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MAJOR RESEARCH PROJECT

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"Covid-19: Impact on the Indian Economy"

Submitted to Devi Ahilya Vishwavidyalaya, Indore

In partial Fulfillment of the degree of

Master of Business Administration

(FULL TIME)

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Submitted By:

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MBA (I) SEM (A)

PREFACE

The bookish knowledge of any program, which we get from educational institutions, is not enough to be used in our day to day life. The more practical knowledge we have the more beneficial it is for our learning.

To make the student aware from of the working of the business world every student of MASTER OF BUSINESS ADMINISTRATION has to undergo a major research where he/she experiences many aspect of business under the supervision of Professional Managers.

I strongly believe that the knowledge gained from this experiences is more than the knowledge gained from the theories in the books.

PLACE : INDORE

Student's Name: CHETAN MALVIYA

STUDENT DECLARATION

I CHETAN MALVIYA, Student Of Shri Vaishnav Institute Of Management Indore of MBA (full time) program has prepared Major Research Project Report on the topic "Covid-19: Impact on the Indian Economy".The research as per my knowledge is original and genuine and not published any research journal previously.

CHETAN MALVIYA
MBA (2022-2024)

INSTITUTE CERTIFICATE

Date:07/03/23

“This is to certify that this Comprehensive Project Report Titled “Covid-19: Impact on the Indian Economy” is the bonafide work of Chetan Malviya. who have carried out their project under my supervision. I also certify further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate. I have also checked the practical aspects of the project in relevant market”.

Rating of Project Report [A/B/C/D/E]: __

(A=Excellent; B=Good; C=Average; D=Poor; E=Worst)

DR. Abhikrati Shukla

INTERNAL EXAMINER **EXTERNAL EXAMINER**

ACKNOWLEDGEMENT

It is our proud privilege to release the feeling of our gratitude to several people who helped us directly or indirectly to conduct this research project work. we express our heart full indebtedness and owe deep sense of gratitude to our college **“SHRI VAISHNAV INSTITUTE OF MANAGEMENT”**

I am highly thankful to **DR. Abhikrati Shukla** Maam for allowing me as a guide and trainer. In addition to helping us in our practical studies at the end study the entire organisation and various aspects of managerial functions. They provide to us many details and enlighten me in preparation of this project.

We would like to express my gratitude towards **DR. GEORGE THOMAS** Director at Shri Vaishnav Institute of Management for their valuable guidance and help in the preparation of this report. They were also helping me for using various statistical tools and analysis of data. At last, but not least, we would be thankful to our friends and other people, who helped me in preparation of this project report.

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Abstract

The outbreak of the Covid-19 pandemic is an unprecedented shock to the Indian economy. The economy was already in a parlous state before Covid-19 struck. With the prolonged country-wide lockdown, global economic downturn and associated disruption of demand and supply chains, the economy is likely to face a protracted period of slowdown. The magnitude of the economic impact will depend upon the duration and severity of the health crisis, the duration of the lockdown and the manner in which the situation unfolds once the lockdown is lifted. In this paper we describe the state of the Indian economy in the pre-Covid-19 period, assess the potential impact of the shock on various segments of the economy, analyse the policies that have been announced so far by the central government and the Reserve Bank of India to ameliorate the economic shock and put forward a set of policy recommendations for specific sectors.

Keywords: Covid-19, pandemic, economic downturn, aggregate demand, supply chain, informal sector, financial institutions, fiscal policy.

Impact of Covid-19 on the Indian Economy: An Interim Assessment

1. INTRODUCTION

We are in the middle of a global Covid-19 pandemic, which is inflicting two kinds of shocks on countries: a health shock and an economic shock. Given the nature of the disease which is highly contagious, the ways to contain the spread include policy actions such as imposition of social distancing, self-isolation at home, closure of institutions, and public facilities, restrictions on mobility and even lock-down of an entire country. These actions can potentially lead to dire consequences for economies around the world. In other words, effective containment of the disease requires the economy of a country to stop its normal functioning. This has triggered fears of a deep and prolonged global recession. On April 9, the chief of International Monetary Fund, Kristalina Georgieva said that the year 2020 could see the worst global economic fallout since the Great Depression in the 1930s, with over 170 countries likely to experience negative per capita GDP growth due to the raging coronavirus pandemic.3

The world has witnessed several epidemics such as the Spanish Flu of 1918, outbreak of HIV/AIDS, SARS (Severe Acute Respiratory Syndrome), MERS (Middle East Respiratory Syndrome) and Ebola. In the past, India has had to deal with diseases such as the small pox, plague and polio. All of these individually have been pretty severe episodes. However the Covid-19 which originated in China in December 2019 and over the next few months rapidly spread to almost all countries of the world can potentially turn out to be the biggest health crisis in our history. Many experts have already called this a Black Swan event for the global economy.

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India recorded the first case of the disease on January 30, 2020. Since then the cases have increased steadily and significantly. At the time of writing of this chapter (July 2nd week, 2020), and as shown in figure 1, India has recorded the third highest Covid-19 caseload in the world after the United States and Russia with more than a million confirmed cases and more than 25,000 deaths .5 The doubling rate has steadily gone up to around 18-22 days (figure 2) and the daily new confirmed cases are around 28,000-30,000.

However, as shown in figure 1 the growth in active cases is lower than the growth in total cases implying a relatively high recovery rate which has continued to improve. Also figure 3 shows that, unlike other affected countries the number of daily new cases is yet to reach the peak in India. Globally there have been more than 13million confirmed cases and close to 6 lakh deaths (World Health Organization).

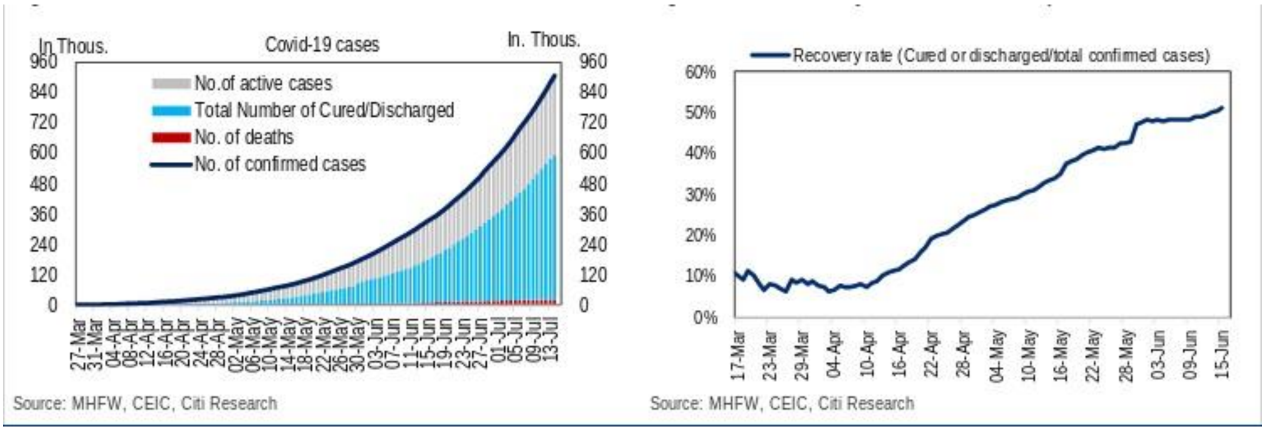
In order to curb the spread of the virus, the government of India announced a nationwide lock-down starting March 25, 2020 which continued for about two months. All non-essential services and businesses, including retail establishments, educational institutions, places of religious worship, across the country stayed closed during this period and all means of travel were stopped, aside from some inter-state transport permitted towards end April and early May to let migrant workers, stranded pilgrims, tourists and students return to their native places At the time this was the most far-reaching measure undertaken by any government in response to the pandemic and till date remains the world's biggest lock-down in context of this disease

Subsequently from end May early June onward the lock-down was gradually relaxed in a phased manner but continued in high-risk zones or 'containment' areas. This was required given the uneven spread of the pandemic across the country with some states like Delhi, Gujarat, Maharashtra, Tamil Nadu, West Bengal etc reporting higher than average confirmed cases and also given the tremendous hardship that the nationwide lock-down had begun imposing on the overall economy. With the continued surge in cases, after an initial phase of relaxations in June, the nationwide lock-down was extended till July 31 albeit in a less strict manner compared to the lock-down of March 24.

Measured relaxations have been permitted in areas outside the 'containment or high-risk zones' including opening of non-essential establishments, and businesses. Domestic flights have been allowed subject to the guidelines issued by the government to ensure safe travel of the passengers amidst the pandemic. However restrictions on educational institutions, places of public gathering such as shopping malls, gymnasiums, swimming pools, cinema theatres, entertainment parks, places of religious worship, operation of metro train services etc continue. While vehicular movement within states is allowed there remains in place a nightcurfew period in almost all states. The re-imposition of the lock-down has delayed any chance of economic recovery that was anticipated once the first phase of 'unlocking' had begun in June.

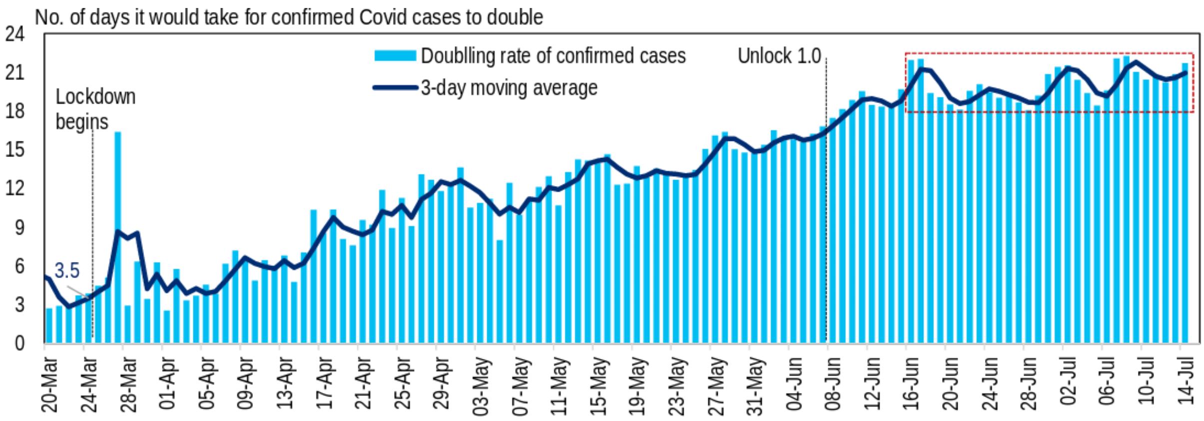
The lock-down was primarily intended to buy time to prepare the health system and to put together a plan of how to deal with the outbreak once the case-load started accelerating. India's public health system is relatively weaker than other countries. The government spends only 1.5% of the total GDP on public health as a result of which the system remains grossly under-prepared to deal with a health crisis such as this.

Figure 1: Confirmed Covid-19 cases in India



To the extent possible, the lock-down period was used to ramp up testing, contact-tracing, isolating confirmed patients in designated quarantine centres and setting up treatment facilities including makeshifthospitals. However the health care system continues to be overwhelmed by the rising number of patientsevery day especially in the worst affected states.

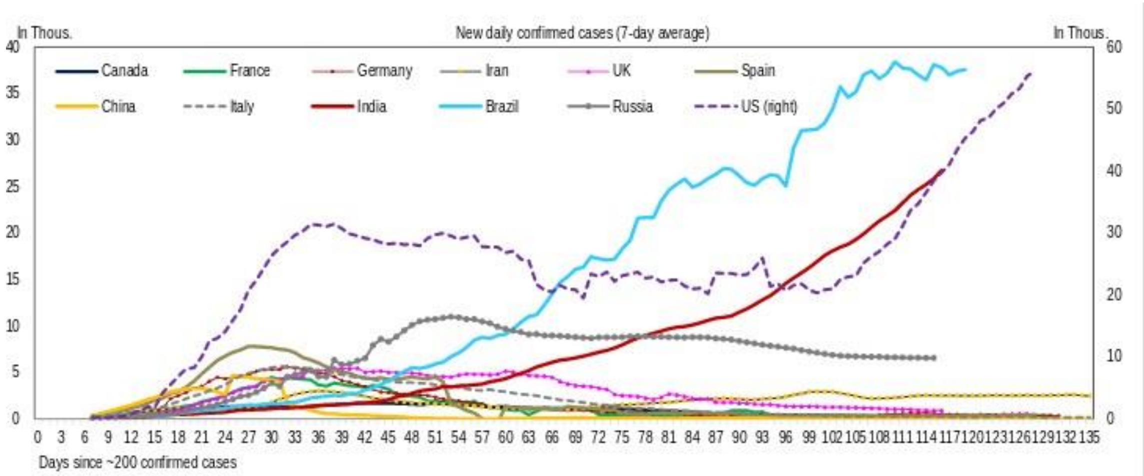
Figure 2: Doubling rate of confirmed Covid-19 cases in India



Source: Ministry of Health and Family Welfare; Citibank Research. Doubling rate represents the number of days it would take for thecases to double if the daily percentage increase in confirmed cases remains unchanged.

The unprecedented lock-down has had a significant adverse effect on the economy. Millions of jobs and livelihoods are now at stake. As activity around the country came to a halt, with no job or income, more than 50 million migrant workers either returned to their native villages or shifted to camps inside the cities because state borders were sealed. While there are reports of some of them returning back to the cities nowin search of jobs and livelihoods majority have not yet come back thereby imposing a massive strain on labour supply in the urban areas. Transportation of raw materials and finished goods across states was also severely constrained. Countries have closed national borders bringing international trade and commerce to anabrupt halt. All these are severely disrupting supply mechanisms and distribution chains in almost all sectors.At the same time, there has been a complete collapse of consumption demand as millions of people stayhome and postpone their non-essential expenditures.

Figure 3: New daily confirmed cases across the world



Source:

Ministry of Health and Family Welfare, Citibank Research.

The overall magnitude of the impact of the pandemic will depend upon the duration and severity of thehealth crisis, the extent to which intermittent lock-downs are required in different regions of the country and the manner in which the situation unfolds as and when the nationwide lock-down is finally lifted and normaleconomic activity is permitted. The loss to the economy has already been substantial.

This crisis comes at a time when India's GDP growth was slowing down, and unemployment was on the riseowing to poor economic performance over the last several years. The precarious situation that the economy was in before getting hit by this shock will potentially worsen the effect of the shock. This is especially because the financial sector which is the brain of the economy has not been functioning properly and the macroeconomic policy space to respond to such a crisis is severely limited.

Earlier, Indian economy was primarily experiencing a demand slowdown whereas now both demand and supply have been disrupted. There are four channels through which the impact is getting transmitted to output growth. These are: external supply and demand constraints due to global recession and disruption of global supply chains, domestic supply disruptions, and decline in domestic demand. The economic shock is impacting both formal and informal sectors.

It may take a long time for the economy to recover from this shock even if the lock-down is fully lifted by August or September, 2020. To a large extent the recovery will depend on the policy responses of the

government and the Reserve Bank of India (RBI) during the crisis period. The policymakers have already announced an initial round of actions. Much more needs to be done to minimize the impact of the shock on the economy.

