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Covid-19 Pandemic: Impact, Recovery, and the Road Ahead for the Indian Economy

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by

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In an earlier paper (Dev and Sengupta, 2020) we had discussed the potential and immediate impact of the shock of the Covid-19 pandemic on various segments of the Indian economy. In this paper, which is a sequel to our previous study, we dig deeper into how the Indian economy fared during the period of the pandemic including the two waves of 2020 and 2021, analyse the manner in which various segments of the economy have recovered from this unprecedented shock, and also reflect on what the post-pandemic economic landscape might look like for India, especially in the context of a highly volatile global economic environment.

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1. Introduction

It has been more than two years since India along with rest of the world got affected by the Covid19 pandemic which caused unprecedented damage both from a health crisis perspective as well as from the point of view of economic devastation. India fell into the clutches of the pandemic early on in 2020. The first wave of the pandemic subsided by October 2020 but then the country got affected by arguably an even more severe second wave in the summer of 2021. These two waves and associated restrictions imposed by the government to deal with the pandemic led to a severe economic contraction in 2020-21. This was followed by a moderate amount of recovery in 2021-22. By now, the pandemic has subsided, and mostly become endemic, largely owing to mass scale vaccinations as well as immunity through disease. However the economic impact is likely to be longer lasting. The gradual recovery of the Indian economy from the pandemic has now been interrupted by multiple headwinds primarily from diverse global shocks thereby raising questions about the medium-term growth prospects.

In our previous paper (Dev and Sengupta, 2021) we discussed the potential and immediate impact of the shock of the pandemic on various segments of the Indian economy. We had presented our assessment in context of the pre-pandemic conditions prevailing in the economy. We had also described the policies that had been announced in the first year of the pandemic to ameliorate the economic shock, and had suggested some policy recommendations. In this paper, which is a sequel to our previous study, we dig deeper into how the Indian economy fared during the period of the pandemic including the two waves of 2020 and 2021, analyse the manner in which various segments of the economy have recovered from this unexpected and massive shock, and also reflect on what the post-pandemic economic landscape might look like for India especially in the context of a changing global economic environment.

Our analysis in this paper covers the period from March 2020 to August 2022. We divide this 30-month period into 3 phases, primarily based on the Covid 19 case load, mobility restrictions imposed by the concerned authorities to deal with the pandemic and the associated economic repercussions:

i. The p*andemic period,* from March 2020 to July 2021, consisting of the two main waves of the disease that hit India, first in March 2020 and then in March 2021;

ii. The *recovery period,* from August 2021 to January 2022, during which Covid-19 cases began declining rapidly, and the economy started recovering from the shock;

iii. The *post-pandemic period,* from February 2022 till the end of our sample in August 2022, when the pandemic subsided but the Indian economy got hit by new kinds of shocks such as the Russia-Ukraine war and associated geopolitical tensions, rising global inflation, resurgence of Covid-19 cases and imposition of strict lockdowns in China, and renewed supply chain constraints arising from these shocks.

The worldwide Covid-19 pandemic came with difficult trade-offs; the greater the mobility related restrictions imposed by the governments of affected countries, the easier it was to contain the disease spread at least for a temporary period, and accordingly minimise the health costs, but this also imposed severe economic damage. On the other hand, permitting greater mobility reduced the extent of economic devastation and subsequently facilitated economic recovery but was intrinsically associated with greater risk to lives. In other words, the pandemic imposed two types of cost on countries: a health cost and cost to income and wealth.

India was no exception to this. When the pandemic began spreading in India in March 2020, the central government announced one of the largest and most stringent nationwide lockdowns in the world at the time, based on data from the Oxford COVID-19 Government Response Tracker. This was done to contain the rapid spread of the contagious disease. The lockdown announced on March 24, 2020, with all its stringency continued for about two months and was gradually relaxed beginning June 2020, the situation varying state by state (Sridharan, 2020). In the first wave of the pandemic (between March and July 2020), India recorded the third highest Covid-19 caseload in the world after the United States and Russia with more than 500,000 confirmed cases and close to 25,000 deaths (data from the World Health Organisation).

The first wave peaked in mid-September 2020, and cases declined thereafter till the end of the year. As the severity of the first wave of the pandemic began subsiding, many of the nationwide mobility restrictions were gradually relaxed starting June 2020. Economic activity resumed albeit in stops and starts, depending on the heterogeneity in geographical distribution of the intensity of Covid cases. By January 2021, India recorded roughly 10 million confirmed cases, the second-largest number next to the US, and 150,000 deaths.

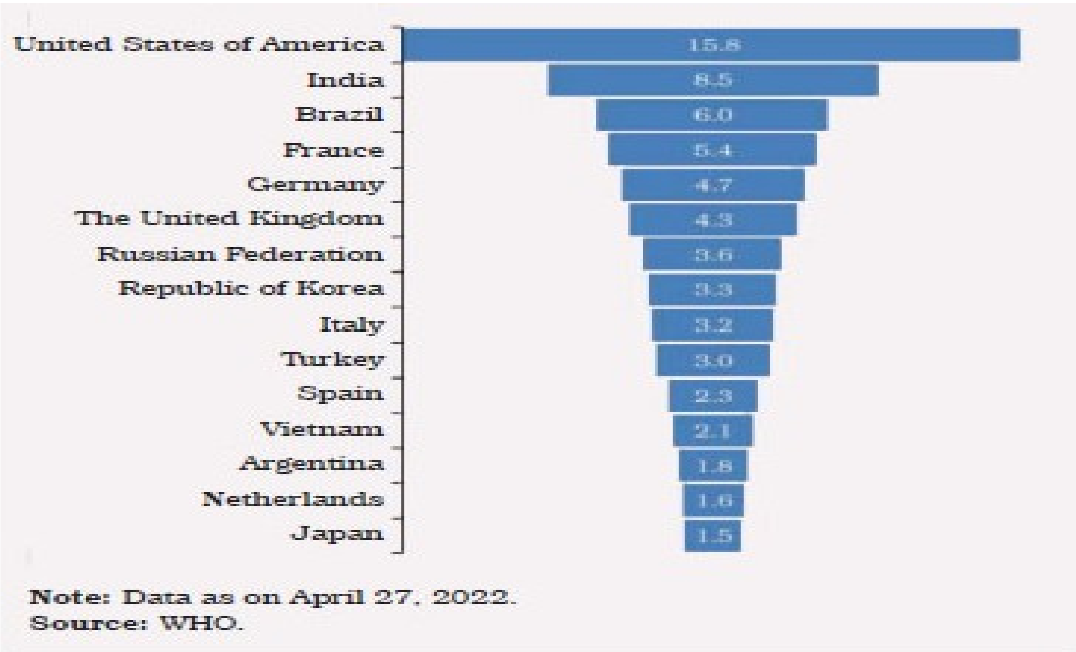
During the first year of the pandemic, the extent of contact tracing done in India was lower than other countries, particularly other developed countries. Moreover, the manner in which vaccination policy was designed and rolled out slowed down vaccination process which began only from February 2021 onward. This resulted in a large-scale spread of the disease, which in turn generated immunity among bulk of the population.

In the summer of 2021 India was hit by a second wave of the pandemic which took the number of confirmed cases to 30 million by July 2021 and number of deaths to roughly 400,000. The second wave which peaked in May 2021, was more widespread, more severe, its geographic coverage was much greater and larger percentage of population was affected. It disproportionately affected the urban areas and because of the broken health care infrastructure, the impact was overall devastating. The government did not impose any nationwide lockdown; instead the lockdowns were regional and hence more scattered. Also many enterprises were better prepared to deal with lockdowns by the time the second wave happened. Moreover, this time around the restrictions were imposed for a relatively shorter duration and were less pervasive or economically damaging compared to the complete lockdown of the country in March 2020.

Economic activity nonetheless suffered particularly in contact intensive industries. The usual suspects such as hospitality industry, travel and tourism, aviation, restaurants, entertainment, commercial real estate, small transport operators, etc bore the brunt of the second wave as they did in the first wave. Unemployment went up (as reported by the Center for Monitoring Indian Economy) yet the labour force participation rate did not go up simultaneously implying that unemployment rose because new people were looking for jobs but because existing workers were losing jobs. Arguably, the uncertainty associated with the second wave was greater, and the risk aversion was also higher aggravated by substantial delays in universal vaccination and also threats from potential mutations of the virus.

After the end of the second wave, partly because of widespread vaccination and partly because of immunity through disease, the severity of the pandemic began subsiding and from September 2021 onward, number of active Covid cases started to decline across the country. Between July 2021 and January 2022, the number of confirmed cases increased by only 4 million. There was a brief third wave that started in December 2021 and peaked in January 2022, and was more infectious but significantly milder in terms of the severity of the disease. Accordingly the mobility restrictions imposed by the local governments were also much less stringent.

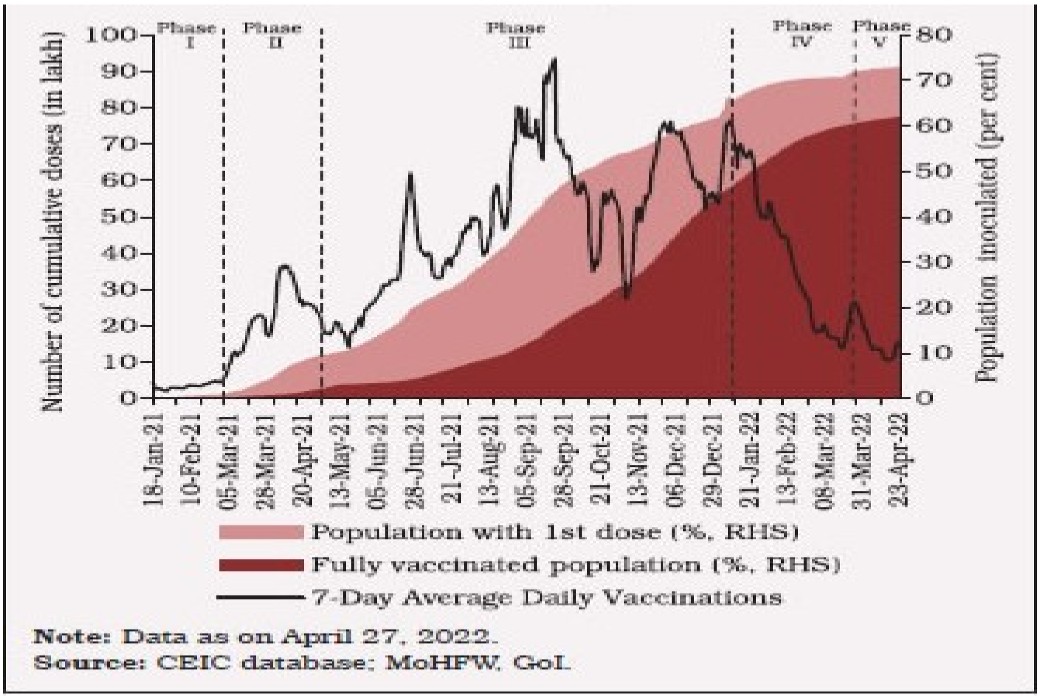
Figure 1: Top 15 countries affected by Covid-19 (percentage of cumulative cases)



Source: "Scars of the pandemic," RBI (2022d)

By April 2022, the disease became endemic, and there were no further mobility restrictions. Till date India has experienced three waves of infections, taking its total caseload to the second highest in the world (Figure 1). After the initial hiccups and slow roll-out of the vaccination program, the authorities succeeded in ramping up vaccination particularly after the devastating second wave. By April 2022, more than 60% of the population was fully vaccinated (Figure 2).

Figure 2: Vaccination program in India



Source: "Scars of the pandemic," RBI (2022d)

During the pandemic period, the Indian economy underwent a severe contraction. According to official estimates, in FY21, real GDP growth contracted by 6.6%. In the April-June, 2020 quarter alone, GDP fell by more than 20%, recording one of the deepest recessions in the world and recovering to some extent in the subsequent quarters.[3] In an economy already slowing since 2018, this was the worst contraction since the 1970s.

In the pre-pandemic period the Indian economy was already in doldrums (Sengupta, 2020; Dev and Sengupta, 2020). Private sector investment was sluggish at best, and exports had been declining as well. The economy had become increasingly dependent on consumption demand for boosting growth but the share of consumption in GDP has been declining over the years. To some extent growth was propped up by government expenditure. The pandemic and lockdowns dealt a big blow to consumption demand and government fiscal

3 Quarterly growth rates in 2020-21 were -24.4%, -7.4%, 0.5% and 1.6%, respectively.

situation was not strong enough to provide a sizeable stimulus sufficient for reviving growth.

Potentially one of the biggest factors contributing to the slowdown was the sudden, nationwide lockdown announced on March 24, 2020. Research shows that countries that ranked higher in terms of lockdown stringency index, namely India, Argentina, Italy and the United Kingdom, faced deeper contraction in GDP (RBI, 2022d).

In the immediate aftermath of the lockdown announcements of March 2020, millions of migrant workers left the cities to go back to the villages, in search of food and income security given that the cities had shut down completely. Once the lockdown was gradually relaxed, it became a significant challenge to bring these migrant workers back to the cities thereby causing severe labour supply problems. The urban economy contributes almost 70-75% to India's GDP. With labour in short supply, economic activities in the urban areas continued to be adversely impacted even when mobility restrictions were lifted.

In contrast, it seems that by some measures, the economy fared reasonably well in the recovery period of FY22. For example Google mobility data showed that by December 2021 we were mostly back to the pre-pandemic conditions. The recovery was largely fueled by an export boom that took off from the summer of 2021 on the back of revival of demand in the developed countries where vaccination progressed at a faster pace and the governments and central banks provided massive stimulus to revive growth.

The Indian stock market also performed exceptionally well in this period. This was partly fueled by easy monetary policy followed by the US Federal Reserve during the pandemic and the resultant inflows of foreign capital into Indian financial markets in search for higher yields. But there is also evidence that large portions of the economy were not doing well, particularly the services sector and the informal sector, thereby pointing to the emergence of a two-speed economy.

Even as the economy struggled to recover from the pandemic, it has had to deal with the ongoing repercussions of multiple global shocks such as the the Russia-Ukraine war and associated geopolitical tensions, as well as resurgence of Covid cases and stringent lockdowns in China, all of which have further aggravated the supply chain bottlenecks triggered by the pandemic. As a result of the massive stimulus provided by the government and monetary easing implemented by the US Fed, inflation in the US has reached the highest level in four decades. Inflation in the UK, and the Euro zone has also been averaging in the 8-10% range in 2022 so far thereby prompting the respective central banks to embark on a path of aggressive monetary tightening and liquidity withdrawal.

This in turn has not only fueled fears of a synchronized global recession it has also caused the US dollar to strengthen and accordingly all emerging economy currencies, including the rupee to face severe depreciation pressures. This is because of foreign investment leaving emerging markets and going to the US in search of safety amidst heightened global risk aversion. As a result India is now facing a widening current account deficit because of slowing exports and rising import bill, and growing capital outflows, in addition to existing domestic problems such as high fiscal deficit and debt as well as inflation higher than the target. These “new” shocks have made policymaking significantly more challenging in the aftermath of the pandemic.

2. Impact of the pandemic

In this section we focus on the pandemic period from March 2020 to July 2021 i.e. from the start of the first wave to end of the second wave. We first take a look at the overall impact on growth and employment. Then we analyse the sectoral impact of the pandemic especially the impact on agriculture, MSMEs (micro, small and medium enterprises), informal and formal sectors. As expected, the pandemic’s economic disruption did not have a uniform impact on different sectors of the economy.

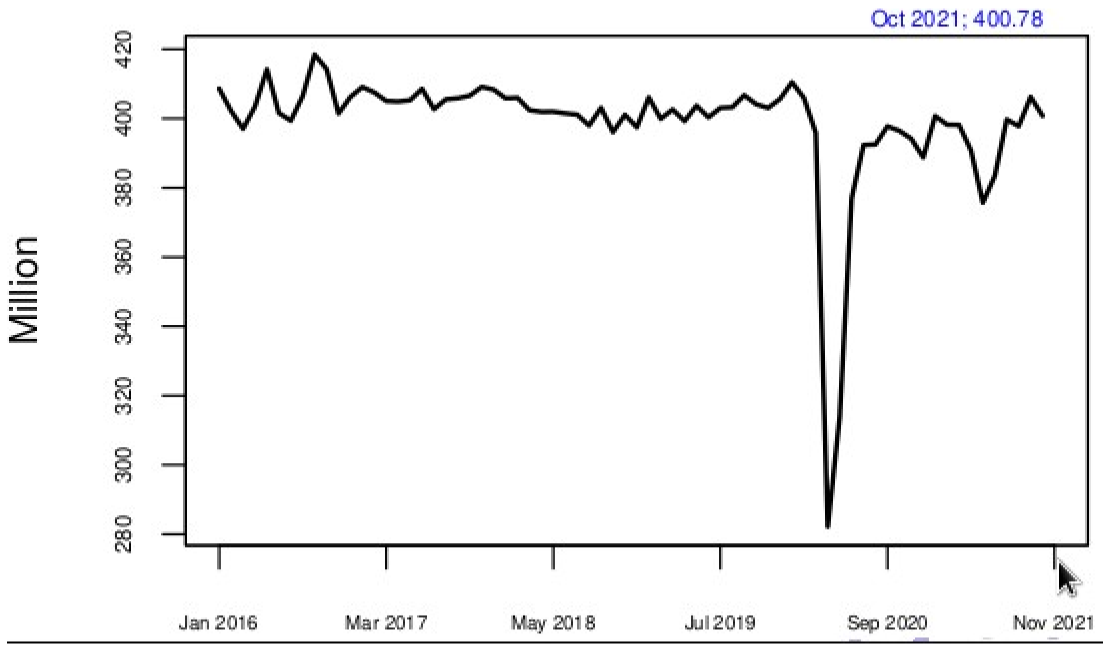
2.1. Overall macro impact: Growth, Employment and Income

Pre-Covid-19, the Indian economy was already slowing down and was in a precarious condition in terms of employment, consumption, investment, and overall GDP growth which had fallen to 4% by FY20 (Sengupta, 2020; Dev and Sengupta, 2020). The pandemic further compounded the existing problems of unemployment, depressed consumption demand, stagnating incomes, rural distress, and widespread inequality.

India’s GDP declined by 23.8% in Q1 of FY21, the sharpest contraction in several decades. This was followed by a gradual recovery in the second half of the year. Overall FY21 witnessed a 6.6% decline in GDP growth. Q1 of FY22 witnessed the impact of the second wave of the pandemic. Camouflaged by statistical base effects, GDP fell 8.3% below the pre-pandemic level.

We examine here the trends in overall employment and unemployment using the official PLFS (Periodic Labour Force Survey) data as well as CMIE (Centre for Monitoring Indian Economy) data which is a private source. In particular, to understand how the households of middle India fared during the pandemic, we look at a long time series of the number of persons working, as estimated using the CMIE household survey (Consumer Pyramids Households Survey or CPHS) data. From 2016 onwards the total number of persons working has been stagnant at 400 million. There has not been any secular growth in this metric (Figure 3).

Figure 3: Number of persons working



Source: Consumer Pyramids Households Survey (CPHS) data from CMIE

During the pandemic, there was a sharp decline in this number at the time of the 2020 lockdown when it dropped to less than 300 million. Estimates by the CMIE show that unemployment shot up from 8.4% in mid-March 2020 to 25% in April 2020. Overall unemployment rate, which ranged between 6.9% and 7.7% in the pre-pandemic year of 2019 (see Table 12), increased to more than 12% in the first wave of the pandemic and to more than 8% in the second wave. Labour force participation rate (LFPR) was nearly 43% before the pandemic in 2019 and averaged 44% between March 2016 and March 2020 (see Table 11). It declined to less than 40% between June 2020 and June 2021.

CMIE data also shows decline in incomes and rising unemployment during the second wave of the pandemic. In the week ended May 16, 2021, around 56% of households reported a loss of income compared to a year ego. 41% stated that there was no change in their income compared to a year ago. In other words, over 97% of Indian households suffered a fall in real income. Unemployment increased to 14.5% in the same week.

The quarterly PLFS data for urban areas indicate that the work force participation rate (WPR) was 44.1% in the pre-pandemic period in October-December 2019 (see Table 9). It declined to 36.4% in the first wave in April-June 2020 and then increased to 43.1% in January-March 2021 before declining again to 40.9% in the second wave during April-June 2021. The unemployment rate before the pandemic (October-December 2019) was 7.8% (see Table 10). It rose to 20.8% in the first wave during April-June 2020 before declining in Q4 of FY21. Again the rate increased to 12.6% in the second wave (April-June 2021).

The National Statistics Office (NSO) recently released the annual PLFS for the year 2020-21 (July 2020-June 2021). It shows increase in WPR and a decline in unemployment rate in 2020-21 compared to the pre-pandemic year of FY20 (Table 1). This is true for both rural, urban, males and females. The finding of increasing in WPR must be interpreted with caution. After the initial decline in April-June 2020, WPR increased in the subsequent quarters. Low quality employment can increase during periods of distress. The sharp increase in employment for females suggests such a process (Himanshu, 2022). For similar reasons, unemployment rate declined in FY21 compared to that of FY20 (Table 1).

Table 1. Work participation rates and unemployment rate (in per cent) from PLFS

	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	Work participation rates (%)								
2017-18	51.7	17.5	35.0	53.0	14.2	33.9	52.1	16.5	34.7
2018-19	52.1	19.0	35.8	52.7	16.1	36.9	55.6	18.6	37.5
2019-20	53.8	24.0	39.2	54.1	16.8	35.9	53.9	21.8	38.2
2020-21	54.9	27.1	41.3	54.9	17.0	36.3	54.9	24.2	39.8
	Unemployment rate (%)								
2017-18	5.8	3.8	5.3	7.1	10.8	7.8	6.2	5.7	6.1
2018-19	5.6	3.5	5.0	7.1	9.9	7.7	6.0	5.2	5.8
2019-20	4.5	2.6	4.0	6.4	8.9	7.0	5.1	4.2	4.8
2020-21	3.9	2.1	3.3	6.1	8.6	6.7	4.5	3.5	4.2

Note: Worker Population Ratio (WPR): WPR is defined as the percentage of employed persons in the population. Unemployment Rate (UR): UR is defined as the percentage of persons unemployed among the persons in the labour force.
Source: PLFS, Annual Report 2020-21

The pandemic normalised the culture of “work from home (WFH)” given the widespread and comprehensive mobility restrictions imposed by the authorities to curb the spread of the disease. PLFS estimates that WFH workers in India accounted for roughly 19% of the workforce which is far less than the USA (34%) or China (28%). Also, urban areas had a greater proportion of WFH workers compared to rural regions. The share of female labour force engaged in WFH (21%) was also higher than men (19%) during the pandemic period, possibly due to women choosing flexible jobs that allow them to spend more time at home. However, WFH occupations are associated with cognitive tasks which require a certain level of education. 44% of WFH job workers have more than a higher secondary education. This limited the benefit of this alternative model of working to a narrow section of the population.

