



Recent trends in Management and Commerce

Vol: 1(1), 2020

REST Publisher

ISBN: 978-81-936097-6-7

Website: <http://restpublisher.com/book-series/rmc/>



A Study on Impact of Covid-19 Pandemic on the Indian Economy

N. Deepa, M. Ramachandran

Department of Economics, TSWRDCW, Warangal East, India

REST Labs, Pothapuram, Kaveripattinam, Krishnagiri-635112, India.

drdeeparammohan@gmail.com, ramachandran.manickam@restlabs.in

Introduction

The covid-19, pandemic impacted the world in severe manner, whether we talk about health, economies or nation growth. During covid-19 crisis many countries implemented long lockdown which affect their economies, supply chain, turnover and what not, in every segment. Transportation, communication etc. all get adversely affected. And various other concerns were raised during this covid-19 time. INDIA could also see the severe issues if will not get prepared for this, many policies have to be framed, many works have to be done, by government if they want to minimize the impact on economies, health and such issues. Covid-19 have posed serious issues in front to India, it is very difficult to face the covid-19 outbreak as being very populated country. Having concern over this issue central and state took major steps but unfortunately it turns out to be disruptive.

1. Introduction

The manufacturing sector is a vital contributor to the GDP of nations and thus to their development as well. This sector thus has a huge contribution to the global economy. Currently, high value and high margin products are the focus of most industries globally. With a GDP contribution of 2.31% to the world economy in 2019 and GDP adjusted for PPP of 8.27% of the world economy in 2020, India is one of the fastest growing economies and the fifth largest economy in the world. However, a major economic slowdown with rising unemployment, declining demands and consumption expenditure especially in rural areas, etc. was reported by several economists and electronic media. To add to the burden of this slowdown, India has been in lockdown for 21 days till 14th April 2020 in the wake of the COVID-19 pandemic. The top 10 states of India which contribute 70% to India's GDP have been severely affected by this pandemic, leading to decline in growth performances. Health concerns have heightened in the wake of this pandemic but India's quality in health facilities ranks much lower compared the world average. India's contribution to the health sector in yearly budgets is very less which is especially highlighted during this pandemic. India's spending on the health sector does not reach the target of 2.25% and it is only 67,484 crore rupees i.e. just 1% of the GDP, according to the Union Budget of 2020-2021. This shows the doctor to patient ratio is just 1:1,457 and the nurse to patient ratio is 1:675 which is clearly fails to meet the WHO norms of 1:1,000 and 3:1,000 respectively. Per capita health expenditure is a mere 75\$ in which private spending accounts for 70% and public spending accounts for 30%. The above discussion highlights the deteriorating condition of India's health sector which has posed several challenges this year due to the COVID-19 pandemic. The major contributor to the growth of an economy is the active participation of a healthy working population, which highlights the correlation between the health crisis and the economic crisis. This paper presents some impacts that will be seen the Indian economy due to COVID-19 pandemic.

The lack of labor supply due to the COVID-19 has led to the shut-down of many manufacturing units throughout the country. After the first case in India reported in January 2020, the government of India declared a lockdown to contain the spread of the virus. This deranged the supply chain across the country. India is focusing on establishing a India as the main manufacturing sector for local and global markets, instead of China. China has lost most of its trading partners due to disruption in supply chain. In India, local supply chains are also being disturbed due to issues discussed in this paper. The impact of COVID-19 on the Indian economy and on supply chains in India is studied in this paper. A total of 18 critical barriers have affected the supply chain in India, according to this paper. One intention of this paper is to help researchers develop conceptual models to overcome these problems. The World Bank reported in January 2020 that owing to sharp downturn in the major economies and financial disruptions, the growth in all emerging economies is severely hampered. Economies need to take action by rebuilding macro-economic policy space, pursuing decisive reform to bolster governance and business climates, improving tax policy, promoting trade integration, and rekindling productivity growth while protecting vulnerable groups. However, the COVID-19 pandemic has been a major hurdle, restricting movements of economic agents within and outside a country. This health crisis has contributed to the global economic crisis due to restricted labor mobility, restricted transportation facilities, volatility in stock markets, fall in oil prices, etc. Certain parts of society which are more vulnerable to this crisis are facing major loss of income leading to poverty, malnutrition in children and lack of access to healthcare beyond COVID-19. Even with a slowdown in China, the virus has hit the entire world. 60% of world supply and demand (GDP), 65% of world manufacturing, and 41% of world manufacturing exports is contributed by leading economies like The United States, China, Japan, Germany, Britain, France and Italy. However, these economies are in the top-10 severely

