migrant workers. Much of the focus of policy has been on owner-occupied housing, which is inevitably aimed at families already in the cities. Migrants who come looking for a job from rural areas need low-rent housing. Such housing is rarely available. As a result, the lucky among the migrants find housing in slum and not so lucky sleep on footpath. During the recent pandemic, this problem has finally come to the fore and has got some attention of the government.

But the policy action by the government at present is minimal and can hardly make a dent. The only effective way to help this migration smoothly and systematically is to create conditions for the emergence of low-rent commercial housing. This in turn requires a considerable fall in land prices. At the current land prices, rental yields are a tiny fraction of the interest rate, making investment in rental housing a losing proposition. This fact makes the reforms in land markets including bringing unused urban land with different entities on the market critically important.

One other reform concerns the reform of rental laws. Except in the state of Rajasthan, rental laws disproportionately favour tenant over the landlord. Given the absence of conclusive land titles in India, these laws place even the ownership rights of the potential landlord at risk. Indeed, there is a history of many owners losing their residential units to tenants because they could neither raise the rents nor get the latter to vacate those units. The result of these lopsided rental laws has been that according to 2011 Census, 11.09 million or 12.3% of a total of ninety million residential units remain vacant in India. If states will reform their rental laws bringing better balance between the rights of tenants and owners, a large proportion of these units could become available on rent considerably alleviating the shortage of rental housing.

Autonomous Employment Zones

Given the difficulty of implementing wide-ranging reforms across the entire nation within a short period, I have argued that India could speed up the creation of good jobs by creating half dozen or fewer zones in which the business environment will be highly flexible.[1] I refer to these zones as Autonomous Employment Zones (AEZs). Two or three of these zones may be located near the coast in Gujarat, Andhra Pradesh and Odisha to take advantage of deep dredge ports in these states. These AEZs would be along the lines of Shenzhen in China. Unlike the Special Economic Zones (SEZs) with which India experimented during the past one and a half decades with at best limited success, AEZs would be spread

[1] The following discussion in this section is taken from Panagariya 2020.

over large areas in excess of 500 square kilometres. They will also be far fewer in number—no more than half dozen, perhaps only two or three, in the beginning—than SEZs. Since suitable unused land areas of this size are unlikely to be available, especially near the coast, the zones may include existing habitations and establishments.

The key feature of AEZs would be to define the boundaries of the zone and then give virtually all powers to frame the rules of economic engagement including labour and land laws and administration of customs within the zone to the local administration. The zones will offer a highly flexible environment with respect to labour and land laws allowing rapid reallocation of these factors from one activity to another. They will also allow exporters to import inputs with minimum friction, process them and re-export. But there will be no export requirement for firms locating in the zones.

In the initial phase, say, during the first ten years, the government may provide a waiver on either GST or corporate profit tax to any single employer employing ten thousand workers or more. This will incentivise the early entrants to the zones who must function within an area that would still be developing. Later entrants would be entering a well-developed area and therefore would not require similar benefit. The government must proactively court multinationals currently active in China and other countries, especially in labour-intensive manufacturing, in the early phase of the zones.

The government's other contributions to the zones may be limited to building first-rate infrastructure and dormitory housing, which migrant workers can rent. When seen in national context, resources for building infrastructure and dormitory housing in AEZs are relatively small. They can be drawn out of general pool of resources devoted to infrastructure and urban housing.

Once success is demonstrated in a handful of AEZs, more of them may be considered. What is important, however, is that the numbers are kept in proportion to available resources to build such zones. A key flaw of many government initiatives in India is that they are multiplied too rapidly, which spreads limited resources too thinly to produce any successes.

Concluding Remarks

Whether we consider industrial countries or developing countries, economic transformation has always involved shrinking shares of agriculture in output and employment and rising shares first of manufacturing and then services. The main difference between industrial countries and developing one that have achieved the transformation is that the latter could do in three decades what took the former almost a century. But in all case, when transformation was complete, output and employment shares of agriculture had fallen into single digits.

If India is to similarly modernise itself, there is no escape from this process. The only issue is whether it wants to accomplish it in the next two to three decades or take more than hundred years like the industrial countries. If the former, it must create high-productivity jobs in industry and services that would then pave the way for the migration of workers out of agriculture into these sectors. Though India has made some progress in this direction, its pace has been extremely slow. The key factor behind it is the preponderance of employment in tiny, low-productivity enterprises in industry and services, which remain unattractive to rural workers in agriculture. The latter find their meagre income complemented by government provided benefits a better deal than these jobs.

Therefore, creating high-productivity, high-wage jobs in industry and services is the only road to speed up the transformation. This in turn requires an environment conducive to the emergence of medium and large enterprises, especially in labour-intensive industries. It is preponderance of these enterprises that creates an ecosystem in which small enterprises are also forced to become productive lest they become uncompetitive.

Medium and large enterprises in labour-intensive sectors flourish by operating in the global marketplace. As such, the first and foremost condition for their emergence and sustainability is an open economy. If India maintains high protection, only small enterprises that can make assured profits in the domestic market even when hey supply low-quality products with little risk of investment going bad would emerge. Openness requires lowering protection, improving the speed at which goods move into and out of ports and cutting down on permissions from ministries to import or export a given product.

In labour-intensive sectors, large enterprises also require flexible labour markets. There needs to be a balance between the rights of employers and employees. Currently, Indian labour laws are disproportionately tilted in favour of employees, which discourages enterprises from hiring workers to become larger. This too needs to change.

Next set of reforms for the emergence of medium and large enterprises in labour-intensive sectors relate to land markets. Large enterprises require a substantial chunk of contiguous land at a reasonable price. In India, existing national and state laws have made excessively expensive. This must change. It is also the case that workers who migrate from rural to urban areas to take up jobs with new or expanding enterprises need low-rental housing. But low-rental housing is also constrained by high land prices. Once again, land prices must come down to align rental yields to the interest rates so that commercial rental housing can emerge in Indian cities. An additional area of reform is rental laws that currently favour tenants disproportionately thereby driving even empty dwelling units out of rental markets.

Given the difficulty of implementing multiple reforms falling under multiple jurisdictions, one option is to create Autonomous Employment Zones. Spread over areas of 500 square kilometres or more, such zones can be given full autonomy to implement their own labour and land laws, as is the case in Shenzhen in China. The zones can also be designed such that imports and exports can move rapidly into and out of it. These zones may help bring many multinationals currently looking for locations other than China.

In addition to these key reforms discussed in greater detail in the paper, we will need reforms in several additional areas to achieve and sustain a double-digit growth for two or more decades. They includes, notably, reforms in areas such as school and higher education; privatization of public sector enterprises; land leasing in agriculture and sales of agricultural land; food procurement, public distribution system and the Food Corporation of India; fertiliser subsidy; civil service; fiscal and monetary policies; power sector; trade negotiation; tax administration; and Centrally Sponsored Schemes. I discuss these reforms in detail in *India Unlimited*.

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COVID-19 Warrants Long Overdue Doctrinal Shifts in Military Planning

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Abstract

The economic shock of COVID-19 makes the current method of defence budgeting redundant. When the GDP itself is set to reduce, defence expenditure demands as a percentage of GDP is less feasible. On the other hand, the situation on the Line of Actual Control (LAC) in Ladakh has demonstrated again that managing China, not just Pakistan, should be the focus of India's military planning. To overcome these two challenges, a few incremental budget cuts, postponing of capital acquisition plans, and forgoing of salaries for a day would be insufficient. This paper proposes major doctrinal shifts in military planning. It identifies the mismatches between India's political objectives and the kind of force structure put in place to meet those objectives. Derived from these mismatches, six doctrinal shifts — a paradigm of employable power, a structure for integrated theatre commands, conversion of manpower to human capital investment, organisational changes to build firepower, and a shift in focus to the seas and new domains — are discussed. The paper ends with a discussion on the civil-military pieces that need to fall in place in order to execute these shifts.

Keywords: COVID-19, Defence Expenditure, Military Planning, Theatre Commands, Defence Pensions, Employable Power

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Introduction

Defence economics as a discipline is non-existent in India. What exists in its place is an anodyne debate on the size of the defence budget. The contours of this debate peaks closer to two specific days every year. The first day is when the Union government releases its annual budget. The second day is when the Swedish think tank SIPRI releases its formidable military expenditure report. On both occasions, the number that captivates analysts and reporters is defence expenditure expressed as a percentage of India's GDP. In this analysis, 2 percent of GDP is the anchor; if the expenditure is below 2 percent, India is underspending and if it's about 2 percent, it's not doing all that bad[i].