Income inequalities had gone up even before the pandemic. A report on the state of inequality prepared by the Institute for Competitiveness (Kapoor and Duggal, 2022) shows that top 10% earned more than 30% while the bottom 50% held approximately 22% of the total income. The growth rate of income for the bottom 50% has been 3.9% from 2017-18 to 2019-20 while for the top 10% it has grown by 8.1%. The top 1% grew by 15% whereas the bottom 10% registered close to 1% fall. It shows high inequality in the growth of incomes between the rich and poor income groups.

The pandemic further widened these inequalities. The nationwide lockdown brought almost all economic activities to a complete halt. The worst affected were the bottom of the pyramid, particularly the informal workers including migrant labourers. The 'State of Working in India 2021' report of Azim Premji University (Centre for Sustainable Employment, 2021) finds that poverty and inequality increased during the first wave. Pew Research Report shows that India's middle class may have shrunk by a third due to the pandemic while the number of poor people earning less than Rs.150 per day more than doubled (Kocchar, 2021). The share of wages declined compared to profits. The big companies and large part of the corporate sector could better manage the pandemic, as we discuss in subsequent sections. But, the informal sector suffered disproportionately with loss of incomes and employment during both first and second waves.

Dreze and Somanchi (2021) assessed the income, employment and food situation in India in 2020 based on 76 household surveys compiled by the Centre for Sustainable Employment at Azim Premji University (CSE-APU) and data from the CMIE. The study found that the period between April-May 2020 was associated with a tremendous food crisis with a large proportion of the population struggling to feed their families. There was a decline in food intake in both quantitative and qualitative terms for a majority of the population. The study also reveals a sharp decline in employment and incomes during the national lockdown between April and May 2020. There was some recovery from June 2020 onward, when the lockdown was gradually relaxed but employment, income and nutrition levels were still much below pre-lockdown levels by the end of 2020.

The RBI (2021) reported that the impact of the second wave appears to be U-shaped. "In the well of the U are the most vulnerable blue collar groups who have to risk exposure for a living and for rest of society to survive: doctors and healthcare workers, law and order, and municipal personnel, individuals eking out daily livelihood, small business, organized and unorganized – and they will warrant priority in policy intervention".

2.1.1 External sector

In the first few months of the pandemic the combination of weak economic growth, lacklustre domestic demand, and low oil prices shifted the current account balance of India from a deficit of 1.8% of GDP in Q4 of FY20 to a surplus of 1.9% of GDP in Q1 of FY21. Trade deficit as a percentage of GDP went down to 1.9% in the April-June quarter of 2020, the lowest level in more than a decade. Imports fell more than exports suggesting that India was doing worse than its trading partners. Non-oil exports fell drastically by 33% on year on year basis, in nominal terms, while overall imports fell by as much as 53%.[4]

These factors changed the balance of supply and demand in the foreign exchange markets as a result of which the rupee faced appreciation pressures against the dollar. The RBI actively intervened in the foreign exchange markets to prevent the rupee from strengthening further. It bought dollars both in the spot and in the forward markets. In May and June 2020, the RBI's net dollar purchase in the spot market was to the tune of $14.4 billion. In June, its net purchase in the forward market was more than $4 billion. As a result of the RBI's currency trading, India's foreign exchange reserves increased by more than $100 billion since January 2020, reaching an all-time high of $580 billion by December 2020.[5]

In the immediate aftermath of the March 2020 lockdown, the Indian economy initially witnessed a net outflow of foreign portfolio investment (FPI). However, this trend reversed in the subsequent months, as policymakers in the developed world adopted stimulative measures to revive their economies, creating excess liquidity in global financial markets. Between June and August, 2020, Indian capital markets received a net FPI inflow of close to $10 billion as foreign investors returned to the stock market. In September 2020, for the first time in six months, inflows into the debt market turned positive. India also received close to $17 billion of foreign direct investment (FDI) during April-July, 2020.

The pandemic caused massive disruptions of global supply chains owing to closure of national borders. It forced manufacturers across the world to restrict production which resulted in lower global orders for raw materials. Once economies were on the path to recovery, demand surged and this aggravated supply bottlenecks in critical inputs, especially in microchips and shipping containers.[6]

4 Data from the Ministry of Commerce.

5 Data from the RBI.

6 For example, the time between ordering chips and actual delivery went up to 21 weeks in August 2021 compared to 6 weeks one month prior. Likewise, turnaround times in key ports doubled. Shipping freight costs increased dramatically. Shanghai Containerized Freight Index rose from less than US$ 1000 per TEU (twenty-foot equivalent unit) in June 2020 to US$ 7,395 by the end of July 2021. According to Moody's, 77% of the world's largest ports faced backlogs during this period (Kantha, 2021).

By the summer of 2021, international trade began recovering and India became an unexpected beneficiary. Exports started increasing, particularly merchandise exports. In general, owing to the imposition of lockdowns and mobility restrictions in countries affected by the pandemic, demand shifted from services to goods, thereby causing a strong growth in India's merchandise exports.

In the April-June quarter of 2021, non-oil exports went up sharply by 78% on year on year basis while overall exports grew by a staggering 86%. On a CAGR basis non-oil exports grew by around 11% between April-June, 2020 and July-September, 2021 (data from CMIE). The world during this time was also experiencing a commodity price boom owing to a resurgence in demand from the recovering economies of the US, China etc. Many of India's exports are commodities; as a result some of the increase in export values that began showing up was due to the rise in commodity prices.

2.2. Agriculture

The importance of the agricultural sector in the Indian economy is well known. Although its contribution to overall GDP is now less than one-fifth, it provides employment to large sections of the population. Also, the forward and backward linkage effects of agricultural growth increase the incomes in the non-agricultural sector. Thus, agriculture not only contributes to overall growth of the economy but also provides employment, food and nutrition security to majority of the population in the country.

A NABARD study finds (NABARD, 2020) that agriculture production declined marginally (-2.7%) during the first wave of the pandemic. Harvests of rabi and wheat crops were almost complete by the end of April 2020. Overall, agriculture in terms of growth in gross value added (GVA) was relatively resilient during the pandemic period. According to data released by the National Statistics Office (NSO) the agricultural sector grew by 3.3%. In contrast, the non-agricultural sector shrank by 6.2% in FY21 (Table 2).

In the second wave i.e. in Q1 of FY22, the growth rate of agriculture was 2.2% while that of non-agriculture was much higher at 18%. This was primarily due to base effect of -21.4% growth rate of the non-agricultural sector in Q1 of FY21 (Table 3) during the lockdown of March 2020. Factors like exemption of agriculture and allied activities from the lockdown measures, a bountiful monsoon, and availability of labour in rural areas arguably led to the resilience of agricultural activities during the pandemic period.

The level of GVA in agriculture was higher by 6.4% in FY22 as compared to pre-covid year of FY20. During the same period, the level of non-agriculture rose by only 2.3%. This shows agriculture has done comparatively better compared to non-agriculture during the pandemic period.

Table 2: Growth rates of Gross Value Added (GVA) in Agriculture, Non-Agriculture

Year	Growth of GVA in Agriculture (%)	Growth of GVA in non-Agriculture (%)	Growth of Total GVA (%)
2019-20	5.5	3.5	3.7
2020-21	3.3	-6.2	-4.8
2021-22	3.0	9.1	8.1
Source: National Accounts Statistics			

Table 3. Growth rates of GVA in Agriculture and Total GVA: Quarterly Data

Year	Growth of GVA in Agriculture (%)	Growth of Total GVA (%)
2019-20 Q4	6.8	3.7
2020-21 Q1	3.0	-21.4
Q2	3.2	-5.9
Q3	4.1	2.1
Q4	2.8	5.7
2021-22 Q1	2.2	18.1
Q2	3.2	8.3
Q3	2.5	4.7
Q4	4.1	3.9
Source: National Accounts Statistics		

Although harvesting activities were not affected per se, the first and second waves of Covid-19 nevertheless impacted agriculture due to problems in supply chains. The lockdown of March 2020 and associated disruptions affected supply chains through several channels: input distribution, procurement, transport hurdles, marketing and processing. Shortages of fertilizers, veterinary medicines and other inputs also affected agricultural production. Particularly in the first wave, closures of restaurants in the urban areas, and transport bottlenecks diminished demand for fresh produce, poultry and fisheries products, thereby affecting producers and suppliers. A Survey by Azim Premji University during the first lockdown shows that 37% of farmers were unable to harvest, 37% were forced to sell at reduced prices and 15% were unable to sell the harvest. The terms of trade were also not in favour of the farmers during the Covid-19 period.

NABARD finds that production in the allied sector witnessed significant declines (for example -19.5% growth in poultry and -13.6% in fishery) due to the fall in demand and the fear of consuming non-vegetarian food in the wake of pandemic. Dairy (-6.6%) and horticulture (-5.7%) production fell due to contraction in demand and disruption in supply chains. Availability of agricultural inputs such as seeds, fertilisers, pesticides, fodder etc declined in the range of 9 to 11%. Prices of these inputs went up by 9 to 12% due to disruption in supply chains owing to lockdowns.

Growth of real wages of agricultural labourers was low/stagnant or negative during the 11 month period from September 2020 to August 2021 (Table 4). Stagnation in growth of real wages was also true for rural non-agricultural operations. One of the important reasons could have been the reverse migration of workers from urban to rural areas triggered by the lockdown of March 2020. Workers migrated back to villages in large numbers causing imbalance in the rural labour market where underemployment and disguised unemployment are persistent problems. This arguably put pressure on already low land to man ratio, on food and employment security, and depressed rural wages.

Table 4. Real wage growth for general agricultural labourers

Months	2019-20	2020-21	2021-22
April	-1.42	NA	NA
May	-1.77	-1.61	1.80
June	-2.58	3.32	-2.68
July	-2.28	3.31	-2.21
August	-3.73	3.25	-1.39
September	-4.15	0.80	2.64
October	-5.16	0.31	3.11
November	-6.07	0.78	2.64
December	-1.99	-4.02	--
January	-1.46	-4.21	--
February	0.99	-3.27	--
March	-0.26	-1.85	--

Source: Mukherji (2022)

It is worth noting in this context that labour market was sluggish even in the pre-Covid period. The decline in employment in general, and the depressed employment in the construction sector had resulted in low rural wages (Figures 4a and 4b). This along with high household leverage in FY18 and FY19 and domestic shocks pulled down consumption demand (RBI, 2022a). The situation deteriorated further during the Covid-19 period.

Figure 4a: Employment pre-Covid

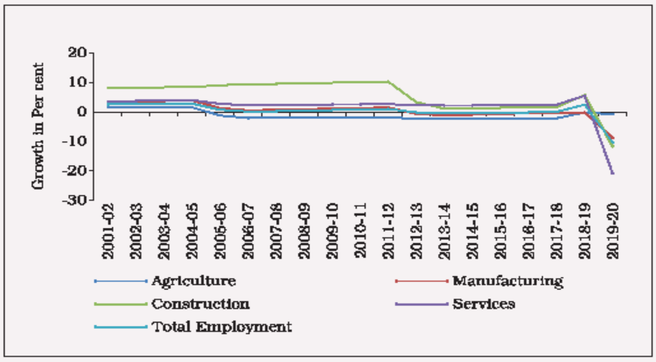
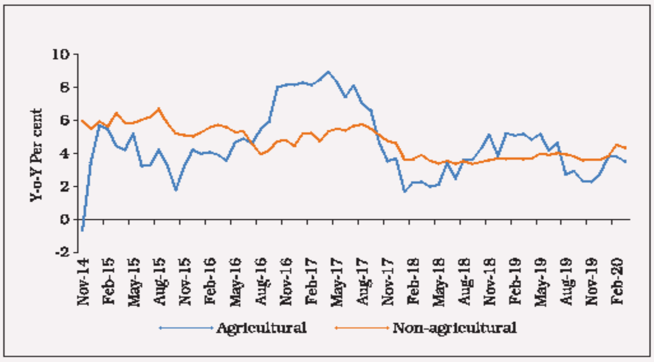


Figure 4b: Rural wages pre-Covid



Source: RBI, 2022a

2.3 Informal sector

The economic shock due to the pandemic was particularly severe for India's large informal sector. Out of the national total of 465 million workers, around 91% (422 million) were employed in the informal sector in FY18. This sector was particularly vulnerable to the twin shocks of the pandemic and the lockdown of March 2020.

In urban areas, the pandemic led to the widespread losses of jobs and incomes for informal workers in particular and the poor in general. There are about 40-50 million seasonal migrant workers in India. Media have broadcast images of hundreds of thousands of migrant workers from several states trudging for miles and miles on highways. The shutdown of March 2020 caused untold misery for these informal workers particularly the migrants who lead precarious lives facing hunger and malnutrition. Lacking regular salaries or incomes, these migrant, and other informal workers were the hardest-hit during the lockdown period. The 'State of Working in India 2021' report of Azim Premji University shows that the pandemic has further increased informality and led to a severe decline in earnings for the majority of workers resulting in a sudden increase in poverty.

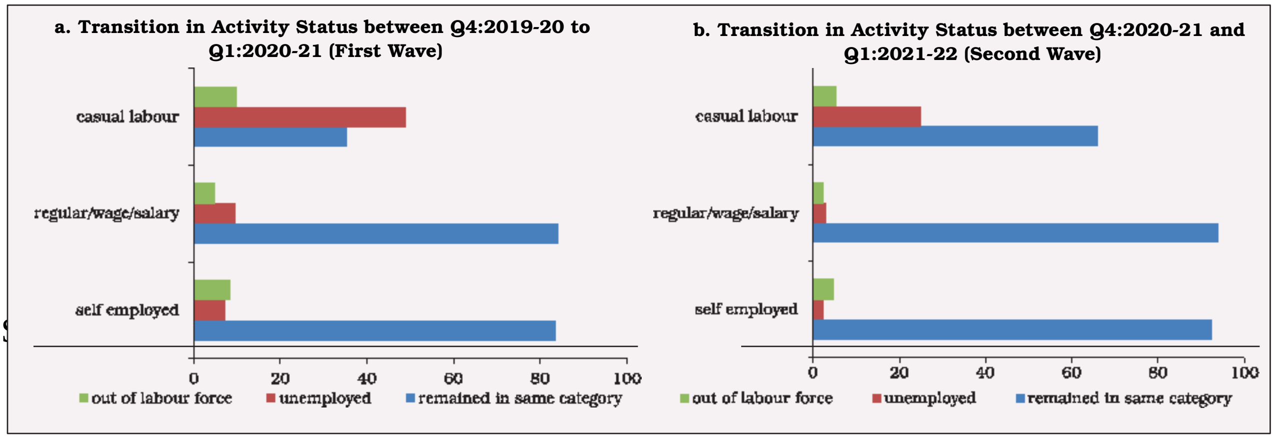
Afridi et al (2020a) conducted a phone survey covering around 1500 individuals across 10 industrial states who work as daily wage labourers in factories, construction or are self employed in the informal sector. From their survey till April 19, 2020 they found that the pandemic was a huge shock to the wage earnings of these families. 91% of male workers in residential areas were completely unable to work. 85% of respondents who were employed prior to the lockdown had not earned *any* income from their main occupation while over half (53%) of those who were employed before 24 March, 2020 did not receive their full salary for the month of March. Majority of those reporting not doing any work or earning any income since the lockdown were the self-employed (32%) and wage labourers in factories or construction jobs (30%). Of those who were gainfully employed before 24

March, 2020 and reported some days of work post lockdown, the daily earnings declined by 87% -from an average of Rs. 365 to Rs. 46 per day.

RBI (2022a) also highlights that in the urban areas, casual labourers in the informal sector were the worst affected during the first and second waves of the pandemic. Out of the total casual labourers working during January-March 2020, only 35.3% remained in the same category during the first lockdown period of April-June 2020.

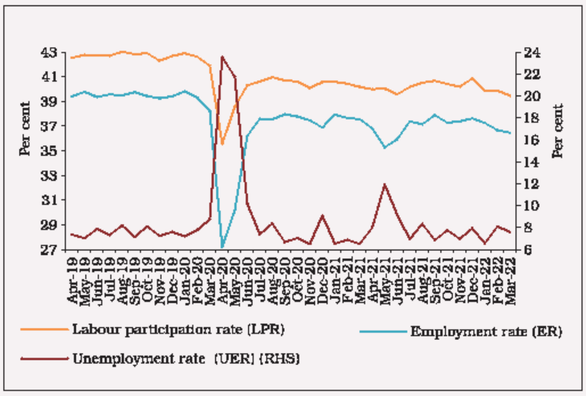
The PLFS (periodic labour force surveys) data reveal that nearly 50% were pushed to unemployment and about 10% moved out of the labour force during this period (Figure 5). While some may have been forced to withdraw from jobs due to the lockdown, some may have done so willingly due to the fear of contracting Covid-19 (Mitra and Singh, 2020).

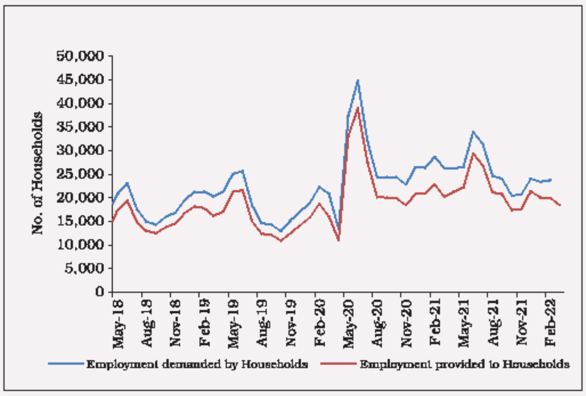
Figure 5. Activity Status in Urban areas during the pandemic.



Source: RBI, 2022a

Figure 6a. Labour Market: Key Rates **Figure 6b Employment through MGNREGS**





Source: RBI, 2022a

RBI (2022a) reported that the the impact of the second wave was relatively muted on the informal sector compared to the first wave. However, the demand for MNREGS (Mahatma

Gandhi Rural Employment Guarantee Scheme) in the second wave was higher than in the pre-pandemic period. Higher demand for MGNREGS reflects "distressed employment" (Mitra and Singh, 2020).

The person days generated under this scheme were higher by 47% and 37% respectively in 2020-21 and 2021-22 compared to the pre-Covid year of 2019-20 (Table 5; Figures 6a and 6b). Similarly, total households working were higher by more than 30% in FY21 and 2021-22 than in FY20.[7]

Table 5. Employment Under MGNREGS

	2018-19	2019-20	2020-21	2021-22
Person days generated (crore)	268.0	265.4	389.1	363.5
Total Household worked (crore)	5.3	5.5	7.6	7.3
Total Individuals worked (crore)	7.8	7.9	11.2	10.6
Source: Ministry of Rural Development				

Afridi et al (2020b; 2021) conducted two further rounds of surveys with the same set of respondents as in Afridi et al (2020), one after the nationwide lockdown was relaxed, and the other during the second wave of the pandemic and accompanying localised lockdowns.

Corroborating the RBI (2022a) report, they too found that the second wave was less stringent. Men's employment (for workers in urban residential areas) reduced by 17% in 2021 compared to 85% in 2020. Uncertainty of job loss being temporary or permanent was higher during 2020 compared to 2021. Casual workers were most severely affected during first wave when almost nobody was working, 6% self employed and 10% salaried workers were working. The recovery period was higher for salaried workers (81% working), self employed (78% working) and casual workers (75% working). In the second wave, employment among casual workers reduced by 24%, 18% among self-employed, and 14% among salaried workers. Women's employment was stable between the two waves of pandemic, in the 11-13% range but did not return back to pre-pandemic levels.

7 Afridi et al (2020) find that the increase in person-days of work in 2020 was higher in districts with above-median historical state capacity to provide MNREGS person days. In other words, state capacity to utilise public funds was a critical determinant of the governments' ability to respond quickly to the pandemic shock.

2.4 MSMEs

The micro, small and medium enterprises (MSMEs) play an important role in the Indian economy 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% of industrial workers and contributes half of the overall exports. Table 4 shows that India has 63 million enterprises and 107.6 million workers employed in MSMEs (Table 6). More than 90% of the enterprises and employment of the MSMEs are in the micro sector.

Table 6. Number of Enterprises and Employment in MSMEs

Estimated no. of Unincorporated MSMEs (2015-16), NSS				
Type	No. of enterprises (in millions)	% to total	Employment (in millions)	% to total
Micro	63.05	99.5	107.62	97.0
Small	0.33	0.5	3.20	2.9
Medium	0.005	0.01	0.18	0.2
Total	63.39	100.0	110.99	100.0
Note : Around 84% of MSMEs are own account enterprises (OAE) which do not employ any hired worker				

Table 7: Number of Enterprises and Employment in MSME

Estimated no. of Unincorporated MSEMs (2015-16), NSS				
Category	Rural (Mill.)	Urban (Mil.)	Total (Mil.)	Total (%)
Manufacturing	11.41	8.25	19.67	31
Trade	10.87	12.16	23.04	36
Other services	10.20	10.49	20.69	33
Electricity	0.003	0.001	0.004	0
Total	32.49	30.9	63.39	100.0

More than 50% of the employment under MSMEs is in rural areas (Table 7). Employment is evenly divided across three sectors with manufacturing, trade and other services contributing 31%, 36% and 33% respectively to the total.

Although all businesses were affected by the pandemic, the MSME sector was particularly worse hit because of reduced cash flows caused by the nationwide lockdown of March 2020. This sector was already struggling to deal with the repercussions of three prior shocks —the Demonetisation of 2016, the complex implementation of the Goods and Services Tax (GST) from 2017 onward, and the crisis in the non-banking finance sector (NBFC) that was triggered by the default of IL&FS (Infrastructure Leasing and Financial Services) in 2018. With the onset of the pandemic, their supply chains were disrupted, and they were adversely affected by the exodus of migrant workers, restrictions in the availability of raw materials, disruption to exports and imports and also by the widespread travel bans, closure of malls, hotels, and theatres in the urban areas.

Surveys show that approximately 95% of the MSME firms were adversely affected due to the national lockdown, and 70% of businesses remained disrupted till August 2020.[8] Even after progressive unlocking, reports suggest that almost 40% businesses remained interrupted till the end of February 2021. An average 11% decline in business volume of Indian MSMEs was recorded because of the second wave in 2021 in comparison to 46% decline during the first wave in 2020.

According to a Survey of 1,029 enterprises by Small Industries Development Bank of India (SIDBI), two-thirds of MSMEs (67%) in India were temporarily shut for three months or more in FY21 and over half of all MSMEs saw a decline of over 25% in revenues.