In this chapter we analyze the Indian economy in the pre Covid-19 period and assess the potential impact of the shock on various segments of the economy. We discuss the policies that have been announced so far to ameliorate the economic shock and finally end with some policy recommendations.

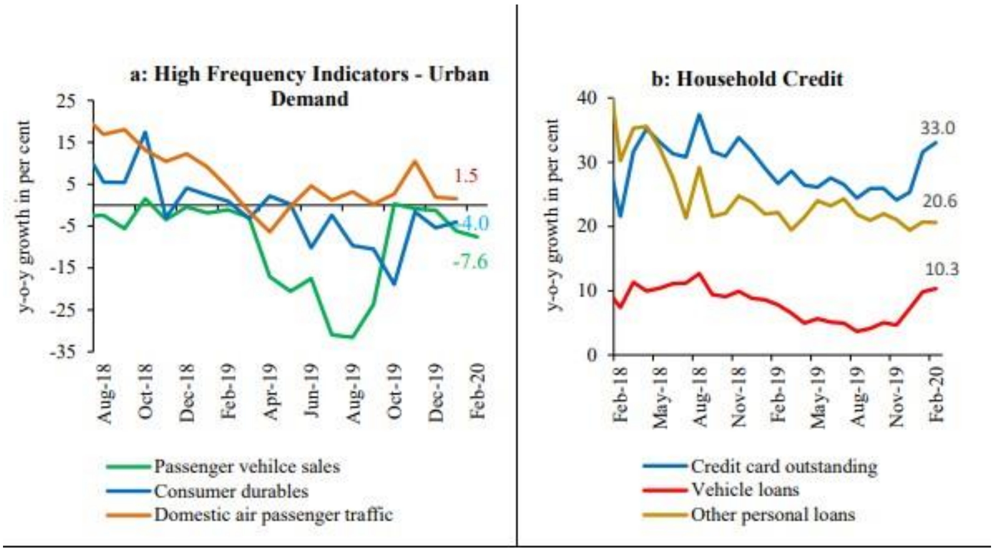
2. Indian economy in pre-Covid-19 period

The shock is playing out in almost a similar manner in all countries of the world in terms of demand and supply disruptions and the consequent economic slowdown. In case of India however the problem might be more acute and longer lasting owing to the state the economy was in, in the pre-Covid-19 period. By the time the first Covid-19 case was reported in India, the economy had deteriorated significantly after years of feeble performance.

GDP (gross domestic product) growth rate has been on a downward trajectory since 2015-16. According to the official statistics, GDP growth slowed down to 4.2% in 2019-20, the lowest level since 2002-03. Industry, which accounts for 30% of GDP, *shrank* by 0.58% in Q4, 2019-20. Unemployment reached a 45-year high. A major driver of growth in any economy is investment by the private corporate sector. In the pre-Covid19 period, nominal values of private sector investment have been declining. The total outstanding investment projects between 2015-16 and 2019-20 declined by 2.4%, whereas new projects announced fell by 4%, as per data from the CMIE (Centre for Monitoring Indian Economy). Consumption expenditure had also been falling, for the first time in several decades.

High frequency indicators (figure 4) of urban consumption demand show that sales of passenger vehicles as well as consumer durables growth contracted in February 2020. Overall, urban consumption appears to have lost steam in Q4. Among the indicators of rural consumption, motorcycle sales and the consumer non- durable segment remained in contraction in February 2020, reflecting weak rural demand. The lock-down would have dampened any chance of revival of consumption demand and private investment.

Figure 4: High frequency indicators: Consumption demand



Source: RBI (2020)

A few specific factors make India's position particularly vulnerable as it tries to deal with the ongoing economic crisis.

2.1 Informal sector

India has a vast informal sector, the largest in the world, employing close to 90% of its working population and contributing more than 45% to its overall GDP. This sector was hit by two consecutive shocks in a short span of time, from 2016 to 2019. The first shock was Demonetisation in November 2016 when 86% of the money in the economy became unusable overnight owing to a government decree, followed by the haphazard introduction of the Goods and Services tax in 2017.[7]

While demonetisation was a big enough monetary shock, it did not fundamentally disrupt demand andsupply mechanisms for too long. There was a temporary lack of means of payment.[8] We now know in hindsight that people found work-arounds in the forms of electronic payments, informal credit, converting black money into white, using old notes etc. In the case of the current crisis, the demand is not there, the supply is not there, and hence the underlying revenues are not there. This is therefore much more problematic. With the Covid-19 outbreak, the already struggling informal sector has been disproportionatelyaffected (Ray and Subramanian, 2020).

2.2 The banking and corporate sectors

During crisis times, one sector of the economy that is required to play a crucial role in terms of alleviating the pressures on the real economy is the financial sector. The need of the hour is to keep credit flowing to all categories of economic agents- firms, households etc., to help them tide over this crisi

In a bank dominated economy, particularly at a time when the stock market is touching new lows every day, the financial intermediaries that most firms will turn to are the banks. Actions taken by banks would be crucial in addressing this economic challenge. Banks also play a vital role as institutional participants in the debt market.

However, the banking sector in India is badly broken. Banks, especially the public sector banks, have been struggling to deal with mounting losses from non-performing assets on their balance sheets. The problems in the banking sector have been adversely affecting credit growth and by the time the pandemic hit India, these problems had begun to hurt the debt markets as well which also play an important role in the context of financial intermediation. This could rapidly become a serious choke point as the Indian economy struggles to come to terms with this unprecedented shock.

Over the last few years, India has been dealing with the Twin Balance Sheet (TBS) stresses in the banking and corporate sectors. This was a consequence of high levels of non-performing assets (NPAs) in an inadequately capitalised banking system, combined with over-leveraged and financially weak firms in the private corporate sector (Sengupta and Vardhan, 2017, 2019).

The government and the banking regulator (RBI) took a series of steps to address the crisis. These included putting the weakest ten banks under a Prompt Corrective Action framework which prevented them from expanding their books, initiating investigations by the Central Vigilance Commission (CVC), Central Bureau of Investigation (CBI) etc. against senior officials of the banks, and directing banks to trigger the Insolvency and Bankruptcy Code (IBC, 2016) against defaulting firms and accept large haircuts even when capital to provide for the losses was not sufficient.

In some cases senior officials of banks were arrested for allegedly fraudulent credit transactions.9 In February 2016, the Supreme Court issued a ruling which held that employees of all banking companies, foreign as well as domestic, are "public servants" under India's Prevention of Corruption Act, 1988 ("POCA"). This implies that all bank employees now face the risk of investigation and prosecution under the POCA for issues related to corruption. Nearly any decision about NPAs could come under the scanner. This single step is likely to deter bank officers from taking commercial decisions. This is particularly worrisome, given the expansive description of corruption under POCA and minimal restrictions on investigations, as highlighted by commentators at the time. 10 These measures arguably led to a rise in the risk aversion in the banking system (Sengupta and Vardhan, 2020b).

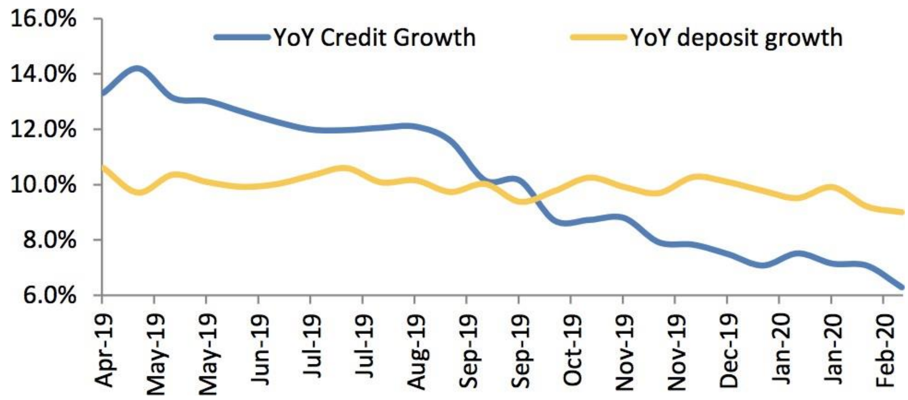
As the NPA crisis began plateauing out, the financial system faced another blow when a large non-banking finance company (NBFC), IL&FS (Infrastructure Leasing and Financial Service) defaulted on its debts in

September, 2018. This sent shockwaves through the banking system as well as the debt markets- the two biggest funding sources for the NBFC sector. The reaction of the bond markets was reflected in a sharp increase in credit spreads of all financial sector bond issuers. The total volume of bond issuances dropped significantly, not just for financial sector firms but for all borrowers. Banks continued lending, primarily encouraged by the RBI and the government, but this lending was limited to a handful of highly rated NBFCs. The IL&FS episode further worsened the risk appetite of the banks and triggered risk aversion in the debt markets as well.

One direct consequence of the heightened risk aversion in the banking system has been the lack of growth in commercial credit supply. Banks, especially the public sector banks (PSBs) which account for close to 90% of the NPAs, severely cut back lending to the private corporate sector. By FY2017, net bank credit was growing at a decade's low of 2.69% per year. By FY2018, PSBs were lending mostly to NBFCs, and private sector banks were mainly lending to retail customers. Credit to industry had declined dramatically whereas credit off-take in personal loans segment accounted for the largest share (figure 6).

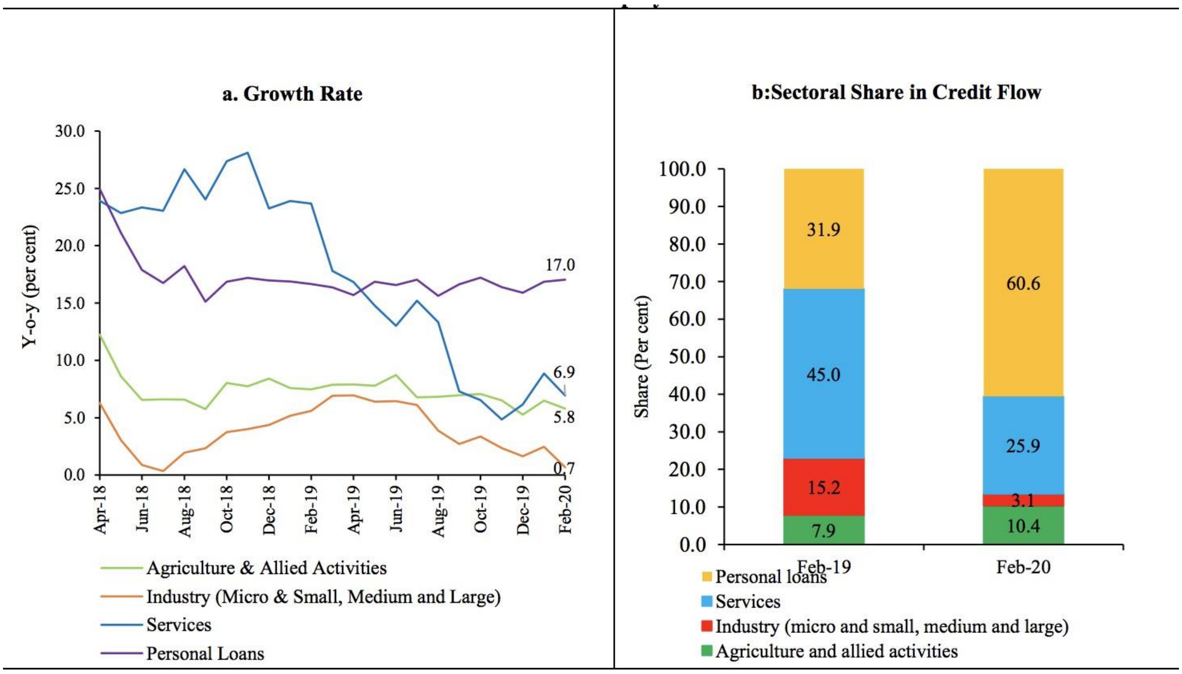
Post the IL&FS crisis credit spreads on corporate debt securities remained elevated and overall bank lending, after an initial spurt in the last quarter of FY2019 (mostly lending to NBFCs), tapered off. Commercial credit witnessed a sharp decline of almost 90% in the first half of FY2020. In the months of February and March, 2020, the near-demise of Yes bank, a large private sector bank, triggered the risk of deposit squeeze for private sector banks which would further curtail credit growth.11 As a result, credit off-take during 2019-20 (up to March 13, 2020) was muted with non-food credit growth at 6.1% being less than half the growth of 14.4% in the corresponding period of the previous year (figure 5). This was also the lowest growth rate of non-food bank credit in nearly six decades.

Figure 5: YoY Credit and deposit growth of the banking sector



Source: ICRA report. This shows total non-food credit growth.

Figure 6: Sectoral deployment of credit

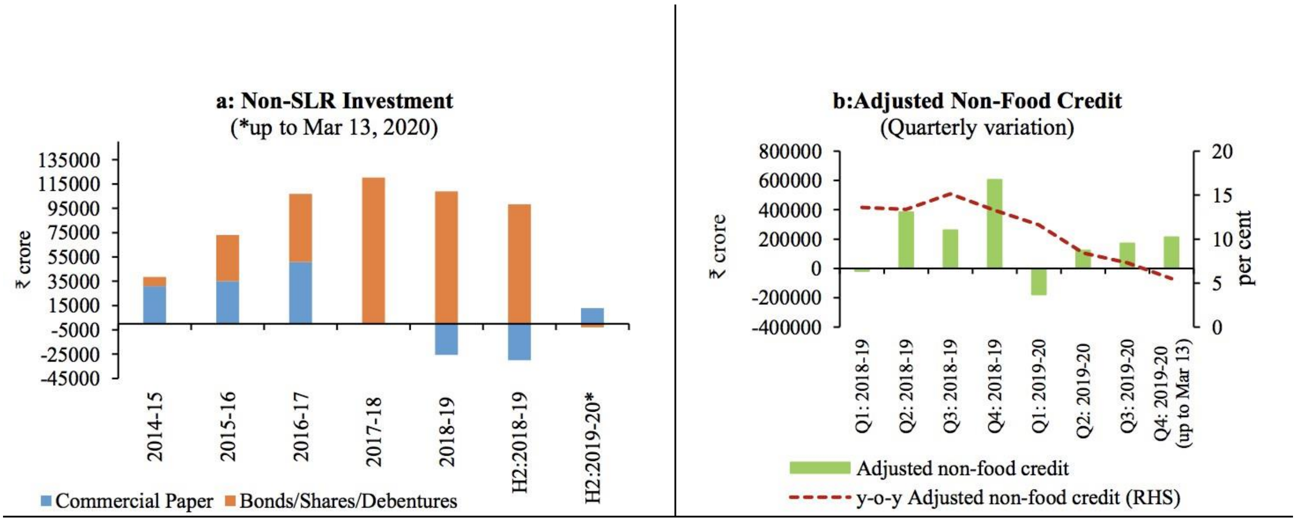


Source: RBI (2020)