Over the last few years, this anchoring point in India has changed to 3 percent of GDP. The Parliamentary Standing Committee on Defence 2017-18 noted that 'the defence spending of 1.56% of GDP is way below the 3% mark, which is considered to be optimal and necessary for ensuring the operational preparedness of the Forces (Parliamentary Standing Committee on Defence 2017, 108-109). Here again, there's no attempt to explain how an expenditure of 3 percent would effectively counter India's national security threats. The assumption being made is that higher the defence expenditure, the better India's defence preparedness would be. Such an approach neither takes into account India's developmental needs nor does it concern itself with increasing the effectiveness of every rupee being spent on defence.

There's another pressing reason why this narrow defence budget analysis doesn't make sense. COVID-19 has resulted in a global slowdown. The World Bank estimates that India's GDP will shrink 3.2 percent in FY20-21. In other words, the Indian economy is set to encounter recession for the first time in forty years. Given this unprecedented economic shock, government expenditure, including defence expenditure is set to decline in absolute terms even if there's a rise in the spending relatively when expressed as a percentage of GDP.

To put this economic challenge posed by COVID-19 in perspective, we need to understand the qualitative and quantitative nature of defence spending in India over the last decade. Quantitatively, defence expenditure as a proportion of both union government expenditure and GDP has decreased in the last ten years. In 2009-10, defence expenditure was 2.8 percent of GDP and 17.6 percent of union government expenditure, which has decreased to 2 percent and 15.5 percent respectively, in 2019-20 (PRS India 2019).

More importantly, the qualitative nature of this spending has changed. One, the capital outlay as a percentage of defence expenditure has declined over the last ten years from 32 percent in FY10-11 to 24 percent in FY20-21 (BE). On the other hand, spending on pensions has increased considerably. FY19-20 was the first year when the defence pensions expenditure exceeded capital outlay expenditure. This difference will only widen due to a perpetually growing liability of One Rank One Pension (OROP).

The rise in the pension bill has been accompanied by an almost equivalent drop in the expenditure on capital expenditure this decade. Laxman Kumar Behera and Vinay Kaushal, researchers at the Institute of Defence & Analysis (IDSA), observe:

> "...the entire increase in the pension's share (from 2011-12 to 2020-21) has come at the cost of the capital procurement, which together with Stores has dwindled by 11 percentage points from 36 per cent in 2011-12 to 25 per cent in 2020-21. In other words, the fast rise in the pension expenditure has a significant crowding out effect on stores and modernisation, two major components that determine India's war-fighting ability." (Behera and Kaushal 2020)

While these qualitative and quantitative problems with India's defence spending have continued over the last decade, the threats and demands from India's defence establishment have only risen. The situation on the Line of Actual Control (LAC) in Ladakh has illustrated again that managing China, and not just Pakistan, should be the focus of India's military planning. Managing a much bigger adversary would require India to not just spend more but spend *more productively* for its defence preparedness.

Taken together, the supply-side challenge of COVID-19 and the demand-side challenge posed by China require a fundamental change in our military planning. A few incremental budget cuts, postponing of capital acquisition plans, and forgoing of salaries for a day would be insufficient given the scale of the problems. Instead, what is required is a convergence between political objectives and the kind of force structure required to meet those objectives effectively and efficiently.

Towards that end, it is necessary to assess how India's imagined political objectives through the application of force stack up against the force structure created for achieving those objectives. If there's a mismatch, it requires a change in the objective, the force structure, or both. This comparison is the focus of the next section. In section three, the article proposes some paradigm shifts required in order to better match the political objectives to India's force structure. And finally, section four talks about the civil-military pieces that need to fall in place in order to undertake the significant military planning shifts proposed in section three.

The article eschews a narrow quantitative analysis of defence expenditure. The aim instead is to move the discussion towards increasing the effectiveness of our armed forces to meet political objectives of the future, even under budget constraints imposed by COVID-19.

The Problem

This section discusses some of India's major political objectives that require the application of force by India's armed forces. For each political objective the force structure put in place at present is discussed and it is found that there is a significant mismatch between the imagined political objective and the force structure created to achieve that objective. This mismatch is the real cause of a drop in the effectiveness of India's military instrument.

Objective 1: To get Pakistan to stop its proxy war in Jammu and Kashmir.

This political objective has given birth to the notion of limited war — it is believed that a military solution ranging from invasion and land grabs to air strikes and the threat of nuclear retaliation combined with economic sanctions and political isolation can deter Pakistan (Menon 2020a, 172).

India's force is structured in specific ways to carry out the above political objective through military means. There are three strike corps to execute land grabs and invasions as a bargaining chip. To increase the speed of such an operation, the Cold Start doctrine was also put in place. These are high cost instruments requiring significant budgetary allocations for their development, maintenance, and execution.

At a strategic level, there are two gaps between achieving the political objective of changing Pakistan's behaviour and the military means. One, the threat of limited war by India hasn't had much success in being able to change Pakistan's behaviour yet. For instance, in 2002, a limited war threat only forced

Pakistan to temporarily promise the cessation of infiltration. Two, the threat of use of nuclear forces by Pakistan in such a situation is highly likely and though India may call this bluff, nuclear alerts on both sides would make the overall situation extremely dangerous and may not be warranted by the issues at stake. Thus far, despite the rhetoric, political leaders on both sides have displayed caution in crisis situations. Even a time-bound threat to nuke one of India's cities unless India ceases conventional operations can cause immense economic and political damage to India.

Thus, India is in a situation where the force posture it has invested in against Pakistan, is ineffective in attaining an important political objective.

Objective 2: Defending Indian territory against a possible two-front war against China and Pakistan

A two-front war must be based on an active defence on the land boundary in the Western and Northern front and a strategic offensive in the maritime domain. This objective would require that India's military weight on the land frontiers must be *ab initio* postured towards the Northern front with flexibility to shift to the Western front. Presently, the posture is biased towards Pakistan and that should be reversed. More importantly, the strategic offensive assets in terms of maritime power is financially under sourced and therefore the strengthening of naval capabilities is impacted.

Objective 3: Preventing a large-scale invasion from China

This threat has gained salience with China's recent overtures in Doklam and Ladakh. The military means being considered for this objective is to raise a strike corps that can move, deploy, and launch limited offensives in the high mountains. The Mountain Strike Corps (MSC) sanctioned in 2013 aimed to add a force the size of India's entire Navy (approximately 90000 personnel) at a cost of ₹65,000 crore. The huge cost has been a deterrent and the raising has been put on hold since 2018.

Ignoring the financial costs, the bigger issue here is again the mismatch between the political objective and the military means. One, deterring an adversary like China across a 3500 km long border needs at least three Strike Corps. Two, with one Strike Corps, coupled with the distances, terrain and lack of infrastructure, there is very little possibility of application as an integral offensive formation. Three, even if some major elements of the Strike Corps managed to launch a successful offensive across the Himalayas, it would be a logistical nightmare to maintain the force. Four, if we do find a solution to the logistic problem, China's interior line of communications on the Tibetan Plateau could facilitate a concentration of Chinese forces that could threaten the survival of the Indian forces. Five, unless the elements of the MSC are prepositioned well forward and thinly spread across the long border, they would not be able to quickly react speedily even to the most probable threat - salami slicing (Menon 2020b).

Here again, India's force posture is ineffective in attaining important political objectives.

Objective 4: Securing Indian seas

The Indian Ocean and India's continental layout provides great potential to protect and control the sea lines of communications in the Indian Ocean. India's growth as a maritime power can provide the strategic heft to counter an aggressive China due to its inability to escape from the Malacca dilemma despite attempts at finding other transportation links and signified by the Belt and Road initiative.

However, developing maritime power is extremely costly and needs the correction of the existing balance between India's continental and maritime military power.

The current military planning is overly focused on the political objective of fighting continental wars with China and Pakistan. The naval instrument does not fit this political objective and hence it has not been paid attention to. In FY20-21, the Navy still accounts for just 13 percent of the total defence budget, as against 63 percent for the Army and 18 percent for the Air Force (PRS India 2020).

The development of maritime power is heavily capital-intensive. Over time, it appears that its priority is in fact decreasing in India's strategic approach. For instance, the percentage of capital outlay for the Navy to the total defence budget has declined from 6.8 percent in 2015-16 to 5.6 percent in 2020-21. The number of ships and submarines was 138 and naval aircrafts was 235 in 2017, which decreased to 136 and 219 respectively in 2018 (Ibid).

Thus, the mismatch here is that India is not paying enough attention to developing the maritime component of its military instrument commensurate with the gains it has to offer.

The Solutions

Having highlighted the mismatch between objectives and means, this section talks about changes to military planning that can close this gap. Such an approach would warrant a paradigm shift on one hand in the way India prioritises its political objectives, and on the other, in the way India develops its military instrument. This section lays out a few such paradigm shifts that need to be internalised before designing future plans.