International Labour Organisation (ILO) undertook a situation analysis on the impact of the pandemic on MSMEs. The study was done in three states : Maharashtra, Tamil Nadu and Uttar Pradesh. The key findings of the study are as follows.

i. During the survey in October 2020, more than 75% of the surveyed MSMEs had started normal operations, either on-site or remotely. 14% of the enterprises were still shut, and 10% were working partially. 93% of the respondents agreed that the closure impacted them. The MSMEs faced issues in payment of wages/salaries as well as repayment of loans. The key strategy that the enterprises adopted to address the dire situation was to lay off workers, either temporarily or permanently. 46% of the enterprises resorted to this option, along with other measures such as online sales or increasing the sales efforts and having new working arrangements. The proportion of women labourers laid off was higher than that of the male labourers. While 30% of the enterprises reported reduced female labourers, 24% reported reduced male labourers.

8 See Tripathi, A, "MSMEs in India: Post-Covid Scenario", Times of India, October 2021

ii. Even after the easing of restrictions, the impact of the pandemic continued to be felt by more than 63% of the enterprises across the three states. Between the states, the impact appears to have been relatively more severe for the enterprises in Maharashtra. 20% of the enterprises in the state reported permanent closure, and more than 50% of the respondents said that their turnover was less than 90% compared to the previous years. In contrast, at the time of the survey, Tamil Nadu appeared to have been well on the way to recovery. 86% of the enterprises were fully functional, and 7% were partially functional. 7% of the enterprises in the state had closed permanently, mostly in Coimbatore.

iii. Around 3,100 workers were interviewed across the three states. Nearly all the workers were informal workers. More than 85% did not have access to any social security. Nearly 50% of the respondents worked in states other than their native states. The combination of their informal status and migration in search of work made the majority vulnerable. Their vulnerability is evident because nearly 90% of the respondents faced issues due to the lockdown, 50% earned less income than usual, and 39% lost all income. To cope with these challenges, they had to borrow from their relatives, friends, and others, which further increased their vulnerability. Among the states, the labourers in Maharashtra appeared to have been affected more than the other two states. 61% had lost all income due to the lockdown. Compared to the two states, Tamil Nadu's situation was relatively better, with many having returned to work. Only about 10% of the respondents were not working at the time of the survey compared to 30% in the other two states.

Another recent report entitled ‘Rising in the face of adversity’ on MSMEs (NeoGrowth, 2022) provides a comprehensive assessment of 45,000 MSMEs from over 25 cities across 88 unique industries. Findings of this report are the following.

i. At the onset of the pandemic in early 2020, 97% of the MSMEs surveyed from NeoGrowth’s customer base of 16,087 MSMEs were worried that their credit scores would be negatively impacted due to non-payments.

ii. While 65% of MSMEs were confident of business recovery within 3 months, 93% planned to reduce operations costs to manage liquidity and only 1% expected a complete shutdown of their business operations. Overall, 25% of impacted MSMEs were run by women entrepreneurs. 46% of MSMEs across India needed financial support to mitigate the impact, with higher demand from non-metros than metros.

iii. Financial support availed by non-discretionary MSMEs was lesser compared to other businesses. Maharashtra was the worst affected state during the first wave and close to 50% of MSMEs in Pune and Mumbai needed financial support.

iv. In the second wave, MSMEs were well prepared and could adjust to the new business environment. Only 30% of MSMEs required support in Wave 2 vs Wave 1.

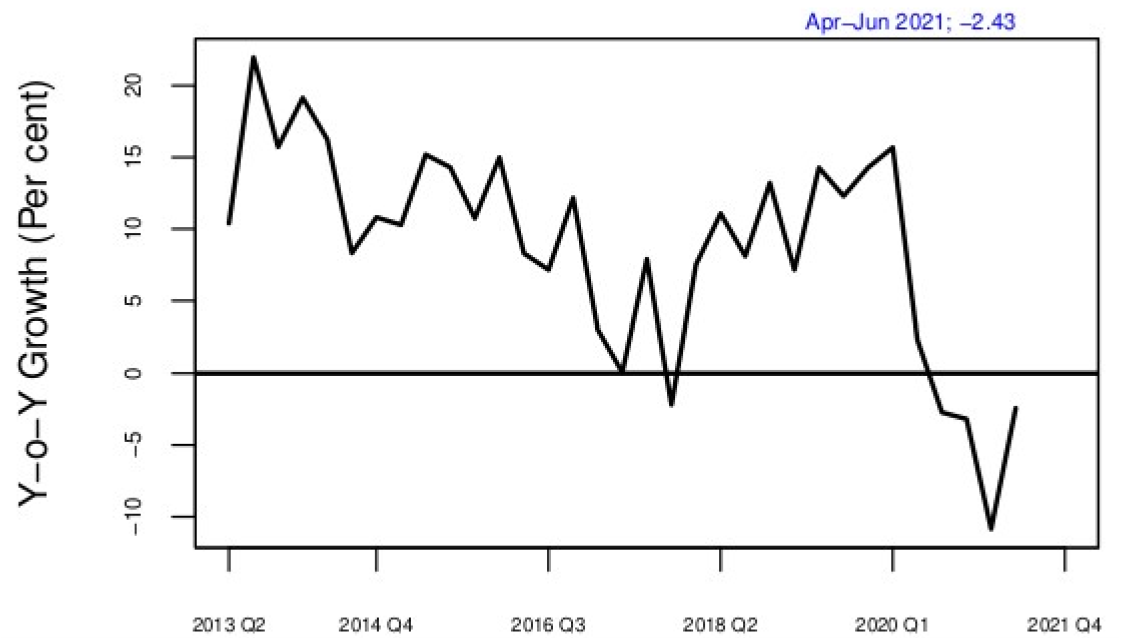
v. 63% continued to show intent to honour their debt obligations despite being severely impacted or facing a business shutdown, it said. Interestingly, 75% of MSME borrowers who upgraded their pre-pandemic loans went for a higher amount with an 80% average increase in the principal loan amount.

2.5 Formal sector

The impact of the pandemic on the formal sector firms in India was markedly different compared to the informal sector and MSMEs. One of the biggest problems that the Indian economy was grappling with in the run-up to the pandemic was the Twin Balance Sheet (TBS) crisis. The banking sector was burdened with high non-performing assets (NPAs) and insufficient capital. The private corporate sector faced high levels of debt and large-scale defaults.

However, the balance sheet stress started reducing in the pre-pandemic period, partly because most of the large non-financial companies had been deleveraging, and partly because the Insolvency and Bankruptcy Code (IBC, 2016) aided the process of resolution of bad debts. As a result the picture that emerges in the context of credit stress on the balance sheets of the formal sector firms was less worrisome during the pandemic period compared to how it was a few years ago.

Figure 7: Year-on-year growth of interest payments of listed non-finance non-oil firms



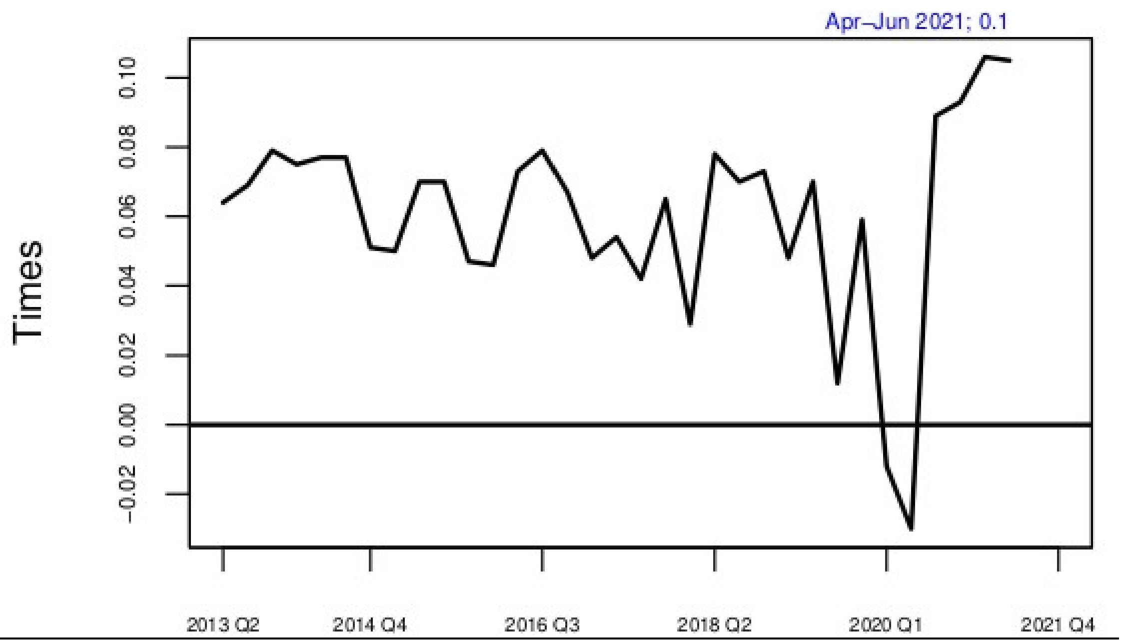
Source: Prowess database of CMIE

The interest payments of listed non-financial, non-oil firms registered a negative growth during the pandemic period (Figure 7). While their net profit margin collapsed in the immediate aftermath of the lockdown of 2020, there was a sharp recovery soon after, so much so that corporate profitability *exceeded* the pre-pandemic levels and remained high for the next several quarters.

From 2013 to 2019 the net profit margin of these firms was roughly in the range of 5-8% whereas after the initial shock of the March 2020 lockdown, the profit margin increased to 10% which indicates a very big increase in profit (Figure 8).[9] This was in sharp contrast to the peak of the TBS crisis when interest payments were growing on average by 10 to 15% every year whereas the operating profits of these firms were growing by much less, thereby worsening the debt dynamics.

One of the reasons behind the decline in interest payments during the pandemic period could be that the working capital requirements of the companies went down because of sluggish business activity. Yet the numbers point towards a striking change in their fortunes despite the shock of the pandemic. The quarterly net profit of the BSE200 companies for example, reached a record high of Rs.1.67 trillion in the third quarter of FY21 and was up by 57% on a year-on-year basis. This shows that these big companies fared significantly better and were much more effective in dealing with the pandemic and lockdown induced slowdown compared to the firms in the informal sector and the MSMEs.

Figure 8: Net profit margin of non-finance, non-oil listed companies



Source: Prowess database of CMIE

9 Calculations are based on data from the Prowess database of CMIE.

One of the biggest generators of tax revenue for the government is corporate tax. In FY21 for the first time this witnessed a negative growth. Typically the share of unlisted companies in corporate taxes is higher. But in the first year of the pandemic, this trend got reversed. The share of the listed companies went up and the share of the unlisted companies fell. So while corporate tax payments overall declined, the listed companies fared much better.

Within the universe of listed companies, over the last 15 years, the average share of the taxes paid by the Nifty50 companies has been around 20%. In FY21, this share went up to 30-31%. Likewise, the next 450 companies by market capitalisation increased their share of tax payments from a long term average of 5% to 7-8% in the pandemic period. This shows that while the listed companies fared better than the unlisted ones, even among the former group, the biggest companies did much better. All these point towards an uneven impact of the pandemic on the formal sector firms.

Anecdotal evidence suggest that these bigger firms succeeded in deploying the financial and organisational resources required to manage the difficulties of the lockdown and the economic constraints and challenges imposed by the pandemic. They possibly gained market share through consolidation as the smaller firms bore the brunt of the pandemic. They were presumably also able to cut costs, and hence obtain an excellent net profit margin.

2.5.1 Financial institutions

During crisis times, the financial sector of the economy is required to play a crucial role to alleviate some of the pressures. In a bank dominated economy like India, when the pandemic struck, the need of the hour was to keep credit flowing to all economic agents in order to help them tide over this crisis. However the banking sector in India was badly broken by the time the pandemic started (Sengupta and Vardhan, 2017, 2019).

In the pre-pandemic period, the Twin Balance Sheet (TBS) crisis, elevated levels of non performing assets on bank balance sheets, along with policy actions implemented to resolve the crisis including the Asset Quality Review and Prompt Corrective Action framework initiated by the RBI, persistent investigations by agencies such as the Central Vigilance Commission (CVC), and the Central Bureau of Investigation (CBI), against senior bank officials, 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, had led to heightened risk aversion in the banking system (Sengupta and Vardhan, 2020). This was further aggravated by the NBFC (non-banking financial company) crisis of FY19 (Sengupta et al, 2022; Vardhan, 2021).

Two other related trends worth noting in this context were the sharp deleveraging by several big firms in response to the TBS crisis in the period from FY16 to FY20, and the shift in the focus of banks away from large industrial and infrastructure loans towards retail credit. Vardhan (2021) shows that Indian banks lowered the riskiness of their loan portfolio after 2014, and very sharply post 2017. This was achieved mostly by moving lending from industrial customers to much lower risk-weight carrying consumer loans such as mortgages, and also through higher investment in government bonds.

Figure 9: Year-on-year real growth of non-food bank credit

Source: Database on the Indian Economy, RBI

Banks, which have historically been the largest providers of commercial credit in India, saw their share peak at about 62% in 2014, after which it nearly halved to less than 35% by 2017 primarily due to the TBS crisis (Vardhan, 2021). As a percentage of nominal GDP, the picture is even more stark. Business credit fell from 15% in 2011 to roughly 5% in 2020. On the other hand the share of consumer loans in total bank credit went up dramatically from 19% in 2010 to 29% in 2020 (Sengupta and Vardhan, 2021).

In other words, the Covid-19 pandemic hit just as Indian banks were emerging out of the devastating bad loan cycle with very low-risk appetite. The pandemic and the lockdown dealt a huge blow to aggregate demand in the economy and arguably further worsened the already high risk aversion of the banking system. Disruptions in economic activity due to the pandemic led to fears of deterioration of asset quality in the banking sector. These factors resulted in a growth rate of non-food bank credit of 0, when expressed in real terms, in FY21 and it reached 2.4% by September 2021 (Figure 9). When expressed in nominal terms, the growth rate of non-food bank credit was roughly 6% during the pandemic period--the lowest in nearly six decades.

By the time the pandemic began spreading in India, the corporate bond market had recovered from the NBFC crisis triggered by the default of IL&FS (Vardhan, 2021) but during the pandemic period, it remained highly skewed towards higher rated bonds with practically no investor appetite for bonds rated A and below. Even among the top-rated (AAA) bonds, a large share of issuances was by the government-owned entities.

Hence, while the overall bond issuances increased in value, issuing bonds as a funding option was open to only a handful of highly rated companies. Yet, in FY21 the increase in incremental credit through the banking sector was lower than through the bond markets, perhaps for the first time. This highlights the lack of credit flow in the economy from the banking sector during the pandemic period.

3. Policy response

Unlike other countries India did not witness a big fiscal stimulus to counteract the downturn. This was partly because fiscal space was limited due to the high consolidated fiscal deficit (close to 9% of GDP) in the run-up to the pandemic. In hindsight it was a prudent decision on part of the government to not engage in an expansionary fiscal policy which would have worsened the debt and deficit situation even further.

The government announced fiscal stimulus primarily targeted towards food requirements, agricultural sector, informal workers and MSMEs. Monetary policy on the other hand focused on injecting liquidity to facilitate credit availability for different sectors and allowing a loan moratorium to provide relief to stressed businesses.

3.1 First announcement for informal workers

On March 26, 2020 the Finance Minister announced a Rs. 1.7 trillion package largely aimed at providing a safety net for those who were worse affected by the Covid-19 lockdown i.e. the unorganised sector workers, especially daily wage workers, and urban and rural poor.[10] The new spending proposed in this package was around 0.85% of estimated GDP.

3.2 *Atmanirbhar Bharat* Package

10 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.

In the second week of May 2020 the Finance Minister further 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 including repackaging old schemes, increasing the allocation of existing schemes, and some new initiatives (Sengupta and Vardhan, 2020):

- 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 *Jan Dhan Yojana* amounting to Rs. 470 billion;
- Extending MGNREGs (Mahatma Gandhi National Rural Employment Guarantee Schemes) to migrant workers, 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 tune of Rs. 35 billion.

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

- Rs. 3 trillion collateral-free bank loans to MSMEs with 100% credit guarantee[11]. The guarantee would be provided by the National Credit Guarantee Trust Co. Ltd (NCGTC);
- Government investment of Rs 100 billion in funds that in turn would invest Rs 500 billion in the equity capital of MSMEs;
- Rs. 200 billion subordinate debt issued by banks and other financial institutions (such as SIDBI) for stressed MSMEs, out of which the government would refinance Rs. 40 billion;
- Rs. 450 billion partial credit guarantee scheme for NBFCs (non-banking financial companies), where first 20% of the loss would be borne by the government.

New spending on all these initiatives amounted to around Rs. 2.04 trillion (Sengupta and Vardhan, 2020). The fiscal stimulus that was put into effect after the April-June quarter of 2020 was under 2% of GDP, much smaller than in other major economies.

3.3. Package for Agriculture

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

- Rs. 1 trillion Agri Infrastructure Fund for farm-gate infrastructure for farmers
- Rs. 200 billion for Fishermen through Pradhan Mantri Matsya Samparda Yojana

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

- Rs. 100 billion scheme for formalisation of Micro Food Enterprises
- Rs. 150 billion Animal Husbandry Infrastructure Development Fund
- National Animal Disease Control Programme for Foot and Mouth Disease (FMD) and Brucellosis launched with total outlay of Rs. 133.43 billion
- Rs. 40 billionfor promotion of Herbal Cultivation
- Rs. 50 billion for Beekeeping initiatives
- Rs. 50 billion for improving supply chains for all fruits and vegetables

Agricultural Reforms included the following:

- 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 to enable farmers for engaging with processors, aggregators, large retailers, exporters etc. in a fair and transparent manner. These reforms related to contract farming.

The objectives of the programmes under agriculture are given in Box 1. Major policy reforms in agriculture are given in Appendix 1.

Box 1 : Major Announcements for Agriculture and Food Management under the Atma Nirbhar Bharat Abhiyan

Announcement	Objectives
Rs 1 trillion Agri Infrastructure Fund	Financing will be provided for funding agriculture infrastructure projects at farm-gate & at aggregation points and for financially viable post-harbest management infrastructure
Rs 100 billion scheme for Formalisation of Micro Food Enterprises (MFE)	Aiding 2 pakh MFEs who need technical upgradation to attain FSSAI food standards, build grands and support marketing
Rs 200 billion for fisherman through Pradhan Mantri Matsya Sampaga Yojana (PMMSY)	It aims at integrated, sustainable and inclusive development of marine and inland fisheries by developing infrastructure such as fishing harbours, cold chain, markets, etc
National Animal Disease Control Programme	It targets Foot and Mouth Disease (FMD) and Brucellosis by ensuring 100 per cent vaccination of cattle, buffalo, sheet, goat and pig population.
Animal Husbandry Infrastructure Development Fund – Rs 150 billion	It is to support private investment in dairy processing, enable value addition and improved cattle feed infrastructure.
From “TOP” to TOTAL	“Operation Greens” run by Ministry of Food

	Processing Industries (MOFPI) to be extended from tomatoes, onion and potatoes to all fruit and vegetables.
Reforms in Essential Commodities Act, Agriculture Marketing and Agriculture Produce Pricing and Quality Assurance	These legislative reforms seek to remove agricultural commodities such as cereals, pulses, oilseeds etc. from the list of essential commodities and aim to reform agricultural marketing
PM Garib Kalyan Ann Yojana	The scheme aimed at ensuring food and nutritional security to around 80 crores ration card holders who were affected due to the COVID-19 induced national lockdown.
One Nation One Ration Card Scheme	This scheme will enable migrant workers and their family members to access PDS benefits from any fair price shop in the country.

Source: Economic Survey 2020-21

3.4. Announcements in June and November 2020

The government announced some more policy actions in the aftermath of the first wave of the pandemic which are listed below.

- Rs. 829.11 billion for extension of PMGK Anna Yojana from July to November (5 months)
- Rs. 100 billion for boost to Rural Employment under *Atma Nirbhar Bharat 3.0*
- Rs. 60 billion for *Atma Nirbhar Bharat* Rozgar Yojana (overall Rs 36,000 crore) under *Atma Nirbhar Bharat 3.0*
- Rs. 650 billion support for Agriculture - fertiliser subsidy
- Rs. 180 billion crore for housing for all - Pradhan Mantri Awas Yojana Urban

3.5 Announcements in Union Budgets

Some of the announcements in the Union Budget 2021-22 included, enhancement of credit to the tune of Rs. 16.5 trillion, increase in rural infrastructure development fund from Rs. 300 billion to Rs. 400 billion, doubling the micro irrigation fund from Rs. 50 billion to Rs.100 billion enhancing the ‘operation green scheme’ to include 22 perishable products, integration of 1,000 more *mandis* with *e-naam*, use of agricultural infrastructure fund for APMCs, increase of customs duties for some agriculture and allied products and, agriculture infrastructure and development cess.

The Union Budget of 2022-23 in contrast focused much more on capital expenditure as opposed to revenue expenditure. Given the sluggishness of private investment demand throughout the pandemic period, it was widely anticipated that the government would increase capital expenditure (capex) in the Budget in keeping with its announcement last year when capex spending was increased by 34.5%. In keeping with the expectations, the Budget included an increase in capex by 35.4% for FY23. An increase in capex is associated with a bigger multiplier effect compared to an increase in consumption expenditure, and is therefore a better instrument for creating jobs, increasing demand, and boosting growth. As per the government, the higher capex spending is also expected to encourage the private sector to start investing, as demand and hence capacity utilisation pick up (Sengupta, 2022).

3.6 Stimulus Announcements during the Second Wave

In order to mitigate the impact of the shock caused by the second wave of the pandemic, and support the recovering economy, the government announced additional relief measures in 2021-22 worth Rs.6.29 trillion. The measures were targeted towards providing economic relief to the vulnerable people and sectors and providing impetus to growth and employment (Economic Survey 2021-22). Some of these measures related to agriculture and informal sector are given below.

- Rs.1.1 trillion for Loan Guarantee Scheme for Covid-19 affected sectors
- Rs.1.5 trillion for Emergency Credit Line Guarantee Scheme (ECLGS)
- Rs. 75 billion for Credit Guarantee Scheme for Micro Finance institutions
- Rs. 147.75 billion for additional subsidy for DAP and P&K fertilizers
- Rs. 938.69 billion for free food grains under PMGKY (May to November, 2021)
- Rs. 770 million for Revival of North Eastern Regional Agricultural Marketing Corporation (NERAMAC)
- Rs. 533.45 billion for extension of PM Garib Kalyan Anna Yojana (December 2021-March 2022)

3.7 Impact of the Government programmes during the pandemic

The evaluation of the impact of government social protection programmes on poverty and livelihoods reveal that the benefits during the pandemic were mixed. Farzana et al (2021) examine the role of MGNREGS in cushioning job losses due to the pandemic. Their findings show that regions with greater historical state capacity to provide public workdays under the scheme generated relatively higher employment during the pandemic. An increase in state capacity by one MGNREGS workday per rural inhabitant in a district reduced job losses in rural areas in April-August 2020 by 7% overall and by 74% for rural women, over baseline employment rate. Their results suggest that employment guarantee programmes can protect livelihoods, but for certain demographic groups relatively more than others depending on the nature and skill level of work offered.