While part of the fall in commercial credit growth may have been due to lack of demand given the balance sheet crisis in the private corporate sector, anecdotal evidence suggests that reluctance in banks to extend credit has also been a big factor.[12] As admitted by the RBI Governor himself in recent times (italics and highlight added): "*In view of subdued profitability and deleveraging by certain corporates,* ***risk-averse banks*** *have shifted their focus away from large infrastructure and industrial loans towards retail loans*."[13]

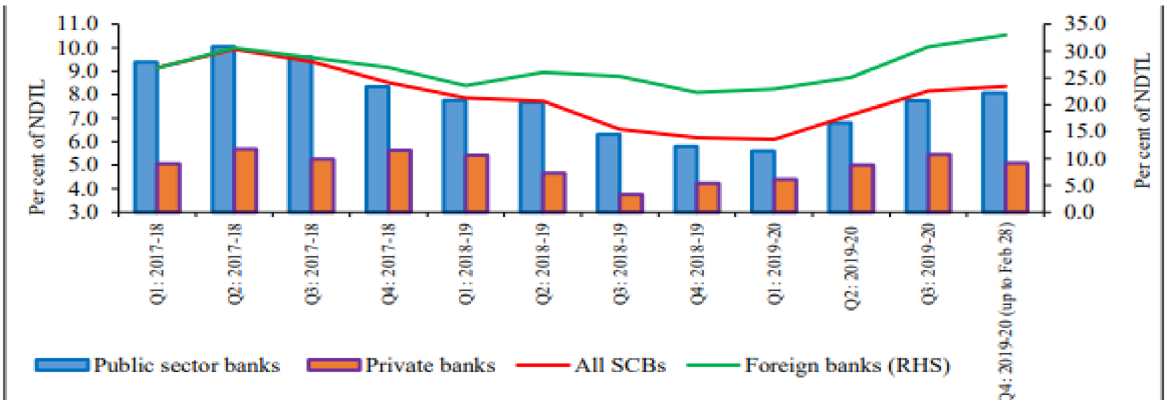
The consequences of heightened risk aversion in the banking system have begun hurting the debt markets. In a situation where bank credit growth has been at a multi-decade low, debt market especially the short term debt market plays a vital role in financing firms. As shown in figures 7a and 7b, banks' holding of non-SLR bonds has declined sharply which means they are averse to credit risk. Banks are instead holding more G- Secs than the SLR requirements and the excess SLR of all banks – PSBs, private, and foreign has gone up sharply which means the credit risk aversion is across the board.

Figure 7a: Non-SLR investment and adjusted non-food credit



Source: RBI (2020)

Figure 7b: Excess SLR of banks



Note: Excess SLR is the average of all reporting Fridays in a quarter; **Source**: RBI.

Source: RBI (2020)

Just as the debt market was beginning to regain its appetite for corporate debt securities in the aftermath of the NBFC crisis of 2018-19, it was hit by the Yes Bank episode. As part of the restructuring of Yes Bank, its additional tier 1 (AT1) bonds were written down completely.[14] These AT1 bonds are an important component of capital for banks. Roughly Rs 89,000 crore worth of bonds were outstanding in the banking system as a whole, at the time of this write down. These were widely held by mutual funds, pension fundsand even retail investors.

Credit spreads on all these AT1 bonds shot up and several planned issuances were cancelled. It is unlikely that any bank will be able to issue these bonds in the near future making it difficult for banks, especially private sector banks to raise capital. This is going to become a serious constraint as banks struggle to deal with the impact of the Covid-19 shock on their already fragile balance sheets.

The private corporate sector had already been facing significant balance sheet stress over the last few years. Their financial performance in 2019-20 was exceptionally poor. The first three quarters of the year saw inflation-adjusted sales decline in year-on-year comparisons. All the quarters also saw a similar decline in inflation-adjusted gross value added by companies. Private sector investment has been declining. Gross fixedcapital formation (GFCF) growth turned negative in Q2 and Q3, 2019-20. Two key indicators of investment demand, production and imports of capital goods remained in contraction in January and February 2020(RBI, 2020). Capacity utilisation in the manufacturing sector declined below the long-term average in Q3, 2019-20.

2.3 Limited policy space

Given the state of the economy and especially the state of the financial institutions, the policy levers available to the government to deal with the economic crisis are limited. When the effects of 2008 Global Financial Crisis (GFC) were felt in India, the domestic economy was in a better shape having experienced a credit boom and a high growth rate for the preceding years and the government was also in a position to implement both monetary and fiscal stimulus measures. More importantly, the financial institutions were not so badly damaged.

In contrast, the fiscal deficit of the government was already high in the pre-Covid-19 period and had breached the target as specified in the FRBM Act (Fiscal Responsibility and Budget Management Act). The fiscal deficit of the central government in 2019-20 was 4.6% of GDP against the target of 3.5% of GDP. Thishas been the highest fiscal deficit since 2012-13. The Finance Minister in her Budget Speech of February 1, 2020 had pegged the target for FY2021 to 3.5% (table 1) which will be breached by a wide margin. The FM had already used the escape clause provided under the FRBM Act to allow the relaxation of target for 2019-
20. The clause allows the government to relax the fiscal deficit target for up to 50 basis points or 0.5%.

This shows that the government now has very little fiscal room. As the crisis unfolds, falling tax collections, declining revenues of public sector enterprises and rise in health sector expenses will further hamper the ability of the government to support the economy. Even without any additional expenditure, the deficit would go up substantially because of the decline in tax revenues and disinvestment receipts. Net tax revenuesin April 2020 fell by a staggering 70% compared to April

2019. If state-level deficits are added, then the overall fiscal deficit in 2020-21 could very well exceed 10% of GDP, even without taking into account the off-balance sheet items. Financing such high levels of deficit poses a serious challenge.

Table 1: Key Fiscal Indicators – Central Government Finances

Indicator	2019-20 (BE)	2019-20 (RE)	2020-21 (BE)
			Per cent to GDP
1. Revenue Receipts	9.3	9.1	9.0
a. Tax Revenue (Net)	7.8	7.4	7.3
b. Non-Tax Revenue	1.5	1.7	1.7
2. Non-Debt Capital Receipts	0.6	0.4	1.0
3. Revenue Expenditure	11.6	11.5	11.7
4. Capital Expenditure	1.6	1.7	1.8
5. Total Expenditure	13.2	13.2	13.5
6. Gross Fiscal Deficit	3.3	3.8	3.5
7. Revenue Deficit	2.3	2.4	2.7
8. Primary Deficit	0.2	0.7	0.4

Source: RBI (2020)

Monetary policy has its limitations too which had become apparent in the run-up to this crisis. In response to the growth slowdown, the Reserve Bank of India (RBI) embarked on a path of monetary expansion. BetweenOctober 2018 and December 2019, it freed up around Rs. 4 trillion of liquidity through open market operations[15], and reduced the repo rate[16] by 135 basis points to 5.15% – the lowest since March 2010. Yet, credit growth did not pick up, primarily due to the heightened risk aversion in the banking sector, as discussed earlier, and low credit demand from the stressed private corporate sector.

Monetary policy transmission in India has been weak owing to structural deficiencies such as illiquid bond market, large sections of the population left out of the formal financial system etc. In addition, an impaired banking system and lacklustre investment demand from the private corporate sector, will further hamper the transmission of a policy rate cut to aggregate demand and hence growth.

In other words, the combination of demand and supply shocks are hitting the Indian economy at a time when the tools to deal with the crisis are mostly ineffective, namely fiscal, monetary and financial. Over and above this, the external sector of the economy has been weakening as well. The nominal value of exports of goods and services – another important driver of growth – witnessed a *decline* by 8.49% in Q4, 2019-20.

3. Impact of the crisis

3.1 Overall macro impact

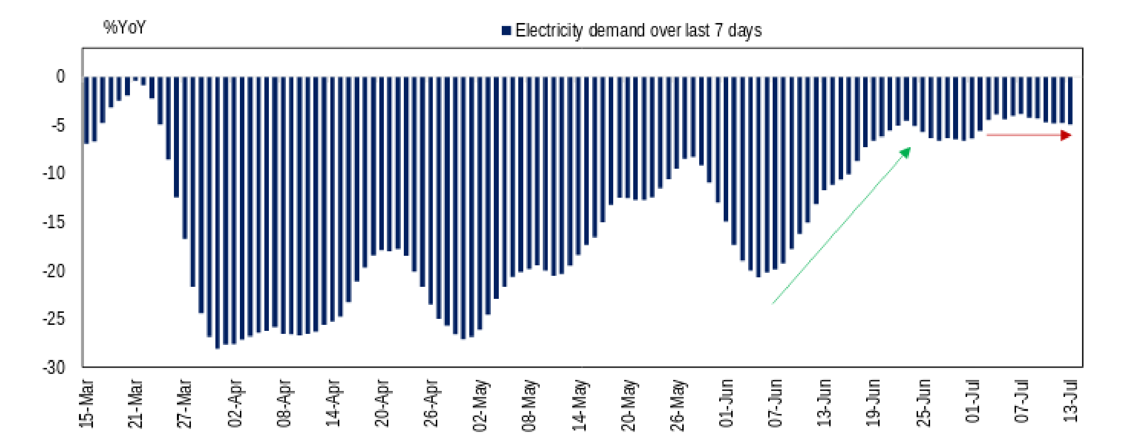
The countrywide lockdown has brought nearly all economic activities to an abrupt halt. The disruption of RBI conducts monetary policy through open market operations (OMO) – purchase (or sale) securities to infuse (or absorb) liquidity. OMO though essentially a monetary tool, has to factor in the large market borrowing at times to maintain orderly financial conditions

The rate at which RBI lends money to commercial banks demand and supply forces are likely to continue even after the lockdown is lifted. It will take time for the economy to return to a normal state and even then social distancing measures will continue for as long as the health shock plays out. Hence demand is unlikely to get restored in the next several months, especially demand for non-essential goods and services. Three major components of aggregate demand-consumption, investment, and exports are likely to stay subdued for a prolonged period of time.

In addition to the unprecedented collapse in demand, widespread supply chain disruptions will continue fora while due to the unavailability of raw materials, exodus of millions of migrant workers from urban areas, slowing global trade, and shipment and travel related restrictions imposed by nearly all affected countries. The supply chains are unlikely to normalise for some time to come. Already several industries are struggling owing to complete disruption of supply chains from China. The longer the crisis lasts, the more difficult it will be for firms to stay afloat. This will negatively affect production in almost all domestic industries. Thisin turn will have further spill over effects on investment, employment, income and consumption, pulling down the aggregate growth rate of the economy.

At this stage, the possible duration of the underlying health crisis remains uncertain. In addition there are multiple unknown factors such as the true extent of impairment suffered by the different sectors of the economy, the magnitude of deterioration of the balance sheets of economic agents such as firms andhouseholds, the ability of both the formal and informal sectors to bounce back to normalcy once the lockdown is fully relaxed and most importantly, the potential destruction of the productive capacity of the economy. Therefore, it is difficult to fully comprehend the extent of the damage that the Indian economy is currently incurring. Some of the statistics available now already highlight the severity and duration of the slowdown the economy may experience going forward. After some amount of recovery in economic activity in June, 2020 it appears that the slowdown has resumed once again in most of the sectors. The improvement seen in most high-frequency indicators in June after the dramatic collapse in the April-May period has begun to wane since mid June. This is presumably due to the renewed lockdowns all over the country and damageto consumer sentiment and overall economic productivity.

Figure 8: All India electricity demand (YoY)

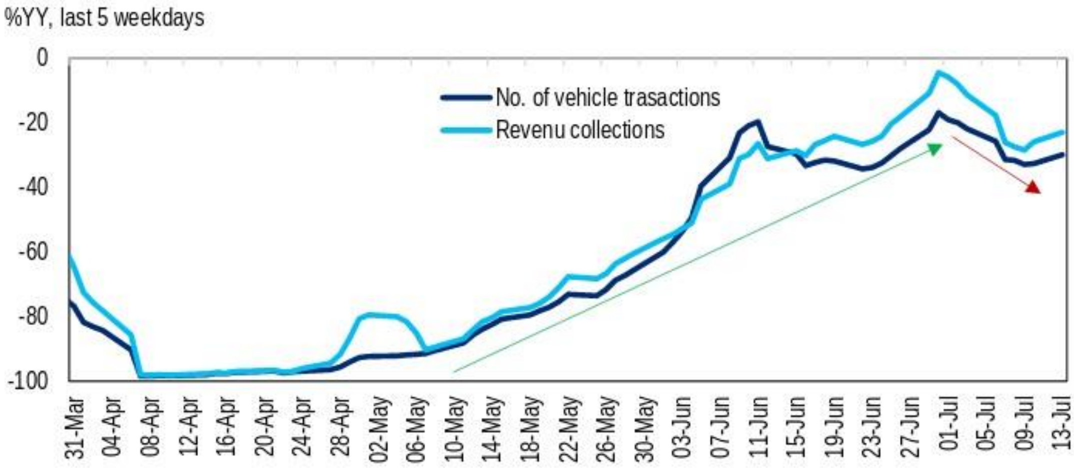


Source: POSOCO, Citi Research

Elect

ricity demand declined to 30% below last year's levels (figure 8) and gradually recovered thereafter. Since June end there has been no further moderation in the pace of deceleration in electricity demand. Vehicle registration related transactions declined dramatically in end March and April, began improving since May but have begun falling again in the first couple of weeks of July (figure 9).

Figure 9: Vehicle registration related activities



Sourc

e: Citibank Research

Overall cargo throughput at majority of theIndian ports was down by around 20% year on year in March and April, particularly in cargo segments such as petroleum products, thermal coal and containers.[17] This contraction was recorded despite the fact that the port sector is counted among 'essential services' and was primarily due to the shock to global trade and reduced domestic industrial activity owing to the lockdown. Railway freight which is an important indicator of economic activity was down by more than 35% year on year in April and began recovering slowly since May, a trend which has continued in July.[18]

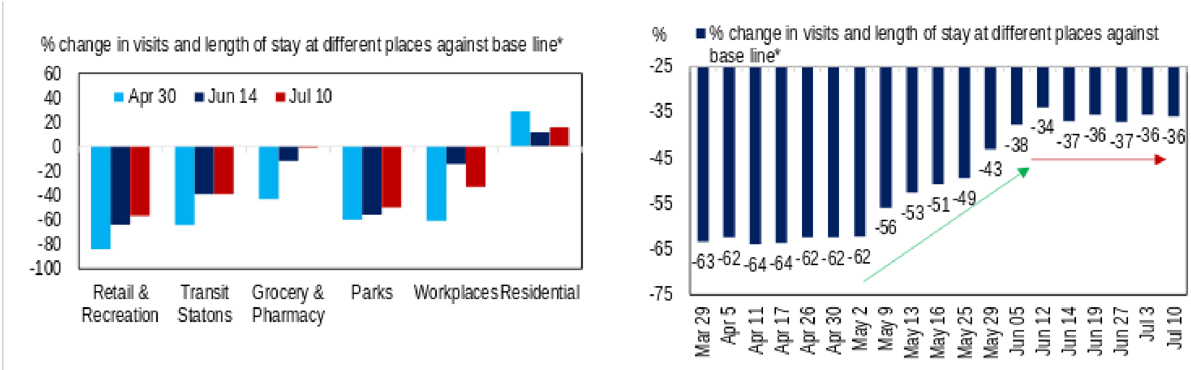
India's aviation, tourism and hospitality industries have already sustained maximum damage because of the Covid-19 outbreak, and after the lockdown, it is questionable to what extent they will be able to ride out this storm. The shutdown is bound to push India's fast-growing aviation industry into peril. The Centre for Asia Pacific Aviation (CAPA) has assessed that the Indian aviation industry will post staggering losses worth nearly $4bn this year.