1. The Concept of *Employable Power*

For military planning purposes, India's defence establishment needs to conceptually distinguish between deterrent power and employable power.

Deterrent power aims to project military power by being in possession of robust arms, platforms, equipment and other military wherewithal that are embedded in flexible structures, undergirded by doctrine and can speedily absorb technology. Nuclear weapons, aircraft carriers, submarines, naval ships, fighter aircrafts, strike corps with tanks, mechanised units, special forces and artillery, missiles, all provide deterrent power even though their actual utility is circumscribed by the reality of uncontrolled escalation — especially between nuclear powers.

Employable power on the other hand is closely linked to the level of conflict and escalation and is indicated by the type of military systems in play, the geographic spaces of the conflict, and the issues at stake that influence the toleration of risks. It resides in those systems where coercion is attempted through threat or actual use in a spectrum of conflict that can be described as 'Operations Less Than War' (OLTW). For instance, cyber space is today the best suited domain for employable power as it combines effectiveness through speed and plausible deniability. It can be used to deceive, misinform, divert, blind and to impact directly where application of force matters – the minds of decision makers. These systems combined with force instruments that are considered the minimum requirement for early warning and defence of territory constitute the bulk of employable power.

For the purpose of budgetary allocation for building military capacities, **military planning should move to a paradigm of employable power and deterrent power. This means that higher the employability of a military instrument, the more it should be prioritised.**

The concepts of deterrent power and employable power when applied to the type of threats from China and Pakistan, indicate the type of operational posture required. The operational doctrine for the Northern borders should first privilege improvement in surveillance of the long border that is coupled with active defence capabilities for Quid Pro Quo (QPQ) actions as a speedy response to China's salami slicing. This will require further improvement of the overall infrastructure which is an ongoing process. Such capability must be housed in brigade-sized groups that are pre-located with the forward deployed Corps with the Corps Commander being delegated powers to react as soon as a salami slicing action is discerned. Maximising brigade sized offensive assets must not however play into China's strategy of getting India to expend more resources on the Northern border. Instead the resources must be harnessed by rebalancing from the Pakistan front. For paradoxically, despite acknowledgement that China is a greater threat, the weight of India's military power is towards Pakistan.

The primary role of the military instrument in dealing with terrorism from Pakistan, is punitive. In operational terms, it means adopting a doctrinal shift to being able to strike without posturing. This calls for preponderance in fire power assets like air power, long range missiles and artillery that is coupled with Special Forces capabilities. At the upper limit, the capability for shallow thrusts is necessary, which must preferably reside in Division or Brigade sized formations. There is therefore a strong case to deconstruct the existing Strike Corps which would also provide resources to strengthen the QPQ capability on the Northern borders.

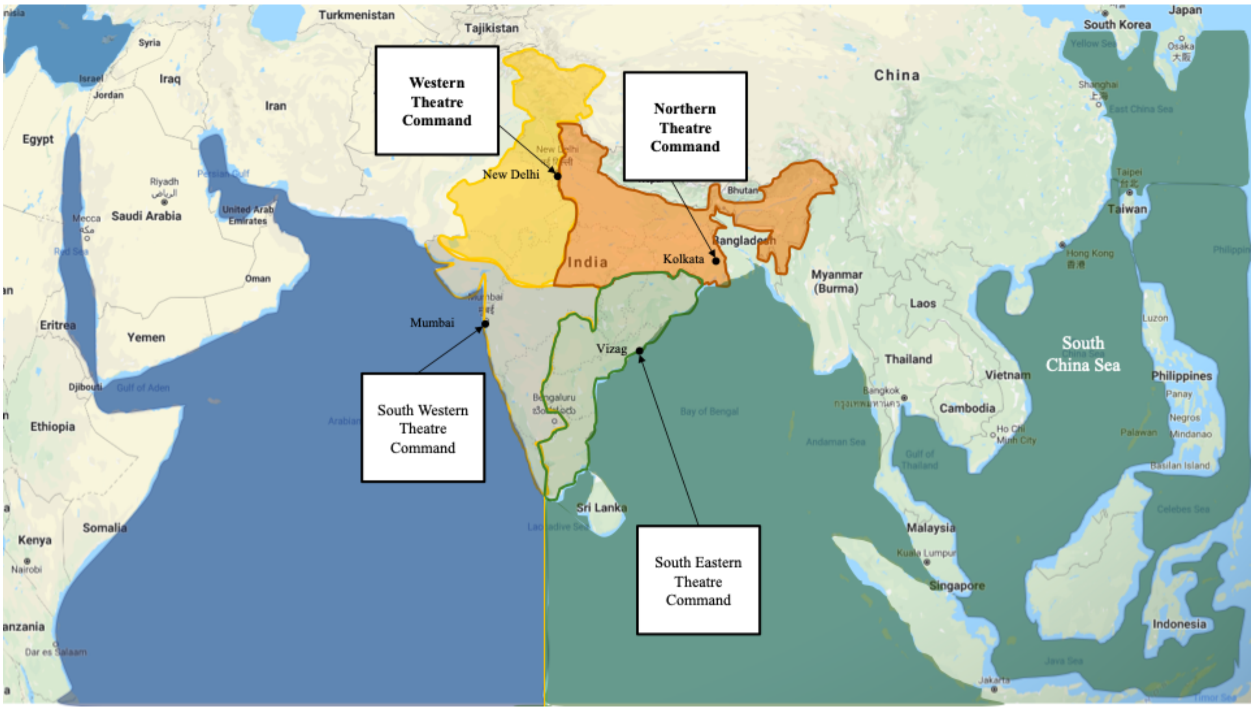
Applying this concept of employable power, it also becomes clear that the alternative to the Mountain Strike Corps (MSC) lies in rebalancing India's military power from the west to the north and reallocation of MSC resources. The nuclear factor should have retired India's operational plans for deep ground thrusts into Pakistan and instead morphed into the ability for speedy shallow thrusts. This change in operational concept would free resources for deployment to the North and facilitate the creation of offensive capabilities against China that could be based on brigade sized formations that can be airmobile. This coupled with Force Multipliers (FM) by way of accretion in artillery, missiles, armed helicopters, UAVs, Intelligence and Surveillance assets etc could be far more affordable and employable.

2. Towards Jointness

The Chief of Defence Staff (CDS) has been politically mandated to facilitate Theatre Commands. The execution of this reform will be challenging and must be carried out with political oversight. A discussion document by the Takshashila Institution (Menon 2020c) has suggested a structural framework for India's Theatre Command System based on terrain and strategic threats as the prime factors. The conceptual framework relies on larger theatre structures to facilitate flexible cooperation in greater volumes of military power. Concurrent with the inter-service integration, it would cater for centralised joint planning and decentralised execution. This would in turn improve the effectiveness and efficiency of India's military instrument.

A Theatre Command System with four theatres, as proposed in the document mentioned above, is illustrated in *figure 1*. In this structure, The Northern Theatre Command will be responsible for the land border with China, Myanmar and Bangladesh, the Western Theatre Command for the Pakistan border, the South Western Theatre Command and the South Eastern Command for the Western part and Eastern part of the Indian Ocean. All Theatres would also be responsible for the hinterland areas based on state boundaries.