An evaluation of the PM Garib Kalyan Rozgar Abhiyan (PMGKRA) shows that poorer states like Bihar and UP were amongst the worst performers in access measured as person days generated. The poorest districts with the largest number of migrant workers are precisely the ones that need to generate employment, but have the least capacity to deliver (Farzana et al, 2021).

An analysis of social assistance programmes during Covid-19 shows that implementation constraints, partial uptake, and substitution effects reduced the overall transfer of resources to households relative to budget allocations (Chatterjee et al, 2022). As one expects, there were also substantial disparities in the actual amounts transferred across states. The study also finds rural bias even though urban informal workers were arguably the most affected by the Covid-19 shock.

Bhalla et al (2022) show that food transfers under PM Garib Kalyan Yojana in 2020 helped in reducing poverty. According to their study poverty ratio with $3.2 as poverty line was 26.5% without food transfers and 18.1% with food transfers.

In general it seems that the social protection programmes were useful for the poor and vulnerable groups during the first and second waves of the pandemic. But, several evaluations indicate that these programmes were not sufficient to compensate for the loss in employment and incomes. On this, Dreze and Somanchi (2021) say, “Food deprivation was most intense during the national lockdown but continued throughout the year. Relief measures helped, but they compensated for just a fraction of people’s income losses, even among poor households. It is doubtful that employment, income and nutrition among informal-sector workers and their families ever regained their pre-lockdown levels before a second wave of the Covid-19 epidemic hit the country in early 2021”.

3.8 Monetary policy support

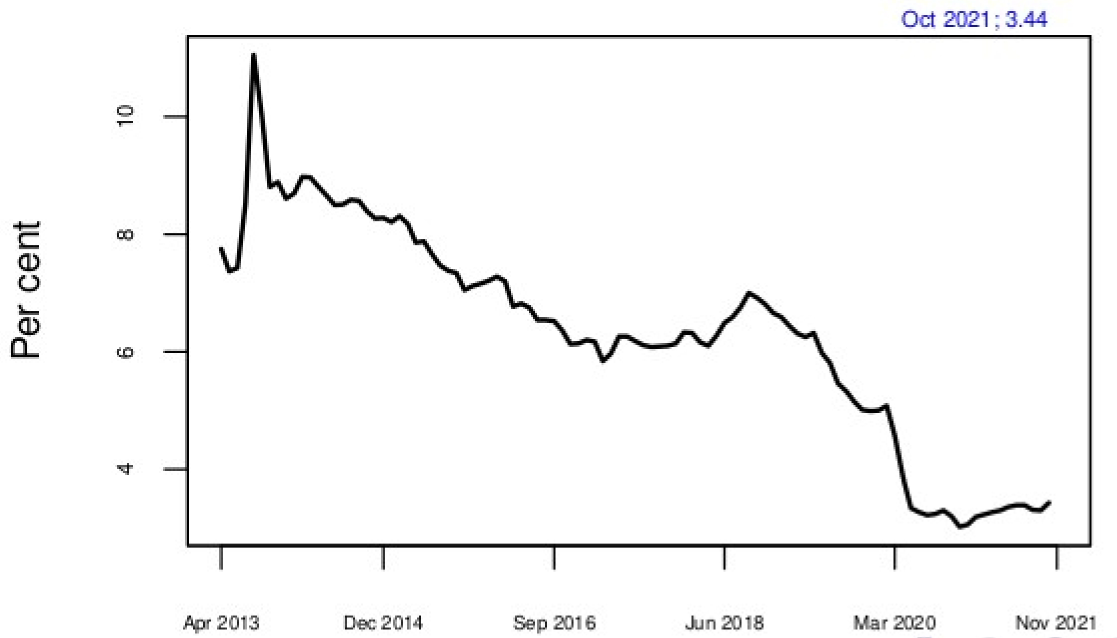
The Reserve Bank of India (RBI), following in the footsteps of major central banks around the world, took aggressive steps to cut policy rates and inject massive amounts of liquidity into the financial system in order to support a moribund economy when the pandemic hit India (Sengupta and Vardhan, 2020b; Sengupta and Felman, 2020). The RBI lowered the policy repo rate and the reverse repo rate from 5.15% and 4.9% respectively in March 2020 to 4% and 3.35% by May 2020.

They also lowered the cash reserve ratio (CRR) by 1 percentage point, bringing it down to 3% of deposits ("net demand and time liabilities"). This was the first time the CRR was changed in the last 8 years. Figure 10 depicts the evolution of the 91day Tbill rate which is a comprehensive proxy for the RBI’s overall monetary policy stance.

In addition to these conventional tools of monetary policy such as policy rates, the RBI also took recourse to unconventional measures to help infuse liquidity into the system. They opened up a liquidity window to meet the long-term liquidity needs of the banks under targeted long-term (up to 3 years) repo operations (LTRO and TLTRO).[12] However, there was a condition: the money borrowed in this window 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. In addition, the RBI initiated the Operation Twist (OT) program which entailed the simultaneous sale and purchase of government securities to help push down long term interest rates and flatten the yield curve.

Overall during the pandemic period the RBI expanded its balance sheet by 4.7 times. By October 2021, the surplus liquidity injected by the RBI into the system amounted to Rs 13 lakh crore.

Figure 10: Evolution of the 91day Tbill rate during the pandemic period



Source: DBIE, RBI

In addition to these monetary policy actions, the RBI also modified the banking regulations so that banks could offer a moratorium of 90 days for term loans and working capital facilities for payments falling due between March 1, 2020 and May 31, 2020.

Monetary policy transmission in India has always been weak. It was particularly so during the pandemic given the pre-pandemic balance sheet problems in the banking and private corporate sectors which had reduced both the demand for and supply of credit even before the pandemic. Hence, despite the abundant liquidity in system and a persistently accommodative monetary policy stance pursued by the RBI, the Indian banking sector was not able to rejuvenate credit flow and boost demand.

12 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

The pandemic and the lockdown triggered a collapse of aggregate demand in the economy which in turn resulted in muted demand for credit especially from firms. Given the unusual circumstances, risk-averse banks were happy to park the excess liquidity with the RBI under the reverse-repo facility. Consequently, during the pandemic period, the reverse-repo rate became the effective policy. The lacklustre response to sector-specific TLTRO operations conducted by the RBI also pointed towards the lack of credit demand as well as risk-aversion of the banks (Sengupta and Vardhan, 2020a).

4. Recovery from the pandemic

In this section we analyse the period from August 2021 (i.e. roughly from the end of the second wave of the pandemic), to January 2022 (i.e. the end of the third wave and before the start of the Russia-Ukraine war in February 2022) when the Omicron strain of the virus caused an increase in the number of Covid cases across the country. While this strain of the virus was more infectious, the third wave however was significantly more mild compared to the first two and the mobility restrictions or social distancing related measures announced by the authorities were also minimal in comparison. Broadly the period till January 2022 can therefore be reasonably categorised as the “recovery period”.

The macroeconomic performance of the Indian economy in the months from February 2022 onward began getting impacted by other confounding factors/shocks such as aggressive monetary policy tightening by the US Federal Reserve in response to a sharp increase in inflation, the Russia-Ukraine war and related geopolitical tensions, and a resurgence of Covid-19 cases and lockdowns in China. We discuss these developments and the consequent repercussions for the Indian economy in the next section where we analyse the road ahead in terms of challenges and opportunities.

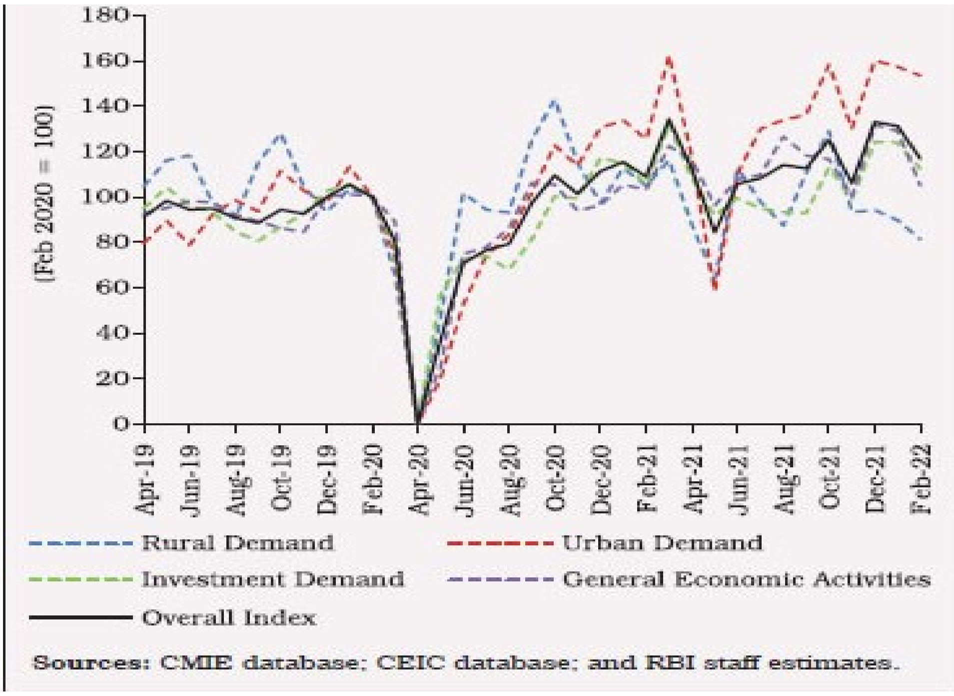
On the positive side, during the recovery period, there was a cyclical uplift of economic activity because commodity prices were high which in turn led to improved profits of firms especially in the metals and agriculture sectors. Large firms in general fared relatively better during the pandemic, consolidating market shares. Exports too began performing reasonably well. The IT sector was revived with “work from home” helping the outsourcing industry. However, recovery overall has been highly heterogeneous and mostly feeble.

The manner in which economic recovery has happened has been unequal, with recovery led by the large companies. Both in terms of profitability and balance sheet stress, they were faring better compared to the pre-pandemic levels. This implies that these companies did not experience any permanent scarring due to the pandemic. On the other hand, the vast majority of unlisted companies including the MSMEs, and a large number of households were adversely affected by the pandemic and have been struggling to recover from the shock.

4.1 Overall macro impact: Growth, Employment and Inflation

The data released in May 2022 by the National Statistics Office (NSO) shows that the level of GDP in FY22 was 2.9% higher than that of the pre-pandemic year FY20 (Table 6). The recovery however varied significantly across sectors. Agriculture had been resilient throughout the pandemic period with a growth rate of more than 3%. In contrast, manufacturing and construction were on a relatively weaker path to recovery with construction showing only around 2% higher growth rate in FY22 over FY20.

Figure 11: Economic Activity Index (RBI)



Source: “Scars of the pandemic,” RBI (2022d)

An aggregate index constructed by the RBI (Figure 11) using a bunch of high frequency indicators shows that economic activity recovered post June 2021 but towards the end of the year, it dampened once more, perhaps due to the third wave which began spreading December 2021 onward and also due to global shortages of semi-conductor chips which impacted production in many countries.

In particular, the performance of the services sector showed that the recovery has been heterogeneous. Services like financial, real estate and professional services, public administration and defence have been relatively resilient. On the other hand, contact-intensive services like trade, hotels, transport and communication and services related to broadcasting are yet to recover; the level of GDP in these sectors in 2021-22 is 11% lower than that of 2019-20 (Table 8). It may be noted that most of these services include a large share of informal sector. In other words, few sectors were resilient while others are either recovering or still struggling to fully recover from the impact of the pandemic.

4.1.1 Employment

The quarterly PLFS data for urban areas indicate that the work force participation rate (WPR) recovered from 40.9% in April-June 2021 to 43.2% in the October-December 2021 period. However it was still lower than the pre-pandemic period. This is true for both males and females (Table 9). The unemployment rate (Table 10) improved from 12.6% in the second wave (April-June 2021) to 8.7% in October-December, 2021. However, the unemployment rate was still higher than the pre-pandemic quarter of October-December 2019. It shows similar trends for both males and females.

CMIE data shows that labour force participation rate (LFPR) was 43% in the pre-pandemic quarter of October-December, 2019; it recorded a sharp decline to 38.3% in the April-June quarter of 2020 during the first wave of the pandemic, and by the October-December quarter of 2021 it had recovered only to 40.4%, still lower than the pre-pandemic level. This implies that economic recovery in FY22 has not been strong enough. The unemployment rate however declined to 7.6% by October-December 2021 from 9.3% in April-June 2021 (see Table 12). Unemployment was higher in urban areas as compared to rural areas. Female unemployment was two to three times higher than male unemployment.

Table 8: Sector wise recovery pattern

Sector		**Trend Growth Pre-Pandemic**		**Growth Pandemic Period**		**Status**
		2012-2017	2017-2020	2020-21	2021-22 over 2019-20	
1 Agriculture, forestry & fishing		3.6	5.2	3.3	6.4	Resilient
2 Mining & quarrying		2.4	2.4	- 8.6	1.9	
3 Manufacturing		6.8	5	-0.6	9.3	Recovering/ Need repair
4 Electricity, gas water supply & other utility services		6	7.5	-3.6	3.6	
5 Construction		4.2	4.6	-7.3	3.4	
6 Trade, hotels, transport communication and services related to broadcasting	6.1 Trade, hotel and repair	8.4	8.1	-22.4	-11.3	Still struggling
	6.2 Transport, communication and services related to broadcasting			-15.3		
7 Financial, real estate & professional services	7.1 Financial services	8.2		5.1	6.6	Resilient
	7.2 Real estate, and professional services	5.4		1.2		
8. Public Administration, defence and other	8.1 Public Administration, defence	6.5		7.0 2.3	6.4	Resilient

services	8.2 Other services			-11.5		Recovering/ Need repair
GVA at basic prices		6.6	5.9	-4.8	2.9	Recovering/ Need repair

Source : NSO, RBI Staff Estimates; Author's estimates based on NSO data.

Table 9. Work force participation rates (in per cent) in current weekly status in urban areas for persons of age 15 years and above.

NSS survey period	Male	Female	Person
October-December 2019	68.4	19.0	44.1
January-March 2020	67.3	19.6	43.7
April-June 2020	56.9	15.5	36.4
July-September 2020	64.3	17.1	40.9
October-December 2020	66.7	17.9	42.4
January-March 2021	67.2	18.7	43.1
April-June 2021	64.2	17.2	40.9
July-September 2021	66.6	17.6	42.3
October-December 2021	67.8	18.1	43.2
January-March 2022	67.7	18.3	43.4
Source : PLFS quarterly surveys, NSO.			

Table 10. Unemployment rates (in per cent) in current weekly status in urban areas for persons of age 15 years and above

NSS survey period	Male	Female	Person
October-December 2019	7.3	9.8	7.8
January-March 2020	8.6	10.6	9.1
April-June 2020	20.7	21.1	20.8
July-September 2020	12.6	15.8	13.2
October-December 2020	9.5	13.1	10.3
January-March 2021	8.6	11.8	9.3
April-June 2021	12.2	14.3	12.6
July-September 2021	9.3	11.6	9.8
October-December 2021	8.3	10.5	8.7
January-March 2022	7.7	10.1	8.2
Source : PLFS quarterly surveys, NSO.			

Table 11. Labour Force participation rates, LFPR (in per cent), CMIE

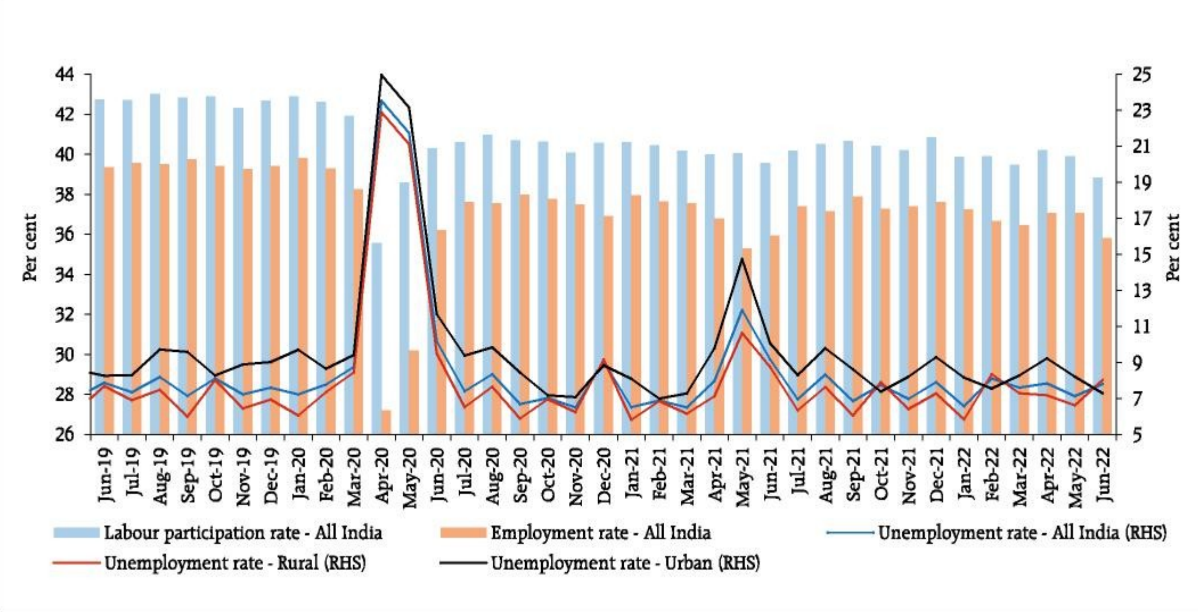
Period	Total	Urban	Rural	Male	Female
Jan-April 2019	42.85	40.9	43.9	71.5	11.0

May-August 2019	42.85	40.8	43.9	71.3	11.0
Sept-Dec 2019	42.71	40.7	43.7	71.2	10.9
Jan-Apri 2020	40.98	38.3	42.4	68.7	9.9
May-August 2020	40.21	37.7	41.5	67.4	9.3
Sept-Dec 2020	40.52	37.7	41.9	67.9	9.5
Jan-Apri 2021	40.34	37.6	41.8	67.5	9.4
May-August 2021	40.22	37.5	41.6	67.1	9.4
Sept-Dec 2021	40.38	37.8	41.7	67.4	9.4
Jan-Apri 2022	39.71	37.4	40.9	66.4	9.0
Source: CMIE documents					

Table 12. Unemployment rates (in per cent)

Period	Total	Urban	Rural	Male	Female
Jan-April 2019	6.87	7.6	6.5	5.6	15.8
May-August 2019	7.46	8.4	7.0	6.1	17.6
Sept-Dec 2019	7.52	9.0	6.8	6.2	17.5
Jan-Apri 2020	10.40	10.4	9.5	9.4	18.5
May-August 2020	11.5	12.7	11.0	10.9	17.5
Sept-Dec 2020	7.08	7.8	6.7	6.1	15.1
Jan-Apri 2021	6.83	7.7	6.4	6.0	13.3
May-August 2021	8.57	9.6	8.1	7.9	14.3
Sept-Dec 2021	7.31	7.9	7.0	6.7	12.8
Jan-Apri 2022	7.43	7.8	7.2	6.6	14.8
Source: CMIE documents					

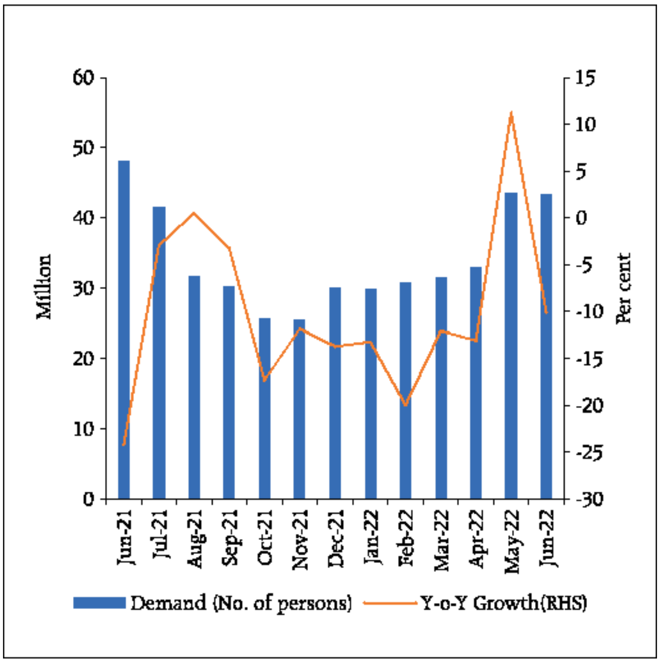
Figure 12. Employment, Unemployment and Labour Force Participation Rates



Source: RBI (2022c)

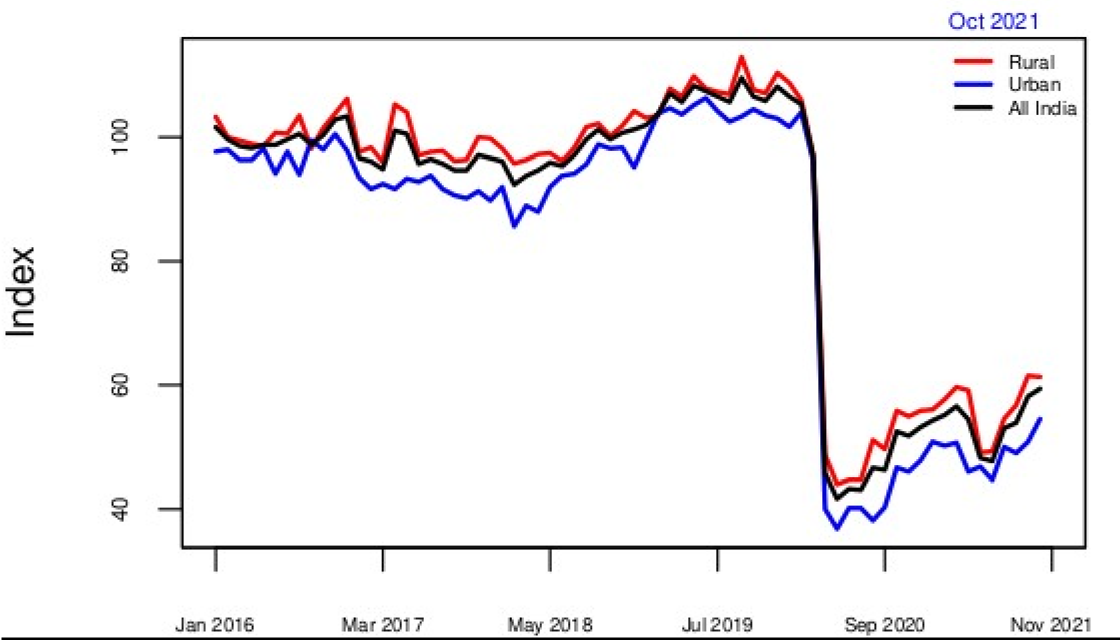
The year on year growth rate of demand for work under the MGNREGS decreased over time during the recovery period (see Figure 13).