There will also be large scale cascading effects for the hospitality and tourism industries. Hotels and restaurant chains across the country are closed right now They are unlikely to witness a pick-up in demand even when the lockdown is relaxed. Their businesses will suffer for several months, sparking worries of large-scale layoffs.

The World Travel and Tourism Council has projected that travel could fall by 25% in 2020 putting to risk 12-14% of the jobs in the sector. This translates into 50 million jobs at risk, globally. According to estimates from CMIE's Consumer Pyramids Household Survey, travel and tourism accounts for five per cent of total employment in India (nearly 20 million jobs). Hotels and restaurants account for another 4 million jobs. Employment in the travel and tourism industry has already been declining since late 2017.[19] These sectors are going to be disproportionately affected during the on-going crisis.

Google has released a mobility report, which shows changes in the footfalls and length of stays at different types of places across the country during the lockdown period against a baseline. The baseline they use is themedian value for the corresponding day of the week, during the 5-week period Jan 3- Feb 6 2020. The left hand panel of figure 10, shows the percentage change in number of visits and duration of stay at different places against the baseline whereas the left hand panel shows an average of five categories of places from theleft hand panel, excluding residential. After a steep decline in April which only marginally recovered in June,the major improvement in July has only been recorded in the grocery and pharmacy sectors both of whichare essential sectors.

Figure 10: Google Mobility Report



Source: Citibank Research

With all non-essential businesses closed, most industries have been witnessing a drastic decline in sales. Revenue losses will force businesses to either close down or opt for wholesale retrenchment of workers. Operations of a large number of companies in specific sectors will not see business getting back to normal even after the lockdown ends, as the labour has moved out. Even capital intensive sectors such as real estate,consumer durables, and jewellery may not see a demand revival for several months or quarters.

Data from the Consumer Pyramid household level survey of the CMIE shows that the overall weekly unemployment rate went up drastically from an average of 9% in March to around 23% in May and to ashigh as 35% by early-June. It was higher in the urban areas compared to the rural areas. In June the unemployment rate fell sharply to 11% reflecting the first round of relaxation of lockdown restrictions. Therewas also a significant recovery in the labour participation rate. Since then the unemployment rate has been stagnant at 11%. This is still higher than the pre-lockdown rate but significantly less than what was recorded during the peak of the lockdown from end March to end May. The labour participation rate recovered faster than the unemployment rate but in July this too has been slowing down indicating some sort of a plateauing out.

The firms in the private corporate sector which have been deleveraging for the last few years in response to the TBS crisis and those with relatively deep financial pockets, will perhaps be able to tide over this episode, also depending on which sector they are operating in. A large number of firms will however struggle to survive. They have to pay rents, salaries, debts etc., even as their revenues will steadily keep falling aspeople change lifestyles and cut back on expenditures.

Many of these firms will end up defaulting on their loans due to persistent fall in revenues. The firms that were near insolvency will end up in the bankruptcy process (which too is likely to get jeopardised further owing to the lockdown measures), and those that were undergoing insolvency resolution process under IBC will most likely get pushed to liquidation. Several large business houses have already invoked the provisions of force majeure to stall the payment of license fees, rents etc., and to restrain the invocation of penalties.[20] This further highlights the severity of the problem at hand.

Over and above the domestic problems, the Indian economy will also continue to get affected by the global recession that may last for a while.[21] This is bound to have spill over effects through financial and trade linkages of India with the rest of the world. Already foreign investors have been pulling money out of the Indian financial markets and are fleeing to safe assets as stock markets have crashed.

3.2 Agriculture and Rural Activities

The agriculture sector is critical as large number of workers and the entire country's population are dependent on this sector. The performance of agriculture is also key to the state of rural demand. In the pre- Covid-19 period, agricultural GDP experienced an average growth rate of 3.3% per year in the six-year period 2014-15 to 2019-20 with intermittent fluctuations[22]. The provisional estimates of the National

Force majeure or an 'act of God' is a contractual clause that refers to an unnatural event such as an earthquake, fire, war, or other such situation which prevents parties from continuing or performing their contractual provisions. This clause exonerate s parties from contractual penalties or liabilities during the occurrence of *force majeure*. Such contractual duties could mean and include the occupation of premises, the delivery of goods, the payment for services and other such acts for which the contrac t has been entered. The force majeure event must make the contract impossible to perform and not just impose a financial burden on the performance of the contract.

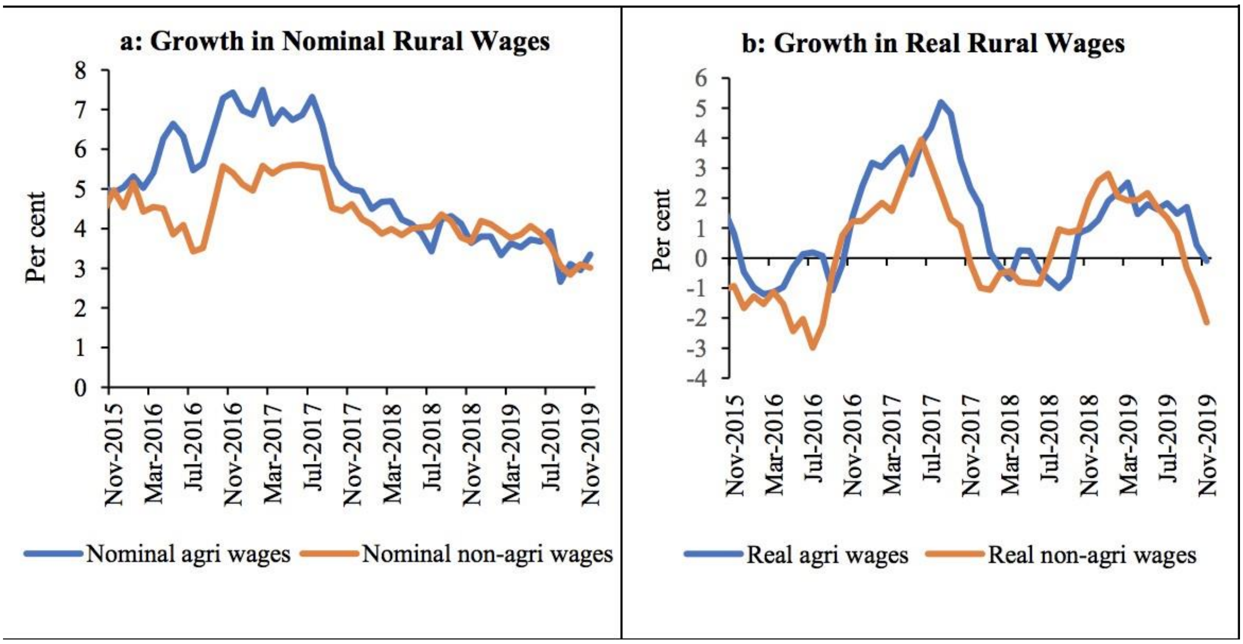
See Carlsson-Szlezak et al (2020) on Covid-19 and global economy.

Himanshu (2019) reports that farm incomes grew at around 5.5% per annum during 2004-05 to 2011-12 but declined to around1.3% per annum during 2011-12 to 2015-16 and the trend of deceleration continued till 2017-18.

Statistical Office (NSO) show that GDP growth in agriculture has increased from 2.4% in FY19 to 4% in FY20. It was also relatively better at 3.5% in Q3 of FY20. However, the terms of trade have moved against agriculture during 2016-17 to 2018-19 due to bumper crop and horticultural production which caused a decline in food prices. Terms of trade for agriculture seems to have improved in 2019-20 as the nominal agricultural GDP growth was 11.4% as compared to real growth of 4%.

Growth in rural wages was subdued in the pre-Covid-19 period, particularly for agricultural labour in both nominal and real terms, partly due to the slowdown in the construction sector (figure 11).

Figure 11: Growth in rural wages



Source: RBI (2020)

The adverse impact of Covid-19 on agriculture has been much less as compared to manufacturing and services. However the initial lockdown did affect agricultural activities and the necessary supply chains through several channels: input distribution, harvesting, procurement, transport hurdles, marketing andprocessing. Closure of restaurants, transport bottlenecks etc reduced the demand for fresh produce, poultry and fisheries products, affecting producers and suppliers.

A study by Narayanan (2020) indicates that when the initial lockdown was imposed in March, farmers were stuck with harvest as APMC (agricultural product market committee) *mandis* closed in several states thereby disrupting food supply disruption from the production to the consumption centres. The study indicates that the government should focus on post-harvest activities, wholesale and retail marketing and initiate procurement operations. Some state governments have already taken initiatives.

Since supply chains have not been working properly, vast amounts of food started getting wasted leading to massive losses for Indian farmers. Media reports show that the closure of hotels, restaurants, sweet shops and tea shops during the lockdown affected the milk producers adversely. Due to lack of demand, the dairy farmers dumped the milk in the drains. Unable to export their produce many farmers are also dumped their seasonal products such as grapes etc.[23]

Poultry farmers have been badly hit due to misinformation particularly on social media at one stage, that chickens are the carriers of Covid-19. Millions of small poultry farmers across the country particularly in the states of Maharashtra, Karnataka, Orissa and Andhra Pradesh were struggling after sales have crashed 80% over these false claims. Some of these developments have since then got reversed.

There is evidence that despite being considered an essential service, agriculture and food supply chains were impacted in the initial days of the lockdown. However over the last two months, activity seems to have been recovering to some extent as agriculture markets adapted to the lockdown. Accordingly the prices of cereal and vegetables which had initially gone up have been reversing.

Agriculture growth is expected to be between 2.5% to 3% in FY21 as India is likely to have a bumper crop production. Rabi crop period witnessed high production of wheat, mustard, gram, sesame etc. Similarly, Kharif production is going to be good due to normal monsoon this year. Agriculture, therefore, is a saving grace for the Indian economy as manufacturing and services would record negative growth in FY21.However, it is not clear whether farmers will get remunerative prices as the country is still facing supply chain problems due to continued partial lockdown. A survey by Azim Premiji University shows that 37% of farmers were unable to harvest, 37% have sold at reduced prices and 15% were unable to sell the harvest.

It may be noted that in rural areas, non-farm incomes and employment have been rising. In fact, a NABARD survey shows that only 23% of rural income is from agriculture (cultivation and livestock) if we consider all rural households. Around 44% of income is from wage labour, 24% from government/private service and 8% from other enterprises. It shows that income from non-farm sector is the major source in rural areas. In the pre-Covid-19 period, rural incomes were partly affected because of lower real wage growth[24]. Media reports reveal that the rural wages are declining due to the arrival of migrant workers from the cities. However, the lockdown has affected urban areas more than rural areas. In June and July, 2020, the rural recovery outpaced that of urban areas. The demand for tractors also rose in rural areas.

On the health risk in rural areas, it is true that presently the problem is much more serious in urban areas

According to Himanshu (2019) the growth rate of real rural wages was more than 6% per annum between 2008 and 2012. But, real wages of agricultural labourers grew at 0.87% per annum between May 2014 and December2018, whereas for non-agricultural labourers they grew by only 0.23% per annum.

because of high density. But, it can spread to 70% of the India's population who live in rural areas. Many migrant workers have gone back to rural areas. There is a risk of Covid-19 spreading to the farmers, agricultural labourers, workers and others working throughout the food supply chains. The agriculture and rural population have to be protected as social distance will be practiced relatively less in rural areas.

3.3 Informal sector

India has a very high share of informal employment in total employment. The share, which includes agricultural workers, has declined marginally from 94% in 2004-05 to 91% in 2017-18 (table 2). Out of a total of 465 million workers, 422 million were informal workers in 2017-18. Even in non-farm sector (manufacturing and services), the share of informal workers was around 84% in the same year.

Table 2: Informal Employment: Number and Shares

	Total Employment (in millions)	Informal Employment(in millions)	% Share of Informalworkers in total employment
2004-05	459.4	430.9	93.8
2011-12	474.2	436.6	92.5
2017-18	465.1	421.9	90.7

Source: Mehrotra and Parida (2019)

There are significant inequalities between informal and formal sector workers. The informal/unorganised workers do not have access to any social security benefits and also face uncertainty of work. Out of the total workers, the shares of self-employed, casual and regular workers respectively were 51.3%, 23.3%, and 23.4%. Most of the self-employed and casual employees are informal workers.

The informal workers were already facing problems with low wages and incomes in the pre-Covid-19period. The pandemic has affected all levels of the society but it is the informal workers including migrants are the worst affected. With almost no economic activity particularly in urban areas, the lockdown has led to large scale losses of jobs and incomes for these workers. There was a loss of 122 million jobs in April, 2020. Out of that, the small traders and daily wage labourers lost 91 million jobs (CMIE). The employment rate was 39.1% on 22nd March, 2020 which declined to 26.4% on 3rd May, 2020 before improving to 37.8% on 21st June, 2020. Although there has been improvement in employment rate, it has not still reached the pre- covid 19 levels. A survey by Azim

Premiji University shows that 57% of rural workers and 80% urban workers lost work during lockdown. Around 77% of the households consumed less food than before. Thus, livelihoods of millions of workers were affected and it would take longer time for them to recover from this economic shock.

There are about 40 to 50 million seasonal migrant workers in India. They help in the construction of urban buildings, roads, factory production and participate in several service activities. Soon after the lockdown wasannounced , one could see the images of hundreds of thousands of migrant workers from several states walking on foot for several hundred miles to go back to their respective villages in search of safety. This exodus was triggered by the March 24 lockdown which was announced rather abruptly without giving the people of the country any time to prepare for it.

Most of these migrants continue to be out of work as businesses and establishments have shut down or because it is not easy for them to return back to the urban areas having gone through one round of extreme hardship. In the absence of money, jobs, and any food, savings, or shelter in large cities, they had been desperate to reach their villages but had allegedly received little support. Few migrants even died on the way due to exertion and lack of food. These workers feel villages are better for them as they can stay with their families. However it is questionable whether they will be able to support themselves and their families by staying in the villages where the income earning opportunities might be significantly worse than in the cities,the very reason why they had migrated out of their native places in the first place.

Some of the migrants have returned to urban areas after relaxation of the lockdown but many of them are stillin rural areas. These workers are looking for jobs in rural areas. Even the skilled and semi-skilled are working in the works of MGNREGA. It will take some time for the economy to pick up in the post-Covid-19period and this will further aggravate the future uncertainty for informal workers in general and migrant workers in particular.