Figure 1: A Theatre Command System for India



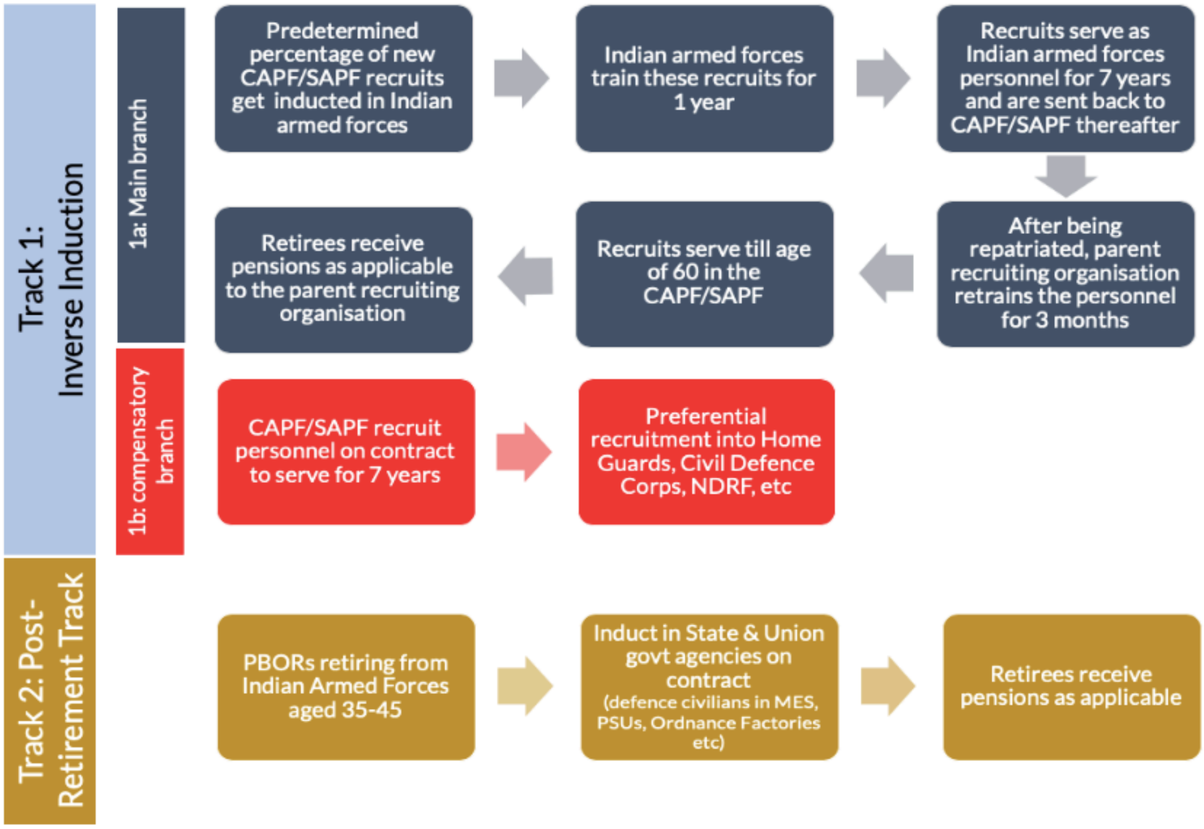
The Integrated Theatres mentioned above will optimise resource utilisation and would lead to savings that can be utilised for force modernisation. The budget squeeze resulting from COVID-19 must hasten the transition to Theatre Commands and not delay it.

3. Manpower to Human Capital Investment

The continental threats will continue to require immense investment in armed forces personnel, particularly for the army. However, the current methods of managing manpower suffer from two drawbacks. One, most of the Persons Below Officer Ranks (PBORs) retire after a fifteen-year service period. In other words, the employability of manpower is constrained by this short time period. Two, the expense on defence pensions is high because of early retirement and increasing lifespans. Moreover, the implementation of a defined benefit scheme such as One Rank One Pension (OROP) has meant that the Union government has committed itself to a perpetually growing liability.

Both these problems can be tackled by creating a human capital investment system that harnesses the capabilities of armed forces personnel in India's national security for a longer period. One such solution has already been recommended by the Standing Committee on Defence as part of its 33rd Report to the Lok Sabha titled Resettlement of Ex-Servicemen. A Takshashila document has operationalised the Report and is explained in Figure 2 (Menon, Kotasthane 2019).

Figure 2: The Human Capital Investment Model for National Security System



This model can be described the Inverse Induction Model, as in the first track, a government agency recruits persons and then sends the persons selected to the Armed Forces to serve for five to seven years, after which the person returns to the parent organisation where his seniority is protected. Ideally, all government agencies can be part of this model, though preference accorded to armed organisations like Central Armed Police Forces (CAPF) at the central level and similar organisations at the state level. Table 1 illustrates how this model can be applied across the government.

Table 1: Illustration of applying Inverse Induction that can be scaled up to other parts of government

Recruiting Organisation	Inducted Into	Repatriated Back to
Coast Guard	Indian Navy	Coast Guard
Air Traffic Control	Indian Air Force	Air Traffic Control
Armed Police Forces at Union/State Levels	Indian Army	Armed Police Forces at Union & State Levels

There is a secondary track in the main track that compensates for persons serving in the Armed Forces for five to seven years.

In Track-2, there is also the provision to utilise wherever feasible the retired persons but on contract and therefore will receive pay less the pension as is already the practice in organisations like the National

Security Council Secretariat. This model is ideal for soldiers rather than officers, as the bulk of the pension outflow is due to pensions of people below officer rank. However, officers too can be accommodated in the model.

Though recommended by the Standing Committee and affirmed by the MoD, the MHA has opposed it on frivolous grounds like people who serve in the Army would be culturally unfit to carry out police duties etc. It is clear that it is turf protection and requires political resolve to overcome such reservations. By the most conservative estimate, for a 10 percent inverse induction rate, the net present value of the pension reduction bill comes out to ₹1.2 lakh crore.

Investing in India's armed forces personnel and their retention is critical for making India's national security system more effective.

4. Building Firepower

India's high import dependence for its defence equipment has long been a subject of discussion. In response, various efforts aimed at import substitution have been tried but they have not delivered results. Instead of piecemeal reforms, building India's firepower requires a combination of reforms in research, a robust defence industrial base and an efficient acquisition system.

4.1 Reforming Research & Development

The major reform in the apex research decision making mechanism is to broaden its composition through informed oversight. The AEC and the ISRO provide good examples to emulate and therefore the DRDO must be reconstituted under a Defence Technology Commission, located under the PMO and an annual review done of DRDO's performance[ii].

The inability to exploit potential for innovation outside the Government agencies is a major drawback. The innovation start-up potential can only be harnessed, if decision making mechanisms to fund innovation are relieved of the domination by the DRDO to reduce conflict of interests. An increase in R&D expenditure in the private sector through collaboration with the government is needed. Indigenisation of subsystems in platforms would significantly improve self-reliance. Some of the other measures could be provision of tax exemption; infrastructural and technical support; duty free import of laboratory and test equipment for R&D; tradeable IPR and patents and allowing the private sector to outsource projects[iii].

The DRDO must not be involved in production except for hand holding during transfer of technology to production agencies. It must forgo its present hold on manufacture of strategic missiles systems, which has endured on the obsolete notion of secrecy. The competency of manufacturing of the private sector will certainly boost missile manufacturing capability.

4.2 Building a Defence Industrial Base (DIB)

India's DIB ecosystem remains tethered to the public sector despite several initiatives to broad base it by increasing private sector participation. The perceptual leap that must be taken is about viewing the private sector as another important limb of India's manufacturing capacity and not as an outsider that has to constantly knock on the door and seek permission to be made part of what is essentially a national enterprise. Building a robust DIB ecosystem, comprising Indian private sector, FDI-backed firms, and the Indian public sector will help reduce the rising capital outlay over the long-term, for two reasons. One, competition between firms will reduce prices. Two, platforms trial costs and duration will also come down if the competing entities are based in India. Importantly, the DIB must have an export orientation to be financially viable.

In practice, private sector participation in defence production must contend with the protective shield provided by the Department of Defence Production (DDP) to the public sector units. This remains the prime reason for the private sector being confined mostly to the role of vendors in the value chain. The conflict of interest is obvious. With greater civil-military fusion necessary to achieve economies of scale and merger of commonalities, the national manufacturing ecosystem cannot and should not be kept separate from the DIB.

There is a strong case to move the DDP and the public-sector production organisations as another vertical in the Ministry of Commerce and Industry. This will dissolve the conflict of interest and provide a level playing field for the private sector. Corporatisation of production entities combined with adoption of arrangements that facilitate private human capital to utilise public sector infrastructure should be done as embodied in the Government Owned-Contractor Operated model.

All these moves may face opposition from the labour unions, but it is not insurmountable considering the existing electoral mandate for the ruling party.

4.3 Acquisition System

The route to technology transfer lies in attracting FDI and getting OEMs to use India as a manufacturing base[iv]. The liberalisation of FDI norms in March 2020 provides the opportunity to attract FDI, as up to 74% is now permitted under the automatic route. This would however take at least five years to bear fruit and till then there would be no alternative to import, if required items are not available indigenously and are needed urgently.

Procedural simplification requires decision making to move from ‘play safe’ to ‘safe play’. Presently, the fear of being taken to task for violating procedures even when done in good faith, has choked the speed of the acquisition system. Integrity and responsibility must guide authorities for achieving outcomes.

Procedurally, the offsets policy should be scrapped altogether. It has created impediments for FDI without resulting in significant transfer of knowledge or skills needed to create a robust industrial base. The human capital problem in the acquisition system has not been adequately addressed despite the Comptroller and Auditor General (CAG) pointing out that Defence Acquisition is “a cross-disciplinary activity requiring expertise in technology, military, finance, quality assurance, market research, contract management, project management, administration and policy making” (Mrinal 2012, 01-12). Such specialisation is needed in the post COVID-19, for the inevitable budget squeeze would be another major challenge for putting in place an efficient acquisition system.