Figure 13: Demand for work under the MGNREGS



The consumer sentiment index reported by the CMIE shows a sharp decline in sentiment since the onset of the pandemic, both for rural and urban India. The index fell to an all-time low of 43.6 in the March-June quarter of 2020, and has been recovering since then, but it has been crawling back slowly. By December 2021 the index reached a value of 60 whereas the pre-pandemic average from March 2016 to March 2020 has been 100 (see Figure 14).

Figure 14: Consumer sentiment index



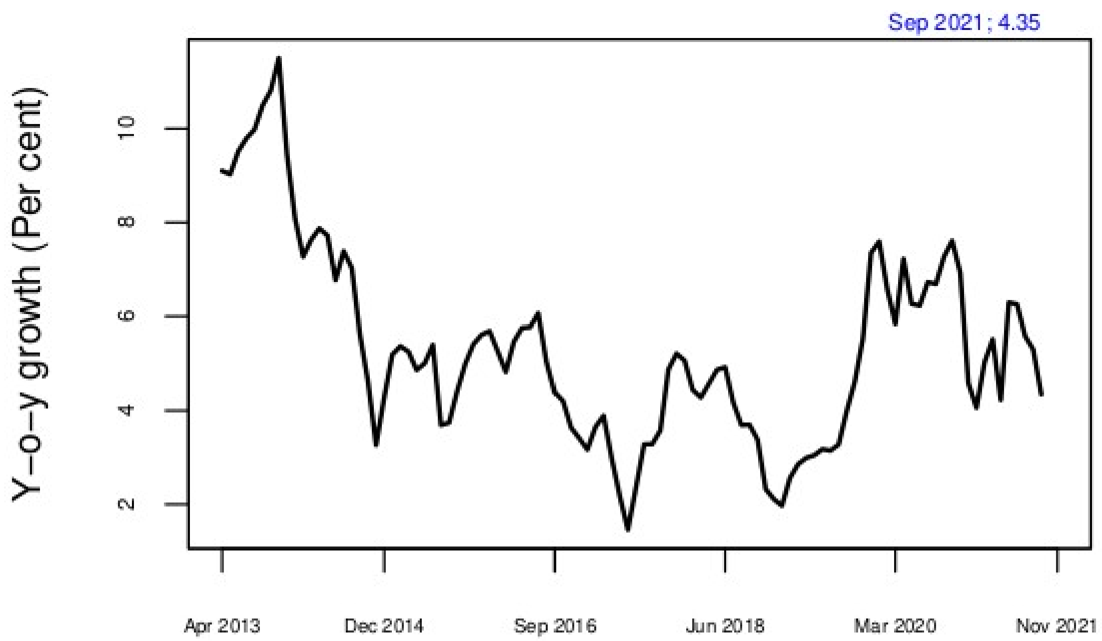
Source: CMIE database

4.1.2 Inflation

Throughout the pandemic period the Indian economy struggled to contain inflation. During the first few months of the pandemic in 2020, severe supply chain bottlenecks owing to the nationwide lockdown and associated mobility restrictions, both nationally as well as cross-border, pushed CPI (consumer price index) inflation above the 6% upper threshold of the RBI's inflation targeting band for three quarters in a row.[13] Between April and November 2020 average headline CPI inflation was 6.9%.

Forward-looking measures such as core inflation also remained in the 5-6% range. While inflation temporarily came down in the December 2020-April 2021 period, subsequent lockdowns triggered by the second wave of the pandemic in the April-June 2021 period once again aggravated inflationary pressures due to renewed supply chain disruptions. Between May and July 2021, average headline CPI inflation was 6.1%.

Figure 15: Year-on-year CPI Headline Inflation



Source: DBIE database, RBI

The RBI however held on to an accommodative monetary policy stance, kept the policy rates low and continued to inject liquidity in order to provide growth support and to keep the government's borrowing costs low in the face of rising fiscal deficit and debt.[14]

13 RBI as an inflation-targeting central bank is mandated to keep headline CPI inflation at 4% with a +- 2% band on either side.

14 See https://timesofindia.indiatimes.com/blogs/toi-edit-page/rbis-dilemma-let-prices-rise-or-interest-rates-but-in-tomorrows-monetary-policy-central-bank-should-prioritise-fighting-inflation/; https://indianexpress.com/article/opinion/columns/why-rbi-must-heed-inflation-7841629/

Once the second wave subsided and as the regional lockdowns were gradually relaxed and supply constraints got slowly eased, headline CPI inflation came down. By November 2021 CPI inflation was down to 4.9%. However WPI (wholesale price index) inflation averaged at 12.7% between April and December 2021, primarily owing to pandemic induced global supply problems. This was the highest WPI inflation in more than a decade. WPI inflation is a standard measure of inflation “in the pipeline” because price increases at the wholesale level tend to translate into retail inflation in due course. During FY22 WPI inflation had been persistently sounding a loud alarm. By January 2022 CPI inflation had once again gone up to 6% (Table 14) driven by high food prices.

In summary, for most of the pandemic and recovery period, CPI inflation had been hovering close to the 6% upper threshold of the RBI’s target band (Figure 15). Inflation averaged 6.1% during the pandemic period (April 2020 to June 2021), despite a massive collapse in aggregate demand. Underlying inflation (i.e. core inflation, excluding food and fuel items) remained around 6%.[15]

In particular, during this period, global food inflation went up dramatically for many commodities due to supply chain constraints on one hand and significant increase in fiscal stimulus and injection of abundant global liquidity especially by the developed countries on the other hand which boosted aggregate demand. FAO (Food and Agriculture Organisation) food price index increased by 26% in 2021 with base period price consisting of averages for the years 2014-16 (Table 13). The index increased by 34% in December 2021. In case of India, CPI food inflation increased to 7.3% in FY21.

Table 13. FAO Global Food Price Index

Year/Month	Food Price Index	Cereals Price Index	Vegetables oils price index
2019	95.1	96.6	83.2
2020	98.1	103.1	99.4
2021	125.1	131.2	164.9
June 2021	125.3	130.3	157.7
July 2021	124.6	126.3	155.5
August 2021	128.0	130.4	165.9
September 2021	129.2	132.8	168.6
October 2021	133.2	137.1	184.8
November 2021	135.3	141.4	184.6
December 2021	133.7	140.5	178.5
January 2022	135.6	140.6	185.9
February 2022	141.1	145.3	201.7
March 2022	159.7	170.1	251.8

15 Data from CMIE.

April 2022	158.4	169.7	237.5
May 2022	157.9	173.5	229.2
June 2022	154.2	166.3	211.8

Source: FAO

Table 14: Food and general inflation in India: CPI and WPI (in percent)

Year/month	Consumer prices (CPI)		Wholesale prices (WPI)	
	General	Food	General	Food Index
2020-21	6.20	7.30	1.3	3.2
2021-22	5.50	4.20	13.00	4.1
December 2021	5.59	4.05	13.56	9.24
January 2022	6.01	5.43	12.96	9.55
February 2022	6.07	5.85	13.11	8.47
March 2022	6.95	7.68	14.55	8.71
April 2022	7.79	8.38	15.08	8.88
May 2022	7.04	7.97	15.88	10.89
June 2022	7.01	7.75	15.18	12.41

Source: MOSPI and Ministry of Finance

4.1.3 Fiscal situation

India entered the first wave of Covid 19 on the back of a “silent” fiscal crisis, characterized by the failure to achieve revenue targets and the failure by the government to disinvest (Patnaik and Sengupta, 2020). Net tax revenues were 1.1% of GDP in FY20, lower than the budget estimates. Low revenue raising power had resulted in a failure to achieve fiscal deficit targets. Fiscal deficit of the central government rose to 4.6% of GDP in FY20. The fiscal situation was “managed” to a large extent through off-budget liabilities.

The Indian government’s fiscal response to the pandemic was arguably a modest one as outlined above. The government used this opportunity to bring its off-budget liabilities, particularly food subsidy related loans of the Food Corporation of India (FCI), back on its books. A one-time payment of Rs. 1.5 lakh crore was made to the National Small Savings Fund to clear the FCI’s outstanding dues. This clean up added approximately 0.7% of GDP to the fiscal deficit (Aiyar, 2022).

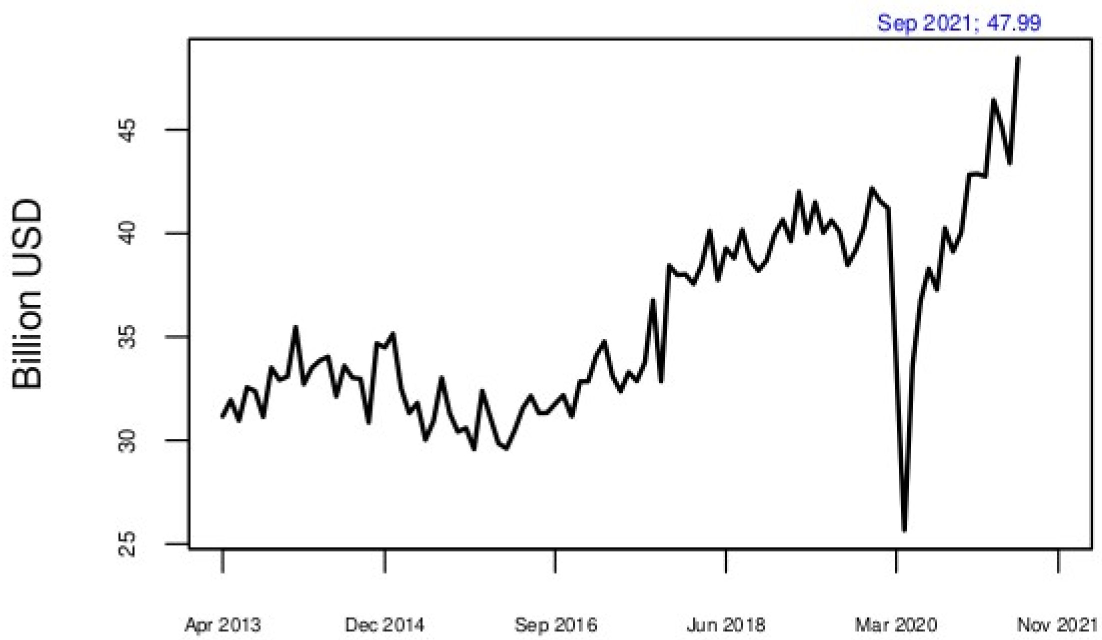
The pandemic led to a severe contraction in tax revenues. In FY21, total tax revenue increased by only 5% on a year-on-year basis whereas overall revenue receipts fell by 3% even as total expenditure (revenue and capital) increased by more than 30%. This led to an overall fiscal deficit of 9.3% of the central government alone, significantly higher than the 3.5% target set by the government before the pandemic hit India.

Government's borrowing in FY21 went up by more than 90% compared to FY20, to more than Rs 18 lakh crore, taking the debt to GDP ratio to nearly 90%, the highest since 1950s, compared to a pre-pandemic average of 70-75%. The large borrowing program will potentially have several repercussions. The interest burden on the Budget will continue to rise. By end 2021, interest expenses already accounted for more than 40% of the central government's revenue. By FY22, government expenditure reduced by 1.5% of GDP compared to FY21. As presented in the Union Budget, fiscal deficit for FY22 is expected to be around 6.9% of GDP.

4.1.4 International Trade and Foreign investment

One silver lining that emerged during the pandemic was the strong growth in exports (Figure 16). The developed world aggressively used macroeconomic policies to deal with the pandemic. They did a big monetary policy expansion by cutting interest rates to zero and announced large fiscal stimulus packages. The US economy for example witnessed the largest fiscal expansion since World War 2. The macro-policy led recovery of the developed economies where the vaccination was also happening at a much faster rate, generated a powerful export boom for emerging economies like India. The large non-financial firms of India benefitted from this growth in exports, especially from the growth in global demand for merchandise goods, as discussed in Section 2.

Figure 16: Non-oil, non-gold exports



Source: CMIE

While during the first wave of the pandemic, non-oil exports fell to $46 billion in April-June, 2020 from $66 billion in Jan-March 2020, during the second wave, non-oil exports went up to a staggering $83 billion in April-June 2021, far surpassing the pre-pandemic level. Current account once again registered a surplus of 0.95% of GDP in this period. This unexpected exports-boom to a large extent led the recovery of the economy from the pandemic. By December 2021, non-oil exports were close to $90 billion. By October 2021 the RBI's forex reserves reached an all-time high of $642 billion (data from CMIE). With the opening up of the economy, and removal of mobility restrictions etc, as demand started recovering, imports also picked up. In the October-December quarter of 2021, trade deficit as percentage of GDP had gone up to 7% from 5% in the same quarter of 2020 and current account deficit had gone up to 2.6% of GDP.

4.2. Recovery in rural areas

Trends in real wages reveal that rural areas are yet to recover from the stagnant/decline in real wages during the pandemic and pre-pandemic periods. Real wage growth declined sharply across all agricultural and non-agricultural operations in FY16-FY20 as compared to those of FY12-FY15 (see Table 15).[16] Covid-19 worsened the trend of poor growth in rural farm and non-farm wages seen during FY16-20. Real wage growth was slightly above 1% in FY21 but it turned negative in FY22. In agricultural operations, real wages exhibited negative growth of 1% to 4% for different operations. In the case of non-agricultural operations, it ranged from -0.3% to -3.2%. It is a matter of concern that real wages in rural areas have not recovered from low/negative growth in the pandemic and pre-pandemic period.

Table 15: Growth in Real wages for farm and non-farm activities in rural areas

Activities	FY12-FY15	FY16-FY20	FY2020-21	FY2021-22
	Real on-farm wage growth			
Sowing	10.6	1.3	0.1	-1.0
Ploughing/tilling	9.0	0.6	-0.7	-4.1
Harvesting/winnowing/ threshing	11.2	0.4	1.0	-1.3
Picking worker	6.0	1.7	1.3	-1.3
Animal husbandry worker	16.8	1.8	1.6	-2.0
	Real non-farm wage growth			
Carpenter	7.4	0.9	1.0	-3.1
Blacksmith	9.8	0.9	-0.3	-2.2
Mason	7.6	0.9	1.0	-3.2
LMV& tractor driver	10.1	0.6	0.2	-0.8
Non-farm labour	10.5	0.1	1.3	-2.6
Sweeper	14.8	0.8	1.8	-0.3
Source: Sinha and Pant (2022), India ratings and Research				

16 Sinha, S.K. and D.K. Pant (2022), " Bharat Blues: An Alarming Trend in Rural Wages", Financial Express, February 1, 2022.

4.3. MSMEs

As discussed earlier, the MSMEs have been disproportionately impacted by the pandemic. To some extent the regulatory forbearance announced by the RBI in the form of restructuring schemes etc, and also the credit guarantee scheme (ECLGS) announced by the government during the pandemic may have helped these smaller firms. But the sector is still recovering from the adverse impact of the pandemic. There has been recovery in several enterprises while many other units particularly in the micro sector are still struggling.

According to the 'Rising in the face of adversity' Report on MSMEs (NeoGrowth, 2022), in March 2022, it was observed that MSME credit demand from non-metro cities was back to pre-Covid levels whereas that in metro cities was lagging marginally. Non-discretionary demand-oriented business segments such as petrol pumps, infrastructure, and auto, recovered faster than consumer-facing and discretionary demand-oriented businesses. The vital lessons learned from the pandemic have transformed the way businesses operated and fast-tracked their move to digital.

The Financial Stability Report (FSR) of the Reserve Bank of India (RBI, 2022b) reveals the following recent trends on credit to MSMEs including the micro finance sector.

i. Aggregate credit to the sector showed a strong revival during Q4 of FY22, supported by significant growth in lending by private sector banks (see Figure 17). Rise in domestic demand and revival in ancillary industries and service units increased funding requirements of MSMEs.

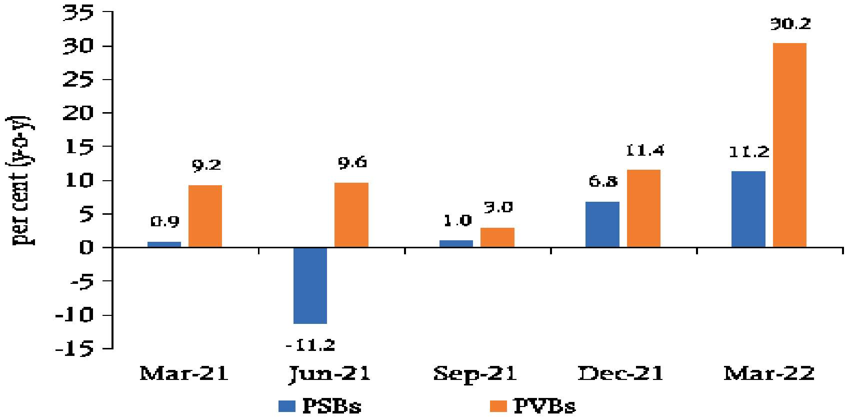
ii. The Emergency Credit Line Guarantee Scheme (ECLGS) has played a crucial role in reviving the MSME sector. Loans amounting to Rs 3.32 lakh crore were sanctioned under the ECLGS, till April 30, 2022, of which Rs 2.54 lakh crore was disbursed (Rs 2.36 lakh crore by Scheduled Commercial Banks). The drawdown under ECLGS 1.0, 2.0 and its extension comprised more than 97% of the total guarantees issued (see Figure 18).

iii. Private sector banks indicated greater appetite than public sector banks in utilising different ECLGSs, though the number of repeat borrowers remained similar for both private and public sector banks.

iv. The aggregate GNPA (gross NPA) ratio (private and public sector banks) in the MSME sector moderated from 11.3% in September 2021 to 9.3% in March 2022. They however, remain relatively high. Moreover, RBI warns that restructuring of portfolios to the tune of Rs 46,186 crore constituting 2.5% of total advances under the May 2021 scheme has the potential to create stress in the sector (see Tables 16 and 17).

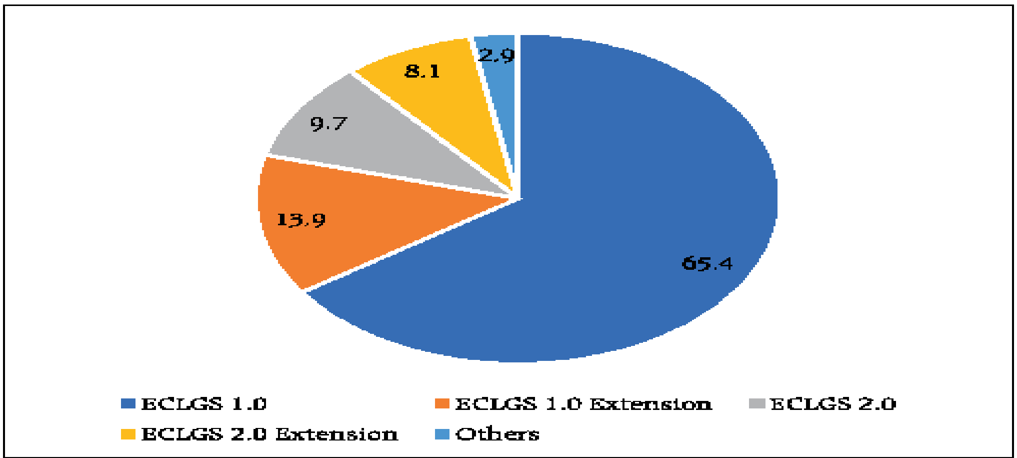
On the microfinance segment, the RBI report says that this sector which witnessed reduction in credit and rise in stress during the pandemic, is showing signs of revival. Aggregate credit to the microfinance sector is expanding steadily and has now exceeded its pre-pandemic levels. Stress in this segment is also diminishing, with delinquency levels measured in terms of 30 dpd (days past due) declining and 90 dpd remaining steady across lenders.

Figure 17. Credit to MSME Sector



Source: RBI FSR Report (RBI, 2022b)

Fig 18. ECLGS Guarantee disbursed



Source: RBI FSR Report (RBI, 2022b)

Table 16. MSME Restructuring details

Restructuring Scheme	Aggregate Portfolio Restructure (Rs crore)	
	PSBs	Private sector banks
Restructuring- January 2019 scheme	26,190	2,174

Restructuring- February 2020 scheme	5,860	1,364
Restructuring- August 2020 scheme	18,232	11,027
Restructuring- May 2021 scheme	30,285	15,901

Source: RBI supervisory returns and staff calculations.