In the formal sector to the extent that firms do not close down, employees will still have their jobs andreceive their salaries. The informal sector works differently. It depends crucially on people's daily demand. With a large chunk of the potential customers of the informal sector staying at home right now and withdrawing from non-essential expenditures, the survival of informal sector units will become questionable with every passing day, especially as the health crisis and the associated lockdown drags on. Many firms in the informal sector will be forced to shut down.

3.4 MSMEs

The micro, small and medium enterprises as a whole form a major chunk of manufacturing in India and play an important role in providing large scale employment. Recent annual reports on MSMEs indicate that the sector contributes around 30% of India's GDP, and based on conservative estimates, employs around 50% ofindustrial workers and contributes half of the overall exports. Over 98% of MSMEs can be classified as micro firms, and 94% remain unregistered with the government. Many of the micro enterprises are small, household-run businesses.[25]

However, many aspects of government policy are at best scale neutral and do not explicitly favour these enterprises. This sector does not have access to adequate, timely and affordable institutional credit. More than 81% MSMEs are self-financed with only around 7% borrowing from formal institutions and government sources (Economic Census, 2013).

The MSMEs are present in manufacturing, trade and service sectors. Table 3 provides growth rates of industry-wise deployment of bank credit by major sectors. It shows that growth of credit was either low or negative for the MSMEs. Demonetisation and GST also contributed to the low performance of MSMEs. The recent problems with the NBFC sector have further hampered credit allocation to this sector.

Table 3: Growth in Industry-wise Deployment of Bank Credit by Major Sectors (YOY, %)

Item	March-15	March-16	March-17	March-18	March-19	Nov-19#
Non-food Credit	8.6	9.1	8.4	8.4	12.3	7.2
Industry	5.6	2.7	-1.9	0.7	6.9	2.4
Micro&Small	9.1	-2.3	-0.5	0.9	0.7	-0.1
Medium	0.4	-7.8	-8.7	-1.1	2.6	-2.4
Large	5.3	4.2	-1.7	0.8	8.2	3.0
Textiles	-0.1	1.9	-4.6	6.9	-3.0	-6.1
Infrastructure	10.5	4.4	-6.1	-1.7	18.5	7.0

Source: Economic Survey 2019-20; # as on November 22, 2019

Although all businesses have been affected by the pandemic, the MSME sector would be particularly worse hit by reduced cash flows caused by the nationwide lockdown. Their supply chain has been disrupted, and they have been adversely affected by the exodus of migrant workers, restrictions in the availability of raw materials, by the disruption to exports and imports and also by the widespread travel bans, closure of malls, hotels, theatres and educational institutions etc. This, in turn, have massively hampered the MSME businesses. A recent survey in MSMEs by the All India Manufacturers Organisation (AIMO, June 2020) shows that 35% of MSMEs and 43% of the self-employed said that they see no chance of recovery in their businesses and have begun shutting down their operations. As a consequence, hundreds of thousands of people who work for these small businesses may end up with job and salary losses.

The experience of small and medium businesses during the lockdown in China might be useful for

India. In order to examine the impact of the pandemic on SMEs, the Enterprise Survey for Innovation and Entrepreneurship in China led by Peking University did a rapid follow-up survey of 2349 previously sampledSMEs which are largely representatives at the provincial level (Zhand, 2020). According to this survey, SMEs are struggling to survive. Around 14% of the surveyed firms will be unable to last beyond a month ona cash flow basis, and 50% beyond three months.

It shows a gloomy picture of SMEs under an extended epidemic scenario in China. The constraints varyalong the supply chain. For example, upstream firms are mainly affected by labour shortage while downstream firms face more serious challenges related to supply constraints and consumer demand. However, the impact seems to be different across sectors. Export firms suffered more than non-export firms as they employ more migrant workers and their supplies are highly concentrated. Overall the survey shows that Covid-19 has dealt a heavy blow on the SMEs of China. The same story is likely to get repeated for India as well.

3.5 Financial markets and institutions

As the ramifications of the health shock and the repercussions of the country-wide lockdown become clear with each passing day, the risk aversion of the banking system will get significantly aggravated. As more andmore firms struggle to stay afloat and are unable to repay their dues amidst the massive demand and supply disruptions, corporate delinquencies will go up and the level of NPAs in the already fragile banking system will increase precipitously. Moody's Investors Service has already changed the outlook for the Indian banking system to negative from stable, as it expects deterioration in banks' asset quality due to disruption ineconomic activity.

In the 2011-2019 period, bulk of the NPAs originated in the private corporate sector. These were secured loans where some recoveries are possible especially given the IBC. With Covid-19 disrupting jobs and income sources of millions of people, defaults from the retail sector are also likely to soar. Indian householdswere already highly leveraged going into the current crisis. Once unemployment goes up and source of income disappears especially for those connected to the informal sector, they will find it difficult to repay existing loans, let alone make new expenditures. All these are unsecured loans which make the situation worse. India does not have a personal insolvency law yet. In other words, there is no recourse for either the defaulting individuals or the banking system when personal loan defaults start rising, both from urban and rural regions of the country.

It is also possible that this time around the private sector banks will be worse affected than the PSBs. In the earlier NPA crisis, bulk of the NPAs originated in the infrastructure and other heavy industries who had borrowed from PSBs during the credit boom period of 2003-2008. However as the TBS stress began to unfold during the 2011-2019 period, firms in these industries either began deleveraging or they are already undergoing bankruptcy resolution in the courts

Defaults will not only rise in the banking system but also in the NBFCs who lend to the MSME (Micro, Small and Medium Enterprises) sector as the latter's earnings will fall sharply. Particularly worrisome might be the depth of financial stress faced by the large micro-finance sector (NBFC-MFIs) that provides supportto innumerable small and micro enterprises throughout the country.

Micro finance institutions (MFIs) serve many low income poor people with their saving and credit services. The economics of micro finance requireshigh repayment rates. Any slip in repayment rate makes these institutions insolvent.

Repayment rates may fall drastically now as borrowers struggle to make ends meet in the face of the precipitous income shock. Most of MFI customers operate in the micro or even smaller enterprises and borrow for the short term say one year. As a result of the prolonged lockdown, their revenues will completely collapse. Moreover, most of the MFI loans are in cash and in the middle of a lockdown, even if borrowers are able to repay, collection of the payments is a serious problem.

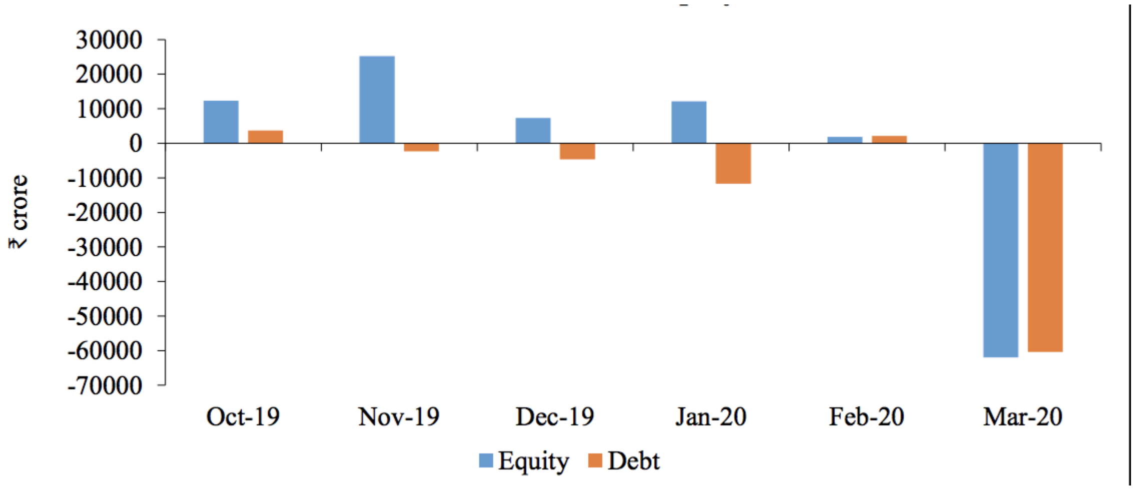
The inability of the SMEs to repay will severely hurt the financial viability of the MFIs. To the extent that these NBFCs have been borrowing from banks, the probability of them defaulting will commensurately go up. As the NPAs on existing loans keep accumulating, officers in an already risk-averse banking system are likely to become even more reluctant to extend fresh credit, especially if the banks are not adequately capitalised. In other words there are multiple channels through which an already fragile financial system may get choked as the crisis worsens, thereby aggravating the slowdown.

3.5.1 Financial markets

Since the outbreak of Covid-19, there has once again been turbulence in the debt markets. Credit spreads of corporate debt papers have risen sharply to levels higher than what was witnessed in the aftermath of the IL&FS crisis of September 2018. Debt mutual funds, even those that invest at the short end of maturity – liquid funds, ultra-short duration funds etc. have taken serious hits to their net asset values (NAVs) making investors nervous. These funds are considered investments second only to bank deposits in terms of safety and hence decline in their NAVs is a matter of concern.

Confluence of several factors has led to the current turmoil in the debt market. Foreign institutional investors (FIIs) have been steady investors in Indian debt over the last few years due to arbitrage between international interest rates and Indian rates along with a generally stable currency. As the Covid-19 pandemic began spreading across countries and especially affected the US, growing risk aversion and flight to safety led these investors to sell large volumes of Indian debt paper, in addition to stocks (figure 12). Overall, FPI outflows were of the order of USD 7.1 billion in 2019-20 (up to March 31, 2020). In addition to this, March is generally tight liquidity period in India. Advance tax payments, financial year ending, etc. result in greater demand for cash during this period.

Figure 12: FPI investment in Equity and Debt



Source: RBI (2020).

These factors along with the general risk aversion triggered by the Covid-19 outbreak and the associated business disruption are likely to push firms to redeem their investments in debt funds and stock pile cash. This has already created extra ordinary redemption pressures on mutual funds. Ideally, mutual funds would respond to these redemption pressures by selling the debt securities that they have been holding to interested buyers in the secondary market.

However we are now facing a peculiar situation wherein the mutual funds are not able to do so because of high risk aversion on part of the biggest liquidity suppliers in the markets – the banks. Indian banks have been largely absent from participating in the secondary debt market. As shown in figure 7a earlier, banks' investments in commercial papers, bonds, debentures and shares of public and private corporations, as reflected in non-SLR investment, were lower during H2:2019-20 (up to March 13, 2020) than a year ago (RBI, 2020).

With the largest liquidity pool away from the secondary markets mutual funds are left with no option other than distress selling securities at whatever price they get in order to meet the redemptions. This has severely impacted their NAVs which may further exacerbate investor concerns leading to more redemptions and triggering a vicious cycle.

The equity market has been hitting new lows every day since the outbreak of Covid-19. In March 2020, panic selling due to the pandemic shaved off 23% market capitalisation of companies listed on the National Stock Exchange (NSE) within a span of just a single month.[26] The BSE S&P Sensex behaved similarly, losing 23% of its value during March 2020. Although the sell-off was witnessed across-the-board, it was more severe for industries that are hit the hardest by the Covid-19 pandemic and the consequent lockdown, such as tourism and hotels, real estate, asset financing services, banks, metals industry, automobile and ancillaries, textiles, electricity, mining and food product companies.

4. What kind of policy support is needed?

The immediate objective of the policy responses to the economic impact of Covid-19 is to ameliorate the effect of the shock on economic agents in both the formal and the informal sectors and to help them tide overthe crisis. Against the background of a weak economy, the twin shocks of Covid-19 and lockdown are operating at two levels:

- Creating supply-side disruptions
- Triggering reduction in aggregate demand

The need of the hour are policy actions to deal with both supply- and demand-side problems. The supply sidehas been reeling under three pre-existing shocks: (i) demonetisation of 2016, (ii) goods and services tax (GST) since 2017, and (iii) slowdown in credit growth. The pandemic is creating additional disruptions dueto the following factors:

- *Mass exodus of migrant workers from urban areas:* Many firms will not be able to find the required number of workers, and hence production will be constrained even if they do not face a demand shortage. This will be acute in sectors such as construction, logistics (last-mile delivery of goods), unskilled manufacturing, etc., where large number of migrant workers are employed.

- *Non-availability of financing:* Finance is the backbone of business. As mentioned in section 2.2. the banking sector, especially public sector banks (PSBs), have been operating under high levels of risk aversion. The future prospects of borrowers have become more uncertain in the ongoing crisis. This will further affect credit availability. Bond markets have also become risk averse. Credit spreads on corporate bonds are the highest since 2009.

- *Restrictions on international trade:* The pandemic has disrupted global supply chains. To the extent that international transport of goods is adversely affected, importing firms will face supply constraints.

- *Logistics issues:* The lockdown has imposed restrictions on intra- and inter-state movements. Thishas made transportation of raw materials and finished goods difficult even within the national boundaries.

In other words, all factors of production are facing disruptions – capital, labour, and raw materials. In addition, marketing has been disrupted, retail stores are closed and e-commerce is also not operating smoothly. The gradual relaxation of lockdown will release some pent-up demand, but the supply-side disruptions are unlikely to get resolved soon. This in turn will exacerbate the demand shortage. For example, firms have fixed expenses such as rent, wages, inventory maintenance, etc., but a large number of them are earning no revenues. If they do not receive financing to tide over this crisis, they will be forced to downsize their businesses or even shut shop. This will add to unemployment and aggravate the demand problem.

Hence, authorities need to figure out ways to offer funding to the firms who need it, to help them stay solvent.

The demand-side problem is due to the following factors:

- Right now, a large number of consumers all over the country are only spending on essential commodities such as food, groceries, and medicines. Demand for nearly all non-essential goods and services has remained suppressed for nearly two months, even if consumers have the purchasing power. We call this Round 1 of the demand problem. The gradual relaxation of the lockdown that is currently underway will release some pent-up consumption demand. However, in view of the prevailing jobs and income related uncertainty, large parts of demand are likely to stay subdued for along time, especially discretionary expenditures.

- The Round 1 demand problem is getting aggravated due to the loss of jobs of millions of migrant workers and daily wage earners, who have been forced to return to their native villages because ofthe lockdown. The formal sector too has been witnessing retrenchment of contract employees, reduction in variable pay, etc. These factors have led to a significant decline in disposable incomes. This problem will worsen over time, unless the authorities step in with adequate relief measures.

- If the lockdown continues in some form or the other, and supply shocks continue unabated, therewill be a Round 2 of the demand problem. A large number of white-collar workers will lose jobs or face reduced salaries because many financially stressed businesses will no longer be able to keep them on the payroll. The Round 2 effect, which will play out in the medium term, might be more severe because it will have a broader impact on purchasing power. As this happens, and the demand contraction becomes more acute, many more firms will struggle to stay solvent or even to survive. Inother words, the economy may get trapped in some sort of a vicious cycle of low demand–high unemployment–low demand.

- In addition to the reduction in consumption demand, private sector investment which has already been declining over the last few years, is unlikely to get restored in the next few quarters. Due to demand contraction, capacity utilisation of manufacturing firms has fallen drastically, eliminatingany possibility of investments in new capacity addition. Most firms will struggle to obtain financing for working capital in order to simply stay afloat.