5. Focusing on the Seas

Objective 4 section spoke about the mismatch between India’s political objectives in the maritime domain and the force structure designed to meet that objective. The long-term focus must not waiver from developing India’s maritime power that can protect its national interests not only in the Indian Ocean littoral but beyond it. Maritime power is to be understood as inclusive of a robust naval power including amphibious capability, merchant shipping, ports infrastructure with inland connectivity, oceanography expertise coupled with exploitation of fishing, and seabed resources. A Maritime Commission on the lines of a Space Commission must be established.

The military leadership, especially the Army leadership has found it difficult to jettison the ideas of waging the 'big fight' to impose our will. Such a mental shift that is informed by a holistic perspective will fade military demands that sustain the logic of the Strike Corps and the Mountain Strike Corps. It would also free resources for the cutting edge of military strategy of seeking greater strategic influence in the maritime domain.

6. Focusing on the New Domains

While the nature of war will endure as the use of force for political purposes, the perpetually changing character of war will be driven primarily by technology, innovative doctrinal conceptions and flexible organisational structures incorporating newer tools for conduct of warfare. The nuclear shadow has also caused a growing trend for seeking coercion through means that are less than war which is essentially oriented towards the achievement of psychological effects through stealth and subterfuge backed by demonstration of force. Military power will at its core, retain the traditional notion of hard power, but be increasingly employed in close combination for influence in the information domain through non-kinetic means especially through the imaginative utilisation of the electro-magnetic spectrum reinforced by cutting edge technologies like artificial intelligence, biotechnology, quantum computing et al. The threat spectrum will continue to expand at an unknown pace from its traditional domains of land, sea and air to include cyberspace and space.

Given the high employability of these domains, it is necessary to develop these capacities in conjunction with our conventional force structure and involve an effort synergised with the civilian domain. Achieving political objectives in the future will be increasingly dependent on winning the battle in the information domain.

How to Make these Shifts?

The suggested shifts require reforms that must leverage the structural potential offered for integrated civil-military and joint planning by the institution of CDS, Department of Military Affairs and Theatre Commands. Till now, joint planning was about stitching together service-centric plans and working out a compromise on sharing limited resources. The structural reform promises to remedy this by ensuring that plans are joint from the incubation stage. This would cater for moderating and balancing for the demand-side of the military structure.

This will resolve the major issues; however, the demand-side cannot work in isolation. It needs to generate demands based on a dialogue between intra-military and between the military and the civil side.

The CDS structural reform was a necessary reform but it will remain an insufficient one unless followed by reforms along four axes. The first axis is to provide political guidance to the military for crystallising a military strategy that directs the growth of military capability. Such guidance must emanate from a National Security Doctrine/Strategy. The second axis is to reform and strengthen the Research, Defence Industrial Base and the Defence acquisition system. The third axis is to create the Theatre Commands as suggested above. Fourth axis is to address the budget issue by tackling pension outlay problem which should in turn enable the development of India as a maritime power.

None of these reforms are possible without political patronage. They are necessary to overcome entrenched interests that have resisted the implementation of reforms by a plethora of committees. The situation can best be described by "the government knows what to do but cannot get it done".

Conclusion

The reforms suggested must be undertaken holistically approach that must simultaneously address all sub-systems. Recent reforms like CDS hold promise to address the demand side of the defence equation. But its potential cannot be realised unless the supply side of the defence preparation is addressed. The Research and Defence Industrial base must function as a sub-system of the larger national effort and not remain under the umbrella of a segregated structure of Defence. The ubiquity of dual use technologies and production processes must be leveraged.

The security pressures generated by the global geopolitical flux are already revealing the inadequacies in India's defence architecture. The trajectory of present defence economics is headed for a crash with grave consequences to national security. The pathologies are well known. Political will accompanied by perennial monitoring of reforms may still save the day and for sure it is a national emergency that cannot be ignored. Time will not wait so also the reforms.

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Notes

[i] What's often forgotten in this mechanical derivation is that the 2 percent defence investment guideline in fact comes from NATO. It is meant to ensure that states don't freeride on an alliance partner's investment in defence. As such, its application to the Indian context is dubious — neither is India a part of an alliance and neither are India's security challenges comparable with that of the NATO states.

[ii] This recommendation has been made by the Gupta committee but was not implemented

[iii] ibid

iv For example, India needs to leverage its position as the world's fastest growing civil aviation market with a demand of 850-1,000 civil airliners to extract key technologies from vendors seeking to supply to India.

Indian Public Policy Review 2020, 1(1): 41-52

Impact of Covid-19 on the Indian Economy: An Analysis of Fiscal Scenarios

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Abstract

Amidst the economic slowdown triggered by the outbreak of the COVID-19 pandemic in India there have been many demands for the government to announce a large fiscal stimulus to support the economy. Economic growth and tax revenues remain uncertain in 2020-21 making it challenging for the government to finance any addition to the fiscal deficit. In this paper we work out alternative scenarios of fiscal deficit for 2020-21. We find that in our baseline scenario, assuming a 5% contraction in real GDP and a 14.4% contraction in net tax revenue, fiscal deficit of the central government will be 6.2% of GDP.

JEL: E6, H2, H5, H6

Keywords: Fiscal deficit, Covid-19, Fiscal projections, Government borrowing, Tax revenue.

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We are grateful to Josh Felman for helpful discussions and comments. All errors are our own.

I. Introduction

The outbreak of the Covid-19 pandemic is an unprecedented shock to almost every economy in the world. In response to the spread of the virus, many governments announced lockdowns. India announced a nationwide lockdown on March 24. This continued for close to two months and is currently continuing in some form or the other throughout the country. While rural areas unlocked relatively quickly, urban India continues to see lower economic activity (Dev and Sengupta 2020).

Shocks to the economy during any crisis operate at two levels: supply-side disruptions and reductions in aggregate demand. Macroeconomic policy responses to an economic crisis are typically of two types: (i) Expansionary monetary policy which includes reduction in policy rates, reserve ratios and/or expansion of money supply, and (ii) Expansionary fiscal policy which involves an increase in government expenditure and/or a reduction in taxes.

In India most of the policy response so far has been to try and ease supply constraints and allow movement and production of goods, particularly essential goods (Dev and Sengupta 2020). There have also been some attempts at pushing up demand. The Reserve Bank of India has announced a slew of monetary measures (cut in repo rates, cut in Cash Reserve Ratio, freeing up liquidity in the banking sector etc) since the imposition of the lockdown (Sengupta and Felman 2020). The Finance Minister has announced a package ("Atmanirbhar Bharat Abhiyaan" package) of policy initiatives targeted at low income households and micro, small and medium enterprises which are likely to be most vulnerable in the broad-based economic slowdown. The total amount of the package has been announced to be Rs 20 trillion (or roughly 10% of GDP).

However, a careful analysis reveals that the actual amount of fiscal stimulus offered by the government has been around 2-3% of GDP (Sengupta and Vardhan 2020). As a result, demand for a larger fiscal stimulus has been emerging from various quarters (Sen et. al 2020). Several economists have argued that spending on welfare measures should be increased significantly, by 5% of GDP or more (Subramanian 2020).

As an economic revival strategy, India can either try to restart the economy along with stringent safety rules and tight containment zones, and reduce the damage for firms and households so that they require less economic support, or try to implement large fiscal packages with income support, unemployment benefits, subsidies to businesses, etc. Adopting either strategy requires that we first estimate the fiscal deficit that may likely materialise primarily because of the shortfall in revenues. In this paper we work out potential scenarios of fiscal deficit to GDP ratio of the Union government for 2020-21 assuming a status quo on fiscal stimulus.

The fiscal deficit of the Union government in 2019-20 was 4.6% of the GDP, highest since 2012-13. Reduction in revenues (tax, disinvestment etc) will increase this further in 2020-21 even without any additional spending. Starting from the revised estimates of the 2019-20 Union Budget, we apply our assumptions and project the revenues of the Union government for 2020-21 for our three scenarios.

Specifically, we do a baseline, a pessimistic case and an optimistic scenario. We find that in our baseline scenario, explained in Section 3, the fiscal deficit of the Union government in 2020-21 will increase to 6.2% of GDP. In our baseline projections, corporate taxes fall by 17.6%, income taxes fall by 7%, GST falls by 4%, customs duties and Union excise duties contract by 20% and 22.2% respectively. Net tax revenue declines by 14.4% after taking into account the States' share of tax revenues.

Keeping our assumption about real GDP growth and inflation constant for the sake of simplicity, in our optimistic scenario we assume that tax revenues fall by roughly 10% less than the baseline numbers whereas in the pessimistic scenario the revenues fall by 20% more than the baseline estimates. This gives us a fiscal deficit of 5.6% in the optimistic scenario and 8.1% in the pessimistic scenario.