Table 17: MSME Asset Quality Profile (per cent)

Fiscal Years	PSBs + PVBs				
	0 days past due	SMA-0	SMA-1	SMA-2	GNPA
Mar-21	74.0	7.3	5.7	2.2	10.8
Jun-21	72.4	8.6	3.8	3.4	11.9
Sep-21	76.3	6.6	2.6	3.1	11.3
Dec-21	75.4	8.8	3.1	2.3	10.4
Mar-22	79.7	6.4	3.5	1.1	9.3

Source: RBI supervisory returns and staff calculations

4.4 Formal sector

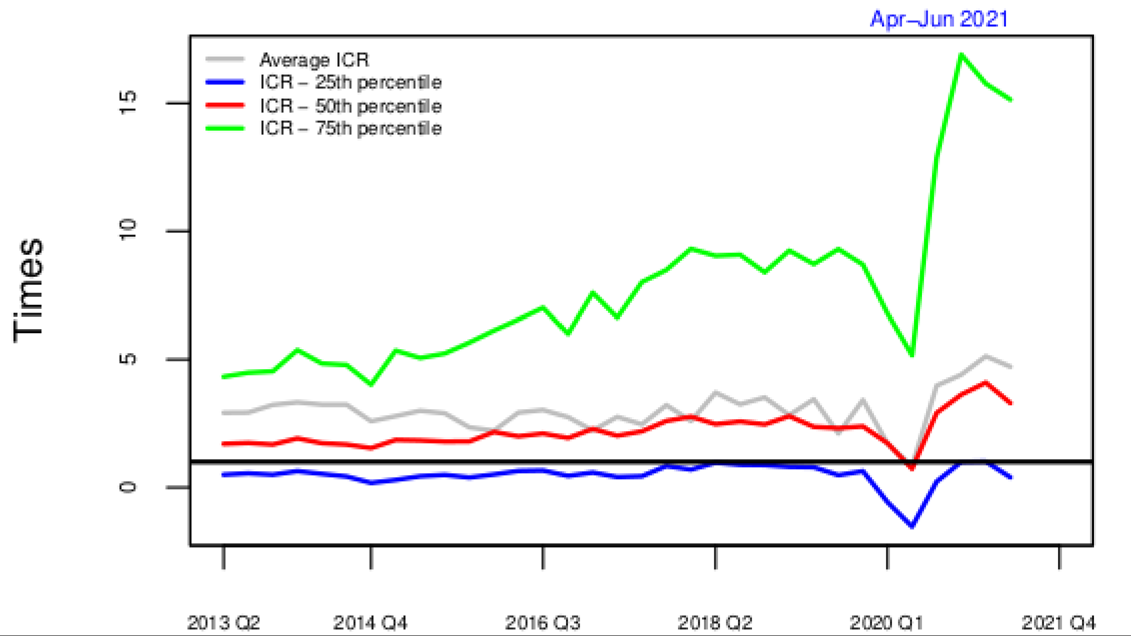
The picture of recovery that emerges from the firm-level data is an uneven one. While the large companies in the private sector seem to have weathered the pandemic well, that is not true of majority of the others.

Analysing data from the Prowess database of CMIE, we find that firms at the top quartile of the interest coverage ratio reached an ICR of 15 by December 2021, implying that they had very little debt, were profitable and hence were faring very well (Figure 19).[17] These

17 ICR shows us what percentage of interest payments of a company is covered by its earnings.

companies were depending increasingly less on debt financing. On the other hand, the bottom quartile of companies have consistently reported an ICR of less than 1 since 2013, and that did not improve during the pandemic period. This means that they continue to be under significant credit stress.

Figure 19: Interest coverage ratio in ICR quartiles of non-financial firms



Source: Prowess database of CMIE

4.4.1 Financial institutions

The RBI's latest Financial Stability Report (RBI 2022b) has given the banking system a reasonably clean bill of health. This is a significant achievement, considering the stress of the previous decade, the shock of the pandemic and the associated slowdown of the economy.

Successive waves of recapitalization have given the Indian banks enough resources to write off most of their bad loans. As a result, they have been able to bring down their gross NPAs from 11% of total advances in FY18 to 5.9% in FY22. NPAs for industrial credit have been reduced even more dramatically, from 23% to 8.4%. Even after these large write-offs, most banks retain comfortable levels of capital. During the decade when banks were under stress, non-food bank credit growth had been declining, reaching just 6% in 2020, its lowest point in six decades. Since then, credit growth has nearly doubled.

However there has been a major shift in the nature of bank credit as mentioned in Section 2. Over the last decade, bank credit has got "consumerised" i.e. banks have increasingly shifted away from providing credit to industry, favouring instead lending to consumers, partly due to high levels of risk aversion in the banking sector, and partly due to lack of strong demand for industrial credit. Consequently, the share of industry in total banking credit has declined from 43% in 2010 to 30% in 2020, while that of consumer loans has increased from 19% to 29%. This trend is continuing: in the FY22, consumer loans grew at 13% whereas loans to industry grew by merely 8%. Bulk of the industry loans has been extended to the smaller firms (MSMEs), which benefitted from the credit guarantee scheme offered by the government in the wake of the pandemic.

It is too early to say whether this consumerisation of bank credit is a temporary, cyclical phenomenon or a permanent, structural shift. The important question is whether banks and firms will once again be willing to take on the risk of investment in industry and infrastructure. And this seems unlikely unless there are deep structural reforms – to the infrastructure framework, the resolution process, and indeed in the risk management processes at the banks themselves.

5. The road ahead: Opportunities and Challenges

We consider the post-pandemic period to have started from February 2022, and analyse the Indian economy from then onward till August 2022, the end of our study period. Since February 2022 the recovery of the economy from the pandemic has been disrupted by multiple other shocks even as the pandemic has gradually subsided and become mostly endemic.

Against the background of two years of the pandemic, a fragmental geopolitical landscape and heightened global economic uncertainty, in this section we discuss the challenges and opportunities that the Indian economy is likely to face in the near future as it attempts to achieve a high and sustainable growth rate, and alleviate poverty. We also throw light on some of the important reforms and policy initiatives that must be implemented in order to achieve this objective.

5.1. Global economic outlook

Towards the end of February 2022, Russia invaded Ukraine and itself became the subject of numerous economic sanctions imposed by the US and other Western countries. The war and associated sanctions dealt a huge blow to the global supply chains of various crucial commodities such as crude oil, natural gas, edible oils, fertilisers, wheat etc. Already the pandemic had disrupted supply chains across countries and the war further aggravated this problem. It led to escalation in the prices of many commodities as supplies began dwindling. Most notably, price of crude oil shot up which was an adverse shock for India because India is a major importer of crude oil.

Almost simultaneously, Covid cases made a comeback in China from the start of 2022 onward. The Chinese authorities responded by implementing an aggressive Zero-Covid policy, and imposing strict lockdowns in multiple cities including Shanghai. This further aggravated the global supply shocks. The Chinese economy itself has been slowing down as well under the burden of a real estate crisis, a potential financial sector meltdown and an investment slowdown. It is projected to grow only at 4% in FY23 as opposed to the target growth rate of 5.5%.

As global supplies of goods and commodities have come under renewed pressure due to the war and problems in China, Western countries such as the US and EU have begun experiencing the worst streak of inflation in four decades. Inflation in the US as measured by PCE (personal consumption expenditure) is projected to reach 5.4% in 2022, and 2.8% in 2023. The rise in inflation was partly due to the massive fiscal stimulus and abundant liquidity injected by the respective governments and central banks in order to support the economies during the pandemic. The combination of the resultant boost in aggregate demand and persistent constraints on the supply side meant that prices began to soar and a wage-price spiral set in amidst very tight labour market conditions.

In response, the US Federal Reserve, initially behind the curve, began aggressively tightening monetary policy—raising interest rate and withdrawing liquidity from the system, from March 2022 onward to rein in demand. So far the Fed has increased the interest rate by a staggering 3%, with three consecutive rate hikes of 75 bps, making it the most aggressive monetary contraction since the 1980s. Likewise central banks in nearly all developed economies have begun tightening monetary policy and emerging market central banks are now following suit so as to prevent the interest differential from widening as that might trigger huge foreign investment outflows. According to a Bloomberg report, close to 90 central banks have already raised rates by 45bps and 45 central banks have raised rates by at least 75bps in a single announcement. There seems to be a global race to hike rates causing the broadest tightening of monetary policy in nearly 15 years.

The target Fed Funds rate is currently 3-3.25%. It is expected to reach 4.4% by December 2022 and 4.6% in 2023 as mentioned by the Fed Chair Jerome Powell in his press conference in September 2022. Given the persistent stubbornness of inflation the Fed is ikely to continue being hawkish. Indeed Chairman Powell has signalled a longer monetary tightening cycle than was previously expected given that the inflation target is a long way ahead. The ECB has also started to tighten monetary policy to curb inflation.

The elevated levels of inflation in the West, persistent tightening of monetary conditions by the US Fed, general increase in risk aversion triggered by the global shocks and fears of a growth slowdown have resulted in a flight to safety to dollar assets. The inflow of money into the US has led to an appreciation of the dollar. The dollar index (DXY) has strengthened against its trading partners by close to 13% in 2022, reaching levels last seen in 2002. The counterpart to this appreciation has been a depreciation of the pound sterling, the euro, and nearly all emerging market (EM) currencies. Several central banks have been intervening in the forex markets to arrest the pace of depreciation of their domestic currencies, including Japan which has intervened for the first time since 1998 to stem a 20% decline in the yen against the US dollar. The reserves cover of imports for Asian emerging economies (excluding China) has come down to 7 months, the lowest since 2008. This was 16 months in August 2020.

The pace and quantum of monetary policy contraction, and resultant tightening of financial conditions as well as uncertain growth outlook of major economies such as China has led to widespread concerns about a potential recession in the West by 2023 and a general global slowdown, possibly a “stagflation” i.e. a combination of rising inflation and falling growth. In the US, the unemployment rate is projected to reach 3.8% in 2022 and 4.4% next year. The Fed has already warned that taming inflation might entail slower growth, higher unemployment and potentially a recession.

The IMF in its latest World Economic Outlook (IMF, 2022) has substantially lowered its global economic growth projection to 3.2% for 2022 down from 4.4% projected in January 2022. It projected a growth rate of only 2.9% for 2023 and has highlighted rising risks of a global recession. In other words, even as the world economy has been recovering from the unprecedent shock of the pandemic, multiple other shocks have once again destablised the recovery process.

5.2. Domestic economic outlook

India is more globally integrated now, compared to 1991 when the liberalisation and deregulations reforms started. The share of trade (exports+imports) in GDP increased from 15% in 1991-92 to 46% in 2011-12 and then declined to 27% by 2019-20. Over the years foreign investment has also gone up manifold (Aggarwal et al, 2022). This also implies that India is now more vulnerable to global shocks.

At present, there are multiple short term and medium term headwinds for India emanating from global shocks such as the ongoing war between Russia and Ukraine, and associated geopolitical tensions, resurgence of Covid-19 and imposition of strict lockdowns in China and HongKong, elevated inflation in the US and EU, and renewed constraints on global supply chains triggered by these events. Alongside these, Indian economy is also having to deal with the repercussions of a potential global slowdown, climate change, rapid adoption of automation, growing inequality and, increasing protectionism. India’s large oil-import dependence (India imports 80% of its crude oil needs) places it in a particularly disadvantageous position.

Partly due to the rise in prices of crude oil and other commodities and partly due to the normalisation of demand in the economy in the post-pandemic period, India’s import bill has been going up. However, exports have been falling due to fears of recessions looming in

India's biggest export markets in the US and Europe as well as weakening demand from China. The net result is that trade deficit has been going up, and India's export target of $750 billion for FY23 appears to be in jeopardy.

For about six years till 2020 current account deficit (CAD) had gone down to an average of 1.4% of GDP. The April-June quarter of 2021 witnessed a current account surplus of 0.9% of GDP. CAD in FY22 was only 1.2% of GDP. However, it increased to nearly 3% of GDP in Q1 of FY23, the highest in nine years, and is expected to be in the range of 4-4.5% of GDP in FY23.

In fact, one of the biggest weaknesses of the Indian economy right now is rising CAD, and continuing foreign capital outflows thereby causing a balance of payments deficit, the exact opposite of the external balance situation during the pandemic period. Typically when the Fed raises interest rates, global investor funds shift their portfolio allocations towards US financial markets, taking the money out of other countries particularly emerging economies such as India. This time has been no exception. Foreign portfolio investors (FPIs) turned net sellers from October 2021 onward after having invested heavily in Indian financial markets during the pandemic period when the US and EU injected massive amounts of liquidity and lowered interest rates thereby lowering the cost of borrowing for the FPIs. While FY21 witnessed record FPI inflows of $37.3 billion, in 2022 alone FPIs have pulled out close to $30 billion (data from NSDL).

Net FDI (foreign direct investment) i.e. inflow of investments into minus outflow from India, averaged at $40.4 billion in FY21 and FY22. Average for the previous five years was $34.6 billion (data from RBI). In the first five months of FY23, average net FDI slowed down to $23.7 billion indicating a slowdown of inbound investment amidst growing global risk aversion. Average value of inbound M&As (mergers and acquisitions) also declined to $24.3 billion in FY23 so far compared to $42.4 billion in the same period last year.

Financing a high CAD can prove to be challenging if foreign investors continue to take money out of Indian financial markets. This impending crisis is getting reflected in the continuous fall in the value of the rupee against the US dollar. The rupee has depreciated by a relatively modest 9% since January 2022 compared to the strengthening of the dollar by 13%. By September 2022, $1 was equivalent to a record low of Rs 82. As the US Fed (along with the ECB and BOE) continues to tighten monetary policy and shrink its own balance sheet, reversal of capital flows is likely to persist thereby putting further pressure on the currency.

The relatively modest depreciation of the rupee compared to other countries is because the RBI has been actively intervening both in the spot and forward currency markets to stem the rupee depreciation, thereby rapidly losing foreign exchange reserves. In the first eight months of 2022 alone, the RBI's forex reserves have come down by a staggering $100 billion (from $633 billion in December 2021 to roughly $537 billion in the week ending September 23, 2022) making it the steepest fall in reserves in the last 10 years. As a result of the RBI's defense of the rupee, forex reserves are now down to about 9 months of imports.

It is not obvious that dollar sales will be sufficient to resolve the exchange rate pressure. When the RBI sells foreign reserves, commercial banks need to give rupees in return, draining them of liquidity. Consequently, when reserve sales become large, the liquidity drain becomes sizeable, potentially tightening the money supply far more than what is appropriate, thereby endangering economic recovery.[18] Hence, there is a limit to the amount of forex that the RBI can sell without jeopardising its other targets.

And there is a further problem. Since investors know that there is a limit to the forex sales, they will be tempted to try to purchase as much as they can right now. In that way, a policy of forex sales can sometimes - paradoxically - *increase* the pressure on the exchange rate.
On the other hand, given the widening interest rate differential with the US, the RBI might aggressively raise interest rates in order to defend the rupee. This too would be problematic because excessive monetary contraction could derail India's nascent economic recovery, not to mention a loss of credibility of the central bank given its mandate to use monetary policy to target inflation.

Given the circumstances, the RBI might be better off letting the exchange rate respond to macro fundamentals because any attempt to prevent the depreciation might prove to be more costly. It is also not clear whether preventing depreciation is the right strategy for the economy at present. We discuss this in greater detail below in Section 5.2.1b.

5.2.1 GDP growth

A report of the Confederation of Indian Industry (CII) says that India's GDP can grow from the current $3 trillion to $5 trillion by 2026-27, to $9 trillion by 2030 and to $40 trillion by 2047 if its population is productively employed[19]. GDP growth is expected to be around 7% in FY23, as projected by the RBI in its September monetary policy statement. While there has been some recovery from the pandemic, there still remain concerns for medium to long term growth.

As the pandemic has progressively receded, the services sector has been expanding. Services PMI (Purchasing Managers Index) rose from 55.2 in July 2022 to 57.2 in August 2022 (a number greater than 50 indicates expansion). The service sector has shown a very strong rate of job creation with new orders coming in and an upturn in business activity.

18 To address this problem, the foreign exchange intervention can be "sterilised" if the central bank buys government securities from the banks. In that case, banks will receive rupees, thereby replenishing their liquidity. But if the central bank purchases large amounts of bonds, this could push G-Sec rates down to inappropriately low levels, thereby endangering the inflation target.

19 See Srivats, K.R. (2022), "$40 trillion economy by 2047 possible if working age population is employed: CII report", BusinessLine, April 4, 2022.

Firms have continued to benefit from the removal of pandemic related restrictions and by Q2 FY23 there has been a strong rebound in businesses especially in real estate, ICT (information and communication technology), finance and insurance sectors. PMI for manufacturing sector also went up to 56 in the July-August period of 2022; this has been the fastest increase in production in last nine months. However as the situation normalises, shift in consumption back to services would imply that growth in industrial output would moderate.

GST (Goods and Services tax) collection has also improved significantly as the economy has gradually recovered from the pandemic. In August 2022 GST collections increased by 28% on a year on year basis, reflecting the revival in consumption demand. To some extent this also reflected the elevated levels of CPI inflation.

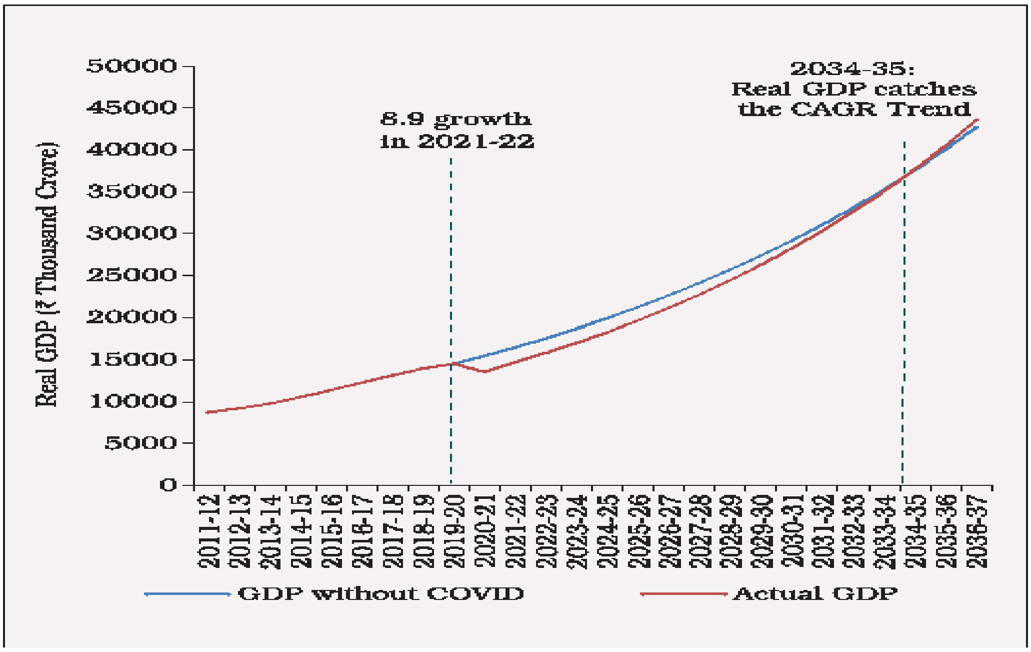
Data from CMIE shows however that consumer sentiments remain highly volatile perhaps reflecting the heightened state of uncertainty both in the domestic as well as in the global economy. Since March 2022 consumer sentiment has been weakening, led mostly by a fall in urban sentiment. In other words, while household incomes have been improving, their perception about future seems to be deteriorating which in turn would adversely impact their propensity to spend on non-essential goods. Indeed, household propensity to spend on consumer durables, an indicator of optimism for the future, has been falling since April 2022.

Real GDP growth in the Q1 of FY23 turned out to be the second worst among G20 nations, the first being China. The 13.5% growth rate was significantly lower than the 16.2% projected by the RBI. The main reasons behind this lackluster economic performance was decline in government expenditure and net trade. In its September 2022 monetary policy statement the RBI revised its growth projection for FY23 down to 7.2% from 7%.

According to RBI (2022a): "*the pre-Covid trend growth rate works out to 6.6% (CAGR for FY13 to FY20) and excluding the slowdown years, it works out to 7.1% (CAGR for FY13 to FY17). Taking the actual growth rate of (-) 6.6% for FY21, 8.9% for FY22 and assuming growth rate of 7.2% for FY23, and 7.5% beyond that, India is expected to overcome Covid-19 losses by FY35. The output losses for individual years have been worked out to be Rs 19.1 lakh crore, Rs 17.1 lakh crore and Rs 16.4 lakh crore for FY21, FY22 and FY23, respectively*".

In other words it will take as many as 12 more years to overcome the loss of income due to the pandemic. Therefore, significant efforts are needed to improve growth in the medium to long term. Figure 20 depicts a medium term GDP path as projected by the RBI.

Figure 20: Medium-term real GDP path



Source: RBI (2022a)

5.2.1a Investment

The two main drivers of growth for an emerging economy like India are investment and exports. As discussed in Sections 2 and 4, the private corporate sector fared relatively well during the pandemic, and has not shown any signs of permanent scarring. Their balance sheets are also healthy given the extensive deleveraging. Yet private sector investment continues to be sluggish. It had been declining in nominal terms in the pre-pandemic period (as per CMIE Capex data) and even after the pandemic has subsided, while it is not falling anymore but investment has not picked up substantially either. Government has also given a much needed capex push in its Union Budget of 2022-23, yet the translation of this into private investment is still not visible.

In Q1 of FY23, gross fixed capital formation (GFCF) increased on a year on year basis but it is still less than the required level of 30% of GDP which is needed to put the economy on a sustained growth path. GFCF in Q1 of FY23 increased to 29.2% of GDP (primarily aided by government capex) compared to 30.7% in Q1 of FY20.

CMIE Capex database shows that announcement of new investment projects which reflects business optimism, grew by only 44% in FY23 Q1. In comparison in the October-December quarter of 2019 in the pre-pandemic period, announcement of new projects grew by more than 100% on a year on year basis. In FY20 before the economy got affected by the pandemic, the CAGR of new project announcements was around 27%. Between April 2020 and June 2022, this fell to 9%.

The banking sector has regained its health, as discussed in the previous section, and the financial turnaround has given banks the space to resume their business of extending credit.

Bank credit grew by roughly 10% (annualised) in the April to August 2022 period compared to 6% during the pandemic period. However, the problem is that very little of this credit is going to large-scale industry or for financing investment. The credit growth seen so far is primarily driven by growth in unsecured personal or retail loans and MSMEs, and some uptick in capex in select sectors such as steel, cement and renewables.

Lending to large industries has been stagnant in nominal terms during the last two years, implying that it has declined sharply in real terms, and there has been little lending for private sector investment. Over the last one year, bank lending to infrastructure has grown by 9% up from 3% in 2020, but this was fuelled mainly by public sector capex. Meanwhile, much of the lending to private industry has been in the form of working capital loans, necessitated by the increase in commodity prices, which has led to a sharp rise in the cost of holding inventories.

A big reason behind lacklustre growth of industrial credit is because private sector investment has been sluggish for nearly a decade and continues to be so now. Firms seem to have finally used up much of their spare capacity. But the fundamental problems that led to the difficulties of the past decade still have not been resolved. There is still no framework that will reduce the risk of private sector investment in infrastructure. Nor is there any reassurance for the banks that if problems do develop, they can be resolved expeditiously, since the Insolvency and Bankruptcy Code (IBC, 2016) has been plagued by delays and other problems. Now, heightened global macroeconomic uncertainty, growing geopolitical tensions and uncertain recovery prospects of the domestic economy are likely to make matters worse.

5.2.1b Exports

It is well known that rise in exports is one of the main engines of growth and also useful for employment creation. The tepid economic recovery in FY22 was highly dependent on exports, which as explained in Section 2, grew exceptionally rapidly. If this engine of growth starts to sputter, so might the economic recovery.

Rising global interest rates, winding down of economic stimulus packages, and consequent slowdown in global growth will likely have a negative impact on India’s trade volumes for the rest of FY23. Volatility in commodity prices and continued geopolitical tensions will make trade developments uncertain. If the US and Indian business cycles continue to diverge, meaning that US goes into a recession while Indian economy grows relatively faster, India’s CAD will widen even more because exports will continue to slow down but the import bill will keep rising. The World Trade Organisation (WTO) has pegged the global trade growth at 1% for FY23, down from 3.4% amidst rising apprehensions about a global slowdown.