The discussion above demonstrates the kind of fiscal support that might be necessary right now.

- On the supply side: To extend financing to firms to enable them to stay solvent and to help resolveother supply disruptions.
- On the demand side: To give relief to those who are in need, to help prop up demand.

The central government and RBI have announced an initial round of fiscal and monetary policies respectively as well as some broader economic reforms. In addition, several state governments have also announced fiscal stimulus measures.

5. Analysis of policies announced

5.1 Policy package for informal sector workers

On March 26, 2020 the Finance Minister announced a Rs. 1.7 lakh crore package largely aimed at providinga safety net for those who have been worse affected by the Covid-19 lockdown i.e. the unorganised sector workers, especially daily wage workers, and urban and rural poor.[27] The "*Pradhan Mantri Garib Kalyan Yojana*" contains the following components:

- Free additional 5 kg wheat or rice per person for 3 months;
- 1 kg free pulses per household for 3 months;
- Free LPG for *Ujjwala* beneficiaries for 3 months;
- Rs.2000 to 87 million farmers under *PM Kisan Yojana* in 10 days;
- Increase in MGNREGA wages to Rs.202 from Rs.182;
- Rs.500 per month to 200 million female Jan Dhan account holders for next 3 months;
- Ex-gratia of Rs.1000 to poor senior citizens, widows and disabled;
- Rs.20 lakh collateral-free loans to women self-help groups;
- Govt. to contribute EPF to companies with less than 100 workers;
- Non-refundable advances of 75% or 3 months wages from PF account;
- States to use Rs.31 crore from construction workers welfare fund;
- States to use district mineral fund for medical activities.

The new spending proposed in this package would amount to around 0.85% of estimated GDP.

These measures are in addition to a previous commitment by the Prime Minister that an additional Rs 150 billion (about 0.1% of GDP) will be devoted to health infrastructure, including for testing facilities for COVID-19, personal protective equipment, isolation beds, ICU beds and ventilators.

5.2 *Atmanirbhar* Package:

In May 2nd week the Finance Minister announced a comprehensive economic relief package called the "*Atmanirbhar* (self-sufficient) package", which had three components: (i) monetary actions, (ii) fiscal actions, and (iii) economic reforms.

Fiscal actions: Policies focusing on low-income households include repackaging old schemes, increasing theallocation of existing schemes, and some new initiatives:

- Front-loading payments under the existing *Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)Yojana* to the tune of Rs. 160 billion
- Direct benefit transfers (DBT) to old age people, and widows, under *Ujjwala Yojana*, and under *JanDhan Yojana* amounting to Rs. 470 billion
- Extending MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) to migrantworkers, and to some workers in organised employment, adding up to about Rs. 922 billion
- A fund for construction workers of about Rs. 310 billion
- Direct food distribution using stocks available with the Food Corporation of India (FCI) to the tuneof Rs. 35 billion

Salient fiscal initiatives focusing on MSMEs (micro, small, and medium enterprises) include:

- Rs. 3 trillion collateral-free bank loans to MSMEs with 100% credit guarantee[28]. The guarantee willbe provided by the National Credit Guarantee Trust Co. Ltd (NCGTC).
- Government investment of Rs 100billion in funds that in turn will invest Rs 500 billion in the equitycapital of MSMEs
- Rs. 200 billion subordinate debt issued by banks and other financial institutions (such as SIDBI) forstressed MSMEs, out of which the government will refinance Rs. 40 billion
- Rs. 450 billion partial credit guarantee scheme for NBFCs (non-banking financial companies), wherefirst 20% of the loss will be borne by the government

New spending on all these initiatives amounts to around Rs. 2.04 trillion.

Economic reforms: A few policy reforms (such as, amendments to the Essential Commodities Act, liberalisation of investment norms for some sectors, etc.) and schemes (setting up of a social infrastructure fund, agriculture infrastructure fund, micro food processing enterprises scheme, etc.) were also announced. Total government expenditure on these new schemes will be about Rs. 0.55 trillion.

5.2.1. Package for Agriculture

The government announced the following measures for agriculture in May, 2020 as part of ‘Atmanirbhar’package.

Additionally, on July 2, 2020 World Bank announced a US $750 million budget support to 15 crore MSMEs to increase liquidityaccess for viable small businesses impacted by Covid-19.

- Rs. 1 lakh crore Agri Infrastructure Fund for farm-gate infrastructure for farmers.
- Rs. 20,000 crores for Fishermen through Pradhan Mantri Matsya Samparda Yojana
- Rs. 10,000 crores scheme for formalisation of Micro Food Enterprises
- Rs. 15,000 crores Animal Husbandry Infrastructure Development Fund
- National Animal Disease Control Programme for Foot and Mouth Disease (FMD) and Brucellosislaunched with total outlay of Rs.13,343 crores
- Rs.4000 crores for promotion of Herbal Cultivation
- Rs. 500 crores for Beekeeping initiatives
- Rs. 500 crores for improving supply chains for all fruits and

vegetablesAgricultural Reforms

  - Amendments to Essential Commodities Act to Enable better price realisation for farmers
  - Agricultural Marketing Reforms to provide marketing choices to farmers
  - Agriculture Produce Price and Quality Assurance: Facilitative legal framework will be created toenable farmers for engaging with processors, aggregators, large retailers, exporters etc. in a fair and transparent manner. This reforms basically relates to contract farming.

The policy package including agricultural reforms are in the right direction. There has been demand for these reforms in the last few decades. Government has already brought the ordinances for implementation of the reforms. However, the infrastructure development funds and reforms are helpful in the medium term and may not be useful in the short run.

5.3 An analysis of the fiscal announcements

- A major component of the 'fiscal package' is the MSME loans backed by 100% government guarantee (Sengupta and Vardhan, 2020a). Given the risk aversion in the banking system, the government needs to step in to bear some of the credit risk, so that banks can do what they are good at, which is, allocating capital. To this end, a credit guarantee scheme is a step in the right direction. Another advantage is that credit guarantees do not have immediate impact on the government budget. However, there are two issues with the announced scheme. First, credibility of a credit guarantee scheme and the lenders' trust in it depends a lot on the details of the scheme. There may not be any take up until the government clarifies the mechanics of the scheme (such as conditions imposed on availability of the guarantee, time line to make claims and en-cash the guarantee, etc). Second, even if these issues are resolved to banks' satisfaction, credit allocation may be distorted because with a 100% credit guarantee, banks have no skin in the game. This takes away the incentiveof the bank to scrutinise loan applications, and can lead to moral hazard. Instead, the credit guarantee could have been a partial one.

- The fiscal announcements (more than 70% of the intended benefits) rely disproportionately on the financial sector – especially the government-owned banks and NBFCs – to deliver the credit-relatedcomponents of the package. There are two problems with this:

- Given the risk aversion in the PSBs, unless the detailed mechanics of the scheme (such as the conditions imposed on the availability of the guarantee, the timeline to make claims and encash the guarantee, etc.) are spelled out by the government, the banks are unlikely to embrace it despite the 100% guarantee. Credibility of such a scheme and the lenders' trust in it depends on the details of the scheme.

- The PSBs are undergoing a process of mergers. Hence, the ability and efficiency of these banksto deliver the schemes appear doubtful.

- Implementation of many of the initiatives will require proper targeting of beneficiaries and an efficient delivery mechanism. This in turn would require close coordination between the central, state, and local governments. In absence of this, effective implementation of these announcements would be doubtful.

- On the supply side, the package addresses the financing problems, but in an inadequate way, and there is nothing to address the other issues related to supply chain disruptions. Announcements regarding existing schemes (such as MGNREGA, DBT, PM-Kisan etc) are meant to address the demand side problems but given the severity of collapse in aggregate demand, the monetary amounts appear insufficient. Overall the package is unlikely to provide any significant relief to a crisis-ridden economy.

- The economic reforms that were announced are necessary and long awaited, but their benefits will accrue in the long term. They will not do anything to resolve the problems that the economy is facingright now.

- While the aggregate 'benefit' of the package was announced to be Rs. 20 trillion or 10% of GDP the package entails an incremental government spending of only Rs. 2.6 trillion, which is less than 2% of GDP.

Careful assessment of the package announced by the Indian government therefore shows that given the widespread demand destruction, the package will fall short and may need to be enhanced. The fiscal initiatives only address the financing constraints on the supply side, that too inadequately.

Table 4: Covid-19 Stimulus Commitment Size (as % of GDP)

Country	% of GDP	Country	% of GDP	Country	% of GDP
India	**1.3****	France	11.38*	Australia*	8.02
US	10.71*	UK	15.27*	Russia	0.30
Italy	1.30	South Korea	5.13	Malaysia	16.17
China	1.32*	Brazil	2.10	Japan***	10.00
Spain	15.29*	Canada	2.16		
Germany	20.95*	Israel	5.94		

Note: Govt. support includes loans and credit guarantees for companies, direct transfers (in some cases via employers) to workers,tax freeze and debt repayment moratorium. Not all countries have done all of these.

*includes loan packages/bailout funds, and liquidity support, apart from fiscal response.

** India estimate is added by the authors. This is the incremental government spending after the announcement of 'Atmanirbharpackage'.

***Not announced yet, based on government intention.Source: Economic Times, April 4, 2020

Reacting to the 'Pradhan Mantri Garib Kalyan Yojana' announced in the end of March, 2020, Nobel Prize winning economists Abhijit Banerji and Esther Duflo have commented that the government should have been more bold with the social transfer schemes. According to them "what the government is offering now issmall potatoes – at most a couple of thousands for a population that is used to spending that much every few days. If the point is to stop them from going out to find work and thereby spreading the disease, the amounts probably need to be much larger" (Duflo and Banerji, 2020). These comments may be true even after the announcement of the comprehensive 'Atmanirbhar' package.

Several commentators have highlighted that countries in Europe and the US are spending significantly more to take care of the impact due to the pandemic (table 4). The US has announced a package of $2 trillion andit is 10.7% of their GDP. Similarly, the financial package as per cent of GDP is much higher in countries likeFrance, Spain, Germany, Australia and Malaysia (table 4).

5.4 RBI's policy actions

The "Atmanirbhar package" also included monetary policy actions introduced by the RBI earlier. For instance, on 27 March, 2020 RBI announced a number of major initiatives to combat the crisis.[29] In particular, Four bold measures were taken, following an "out of cycle" i.e., unscheduled Monetary Policy Committee (MPC) meeting:

- The repo/reverse repo rates were cut by sizeable amounts, to 4.40/4.00% from 5.15/4.90%. The 91- day Treasury bill rate, which measures the *de facto* stance of monetary policy, dropped to 4.31% from 5.09% on 26 March. Subsequently in April the repo rate was further cut to 4%.

- Ordinarily, banks can borrow on a short-term basis from the RBI using the repo window. To supplement this facility, a new `targeted long-term repo operations' (T-LTRO) mechanism, with a limit of Rs.1 trillion, was announced. Banks may find this attractive because they do not have tomark to market the investments made with these borrowed funds for the next three years. However, there is a condition: the money that is borrowed here must be deployed in investment-grade corporate bonds, commercial paper, and non-convertible debentures, over and above the outstanding level of their investments in these bonds as on March 27, 2020. Subsequently RBI announced another round of such targeted repo operations...

- The cash reserve ratio (CRR) was reduced by 1 percentage point, bringing it down to 3% of deposits ("net demand and time liabilities"). This is the first time the CRR has been changed in the last 8 years.

- Banking regulation requires banks to recognise and provide for a loan when there is a delay in payment. According to the Prudential Framework for Resolution of Stressed Assets, banks are required to classify loan accounts in special mention categories in the event of a default.[30] The account is to be classified as SMA-0, SMA-1 and SMA-2, depending on whether the payment is overdue for 1-30 days, 31-60 days or 61-90 days, respectively. RBI has now modified this regulation, so that banks can offer a moratorium of 90 days (subsequently extended to 180 days) for term loans and working capital facilities for payments falling due between 1 March, 2020 and 31 May, 2020. If a firm applies for and receives a moratorium, the loan account in consideration will continue to be recognised as a standard asset and the SMA classifications will no longer apply. Interest on the term loans will continue to accrue during this period.

In addition to these policy actions, earlier in February, the CRR was exempted for all retail loans to ease funding costs for banks. The implementation of the net stable funding ratio (NSFR) and the last stage of the phased-in implementation of the capital conservation buffers have been delayed by six months. On 1 April, the RBI created a facility to help with state governments' short-term liquidity needs. Earlier, the RBI introduced regulatory measures to promote credit flows to the retail sector and MSMEs and provided regulatory forbearance on asset classification of loans to MSMEs and real estate developers. CRR maintenance for all additional retail loans has been exempted, and the priority sector classification for bank loans to NBFCs has been extended for on-lending for FY 2020/21 (IMF, 2020).

On the external front, on 16 March, RBI announced a second FX swap (USD2 billion dollars, 6 months, auction-based) in addition to the previous one with equal volume and tenor. The limit for FPI investment in corporate bonds has been increased from 9% to 15% of outstanding stock for FY 2020/21. Restriction on

non-resident investment in specified securities issued by the Central Government has been removed.[31]

5.4.1. Analysing monetary policy announcements

Monetary policy is most effective when economic agents understand and can anticipate the behaviour of the MPC. This process of learning and understanding is still underway, since India is in the early years of building up the credibility of the inflation targeting (IT) framework and the MPC process. So, one would have expected that the MPC statement would take pains to spell out its macroeconomic forecast, explaining why it believed the rate cut was consistent with its commitment to the 4% inflation target. But it did no such thing.

The MPC statement did not explain the rate decision in the context of a revised inflation forecast, or any other element of a macroeconomic forecast. Indeed, it did not offer any justification at all for the magnitude of rate cut chosen. Since the rate cut announcement was not couched in the standard IT framework, the public does not have the assurance that the rate cuts will be reversed when inflation begins to rise again.

Furthermore, the rate cut actions taken by the RBI are unlikely to have any impact either on the supply or thedemand side. As discussed in detail earlier in the paper, on the supply side, risk-averse banks are reluctant to lend despite the rate cuts and liquidity injection. In the absence of proper transmission, the monetary policy changes will fail to revive demand. When the financial intermediaries do not function normally, the usefulness of monetary policy gets limited. The rate cuts will however relieve the debt-servicing of the stressed firms in the corporate sector.

5.4.2. Analysing banking regulation announcements

Under the March 27 package, the RBI has given regulatory approval to banks and other lending institutionsto decide which of their customers needs a 90-day (or 180-day as per the extension later on) deferral. This decision, to allow banks but not require them, to grant moratoria is a good one, as it allows banks to distinguish amongst the three types of firms. Even so, the plan is not without drawbacks:

- No mechanism was created to classify the loans that have been rescheduled, so transparency has been lost. Investors – already nervous because of accounting surprises at Yes Bank and other financial institutions – will consequently provide capital only at a cost marked up to reflect this information risk premium. And this increase in banks' costs will be passed on to the borrowing corporate sector.