Following the government's decision to increase its market borrowing program by Rs 4.2 lakh crore, to tackle the Covid-19 outbreak, analysts at Bank of America estimated the Union government's fiscal deficit to be 5.8% of the GDP in 2020-21 (PTIa 2020). According to analytics firms Fitch solutions, fiscal deficit may rise to 6.2% of GDP because of weaker revenue collections and increased expenditures on account of Covid-19 (PTIb 2020). Credit ratings agency India Ratings expects the fiscal deficit to reach 7.6% of GDP mostly due to shortfall of tax revenues (Singh 2020).

According to the Monetary Policy Report of the RBI published in April 2020, Professional Forecasters estimated the central government gross fiscal deficit for 2020-21 to be 3.6% of GDP and the combined centre and state deficit to be 6.5% of GDP (RBI 2020). World Bank in a report has projected the combined deficit to be 9% of GDP in 2020-21 whereas global rating agency Standard and Poor has projected the same to be 11% of GDP (Business Line 2020) (PTIc 2020). Moody's Investors Service has estimated that weaker revenue and disinvestment receipts will drive the central government fiscal deficit to 5.5% of GDP (PTId 2020). Thus broadly, the forecasts for the central government fiscal deficit for 2020-21 range from 3.6% to 7.6% of GDP and our baseline forecast falls within this range.

In a recent paper, Balajee et al. (2020) undertake a similar scenario analysis to work out possible fiscal deficits of the central government for 2020-21. They assume three GDP growth scenarios; no fall in GDP relative to the projected numbers in the Budget of 2020-21, a 10% fall and a 20% fall in GDP. They find that in the most optimistic case of no contraction in GDP, fiscal deficit will increase to 5.3% whereas in the worst case of 20% contraction in GDP and a high fiscal stimulus, fiscal deficit can be 8.4%.

Our range of fiscal deficit is consistent with their estimates. However, they do not adopt a disaggregated approach to work out the scenarios, assume multiple GDP growth rates and assume different stimulus amounts that increase government's expenditure in the different scenarios. We on the other hand assume that the nominal expenditure remains the same as budgeted and the real GDP contracts by 5% in all our scenarios. This implies that our scenarios are relatively more conservative than theirs.

Over the last few years, on multiple occasions the normal government expenditure has been substituted by loans in the books of various public sector enterprises to avoid fiscal slippages (Financial Express 2019). This has been highlighted by the Comptroller and Auditor General of India who in its report (CAG 2018) described a few case studies where such off-budget borrowing has been steadily taking place thereby distorting the government's fiscal math.

For instance, the accumulated liabilities on account of food subsidy payments have steadily gone up from around Rs 23,000 crore in 2011-12 to more than Rs 80,000 crore in 2016-17. Ordinarily these should have been covered by budgetary allocations. However, to cover its financial requirements the Food Corporation of India (FCI) has been issuing bonds as well as borrowing from the National Small Savings Fund (NSSF). These borrowings do not get reflected in the central government's official fiscal deficit numbers.

In 2018-19 the FCI borrowed close to 1% of GDP from off-budget sources (Chinoy and Jain 2019). It is estimated that in 2020-21, the liabilities of the FCI alone may go up from Rs. 2.5 lakh crore to Rs 3.5 lakh crore. To get a sense of the overall fiscal deficit for 2020-21, one therefore needs to add such off-budget items to the projected deficit numbers.

We also need to add State deficit levels to the projected central government fiscal deficit. In view of the unprecedented situation due to Covid-19 outbreak, as part of its overarching "Atmanirbhar Bharat Abhiyaan" relief package, the central government on May 17 announced that the borrowing limit of the states would be increased from 3% to 5% of Gross State Domestic Product (GSDP) (PIBa 2020). This would give States extra resources worth Rs 4.28 lakh crore. Part of this additional borrowing is linked to specific reform actions to be undertaken by the states. The scheme will be implemented in the following pattern.

1. Unconditional increase of 0.50%,
2. 1% in four tranches of 0.25%, with each tranche linked to clearly specified, measurable and feasible reform actions,
3. Further 0.50% if milestones are achieved in at least three out of four reform areas.

The reforms are to be implemented by the states in the broad areas of universalisation of 'One Nation One Ration card', Ease of Doing Business, Power distribution and Urban Local Body revenues. If we assume that most states would succeed in satisfying the first two conditions, then they would be able to borrow an additional 1.5% and accordingly the state deficit would be around 4.5% GDP. Thus, the overall government deficit becomes 10.5% in our baseline scenario, without taking into account the off-budget borrowings that may take place.

II. Macroeconomic environment and Policy options

Unlike the governments of advanced economies that have significantly stepped up spending amidst the pandemic, India has been more cautious. Amid uncertain economic growth and tax revenues this year, financing the budgeted expenditure of Rs 30 lakh crore estimated in the Union Budget, 2020-21, as well as the announced Covid-19 fiscal package, will prove to be a challenge.

Borrowing beyond Rs 12 lakh crore that is on the budget (initially Rs 8 lakh crore and subsequently increased by Rs 4.2 lakh crore) and the off-budget borrowing that was already in the works will be more difficult if domestic savings decline this year. Households are the net supplier of funds to the economy. Household savings has been falling over the last few years. The savings rate has gone down from 23.6% in 2011-12 to 18.2% in 2018-19. The year on year growth rate of household savings fell from 17.6% in 2017-18 to 5.2% in 2018-19. In 2020-21, household savings may go down further as many households may need to dip into their savings to stabilise consumption amidst income uncertainties.

The government normally borrows from households and firms through various financial intermediaries such as banks, life insurance, small savings schemes, provident funds, and the bond market. The hit to incomes may mean that people may save less. They may borrow or may dip into existing savings. The household sector consists of not only households but also household enterprises, or small firms. With lower production and sales, domestic household savings may decline.

At the same time, domestic corporate savings will be used up to pay wages and salaries and maintain higher inventories in absence of a steady stream of revenue. This would result in lower corporate savings as well. This would mean less domestic savings are likely to be available for the government to borrow from.

There is an argument that the decline in discretionary expenditures such as on weddings, cinemas, restaurant meals, holidays, etc. will push up total household savings. But even if discretionary expenditures decline, the overall effect on the level of household savings will depend on how people's jobs and incomes fare in 2020-21.

Even though the lockdown in India started on March 25, 2020, Goods and Services tax (GST) revenue had already fallen sharply in the month. Collections in March 2020 were 4% less than in March 2019. Revenue from import of goods was 23% less, and the total GST revenue was 8% less than March 2019 (PIBb 2020). GST data for the first month of the fiscal year 2020-21 has been worse as April was a month of full lockdown. Collections crashed 72% in the month of April 2020 (The Hindu 2020).

Budget estimates of tax revenue for 2020-21 of Rs 16.3 lakh crore were already an ambitious target over the previous year's revised estimates of Rs 15 lakh crore. It was based on a nominal GDP growth projection of 10% made before Covid-19 hit India. With the outbreak of the pandemic and the subsequent nationwide lockdown, nominal GDP growth and tax collections are expected to be lower.

Although there has been a gradual relaxation in the lockdown from June 2020 onwards, the economy has been limping back to normalcy in June and July. There will continue be a decline in the production, trade and consumption of goods and services given the persistent supply chain bottlenecks and demand compression. This means that there will be a fall in tax collection, both direct and indirect taxes such as GST, custom duties, excise duties, personal income taxes and corporate taxes as well as in disinvestment proceeds.

Given India's inflation targeting regime, there is not much room for the Reserve Bank of India to print money to finance the budget deficit, a move that is akin to imposing an inflation tax. Hence as a last resort the government may have to borrow from abroad if domestic savings fall, with falling incomes. To be able to do this without incurring high costs, India's public debt must be on a sustainable path. India's macroeconomic stability will be of primary importance. Inflation must remain low, interest rates must stay low, and growth outlook must be positive for public debt to be on a sustainable path. Strong fundamentals will boost confidence in the rupee thereby enabling foreign borrowings.

This is a period of high uncertainty. Global pools of liquidity can be highly volatile in such periods. They may go into a "risk-on, risk off" mode i.e. start moving to US bonds and exit emerging economies like India when the risk perception in international money markets is high. Any emerging economy seen as riskier is likely to see more capital flight when a shock hits global markets. We saw this in May 2013 with Ben Bernanke's Taper Talk (Basu et. al 2014).