In real terms India's exports grew by 8.7% on a year on year basis between April 2019 and June 2021 but in the April-July period of 2022 it grew by only 4.9% signalling the major headwinds coming from global shocks, as estimated by a recent report by HSBC.[20]

Economic theory suggests that in the face of an adverse terms of trade shock, a weaker currency helps in expenditure switching towards higher exports and lower imports and hence improves the trade balance. Weaker exchange rate boosts non-oil exports and helps reduce non-oil imports by increasing the price of imports. Moreover, if the rupee fails to follow when other EM currencies are depreciating, then India's exports will lose competitiveness. Already, the rupee has appreciated significantly against other Asian currencies such as the South Korean won, the Thai baht and the Taiwanese dollar. If competitiveness is further eroded at a time when the global economic environment is turning difficult, export growth could really suffer.

In this context therefore, the RBI's persistent attempts to prevent the rupee from depreciating, as discussed earlier, might not be the most suitable policy reaction. What is required instead is a real depreciation of the rupee, instead real effective exchange rate (REER) has been entirely flat in recent times.

From a more general and broader perspective, notwithstanding the ongoing slowdown in exports, the way international trade stands now might present a historic opportunity for India to join the club of great exporting nations. China, the main export engine of the world, has been locking down its factories resulting in international firms scouting for new production locations. Russia is being subjected to ever-tighter economic sanctions. As a result, two large Asian countries are reducing their presence on the international trade landscape, creating an unprecedented scope for India to attract international firms to produce and export from here.[21] Likewise, crisis in our neighboring countries such as Bangladesh could be an opportunity for India to increase its presence in the realm of textile exports.

In order to take advantage of these opportunities, India needs a liberal, stable and consistent trade policy regime. Unfortunately government policies with respect to international trade have turned increasingly protectionist. Import tariffs have been going up since 2015 and the Union Budget of 2022-23 continued this trend. India's import tariff rates (MFN based average) increased from the lowest level of about 12% in 2008 to 15% in 2019. For the year 2018, China's import tariff rate was 9.6% compared to India's 13.5%.

20 See https://www.business-standard.com/article/opinion/are-exports-holding-up-122091201322_1.html

21 See this: https://www.project-syndicate.org/commentary/three-globalization-shocks-different-impact-on-china-india-by-arvind-subramanian-and-josh-felman-2022-08

International trade today is entirely dependent on global value chains. Import duties hamper this process because they increase the cost of importing, thereby disrupting the production chain. Higher import duties convey to foreign firms that doing business in India is going to be costly and difficult for them.

The government has also been imposing bans and taxes on exports in order to deal with surging inflation. In 2022 so far they have banned wheat exports, imposed an export duty on steel products at the rate of 15%, increased the export duty on iron ore from 30% to 50%, and imposed a 20% export duty on rice varieties commanding a 28-30% share of annual exports. While the government's bans and market interventions will do little to dent inflation, they are likely to damage growth by undermining exports.

Over and above harnessing the potential to export, there are several other opportunities for India in the medium term to improve economic growth. A recent issue of the *Economist* magazine (Economist, 2022) says that as the pandemic recedes, four pillars are visible that might support growth in the next decade; (1) forging of a single national market through the GST; (2) an expansion of industry owing to the shift to renewable-energy, and a move in supply chains away from China (3) improvements in technology, IT services, and outsourcing industry; and (4) a high-tech, welfare safety-net for the hundreds of millions left behind by all this.[22]

Moreover, India is on its way to becoming Asia's top financial technology (Fin Tech) hub with a staggering 87% Fin Tech adoption rate against the global average of 64%. The growth rate of Indian Payment systems like UPI (United Payments Interface) and Aadhar Enabled payment services (AePS) has been phenomenal. According to RBI (2022a), the long strides taken in the digital finance arena need to be leveraged to promote growth. There are growing opportunities for new investment in areas like e-commerce, start-ups, renewables and supply chain logistics. What is required perhaps to unleash the animal spirits of the private sector is policy certainty, and creation of a level-playing field through government actions.

5.2.2 Employment

Job creation has always been a major problem in India, and the pandemic has in all probability left permanent scars on the Indian labour market. Recent CMIE report says that there was a massive fall of employment by 13 million from 404 million in May 2022 to 390 million in June 2022. The LFPR declined to its lowest level at 38.8% in June 2022. The CMIE data, in general, shows that employment is yet to recover to the pre-pandemic level. As shown in Table 18, LFPR in 2019 was 42.8% but it has declined to roughly 39% in 2022 so far. In other words, the LFPR is 3 percentage points lower in the post-pandemic period as compared to the pre-pandemic level. The unemployment rate looks almost similar across the

22The Economist (2022), "India is likely to be the world's fastest-growing big economy this year", May 14, 2022 two periods but given that many people left the labour force in the pandemic and post-pandemic periods, the true unemployment post-pandemic has been higher.

Table 18: Labour Force Participation Rate and Unemployment Rate

Indicator	Jan-April 2019	May-August 2019	Jan-April 2022	May-August 2022
Labour Force Participate Rate(%)	42.85	42.85	39.71	39.17
Unemploymen t Rate (%)	6.87	7.46	7.43	7.43

Source: CMIE

Particularly worrisome is the decline in the share of female employment. As shown earlier in Table 9, work participation rate (WPR) reported by the PLFS averages around 18% for women as compared to 66% for men. While WPR pre-pandemic was a little more than 19% for women, it has fallen to 18.3% in the post-pandemic period. Similar picture can be seen from the LFPR data of CMIE in Table 11. There is an urgent need to increase the participation rates of women which are much lower than many other Asian countries including Bangladesh. Former IMF Chief Christine Lagarde said that increase in women's participation rates would raise GDP by 40 per cent in India.

Moreover, given that the majority (85%) of the workers are in the informal sector and assuming the formal sector has been less affected as discussed in Sections 2 and 4, from the overall numbers we can conclude that informal sector employment in particular is yet to recover from the pre-pandemic period.

Table 19a: No. of Households Employed and Person Days Generated: FY20 to FY23

Months	No.of Households Employed (in millions)				No. of person days generated (in millions)			
	2019-20	2020-21	2021-22	2022-23	2019-20	2020-21	2021-22	2022-23
April	16.9	11.1	21.3	18.7	271.0	141.7	340.7	285.9
May	21.0	33.1	22.3	26.2	365.4	569.5	371.6	435.3
June	21.5	38.9	29.4	27.6	319.0	640.6	451.8	421.9
July	15.0	27.6	26.8	17.6	193.3	391.1	379.5	235.5
August	12.3	20.1	21.1	13.8	152.6	260.3	278.2	167.1
September	12.0	20.0	20.8	11.6	146.8	263.6	278.4	126.3
October	10.9	19.9	17.4	--	137.9	262.4	221.7	--
November	12.5	18.4	17.5	--	169.2	235.8	228.6	--
December	14.1	20.8	21.4	--	204.0	284.4	297.9	--
January	15.7	20.9	20.0	--	230.8	278.2	269.8	--
February	18.7	22.8	20.2	--	267.6	308.0	270.0	--
March	16.0	20.1	20.0	--	182.9	255.6	245.2	--

Source: MGNREGA, Ministry of Rural Development

Table 19a shows that the average number of households employed under the MGNREGS scheme in FY20 was 15.6 million; it has gone up to 20.8 million in FY23 so far, down marginally from an average of 21.5 million in FY22. The CAGR of average number of households employed in FY23 compared to the average value in the pre-pandemic year of FY20 is around 8%. This implies that even after the pandemic has receded, enrolment under this scheme continues to be higher than the pre-pandemic level. Likewise the average number of person days generated in FY23 is 9% higher than the pre-pandemic period. While Table 19a shows the actual uptake of the employment under this scheme, Table 19b shows the demand for work. We find that the CAGR of average number of households as well as of persons demanding work under MGNREGS is 7% in FY23 compared to FY20.

Table 19b: Demand for work by Households Persons under MGNREGA: FY20 to FY23

Months	Demand for work , No. of Households (in millions)				Demand for work, No. of Persons (in millions)			
	2019-20	2020-21	2021-22	2022-23	2019-20	2020-21	2021-22	2022-23
April	21.05	13.41	26.19	23.27	30.38	20.01	37.85	32.89
May	24.76	37.35	26.58	30.75	35.69	54.26	39.12	43.51
June	25.43	44.79	33.97	31.77	35.38	63.50	48.15	43.23
July	18.35	31.99	31.35	20.41	24.08	42.90	41.62	25.22
August	14.60	24.32	24.66	15.98	18.28	31.59	31.74	19.19
September	14.26	24.39	24.02	16.76	17.73	31.29	30.26	20.19
October	12.92	24.37	20.46	--	16.03	30.95	25.60	--
November	15.21	22.76	20.63	--	19.27	28.92	25.50	--
December	17.04	26.54	24.04	--	22.26	34.87	30.09	--
January	18.88	26.35	23.37	--	24.95	34.37	29.82	--
February	22.25	28.68	23.78	--	29.47	38.39	30.72	--
March	20.74	26.24	24.06	--	27.64	35.91	31.58	--

Source: MGNREGA, Ministry of Rural Development

All these point towards higher uptake of this scheme in the post-pandemic period, implying that there still aren't enough jobs in the informal sector to absorb these workers who are instead applying for the employment guarantee scheme. This in turn highlights the feeble recovery of overall employment in the post-pandemic period.

In a larger context, structural transformation to manufacturing and services sectors can be of critical importance when it comes to generating employment opportunities. India's development trajectory so far stands out among other countries because the economy has transformed from agriculture to services bypassing the industrial route. However, there is a deep disconnect between the shares of GDP and shares of employment across sectors. In terms of GDP, there has been structural change from agriculture to services but in terms of employment, agriculture is still the largest employer at 46%.

Of particular concern is the inability of the Indian manufacturing sector to absorb labour. The share of manufacturing in employment was only 11% in 2019-20. There are two sources of productivity. One is productivity increase within sectors, and the other is shifting workers from low productivity sectors to high productivity sectors. India must focus on both sources to raise growth and employment.

A study by Ramaswamy and Agarwal (2013) suggests that the services sector would be an unlikely destination for the millions of low-skilled job seekers. The study argues that India needs to focus on the manufacturing sector to provide large scale employment. Manufacturing has the capability because it has stronger backward linkages, unlike the services sector. Labour intensity of organised manufacturing sector needs to be improved apart from increasing the productivity of MSMEs (Micro, small and medium sized enterprises) and unorganised manufacturing.

Both manufacturing and services have to be developed together. A study by Chanda (2017) deals with the interdependence between services and manufacturing and argues that a vibrant service sector should be seen as an enabler for the manufacturing sector and not as a competitor to manufacturing. In its three year action plan (Niti Ayog, 2017) also indicates that India has the advantage of walking on two legs: manufacturing and services. It offers specific proposals for jumpstarting some of the key manufacturing and services sectors, including apparel, electronics, gems and jewellery, financial services, tourism and cultural industries and real estate. Among other things, it recommends the creation of a handful of Coastal Employment Zones, which may attract multinational firms in labour-intensive sectors away from China to India.

India has undertaken several structural reforms in recent times such as announcement of privatisation and asset monetisation, tax reforms (GST and corporate tax rationalisation), the production linked incentive (PLI) scheme; insolvency and bankruptcy code (IBC) to improve the credit culture and resource allocation mechanism, labour reforms, and a fiscal policy focused on capex and infrastructure (RBI, 2022a). A lot more needs to be done on a sustained basis to create a conducive environment for private sector investment which in turn can create much needed jobs. Also attracting foreign companies to produce in India must be given a high priority now given that many of these companies are looking for alternatives to China and Russia. India needs to take full advantage of this opportunity as mentioned earlier in Section 5.2.1b.

India has a major advantage of demographic dividend. However, it might soon become a liability if enough productive jobs are not created. Apart from enhancing productivity and boosting private investment, education and skill development will be the biggest enablers for achieving this dividend. India will add another 183 million people to the working age group of 15-64 years between 2020-50 as per the UN Population Statistics database. Thus, a whopping 22% of the incremental global workforce over the next three decades will come from India. This further underscores the importance of generating productive employment which might however prove particularly challenging now given the scarring of the pandemic.

5.2.3 Monetary policy

As discussed in Sections 2 and 4, the inflation problem has been brewing in India since 2020. During March-Dec 2020, CPI inflation exceeded the 6% upper limit of the RBI's target band, for three quarters in a row. In more recent times, the Russia-Ukraine war and persistent supply chain bottlenecks have once again pushed CPI inflation above the 6% level starting January 2022. Between January and August 2022, CPI headline inflation averaged at 6.8%. More worrisome has been the persistent increase in WPI inflation which has steadily gone up from 10.7% in April 2021 to 15% in April 2022, the highest level in three decades. Between January and August 2022 WPI inflation averaged 14.5%. This matters for the CPI target because persistent increases in wholesale prices get passed on to retail customers with a lag of a few quarters.[23]

CPI food inflation started rising from January 2021 and reached a peak of 8.4% in April 2022. The rise of food inflation since March could be due to the impact of Ukraine-Russia war which resulted in a 60% increase in the food price index. The trend is similar for cereals and vegetable oils (Table 13). In the case of vegetable oils, increase in prices is much higher than other commodities. It declined marginally in the subsequent three months i.e. April-June 2022. Food prices may continue to be higher for quite some time with a tendency to decline marginally. Erratic monsoons for example have led to a significant shrinking of acreage under paddy cultivation and also increase in prices of pulses.

Initially as inflation kept rising the RBI continued with an accommodative stance and refrained from increasing the policy repo rate in order to support the economic recovery process. This led to concerns that the RBI was behind the curve. Then the RBI increased interest rates by a steep 90 bps in a little more than a month, between May 4 and June 8, 2022. Since then the RBI has been actively pursuing a contractionary monetary policy, raising the policy repo rate and simultaneously withdrawing excess liquidity from the banking system through the SDF (Standing Deposit Facility) and reverse repo rate windows.[24]

By September 3rd week, 2022 liquidity was in deficit mode for the first time in three years signalling a structural shift away from the days of easy money. By September 30, 2022, policy repo rate had gone up to 5.9% from a low of 4% during the pandemic. It is expected

23 Data from CMIE.

24 However while it is withdrawing on the short end of the yield curve, on the longer end it has primarily been absorbing liquidity through forex reserves management as opposed to selling government bonds and shrinking its balance sheet. See https://www.bqprime.com/opinion/what-the-term-premium-is-or-is-not-telling-us.

to go up to 6.5-6.75% by end of FY23 assuming a CPI headline inflation of 6.7% (as projected by the RBI).

According to a recent SBI report, the 140 bps rate hike by the RBI so far has increased the interest cost of retail and MSMEs by a little more than Rs 42,000 crore. While the banks have increased their lending rates in response to this monetary tightening, they have been slower to pass it on to deposit rates. However with deposit growth trailing credit growth by a large margin (deposit growth of around 9-10% compared to credit growth of more than 16% in September 2022), banks will come under pressure to raise deposit rates.

CPI inflation is projected to be around 6.7% in FY23 (assuming crude oil price of $100 per barrel) implying that RBI's inflation target would not be met. Given that the RBI's target level of inflation is 4%, monetary policy needs to be contractionary for a few more quarters at least, in order to ensure that inflation expectations do not get unanchored. On one hand, the recent decline in oil and commodity prices, and an impending global slowdown might be good news for Indian inflation going forward. However, inflation pressures have not fully subsided yet. The depreciation of the rupee will have a second order impact on inflation. Erratic monsoons might push up food inflation.

The RBI in its September 30, 2022 monetary policy statement highlighted significant upside risks to inflation: *"...amplified by the continuing appreciation of the US dollar. The outlook for crude oil prices is highly uncertain and tethered to geopolitical developments, with attendant concerns relating to both supply and demand. The Reserve Bank's enterprise surveys point to some easing of input cost and output price pressures across manufacturing, services and infrastructure firms; however, the pass-through of input costs to prices remains incomplete"* (RBI, 2022g).

This also means that the lever of monetary policy is no longer available, at least in the short to medium term, to boost demand and hence growth. In some quarters, an argument is being made that monetary policy should not be tightened when inflation is driven by supply-side factors, as it can adversely impact growth. This argument however is fallacious. When there are supply constraints, using easy monetary policy to boost demand is not going to boost output. It will only create a situation of excess demand, pushing up prices even further. And if firms are expecting high inflation, this will send things into a vicious spiral, as they will increase their prices even more in advance of any input price pressures.

It is worth noting in this context that for the first time in several decades inflation in the US exceeds inflation in India. One of the main reasons inflation has been relatively moderate in India compared to the West is because unlike the developed economies, the government in India did not provide a large fiscal stimulus during the pandemic period. Hence most of the inflation has been driven by supply shocks while demand has remained subdued.

Furthermore, the inflation targeting regime that was adopted in 2015 ensured that this time around inflation did not spiral out of control unlike the period from 2009 to 2011 when CPI inflation had touched 15%. The RBI should focus on retaining this credibility and maintaining its accountability as an inflation targeting central bank so that the economy can continue to reap the benefits of low and stable inflation for a long period of time. This in turn will help create a conducive environment for private sector investment and hence overall economic growth.

For instance, given that the CPI inflation will exceed 6% for three quarters in a row in FY23 the RBI in accordance with the law must explain where it went wrong and what steps are being taken to remedy the situation. Also, the RBI must refrain from using monetary policy to defend the exchange rate i.e. raising interest rates not only to fight inflation but also to defend the rupee. Given that the US Fed may hike rates at least by another 125bps, defending the rupee might call for much more aggressive rate hikes on part of the RBI that what is warranted by the rise in inflation. And more importantly, this may hurt the future credibility of the inflation targeting framework which has succeeded so far in convincing the market participants about the RBI's commitment to control inflation (Garga et al, 2022)

5.2.4 Fiscal Policy

Amidst slowing investment and exports, in response to the pressure to boost growth and create jobs, the government has increased its capex spending by almost 1% of GDP in the last 3 years. Restoring macroeconomic stability amidst global uncertainty would require lowering fiscal deficit and debt to sustainable levels. In the post-pandemic period, fiscal policy has to follow the path of consolidation.

As outlined in Section 4, the fiscal deficit of the central government was 3.4% of GDP in FY19. It increased to 9.3% (including off-budget liabilities) in FY21 before declining to 6.7% in FY22. The combined deficit (centre+states) which was less than 6% in FY19 increased to 13.2% and 10.2% in FY21 and FY22 respectively. Fiscal deficit for the central government alone is budgeted to be around 6.4% of GDP in FY23. This highlights the importance of fiscal consolidation in the post-pandemic period in order to follow the FRBM (Fiscal Responsibility and Budget Management) targets.

There are multiple push and pull factors that would impact the government's finances in the near to medium term. On one hand the rise in commodity prices is putting an upward pressure on the subsidy bill such as for fertilizers etc. On the other hand, higher imported inflation due to rupee depreciation will boost tax revenue given that most taxes of the government are ad-valorem. Also the recent decline in crude-oil prices which may persist in the event of a global slowdown, will ease the fiscal pressure to some extent. The net impact on the government's fiscal position therefore remains unclear.

The government's gross borrowing came down to Rs 15.4 lakh crore in FY22 from Rs 18.3 lakh crore in FY21. Till September 2022 the gross borrowing amounted to Rs 6.3 lakh crore. The target borrowing for FY23 is Rs 14.2 lakh crore. A debt to GDP ratio of nearly 90% is clearly unsustainable.

Table 20: Fiscal Deficit and outstanding liabilities (% of GDP): Centre and States

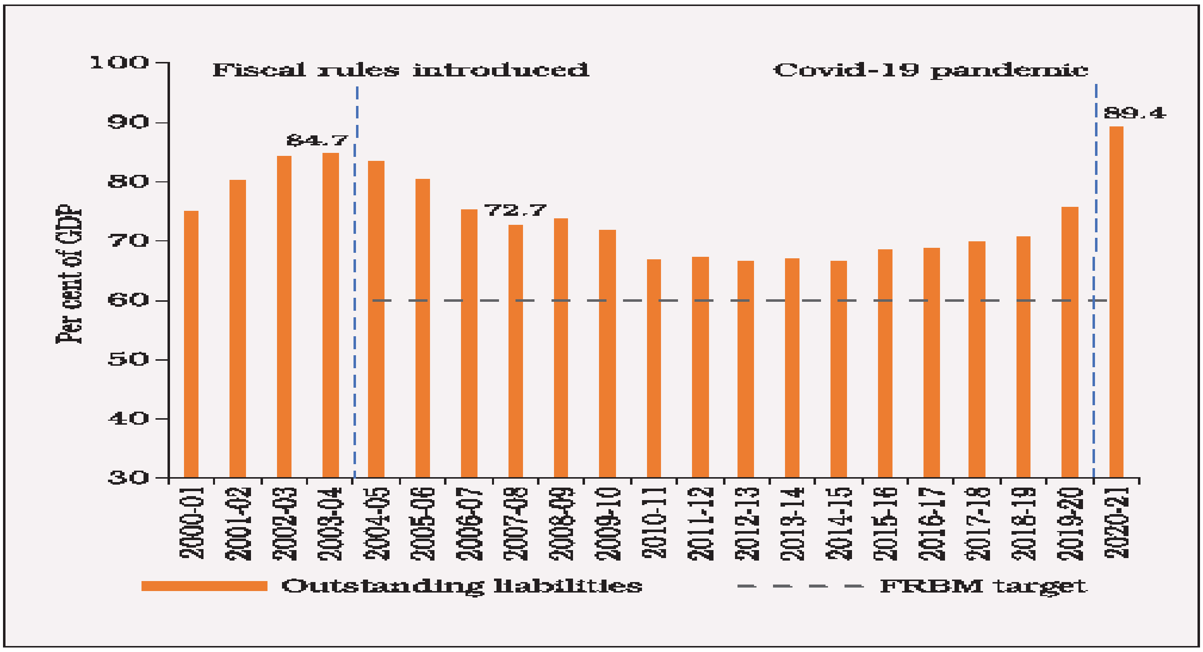
Year	Gross Fiscal Deficit		Outstanding Liabilities	
	Centre	States	Centre	States
2011-12	5.9	2.0	51.7	23.2
2012-13	4.9	2.0	51.0	22.6
2013-14	4.5	2.2	50.5	22.3
2014-15	4.1	2.6	50.1	22.0
2015-16	3.9	3.0	50.1	23.7
2016-17	3.5	3.5	48.4	25.1
2017-18	3.5	2.4	48.3	25.1
2018-19	3.4	2.4	48.5	25.3
2019-20	4.7	2.6	51.6	26.7
2020-21	9.2	4.2 (PA)	61.7	31.1 (PA)
2021-22	6.7 (RE)	3.5 (BE)	58.1 (RE)	29.4 (BE)
2022-23	6.4 (BE)	--	59.5 (BE)	--

PA: Provisional Accounts; RE : Revised Estimates; BE (Budget estimates)
Source: RBI (2022a), Annual Report 2021-22

As Figure 21 shows the general government outstanding liabilities were less than 70% during the period from FY11 to FY18. But it accelerated to 89.4% in FY21. This is significantly higher than FRBM target of 60% and it is a risk for medium-term macroeconomic stability.