- There seems to be a considerable amount of confusion about how EMIs on retail loans will be treated. For example, many borrowers may have missed one payment on their loans in say February

2020. If they receive a moratorium on their EMI payments for March, April and May it is not clear whether their February EMI will become 90dpd in May. If that happens, then their accounts will become NPAs and the borrowers will get reported to the Credit Bureau thereby affecting their credit histories.

- It seems that the moratorium is not applicable to loans taken from banks by the NBFCs. This is problematic. NBFCs have already been in significant financial trouble since 2018 and now they may have to offer the 3month moratorium to their customers. But if they themselves are not able tobenefit from this deferral, then their financial stress will get even more aggravated. This is especiallytrue of the MFIs. While RBI has announced the T-LTRO mechanism, most NBFCs do not issue bonds and hence are unlikely to benefit from this.

- Finally, and most importantly, there is no clarity on what happens once the moratorium period is over. How will banks clean up the mess that will be created later, as many of the firms which benefitted from the moratorium end up defaulting? There will be a new wave of NPAs, which we know from experience will be difficult to resolve. This gets all the more complicated because the Insolvency and Bankruptcy Code (IBC, 2016) has now been suspended for one year. This implies that once the moratorium period gets over there is no recourse to any systematic legal framework for the banks to resolve the stressed assets that may accumulate on their balance sheets if firms start defaulting on their debts at the end of the moratorium period.

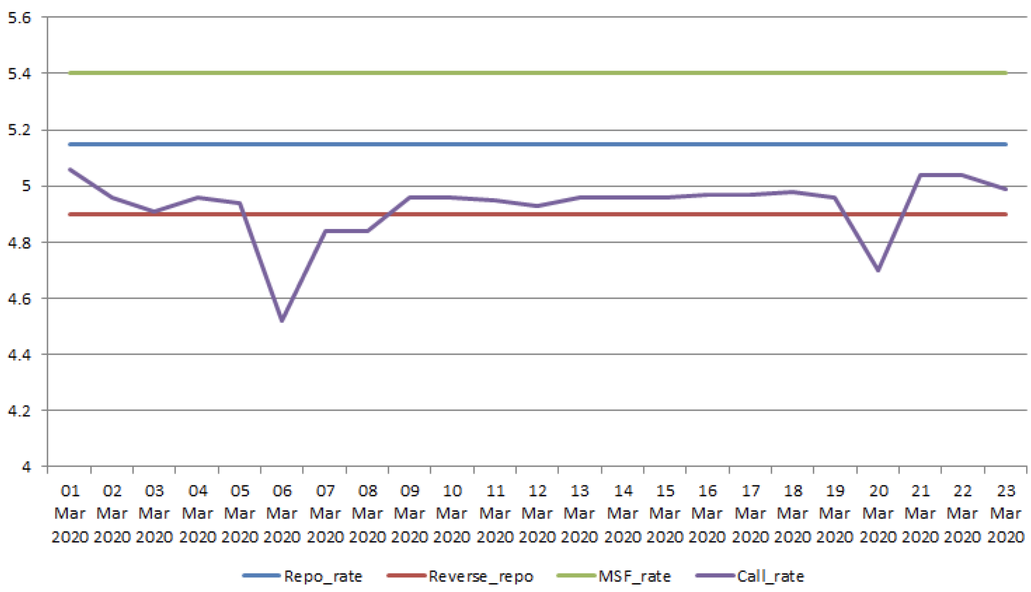
- There is also a risk that now that a “temporary” moratorium has been introduced, there will be pressure for it to be extended again and again which has already happened once and is likely to happen again for some specific sectors. If the RBI is unable to resist, we will quickly find ourselves back in the ‘extend and pretend’ era of post-2008, where banks, investors, the RBI, are all navigatingin a fog, since no one will know, and hence, be able to deal with the true size of the bad loanproblem.
- Banks are already saddled with old NPAs from the pre 2020 period much of which have not yet beenresolved and with the IBC suspended are unlikely to see any resolution for the rest of 2020. This is already acting as a drag on their balance sheets. Over and above this the ongoing crisis will lead to large scale corporate bankruptcies. Any return to the post-2008 era style restructuring schemes bythe RBI, which permitted the banks to hide the problem for years, will further worsen the problem. In this context the moratorium announced by the RBI is only a temporary palliative which is postponing the resolution of the problem to

the future.

5.4.3 **Liquidity injection**

Figure 13 shows the weighted average call money market rate juxtaposed against the “corridor” defined byRBI’s repo, reverse repo and marginal standing facility rates. The call rate remains close to the reverse repo rate which indicates that banks are flush with liquidity. There has not been a sharp rise in demand for funds in the overnight money market. It appears that the banks are hoarding liquidity. Despite having so much liquidity cushion, bank lending has not picked up. As shown earlier in figures 6, 7a and 7b, even in the pre- Covid-19 period, banks were mostly lending to the retail sector (unsecured loans by private banks) orholding G-Secs more than the SLR requirements.

Figure 13: The call money rate vs. RBI's LAF 'corridor': March, 2020



Source: RBI database

RBI has announced that its recent policy actions will free up Rs 3.74 trillion in banks' funds. The announcement of T-LTRO wherein banks can borrow money from the RBI, with the condition that they will invest in secondary market instruments has been a welcome step. This may help revive much needed participation by the banks in the debt market provided the banks are able to overcome their risk aversion. Itis likely that even with this scheme, many banks will stay away from the debt markets out of apprehension ofbond-issuers defaulting given the uncertain economic environment.

It is also questionable whether adding more liquidity to a system that is already flush with it is going to boostcredit growth in and of itself, given the heightened risk aversion in the banking sector. The marginal benefit of the RBI adding more liquidity to a system that is already in a surplus mode is therefore not clear.

By reducing the reverse repo rate (i.e. the rate at which banks lend money to the RBI on the LAF window) effectively the RBI has increased the opportunity cost for banks that are not lending commercially. Whilethis is an attempt to enhance bank lending, once again risk aversion on part of the banks is likely to limit the gains. Banks will most likely be content with lower returns on liquidity even at 4% (reverse repo rate) than take on additional risk and lend which is what has been happening till now[32]

6. Policy challenges

While some policy actions have already been announced by the government and the RBI, they are mostly interim measures and are not going to be adequate to support the economy. Given the current macroeconomic and financial environment in India, there are significant challenges in fiscal, monetary and financial policies which have to be taken into consideration by the policymakers. Even more important, thereare some policy traps that must be avoided in order to prevent a long-term economic disaster. The objective must be to ensure a V-shaped economic recovery once the health crisis abates.

In case of fiscal policy, even assuming a conservative scenario where the government does not incur any additional expenses due to Covid-19, the deficit will be greater than projected value in the FY2021 budget. During the two month long lockdown, almost all economic activities had been suspended and most of these are unlikely to resume in near future given the nature of the health shock. As a result government revenues will fall drastically.

Given the depressed equity market condition and global economic uncertainty, the disinvestment targets are unlikely to be met. Over and above this, much of the policy actions required to minimise the economicfallout of the shock will involve government spending. It is almost certain that the government will not be able to adhere to its fiscal target for 2020-21 and will most likely breach it by a big margin.

In India fiscal deficit is supported by financial repression wherein government borrows from a captive market of banks and other institutional buyers. In the pre-Covid-19 period, total government borrowing (central and state) had already exceeded total household savings. Further borrowing will sharpen the yieldsin the bond market and crowd out private capital at a time when a large number of firms and households will need to borrow to stay afloat. Moreover, gross domestic saving rate decreased to 30.1% of GDP in 2018-19 from 32.4%in 2017-18 (RBI, 2020). The saving rate of the household sector, which is a net supplier of funds to the economy, declined from 23.6% of GDP in 2011-12 to 18.2% in 2018-19. To the extent that government relied heavily on households for financing its deficit, this decline in savings does not bode well. The large scale income losses of many businesses and households that are inevitable during this crisis imply that the savings rate is likely to fall even further. These factors leave little room for the government to increase its domestic borrowing.

RBI has announced a scheme to encourage foreign investment (FII) in government securities.[33] As discussed in section 3, with the global spread of the pandemic, FIIs have already been taking money out of the Indian capital markets. Given the widespread risk aversion, it is unlikely that this route will bring in a lot of financing for the government. If anything, the widening fiscal deficit may lead to a sovereign rating downgrade or a lowering of the macro outlook which in turn will increase the risk premium demanded by the FIIs. Therefore, the biggest policy challenge now will be financing the rise in government deficit. The only favourable factor in this regard is the sharp decline in global oil prices. Brent crude price has declined drastically to USD 31.87 per barrel.

There are now calls from certain quarters for the RBI to print money to finance the rise in fiscal deficit, a practice that was prevalent in pre-liberalisation India but since then has been discontinued. Monetisation of fiscal deficit will create inflationary pressures, lead to greater uncertainty about future inflation, increase long term interest rates and adversely impact growth, thereby defeating the very objective of supporting the economy. This move will hurt the credibility of India's inflation-targeting framework and attenuate the effectiveness of future monetary policy actions.

If at all monetisation of fiscal deficit needs to be resorted to given the extraordinary circumstances, extreme caution and thought must be devoted to work out the details, an end date must be specified by which time theprocess will be stopped and there must be complete transparency about every step of the process including the total amount of money printed, and the specific uses of the funding as decided by the government. Most importantly there must be a well-planned, well-defined exit strategy which is crucial. The exit from such a plan is likely to happen at a time when the economy is starting to recover and inflation is picking up as a result of expansion of RBI's balance sheet. The monetary tightening that needs to be done at that stage mayin fact end up hurting the recovery. Therefore, this is a very risky tool to deploy especially for a country like India where state capacity is significantly weaker than developed countries and institutional credibility is fragile.

Finally, in the financial sector, as mentioned earlier, banks and NBFCs will witness a precipitous rise in NPAs, both from the private corporate and the retail sectors. Large number of firms especially the MSME businesses and also self-employed individuals are likely to default on their bank and NBFC loans. Rising NPAs will erode the capital of lenders at a time when they are expected to lend aggressively to revive economic growth.

Given the decline in stock prices, it will be difficult for private banks to raise capital and the strained fiscal situation will make it difficult for the government to recapitalise the public sector banks. Capital deficiency in the face of rising NPAs, will lead to demands for ‘forbearance’ from the RBI. The net result of such regulatory concessions would be that the banking sector will remain undercapitalised for some time and will hide its losses.

When the Covid-19 shock hit India, the economy was still recovering from the TBS problems, the seeds of which were sown in the years of regulatory forbearance of the post-2008 period. Postponement of NPA recognition helps to 'extend and pretend'. Soon the problem becomes too big to tackle and the damage to the economy becomes long-lasting. If allowed now, this will lead to system wide crisis as it did in 2016-17 post the asset quality review by RBI.

Defaults by firms would trigger a wave of bankruptcies. The Insolvency and Bankruptcy Code (IBC, 2016) has introduced for the first time, a rigorous and disciplined process for dealing with bankruptcies. The decision to suspend this framework for 1 year has already undermined the most important reform of the last decade and rendered the code ineffective for the time being.

6.1 Principles of policy response

The on-going crisis consists of three interlinked problems: a health shock, an economic shock followingfrom the lockdown, and a global economic downturn. Each one of these shocks on its own is significant; put together, they have created considerable pressure upon policy makers to act quickly and decisively. But coming up with an effective policy response is not an easy task. For one thing, the crisis poses some exceptional difficulties. It is clear that the human and economic toll will be serious, but it is unclear how longthe crisis will last or how deep the damage will be. And without a clear understanding of the size andduration of the problem, it is difficult to know how to calibrate the policy response.

Policy making is difficult in the best of times. It is even harder in exceptional times, when there is pressure for quick actions, grounded in reduced analysis. In fact, it is in exceptional times that the toolkit of good governance becomes even more important:

- The lowest cost actions are those which are grounded in *root cause analysis*.
- Each action needs to be carefully weighed in terms of the *costs and benefits* imposed upon society
- As much as possible, policy responses should be fitted into *existing rules and frameworks*.
- All state actions should be preceded by *public debate and*

consultation.This toolkit is a valuable discipline, an institutionalised application of mind.

Why is root cause analysis important? Consider the problem of weak bank lending to corporations in recent years. From 2018 onwards, RBI has been trying to address this problem by injecting ever-greater amounts of liquidity into the banking system, in the hopes that banks would deploy these resources and lend more. But liquidity issues were not at the root of the problem. The Twin Balance Sheet stresses in firms and banks werethe real issue. As discussed in section 2 earlier, bank lending has also been discouraged by the government's measures to investigate and prosecute bank officials for their lending decisions. As a result of these factors, banks have remained reluctant to lend to the corporate sector, curtailing credit to industry to a year-on-year rate of just 0.67% in February 2020.

As an example of poor cost-benefit analysis, consider the regulatory decisions after the Global Financial Crisis. At the time, it was felt that exceptional times called for exceptional deviation from prudent financial regulation. A series of restructuring schemes followed, allowing banks to postpone NPA recognition and hide bad news. With the benefit of hindsight, we know that this restructuring worked poorly, and helped prepare the ground for the twin balance sheet crisis of 2011-2020.[34]

As for respecting frameworks, there is a temptation during crises to abandon rules and resort to discretion. This approach is neither effective nor sustainable. Recent experience warns us that "temporary measures" areoften difficult to reverse (consider the 2010 fiscal stimulus), while inadvertent consequences (such as NPAs)are difficult to resolve. More fundamentally, temporary measures disrupt the stable configuration ofexpectations of economic agents, which will hamper the recovery. It takes many decades of consistentbehaviour in a rules-based framework to shape the rhythm of the working of state institutions, to build uppolicy credibility. This credibility can be rapidly dissipated.

Over the last two decades several important policy frameworks have been put in place such as Inflation Targeting, Basel norms, IBC, etc. These frameworks provide institutional support to policy decisions and must be adhered to in the interest of the long term health of the economy. Policy responses to the ongoing crisis potentially risk undermining these institutions and must be decided with utmost care and caution.

7. Policy recommendations

Within the constraints discussed above, there are a few actions that the policymakers can consider as theygear up to deal with the economic crisis. A joint effort from both the state and central governments is critical.

Agriculture:

- Safety of farm population: Farmers, agricultural labourers, workers in supply chains have to be protected from the health shock. Now the pandemic is spreading to the rural areas. Some of the measures like testing of rural population, social distancing in harvest operations, procurement, marketing, packaging etc. will help in less spreading of the pandemic.
- Supply chains: During the lockdown and beyond, one has to concentrate on smooth operation of post-harvest activities, marketing of production, retail, wholesale, storage and

transport. Negotiable warehouse receipts for godowns and storage have to be intensified. Revival of supply chains is needed for ensuring higher prices for farmers and generating employment for agricultural labourers and other rural workers.