High fiscal deficit results in an unsustainable rise in debt and weakens the macroeconomic fundamentals thereby triggering the possibility of a fiscal crisis morphing into a currency crisis. As discussed in Rao (2017), India's public debt of more than 70% of GDP is significantly higher than its middle-income peer countries. The ongoing pandemic and the associated economic slowdown will significantly worsen the situation.

Fiscal consolidation has always been a problem in India which has had to deal with persistent fiscal imbalance (Singh and Srinivasan 2004). In recent times the combined fiscal deficit of central and state governments has been more than 6% of GDP. There is evidence in the literature that high and persistent fiscal deficit in India can be detrimental to economic growth (Rangarajan and Srivastav 2011). The high fiscal deficit of 2020-21 will push up the debt even further unless the government finds suitable ways to finance the deficit and growth revives soon.

III. Baseline scenario

We follow a disaggregated approach to project the fiscal deficit/GDP ratio of the Union government for 2020-21. We start with the individual components of Gross Tax Revenue (i.e. corporation tax, income tax, goods and services tax or GST, customs duties, and Union excise duties). We use the long term averages of the ratios of these components to the relevant aggregates. We would have liked to work out the elasticities of these components with respect to GDP and other aggregates such as imports and corporate profits, but we do not have consistent time series data on GDP going back from 2011-12.

In particular, we calculate the following ratios for the period 2011-12 and 2019-20:

1. Corporate tax/corporate profit before tax,
2. Income tax/GDP,
3. GST/GDP,
4. Customs duties/non-oil imports,
5. Excise duties/oil imports

We calculate the averages of these ratios over the 9-year period. For GST, we get the ratio from 2017-18 since that is when this new tax was rolled out.

We did not have the data for corporate profit before tax (PBT), oil imports and non-oil imports for 2019-20. We took the 2018-19 PBT and increased it by the percentage change in nominal GDP during 2019-20, implicitly assuming that the profit/GDP ratio was unchanged. This is a conservative assumption because the ratio has been falling over the past decade. For the oil imports, we used the 2018-19 value and multiplied it by the percentage change in oil prices (international prices, converted to rupees). We subtracted this from total imports to get the non-oil imports for 2019-20.

Assumptions

In our baseline scenario we make certain assumptions regarding the aggregates for 2020-21. We assume a real GDP growth rate of -5%. This is in line with several recent forecasts by analysts (PTIe 2020) (PTIf 2020) (Mishra 2020) (Scott 2020). We assume consumer prices index (CPI) inflation to be 5%. The pandemic and the subsequent lockdown have caused disruptions to both demand and supply side factors.

On one hand there has been demand reduction owing to postponement of non-essential expenditures and maybe even curtailment of essential expenditures given the overall macroeconomic uncertainty. On the other hand, supply chains have also been disrupted, there has been large scale exodus of migrant labour from urban areas to villages, and availability of credit has become constrained. Given the circumstances, it is difficult to predict which way inflation would go. Even if demand gets revived once the lockdown restrictions are further relaxed it is possible that supply will continue to be hampered. We therefore assume an inflation which is within the target range of the RBI under India's inflation targeting framework.

A -5% real GDP growth and 5% inflation assumption gives a nominal GDP growth rate of 0. In other words, we assume that for 2020-21, nominal GDP will remain the same as in 2019-20. We further assume corporate profit will fall by 20%. Profits of the NIFTY50 companies listed on the National Stock Exchange fell by 15% in the Jan-March quarter. The situation is likely to worsen significantly in the April-June quarter owing to the lockdown. Even if sales and profits improve towards the later part of the year, overall, we expect a 15% decline in corporate profits for this year.

In March non-oil imports fell 21% and in April, by 41%. Accordingly, in our baseline scenario we assume non-oil imports will fall by 20%. Finally, we assume that oil imports will fall by 30% owing to the drastic reduction in oil prices (IANS 2020).

To obtain the component-wise Gross Tax Revenues (GTR) for 2020-21, we multiply the long-term average of the corresponding ratios mentioned above with the projected percentage change in the relevant aggregates. For customs duty/non-oil imports, we take the ratio of 2019-20 and multiply that with the projected non-oil imports for 2020-21. This is because we find that the ratio of customs duties to non-oil imports has been going down in the past few years. The assumption underlying the use of a long-term average ratio is that there is no trend, so averaging just gets rid of some random noise. But if there is a trend, then using a long-term average is not correct and hence we use the last year's ratio.

The average income tax/GDP ratio of the last 9 years (0.22) is much less than the ratio for 2019-20 (0.27). Hence if we use the long-term average, we get a much bigger contraction in income tax revenue for 2020-21 (17%) compared to the contraction in nominal GDP. Instead we have taken a ratio that is closer to the 2019-20 one i.e. 0.25. This gives us the projected GTR for 2020-21. The projected growth in the tax revenues are shown in table 1.

Table 1: Projected growth in tax revenues, 2020-21

Taxes	Baseline Scenario (%)
1. Corporation tax	-17.6
2. Income Tax	-7
3. Goods and Services Tax	-4.1
4. Customs Duties	-20
5. Union Excise Duties	-22.2
6. Gross tax revenue (1+2+3+4+5)	-12.5
Net tax revenue (6 - States' share)	-7.8

Note: The table shows the projected growth rates of the components of gross tax revenue, as well as growth rates of gross and net tax revenues between 2019-20 and 2020-21.

Net tax revenue (NTR) is calculated by subtracting the States' share of revenues from GTR. States share is likely to fall as well owing to the overall reduction in GTR in 2020-21. To calculate this, we first work out the divisible pool of revenues based on the 2020-21 BE (budget estimates). This is obtained by subtracting cess charges, surcharges and the cost of collection of taxes from the GTR. This is because revenues collected from cess and surcharges are not distributed among the states.

We then calculate the ratio: devolved revenues/divisible Pool, as per the 2020-21 BE numbers, where devolved revenues denote the amount that is supposed to be given to the states. We call this the `budget ratio'. We apply this ratio to the divisible pool estimated based on our projected GTR i.e. devolved resources = the budget ratio * our estimate of the divisible pool. We find that our projected NTR for 2020-21 will grow at -14.4%.

International oil prices have fallen to a two-decade low. In order to benefit from this price decline, given that India is a major importer of crude oil, the government has imposed additional excise duties on petroleum products. Hence some additional revenue is likely to accrue to the central government from this levy which will not be shared with the states. In a normal situation this additional revenue would have been roughly Rs 1.6 lakh crore. However the prolonged lockdown and related mobility restrictions have dampened the demand for petrol and diesel. We assume that the government will get around Rs 1 lakh crore from this source and accordingly add this amount to the net tax revenue. This gives us a projected NTR growth of -7.8% for 2020-21.

To calculate the Union fiscal deficit, we also need to project the non-tax revenue receipts (interest, profit and dividend) and capital receipts. For non-tax revenue receipts, we adopt the same approach as the components of GTR i.e. we calculate the ratio to GDP for the last 9 years, take the average and then multiply this average with the projected GDP for 2020-21.

We get a contraction in non-tax revenue receipts by 9.8%. For capital (debt) receipts, we assume the same recovery of loans as in 2020-21 BE. For disinvestment (non-debt capital) receipts, we assume the same amount as in 2019-20. Disinvestment proceeds are likely to be low this year given the overall macroeconomic uncertainty and general economic slowdown. We assume a carry forward from last year.

Table 2: Projected fiscal deficit, 2020-21 (Rs Million) in a scenario of 5% inflation and -5% Real GDP growth

Revenue Source	Projections
1. Net tax revenue	1,38,76,482
2. Non-tax revenue	31,18,025
3. Capital receipts	1,49,670
4. Non-debt receipts	6,50,000
Total expenditure	3,04,22,300
Fiscal Deficit (5-(1+2+3+4))	1,26,28,123
Nominal GDP	20,33,98,490
Fiscal deficit/GDP	6.2%

Note: This table shows the projected components of revenue and capital receipts of the Union government and the projected fiscal deficit for 2020-21. All amounts are in Rs. million. The sum of net tax revenue and non-tax revenue receipts is Total Revenue Receipts. Capital receipts include recovery of loans and Non debt capital receipts primarily include disinvestment receipts. Fiscal deficit= Total Expenditure - (Total Revenue Receipts + Total Capital Receipts).

Finally, we assume that the nominal Total Expenditure remains the same as in 2020-21 BE. We assume whatever amount was announced as part of the "Atmanirbhar Bharat Abhiyaan" package will be adjusted by reducing other expense items in the budget such as capital expenditure etc. The projected fiscal deficit for 2020-21 under the baseline scenario is shown in table 2. We get a baseline fiscal deficit to GDP ratio of 6.2%.