The government has rightly been focusing on capital expenditure in the last two budgets. In August 2020 they also outlined an infrastructure project pipeline to be implemented over the next five years, which will serve as one of the key drivers of faster economic growth. Using the data on annual nominal growth in tax revenue, government expenditure and GDP for the period 1981-82 to 2019-20, RBI (2022a) estimates general government (centre+states) fiscal multipliers for total expenditure and its components (Table 21). The multiplier is more than one only for capital expenditure. It indicates that only capital expenditure leads to proportionately higher rise in GDP.

Figure 21: General Government Outstanding Liabilities



Source: RBI (2022a)

Table 21: Overall Fiscal Multipliers

	Impact Multiplier
Total Expenditure	0.72
Revenue Expenditure	0.79
Revenue Expenditure net of Interest	
Payments and Subsidies	0.84
Capital Expenditure	1.32

Source: RBI (2022a)

At the same time there should be some balance between revenue and capital expenditure. Most of the expenditures on health and education are in revenue account. These expenditures on human capital should not be compromised. Fiscal consolidation must focus on raising tax revenue and as well as expenditure control. Tax/GDP ratio has to be improved by measures like widening the tax base, removing exemptions and unproductive subsidies, further reforms in GST etc.

5.2.4a Implications for monetary policy and bond market

High levels of fiscal deficit and debt pose challenges for the pursuit of monetary policy as well. Its puts pressure on the RBI to manage long-term GSec yields which can be in conflict with its inflation targeting mandate.

For example during the pandemic period, the RBI bought a large amount of long-term GSecs in order to keep their yields. 10 year Gsec yields more or less remained stable at 6% owing to extensive intervention by the RBI in the bond market and massive injection of liquidity to support government borrowing, as mentioned in Section 3.9. As the RBI began withdrawing surplus liquidity and tightening monetary conditions, Gsec yields have been hardening. 10 year yields have gone up from an average of 6% in 2020 to 7.2-7.4% in 2022 so far. In general the past two years have witnessed large swings in the bond yields from less than 5% to more than 7% owing to huge supply of government debt, volatile inflation and changing stance of monetary policy.

In FY21 the liquidity injection did not result in significant inflationary pressures because demand in the economy had collapsed during the pandemic and bank credit growth had declined sharply. However, now as inflation has picked up and so has bank credit growth, there is no further room for the RBI to lower bond yields. Moreover yields management also leads to distortion of the yield curve.

The RBI’s balance sheet expanded from Rs 45 lakh crore in 2019 to a staggering Rs 65 lakh crore by October 2021 and now it is down to around Rs 59-60 lakh crore. This implies that even though the RBI has been withdrawing liquidity on the shorter-end of the yield curve, consistent with its contractionary monetary policy stance, it is still holding on to a large amount of longer-dated GSecs (around Rs 15 lakh crore which is tad below 20% of all outstanding central government securities). As a result, while yields on 5 and 10 year bonds have surged and the 1 year GSec yield has gone up to around 6.5-6.7%, longer term yields on 30 and 40 year bonds have increased by less causing a flattening of the yield curve.

Since the central bank is keeping rates controlled on one end of the yield curve instead of selling the long-dated GSecs, it has become difficult to interpret what the yield curve is conveying. Typically in a tightening cycle the yield curve steepens whereas in India now the yield curve has become remarkably flat. This has brought into question the information content of the yield curve which is concerning because this can distort pricing of all bonds. All interest rate sensitive securities are directly or indirectly priced with reference to the yield curve. Any distortion of the yield curve therefore will translate into an economy wide pricing distortion.

In other words, a high debt burden of the government and hence rising interest expenses, puts pressure on the RBI to manage yields in order to lower the government’s cost of borrowing and this in turn disrupts the manner in which pricing of securities can happen in the bond market.

5.2.4b State Finances

Consolidation in state finances is equally important as they spend more than the centre. The recent Sri Lanka fiscal crisis also offers lessons for the centre and states in India[25]. RBI (2022f) examines the fiscal risks confronting state governments in India with emphasis on heavily indebted states. RBI analysis shows the following fiscal risks across states.

(a) Several states show fiscal vulnerability. In FY21, the debt-GSDP (state GDP) ratio shows that Punjab, Rajasthan, Kerala, West Bengal, Bihar, Andhra Pradesh, Jharkhand, Madhya Pradesh, Uttar Pradesh and Haryana as the states with the highest debt burden (Table 22). These 10 states account for around half of the total expenditure by all state governments . The fiscal deficit to GSDP ratios of these states were equal to or more than 3%.

(b) In 8 of the above states, the interest payment to revenue receipts (IP-RR) ratio, a measure of debt servicing burden on states' revenues, was more than 10%.

(c) Taking into account all the indicators, 5 states (Bihar, Kerala, Punjab, Rajasthan, and West Bengal) are identified as highly stressed states.

(d) Among the 10 states, Andhra Pradesh, Bihar, Rajasthan and Punjab exceeded both debt and fiscal deficit targets for FY21 set by the 15th Finance Commission (Figure 22a). Kerala, Jharkhand and West Bengal exceeded the debt target, while fiscal deficit of Madhya Pradesh higher than the target. Rajasthan, Kerala and West Bengal are projected to exceed the 15th Finance Commission targets for debt and fiscal deficit in FY23 (BE) (Figure 22b).

25 Also see Subbarao, D. (2022), "Learn these Lanka Lessons", Times of India, July 16, 2022.

Table 22: Key Fiscal Indicators of States

(Per cent of GSDP)

State	Debt 2020-21	Debt 2021-22 RE	Debt 2022-23 BE	Relative Size of States (in per cent)	2021-22 RE: Interest Payment to Revenue Receipts (Per cent)	2021-22 RE: Gross Fiscal Deficit	2021-22 RE: Revenue Deficit	2021-22 RE: Primary Deficit
Andhra Pradesh	35.5	32.5	32.8		14.3	3.2	1.6	1.4
Bihar	36.7	38.6	38.7		8.6	11.3	5.5	9.2
Chhattisgarh	26.3	26.2			8.0	3.8	0.3	2.1
Gujarat	21.0	19.0			14.2	1.5	0.0	0.2
Haryana	28.0	29.4			20.9	3.0	1.4	0.8
Jharkhand	34.4	33.0	27.0		8.4	3.0	-0.1	1.3
Karnataka	22.4	26.6	27.5		14.3	2.8	0.4	1.3
Kerala	37.1	37.0	37.2		18.8	4.2	2.6	1.7
Madhya Pradesh	31.0	31.3	33.3		11.7	4.2	0.6	2.2
Maharashtra	19.6	17.9	18.1		11.4	2.8	1.0	1.5
Odisha	20.0	18.8	18.6		4.3	3.5	-3.3	-0.6
Punjab	49.1	53.3			21.3	4.6	1.6	0.7
Rajasthan	40.5	39.5	39.8		14.9	5.2	3.0	3.3
Tamil Nadu	26.9	27.4	27.7		21.0	3.8	2.5	1.9
Telangana	25.2	24.7	25.3		11.3	3.9	-0.4	2.4
Uttar Pradesh	29.1	34.9	32.5		11.2	4.3	-1.3	1.8
West Bengal	37.1	34.4	34.2		20.8	3.5	2.2	1.1

← Higher Lower →

Note: 1. Data for Punjab is based on the Report titled 'State Finances: A Study of Budgets 2021-22' as its budget for 2022-23 has not been presented yet. Though, Odisha's budget for 2022-23 is Vote-on-Account, it has released its FRBM documents for 2022-23. As indicated by the state government, debt stock of 16.98 per cent of GSDP may increase by 3 per cent of GSDP if public account liabilities are incorporated..

2. For other states, data for debt, GFD, RD and PD are reported by the respective state governments in their budget documents and may not match with data to be compiled by the Reserve Bank as the methodology for compilation of these indicators differ.

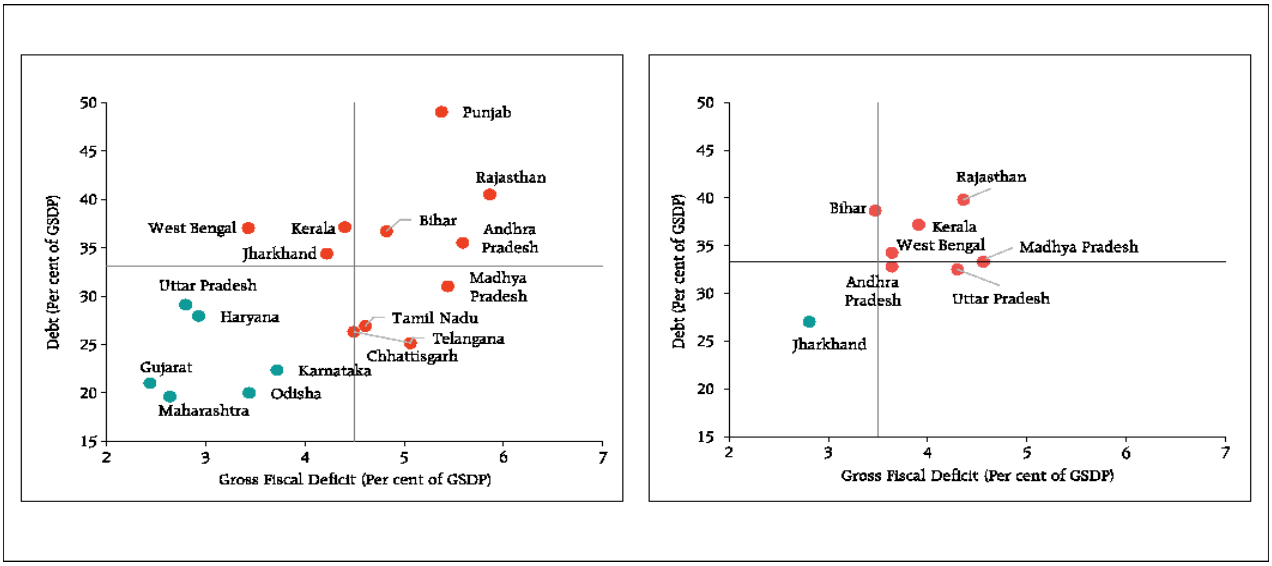
3 Fiscal vulnerability describes a situation where a government is exposed to the possibility of failure to meet its aggregate fiscal policy objectives and longer-term fiscal sustainability (IMF, 2000).

4 The data for 2020-21 are based on accounts data, except for Punjab. North-eastern and hilly areas as well as union territories (UTs) are excluded from the analysis in view of their special characteristics. Goa is also excluded due to its low share in total expenditure.

5 The IP-RR ratio of Bihar and Jharkhand is less than 10 per cent.

Source: RBI Bulletin, June 2022

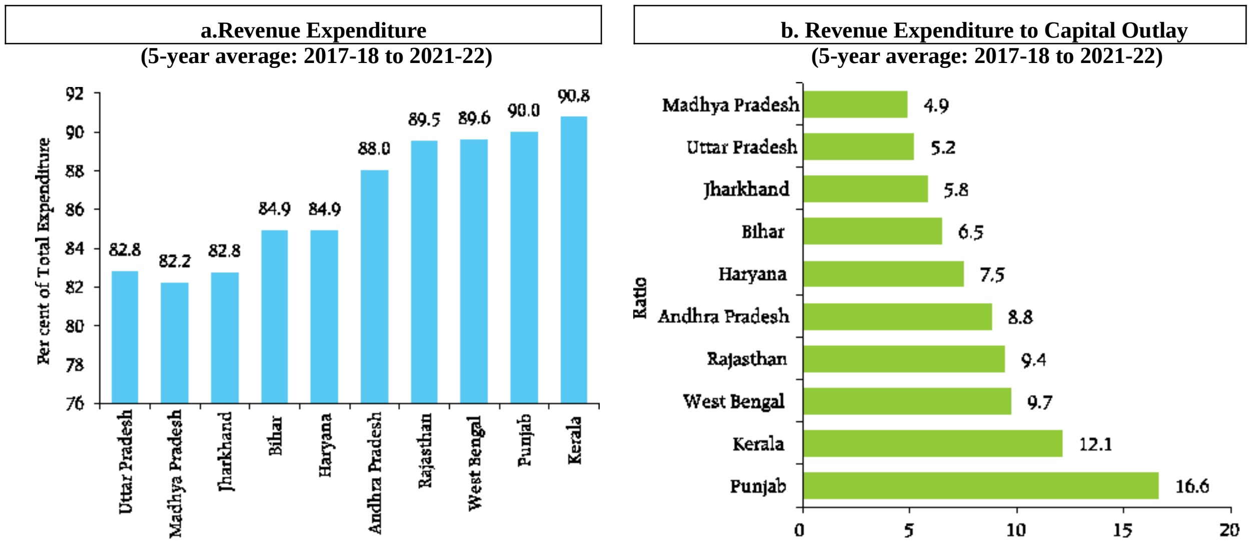
Figure 22. States' key indicators vis-à-vis 15th Finance Commission's Indicative Target.



Source: RBI (2022f)

The share of revenue expenditure in total expenditure of these states varies from 82.2% in Madhya Pradesh to 90.8% in Kerala. Some states like Rajasthan, West Bengal, Punjab also spend around 90% in revenue accounts (Figure 23a). These states have high revenue expenditure to capital outlay (Figure 23b).

Figure 23: Revenue Spending and Quality of Expenditure



Source: RBI (2022f)

It may be noted that in the medium to long term, states with high revenue spending and low capital investment may experience slower revenue growth and higher interest outgo. Therefore, there is a need to increase capital expenditure and reduce revenue expenditure in some of these states.

The debt sustainability indicators of the 5 states (Bihar, Kerala, Punjab, Rajasthan, and West Bengal) reveals that the Domar stability condition (the real rate of interest on debt should be lower than the real GDP growth rate: r-g <0) was fulfilled in these states during the last five years except during the pandemic period in FY21 (Table 23). However, the rate of growth of public debt was higher than GSDP growth most of the time in the last 5 years. This has resulted in higher debt-GSDP ratio in these states (Table 23).

Table 23: Debt Sustainability Indicators

States	2018-19	2019-20	2020-21	2021-22	2022-23
1	2	3	4	5	6
r-g (percentage point)					
Bihar	-6.2	-6.0	2.3	-3.4	-3.5
Kerala	-4.6	3.3	10.8	-5.4	-3.0
Punjab	-0.5	2.9	7.9	-2.4	--
Rajasthan	-1.8	-2.0	5.7	-11.2	-5.5
West Bengal	-5.3	-1.8	-0.1	-10.5	-4.1
Difference in nominal GSDP and debt growth (percentage point)					
Bihar	5.0	-2.0	-11.4	-5.5	-0.3
Kerala	-0.2	-5.2	-17.1	0.5	-0.5

Punjab	0.2	-2.9	-12.9	1.4	--
Rajasthan	-1.2	-3.7	-14.2	2.9	-0.7
West Bengal	4.0	-0.6	-4.9	8.4	0.6

Source: RBI Staff estimates, RBI (2022f)

5.2.4c Freebies

Recently, there has been a lot of discussion on freebies given by the states.[26] To derive an estimate of freebies, RBI (2022f) collated data on major financial assistance/ cash transfers, utility subsidies, loan or fee waivers and interest free loans announced by the states in their latest budget speeches (i.e., for FY23). These estimates show that the expenditure on freebies range from 0.1 – 2.7% of the GSDP for different states (Table 24). The freebies as per cent of GSDP were more than 2 per cent for some of the highly indebted states such as Punjab and Andhra Pradesh (Table 24).

Table 24: Freebies Announced by the States in 2022-23

	(As a per cent of GSDP)	(As a per cent of Revenue Receipts)	(As a per cent of Own Tax Revenue)
Andhra Pradesh	2.1	14.1	30.3
Bihar	0.1	0.6	2.7
Haryana	0.1	0.6	0.9
Jharkhand	1.7	8.0	26.7
Kerala	0	0	0.1
Madhya Pradesh	1.6	10.8	28.8
Punjab*	2.7	17.8	45.4
Rajasthan	0.6	3.9	8.6

26 Singh, N.K. (2022), “Freebies are a passport to fiscal disasters”, Indian Express, April 22, 2022 https://indianexpress.com/article/opinion/columns/freebies-are-a-passport-to-fiscal-disaster-7879244/; Subbarao, D (2022), “States, Freebies and the costs of fiscal profligacy”, The Hindu, June 27, 2022, https://www.thehindu.com/opinion/lead/states-freebies-and-the-costs-of-fiscal-profligacy/article65573164.ece; Rangarajan, C. (2022), “Good and Bad Freebies”, Indian Express, June 16, 2022.

West Bengal	1.1	9.5	23.8

*: Dhasmana, I. (2022). “Not all states are so financially weak that they can’t announce freebies”. Business Standard. April 2022.
Source: RBI (2022d) based on budget documents of the state governments.

The budgets may not give the entire picture of freebies as some of them happen off budget, beyond the pale of FRBM tracking (Subbarao, 2022). The amount of freebies could be even higher if we take into account these extra-budgetary subsidies. Some kind of social protection measures for the poor and vulnerable groups, and informal workers are needed in any country. However, it should not be financed by increasing debt. Rangarajan (2022), suggests that overall fiscal support to such schemes should be limited to less than 10% of the total expenditure of the central government and state governments until their revenue to GDP or GSDP ratios are increased in a sustainable manner.

6. Conclusion

The biggest challenge facing the Indian economy after two years of an unprecedented shock in the form of a pandemic, is achieving a high, sustainable GDP growth rate, creating sufficient number of jobs in order to absorb the millions of unemployed, and attain a low, stable rate of inflation amidst a highly volatile and uncertain global economic environment that is dealing with the repercussions of multiple adverse shocks. While there has been some recovery from the pandemic, there still remain concerns for medium to long term growth.

During the Covid-19 pandemic the global economic environment was relatively benign and this helped emerging economies like India adopt their own policies to deal with this shock. For instance the RBI was able to lower rates, and inject vast amounts of liquidity to spur demand and support growth. However, in recent months the global environment has become increasingly uncertain and volatile, making it difficult to choose an optimal policy mix that will deliver the desirable outcomes.

India is now faced with the twin challenge of having to deal with both external and internal imbalances. On one hand, the current account deficit has been growing and financing it is proving increasingly difficult owing to the sizeable outflows of foreign investment, thereby causing pressure on the rupee to depreciate. On the other hand, inflation continues to be a concern as do high levels of fiscal deficit and debt. While proactive monetary policy tightening that the RBI has embarked upon, might help rein in inflation medium term, this is detrimental for the nascent economic recovery that is underway. Aggressive fiscal consolidation can also hamper the growth process.

In other words, in the aftermath of the pandemic, policymaking has become fraught with new challenges. Moreover, climate change is now a serious challenge for India’s long-term growth prospects. Reducing carbon emissions and accelerating energy transition away from traditional fossil fuels will act like a shock in the short term.

At the same time, India is witnessing a historic opportunity of boosting exports given China’s withdrawal from the global trade landscape. Leveraging this opportunity requires a liberal, consistent and stable trade policy that is aimed at export promotion. While exports have been slowing down due to global recessionary trends, more worrisome might be the growing protectionist nature of recent government policies which would further hurt India’s export potential and hence growth prospects.

For growth to pick up in a sustained manner, and for jobs to be created, investment and exports need to grow at a much faster pace. Productivity enhancing reforms, and creation of a level playing field are critical for reviving the lacklustre private sector investment which can play the crucial role of creating jobs. In order to boost growth, the government also needs to reduce market interventions, eliminate prohibitions, dismantle trade barriers, and ensure policy certainty, so that firms are incentivized to export and invest.

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Appendix

Appendix Table A1 : Major Policy Reforms in the Agriculture and Allied Sectors

Policy	**Objective**	**Expected Outcome**
Agriculture Infrastrucutre Fund	For financing infrastructure at the farm gate as well as at other aggregation points of agricultural produce.	Better management and realization of remunerative prices for agricultural produce. Reduction of post-harvest loss and middlemen network.
Scheme for Formalisation of Micro Food Enterprises (MFEs)	Improving quality standards and production practices of MFEs	Increased marketing opportunities for the MFE units leading to higher growth
Pradhan Mantri Fasal Bima Yojana (PMFBY)	To provide protection to farmers through crop insurance	Smoothen farmers' income over the years. Indirectly helps the financial institutions by ensuring the loan repayment capacity of farmers
The Digital India Land Records Modernisation Programme	To build an all-encompassing and transparent land record management system	Help farmers and small businessmen access finance from formal financial institutions using proper land titles. Multiplier effect on growth.
Kisan Rail Services (KRS)	To reduce time taken to transport the perishable agricultural produce from the production centres to consumption centres and to keep them fresh for a longer time through cold storage transport.	Increases the marketing opportunities available to farmers though quality and less expensive transportation of agricultural produce.
Animal Husbandry Infrastructure Development Fund (AHIDF)	Incentivize the investment in dairy production and processing industries, and meat production and processing industries in rural areas of the country.	Will provide integrated market for the unorganised producers of meat and milk and ensure quality products for the consumers. Stabilize the prices of these products through the integrated production, processing and marketing.

Blue revolution	To increase fish production, productivity and creation of adequate infrastructure.	Better employment and income prospects in the fisheries sector.
Fisheries and Aquaculture Infrastructure Development Fund (FIDF)	Development of infrastructure in the fisheries sector	Better employment and income prospects in the fisheries sector.
Pradhan Mantri Fasal Bima Yojana (PMFBY)	To Enhance the fisheries sector production	Higher production and productivity in the fisheries sector.

Policy	**Objective**	**Expected Outcome**
Agriculture Export Policy (AEP)	Promotion of export-oriented production with focus on exportable crops	Farmers get benefit of export opportunities in overseas markets
Mission for Integrated Development of Horticulture (MIDH)	Capacity Building of farmers and technicians	Holistic growth of the horticulture sector
Horticulture Cluster Development Programme (HCDP)	Address the concerns of the horticulture value chain. Reduce harvest and post-harvest losses. Introduction of innovative technologies and practices. Build the capacity of stakeholders.	Geographical specialisation of horticulture clusters making them globally competitive.

Source : RBI, 2022a