- Procurement measures: It is important to have continued markets for farmers. Farmers with perishable products need help as they face more problems. Government should have smooth procurement operations for Kharif crops. Milk and poultry industry: Small farmers in poultry and milk activities need more help as they are facing problems due to the pandemic. For industry, moratorium or restructuring of loans may be needed.
- Food security for farm families and agricultural workers: Although farmers are involved in production of crops, they also face food related problems. Farmers and agri. Workers have to be included in the in-kind assistance package or any social protection programmes announced by the governments. At present, PM-Kisan includes only land owners. Tenant farmers who are the actual cultivators should be included in the scheme.
- Avoid export bans: At the macro level, trade in food and agriculture has to be maintained in order to have availability of food. Access to food has to be tackled in a different way than having export bans. For example, some of the farmers are suffering because of export restrictions. After the lockdown period, exports of farm products have to be continued.
- Agriculture reforms: The reforms relating to the Essential Commodities Act, agricultural marketing and contract farming would help the farmers in raising their incomes in the medium term. But, the government has to provide more clarity on these reforms. One big point of discord that relates to the amendments to the Essential Commodities Act is the provision to invoke its controlling powers on exempted food items. That is, 100 per cent increase in retail price of horticultural produce or 50 per cent increase in retail price of non-perishable items as compared to the previous 12 months or last five years average, whichever is lower. This provision would restrict big-ticket investments in the sector. There is a lot of confusion over some of the definitions which, unless fixed, could lead to major implementation challenges. In addition, the provision to refer all disputes in such forms of trade to the sub-divisional magistrate or the conciliation board appointed by him gives a lot ofpowers to the officer. Another point which is missing is taxes on inter-state trade. Now, if a trader buys goods from other states, what happens to taxes other than mandi tax and cess that is levied. Though GST will have taken care of a lot of these issues, but some clarity could have been better.

Informal sector: It is very important now to protect the workers in the informal sector, who have been badlyaffected, and yet have little savings to tide them over the shock. Over and above the fiscal package that the central government has already announced, some more relief measures for the informal sector workers may be considered till the economic activities and employment improve.

- Food and nutritional security: India has nearly 56 million tonnes of excess stock of grains andcereals compared to the usual norms. In March, the government declared 5kg free rations in additionto the present entitlement of buying 5kg at subsidized prices. In June, the Prime Minister announced extension of the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY), a programme to provide free ration for over 80 crore people, mostly poor, by five more months till November end. This will help the informal sector workers in both rural and urban areas. However, government has to make sure that no one is excluded as we still have exclusion errors in the Public Distribution System (PDS system). State governments have also announced free basic and enhanced rations. The nutritionlevels of informal workers and the unemployed poor were low even before the crisis. It will decline further due to lack of jobs and incomes during lockdown and beyond. Therefore, there is a need to have pulses, oils, jaggery etc in ration shops to ensure a diversified diet for them. *Anganwadis* and schools can provide rations at home. Eggs can be added to improve nutrition for children and women. Government has to make sure that the prices of essential food items are under control. Otherwise high prices would have adverse impact on the food and nutrition security of the poor.

- Cash transfers: Given the widespread loss of jobs and incomes and no certainty about when the situation may normalise, the informal sector workers would need cash income support. The government has provided Rs.500 per month to women through their *Jan Dhan Yojana* accounts. There is some consensus that this may not be sufficient. The suggestions on this vary from Rs.3000 per month to Rs. 6,000 per month[35]. Experts argue that a higher amount of cash transfer as comparedto the government announcement is needed as a one-time measure. Khera (2020) indicates that it is better to use the NEFT system rather than using the Aadhar Payment Bridge system as the latter has some rejections and failed payments. It may be noted that some of the informal workers and other vulnerable groups do not have *Jan Dhan* accounts. These groups also need cash assistance. The optimal design of the cash transfer programme needs to be figured out in terms of targeted recipients,amounts, and duration.
- To a certain extent, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme works as an automatic stabiliser because if people need jobs they can just apply. Also the number of days under the program maybe increased. There is significant increase in MGNREGA enrollments in rural areas as migrants have gone back to rural areas. Rangarajan and Dev (2020) suggested (a) expanding the number of days under MGNREGA from 100 to 150 days and (b) introduction of employment guarantee scheme with 150 days in urban areas to address the problemof joblessnes in the urban informal sector. A related issue is payments to MGNREGA workers. All the arrears for these workers have to be released.[36]
- Migrant workers: The migrant workers are the worst affected by the lockdown and will continue to be so in the next few months. . They have faced extreme hardships. There have been several suggestions to help the migrant workers. After the lockdown, an orderly return of the migrant workers to their respective work places must be arranged. Steps must be

taken such that the benefits of social safety nets like PDS, *Ujjwala* scheme etc. become available to them even in the urban and semi-urban areas (Kapur and Subramanian, 2020). The government wants to introduce one nationone ration card which will help the migrants. But, one has to make sure that all the migrants have

It maybe worth noting in this context that in recent years, the MGNREGA scheme does not seem to have offered much

support to rural income due to delayed wage payments, lower wages and insufficient budgetary allocations. The Periodic Labour Force Survey (PLFS) report released by the NSO in May 2019 shows that wages under MGNREGA work are lower than the market wage rate for non-public work by 74% for rural men and 21% for rural women (RBI, 2020).

access to this card.

- MSME and MFI: Since most MSMEs primarily operate on cash, they require immediate liquidity to cope with adverse events. As mentioned above, the government announced collateral free automatic loans to the tune of Rs. 3 lakh crores over the next five months guaranteed by the government. According to the government, the stimulus is Rs. 5.9 lakh crores for MSMEs (3% of GDP). But, the estimates show that the fiscal implication is only Rs. 16,500 crores (0.08% of GDP). A small number of firms can actually benefit from the government announcements. Supply chain disruptions have also created demand problem for MSMEs from the larger firms. A survey by All India Manufacturers Organisation (AIMO) says that at least 78% of the MSMEs are not satisfied with the financial package execution. They are expecting the government to provide an alternative financial mechanism than just loans and provide a wage stimulus for their workers. Firms also suggested reliefthrough interest free loans, deferring tax refund, and reducing GST slabs. The immediate problem is survival and recovery in the next few months. There are also many opportunities for MSMEs in the space vacated by China. Indian can't become *Atmanirbhar* without dynamic MSMEs.

- State level programmes: Several state governments have initiated innovative programmes to help the informal workers and the unemployed poor. Kerala government for example has announced aRs.20,000 crore package. The components of this package are: (a) Two months of welfare pensionsto be given as an advance; (b) All needs families get free food grains from the PDS; (c) A subsidizedmeal programme at Rs.20 to be delivered at home; (d) Loans worth Rs.2000 crore will be given through *Kudumbashree* programme; (e) Rs.500 crore of health package; (f) employment guarantee programme of Rs. 3000 crore in the first two months. The food assistance programmes are noteworthy as they focus on diversified diet to improve nutrition. It is worth studying the Kerala package and its viability more closely and the potential replicability in other states.

Banking sector: In absence of a liquid and well-functioning bond market, given the extra-ordinary nature of the crisis and given the dependence of the Indian economy on banks, the banking system needs to step up to provide the necessary credit to firms as well as households. Otherwise far too many enterprises will get destroyed and unemployment will go up dramatically.

Resolving firms: We know that the health crisis is a temporary shock. Standard economic theory tells us that the optimal response to a temporary shock is for (viable) firms and households to obtain financing, to tide them over the difficult period. Over the next few months, three categories of firms will emerge: a) firms that are able to pay their dues throughout the crisis period; b) firms that are fundamentally viable and can survive provided they are given adequate credit support; and c) firms whose business models are broken and whowill become bankrupt as a result of this shock. It will be important for the banks to distinguish among these firms. Banks should ideally do nothing with firms in category (a), give the 6-month loan moratorium andalso credit support *only* to firms in category and maintain a systematic database with information on these firms (b), and take the firms in category (c) to the insolvency and bankruptcy courts.

The suspension on IBC needs to be lifted so that in particular firms in category (c) can get resolved fast and resources currently locked up in these firms can get deployed for more productive purposes. In absence of IBC, resolution of failed firms is likely to get delayed thereby causing significant deterioration in the valueof the underlying assets and worsening the eventual losses for the creditors.

Several firms which are in category (b) may default once the 6-month moratorium period is over. It is unlikely that their financial situation will improve significantly in this 6 month period. They should be declared NPA in the usual 90dpd cycle starting October 2020 and banks should write off the assets in their books as per the prudential norms of RBI. If at all some of them require a one-time restructuring of their loans, RBI should leave the decision to banks to figure out which firms need this and let them work out the details of the restructuring schemes. This solution should be applied only to firms who are genuinely not ableto repay because of the cash-flow shock and not to firms in the (c) category who are fundamentally bankrupt.

Reviving credit growth: As explained earlier, RBI's strategy of adding more liquidity to the system has already been tried, without success; it is unclear why it would work now, especially now that uncertainty about firms' prospects has only increased. When a bank decides to approve a loan, it performs two functions simultaneously: it is assuming risk, and it is allocating capital. In the current circumstances, it is still possiblefor banks to allocate capital: they can still figure out which firms are more likely to be hit badly by the crisis and which firms are going to be less affected. That is, banks can figure out relative risk.

The problem for the banks is that right now they can't really assess the *absolute* level of risk, because they don't have no idea how long the crisis is going to last, or how deep the crisis is going to be. And this shock has come at a time when banks have already become risk-averse given the last few years of balance sheet problems. Hence, it is difficult for them to lend, especially to new customers.

In these circumstances, giving the banks more liquidity, exhorting them, coming up with any number of subsidy schemes, will not work. Moreover, as mentioned earlier, there is heightened risk aversion in the banking system right now and steps must be taken to first address this in order to make other policy actions effective. The following are some of the steps that maybe taken:

- The government, not the RBI, could relieve the banks of the burden that it cannot manage: theburden of risk. The government can capitalize a fund which will then give loan guarantees. The scheme would have some selection criteria, say MSMEs that have been current on their bank loans.It would also specify maximum rupee amounts per firm, pegged say to the annual revenues of the company. Once the eligibility criteria are specified by the government, the actual selection of the firms would be done by the banks. They would identify the best firms, originate the loans, and then apply to the fund for guarantee coverage. Of course, the banks should be charged a fee for this, to discourage them from using the fund unnecessarily.

In this way, we could use the law of comparative advantage to obtain better economic outcomes: the government would do what it does best in crises, namely bearing risk; while the banks would continue to do what they do best, namely allocating capital.

The ‘Atmanirbhar package’ announced by the government contains such credit guarantee schemes for MSMEs however as discussed about a 100% credit guarantee can lead to distortions of incentives and adverse selection problems. Also despite the scheme the credit offtake has not been very significant. In fact credit to deposit ratio has been declining continuously since the lockdown was announced and didn’t improve even after this scheme was announced. Also this facility was extended only for existing borrowers above a certain threshold of revenue.

- As regards banking regulation and dealing with defaulting firms, to supplement the policy actions already taken of 27 March, RBI could announce that firms and individuals seeking a loan moratorium would be marked in a separate category. That way, there would be transparency regarding the true financial situation of the banks and an account of how many moratoriums have been offered. There would also be a bit of a stigma for borrowers, helping to preserve debtor discipline. If a firm had no choice, it would still have postponed repayment. But if it could afford to pay, it would have done so, in order to escape the stigma.

- Recapitalise the banks adequately or issue a promise of capital, so that the banks are able to provide for the rising NPAs, instead of postponing the recognition and kicking the can down the road.

- Provide interest subvention in lending to specific segments, and create a dedicated fund to provide this subvention. This will improve banks’ ability to appropriately price the risk they are taking.

- Notify the personal insolvency sections of the IBC so that banks are better equipped to deal with the rise in NPAs owing to impending defaults in the retail sector. The defaults in the retail sector are likely to be huge and banks would need a legal mechanism to deal with these.

- Forward planning could help deal with the consequences of the inevitable surge in defaults. Even before the corona crisis, bankruptcy cases were taking far longer than envisaged; large cases were taking several years to resolve. If this situation is not addressed, there is a risk that large sections of the economy will be tied up in bankruptcy courts, making it impossible for the economy to return to normal, even after the virus abates. To make sure this does not happen, the IBC needs to be reformedand capacity at the courts needs to be increased in order to ensure faster and effective resolution.[37]

Such reforms would also have an immediate benefit: banks would be more confident in lending if they knew the IBC would not be overwhelmed by cases after the crisis is over. Most importantly the provisions of IBC should not be diluted citing extraordinary circumstances

- Release the banks, both domestic and foreign, from the ambit of the Prevention of Corruption Act, inorder to encourage them to freely take business decisions, including extending loans to new customers.

Monetary policy: The design of inflation targeting (IT) is well suited for such crisis times. IT anchors inflation expectations, thereby giving monetary policy more room to manoeuvre during downturns. Accordingly, efforts must be put into retaining and even enhancing the credibility of this mechanism. Whatis required is accurate inflation forecast targeting.

Monetary policy actions should be couched in terms of this framework, as a way of assuring the public that the RBI is keeping its eye on this critical objective, and that the mistakes of the past will not be repeated. TheMPC has to be careful about the delayed transmission of rate changes in India. For example, monetary easingcould take a year to have a significant effect, by which time the problem might be over, and inflation might have re-emerged, at which point painful measures would be required to bring it back down. This is not just a theoretical possibility: it is precisely what happened in 2009-13.

Fiscal policy: Most of the policy actions to support the economy during such extra-ordinary times will entaila rise in fiscal deficit. As discussed in detail in section 6, the government currently has very little fiscal spaceto accommodate a substantial stimulus. There is a lot of pressure from multiple quarters to let go of the fiscal consolidation rules, enlarge the fiscal deficit and let the debt/GDP ratio go up. This may be unavoidablegiven the circumstances but should be done subject to adequate checks and balances so that the long term consequences of a fiscal expansion do not jeopardise the economic recovery.

Perhaps a one-time relaxation of the FRBM Act can be considered in view of the extraordinary situation. State governments also have to incur a lot of expenses to take care of the health and economic crisis. Therefore, the FRBM Act has to be substantially relaxed for state governments too much more than what hasalready been done so far. The government can also make use of the windfall gains emanating from the global oil price collapse. The appropriate design of the stimulus measures therefore needs to be carefully thought about.

8. Conclusion

Covid-19 has posed an unprecedented challenge for India. Given the large size of the population, the precarious situation of the economy, especially of the financial sector in the pre-Covid-19 period, and the economy's dependence on informal labour, lockdowns and other social distancing measures are turning outto be hugely disruptive. The central and state governments have recognized the challenge and have responded but this response should be just the beginning.

The eventual damage to the economy is likely to be significantly worse than the current estimates. On the demand side, the government needs to balance the income support required with the need to ensure the fiscal situation does not spin out of control. The balance struck so far seems to be a reasonable one but the government needs to find a greater scope for supporting the incomes of the poor. Involvement of the state and local governments may also be crucial in the effective implementation of further fiscal initiatives.

Policy makers need to be prepared to scale up the response as the events unfold so as to minimise the impact of the shock on both the formal and informal sectors and pave the way for a sustained recovery. At the same time they must ensure that the responses remain enshrined in a rules-based framework and limit the exercise of discretion in order to avoid long-term damage to the economy.