IV. Alternate Scenarios

In our baseline scenario we assume a -5% growth in real GDP. However, we cannot assess the exact implications for tax revenues. Hence, we create two alternative scenarios: a worse case and an optimistic case, starting from the baseline and keeping our assumption of real GDP growth and inflation the same.

Table 3: Alternate scenarios of growth rates of tax revenues and fiscal deficit, 2020-21

Taxes	Pessimistic case	Optimistic case
1. Corporation Tax	-34.1	-9.4
2. Income Tax	-25.6	-2.4
3. Goods and Services Tax	-23.3	0.7
4. Customs Duties	-36	-12
5. Union Excise Duties	-37.8	-14.4
Gross tax revenue (1+2+3+4+5)	-30	-6.3
Net tax revenue (6-States' share)	-39.6	-5.5
Non-tax revenue receipts	-9.8	-9.8
Fiscal deficit/GDP	**8.1%**	**5.6%**

Note: This table shows the growth rates of gross tax revenue components (in %) under two alternate scenarios: worse case and optimistic case where worse case assumes a 20% contraction in tax revenues compared to baseline and a 10% rise in tax revenues (5% for income tax and GST) in the optimistic scenario.

The worst-case scenario assumes a greater contraction in tax revenues compared to baseline, whereas the optimistic case scenario assumes a rise in tax revenues compared to baseline. We assume a 20% contraction in tax revenues (i.e. components of GTR) in the worst-case scenario.

For the optimistic scenario we assume a 10% increase in revenues from corporate taxes, customs duties and Union excise duties compared to the baseline scenario. Since in the baseline income tax and GST had contracted by less than 10% from 2019-20 values, for these two components of GTR we assume a 5% increase in revenues in the optimistic scenario. Both these scenarios are shown in table 3. We get a fiscal deficit of 5.6% in the optimistic scenario and 8.1% in the worst-case scenario.

V. Conclusion

Our analysis shows that based on an assumption of 5% contraction in real GDP in 2020-21, and the same nominal expenditure of the Union government as stated in the 2020-21 budget estimates, we get a baseline fiscal deficit of 6.2% of the Union government. If we consider the alternate scenarios, then we get a range of fiscal deficit/GDP ratio from 5.6% to 8.1%, depending on the extent of tax revenue contraction.

Increase in government spending beyond the levels already announced would then mean an increase in the fiscal deficit beyond the levels discussed above. This may be financed either if disinvestment revenue turns out to be higher this year due to additional efforts made to sell off Public Sector Enterprises. It may also be that the government receives a higher dividend from the RBI. Government's domestic borrowing has increased and the interest that the government pays to RBI on the bonds it holds will be higher resulting in higher profits of the RBI.

In this paper we have not discussed the Fiscal Responsibility and Budget Management Act (FRBM) and how the present fiscal scenario will put the government off track on meeting its FRBM requirements. That now looks like a certainty and given the pandemic will likely be an acceptable stance. However, if the fiscal deficit is even higher and puts the government's debt trajectory on an unsustainable path, longer term considerations will come into play.

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Indian Public Policy Review 2020, 1(1): 53-55

Intricacies of Designing and Implementing Public Policy

Book Review of *In Service of the Republic: The Art and Science of Economic Policy Making* by Vijay Kelkar and Ajay Shah

M Govinda Rao*

In Service of the Republic: The Art and Science of Economic Policy Making, by Vijay Kelkar and Ajay Shah, is a book largely in the Public Choice tradition and yet, wants the government to correct its path. It is not clear whether the authors intend the State to correct its course or the public to be more vigilant. Achieving the former objective is difficult for, once the state assumes an expanded role for whatever reason, special interest groups - distributional coalitions as Mancur Olson called them, will resist the course correction with all their might. If the objective of the book is to tell the readers the pitfalls of the State adventurism, the rational ignorance of a large majority of people makes course correction challenging. All the same, the book is an important contribution as we get to ask basic questions on the role of the government.

While much of the mainstream literature in public policies assumes that the government is a benevolent entity and therefore, will have to provide answers to all our problems and when it does not, the analysis turns normative (moralistic). This book, based on several years of experience takes the position that governments, by nature, impinge on individual freedoms and therefore, their role should be restricted to interventions only when there is a market failure. The book educates us on the questions to be raised to justify the extent and nature of intervention and these are: (i) Are there enough market failure justifications for the for the government to intervene? (ii) What is the nature of market failure and therefore, the nature of intervention required? (iii) Does the government have the capacity to effectively intervene to correct the market failure and if it does not have, what needs to be done?

This is an important book for giving fresh insights into a number of public policy matters. It explains that government intervention is needed when the markets fail, and the role is to facilitate efficient functioning of markets and not to compete with them. The government's capacity to compete with the markets is limited nor is the incentive structure for such a competition is conducive. Furthermore, the nature of market failure can be different and therefore, the interventions required would be different. Provision of public goods such as establishing safety and security of the people, ensuring property rights and enforcement of contracts is a clear case of market failure and that the government must do through public spending. Redistribution is another area where markets fail, but the government must work on the right mechanism to achieve this. Reducing the incomes of the rich does not necessarily increase the income of the poor. Nevertheless, direct anti-poverty interventions and enhancing the human capital of

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the poor does require public spending. However, market failures like ensuring fair competition in the market preventing exploitation arising from asymmetric information need to be addressed through effective regulation rather than direct participation by the government in the market. Even when market failures warrant government intervention and the nature of interventions is appropriately designed there are capacity constrains resulting in implementation failure. The short point is, policy making is a serious affair, but they narrate the economics and politics of policy making in a simple manner intelligible to the common person and bring out several myths arising from unintended consequences of wrong policy interventions. This is an everyman's guide to economics and politics of policy making. They take us through the history of development and bring in several anecdotes from experiences to drive home the point. The one on the experience of providing incentives to control rat population makes hilarious reading.

The book begins with the role of the State. The mainstream view is that the State is a benevolent entity meant to enhance the welfare of the people and therefore, it has an expanded role in directing and participating in economic activities. Despite the ill effects of dirigisme manifest in the first 40 years of independence in India, the common man's demand is that the government should solve any problem she faces! One is reminded of the fascinating discussion led by two great stalwarts in Public Finance – Richard Musgrave and James Buchanan – University of Munich in 1998 – one a staunch supporter of state intervention and another who firmly believed in the view that the State essentially constrains the freedom of people recorded in the book, "Public Finance and Public Choice: Two contrasting views of the State". Musgrave believed in the goodness of the State and wanted the interventions in many areas for "merit good" reasons even when the markets can provide them. Buchanan, while agreeing that the State has a role to provide public goods and redistribution which the markets fail to do was emphatic in stating that he does not understand the concept of "merit goods", and once the redistribution is done, the matter should be left to the people to choose what and how much they would like to consume

The authors question the view that government is a benevolent entity: It is an evil necessary to intervene when the markets fail. It constrains individual freedoms. It has the capacity and power to coerce, inflict violence and constrain individual freedom. The role of the government comes in the cases of externalities, asymmetric information, market power and public goods. Incentives matter; You require checks and balances to control the expansion of the government, Prices should be determined by the markets and the role of the government comes in only when there is the problem of asymmetric information, missing markets and skewed market power to ensure fair competition. Their analysis leads them to conclude clearly that the sick enterprises must die – should not be kept in the ventilator for ever. there should be a clear exit route'; Interventions result in ripple effects; Any rationale for intervention or its assessment must take into account the general equilibrium effects. Lack of understanding and inability to look at general equilibrium effects lead to implementing policies that will have opposite of intended outcomes. Start with the data and don't rush to policies without analysing the data.

Some interesting examples of wrong form of interventions are easy to point out. APMC's tend to increase the power of traders and middlemen and restrict the farmers from selling in other markets. There are several examples of wring types of interventions such as Land Ceiling Act, Rent Control Act, Bank Nationalisation, Small Scale Industries reservation and other incentives, drug price control and increased protection. Such examples may easily be multiplied. They also point out that often, wrong type of interventions take place due to constraints such as lack information, knowledge, resources, administrative capacity and voter rationality. Once recognised, efforts can be made to bridge them. But what if the intervention and its poor design is due to distributional coalitions?

This is an important contribution and a necessary reading not only to those involved in serious policy making but also a general citizen who is at the receiving end. It is a serious book, not meant for bedside reading because, its 374 pages makes it too heavy to hold in the hand lying on the bed. On a more serious note, it is hoped that the policy makers listen to what the authors have to say and general readers get sensitised on wrong policy interventions.

Vijay Kelkar and Ajay Shah, *In Service of the Republic: The Art and Science of Economic Policy Making*, Penguin Books 2020; Rs. 615 (Hardcover), Rs. 339.63 (Kindle Edition).

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