affected list by the COVID-19 pandemic; expect Japan (WTO, 28 March 2020). Annual global GDP growth can witness a drop from 2.9% to 2.4% in 2020, with a possible negative growth in the first quarter of 2020 (OECD, 2020). Along with India, the pandemic has hit almost 200 countries. With increasing cases, the concerns regarding India's economic condition are also rising. Policymakers and government bodies are responsible to design a recovery plan and work towards the prevention of the worsening economic crisis. The main objectives of this study are, firstly, study the impact of the COVID-19 pandemic on a developing country like India using the theoretical linkages and secondly, study the economic consequences of the COVID-19 pandemic on Indian economy with a present assessment of economic outcomes. This pandemic has brought us 2 major shocks; a health shock and an economic shock. The virus being highly contagious; practices such as maintaining social distancing, restrictions on most public activities and mobility, practicing self-isolation and in worst-case scenario, imposing nation-wide lockdown have become essential.

These necessary actions to contain the virus are in turn stopping the regular functioning of economies. There is a fear of a prolonged global recession. After the first case in India reported in January 2020, the government of India declared a lockdown on the 25th of March for 2 months to contain the spread of the virus. An immediate halt was brought about to all non-essential services and businesses, including retail establishments, educational institutions, places of worship, all means of travel aside from some inter-state transport permitted towards end April and early May to let migrant workers, stranded pilgrims, tourists and students return to their native places. This has been the world's biggest lock-down, considering the intense restrictions and measures taken. From early June, the lockdown was relaxed in a phased manner except high-risk zones or 'containment' areas. The nationwide lock-down was extended till July 31 owing to the continued surge in cases, but less strict than the previous one. Preparing the health system and developing an action-plan once the cases start accelerating was the main intention of the lockdown. With a government spending of only 1.5% on health sector, the government is highly underprepared for a crisis like this. During the lockdown, focus was on testing, contact-tracing, isolating confirmed patients in designated quarantine centres and setting up treatment facilities including makeshift hospitals. But the cases saw a continuous rise certain worse-hit states which challenged the healthcare system. Due to loss of jobs and wages, around 50 million migrant workers were forced either return to their native places or to live in the camps within the state. Reports show that some workers have returned back, while some haven't. This has negatively impacted the labour supply in cities. Restrictions on transportation of raw materials and finished goods across states and countries negatively impacted supply mechanism and distribution chains. Consumption demand saw a huge fall as most people reduced their expenditures, especially the non-essential ones. The duration and severity of the pandemic, the number of intermittent lockdowns will decide the overall magnitude of the impact of the pandemic. However, the fact remains that the losses have already been huge. India was facing an economic crisis before this pandemic. Because the financial sector has not been functioning properly and the macroeconomic policy scope to respond to such a crisis is severely limited, the precarious situation that the economy was in before getting hit by the pandemic will potentially worsen the effect of the shock. Along with the demand slowdown, now even the supply side has been disrupted. The impact is getting transmitted to output growth through 4 channels that are external supply and demand constraints due to global recession, disruption of global supply chains, domestic supply disruptions, and decline in domestic demand. Both formal and informal sectors are highly impacted. Even if the lock-down is fully lifted by August or September, 2020, it may take much longer for the economy to recover from this shock. The policy responses of the government and the Reserve Bank of India (RBI) will have a major role to play in the recovery process. The policymakers have already announced an initial round of actions but more action is needed. COVID-19 brings health sector crisis but also major economic crisis. Restriction on trade, travel and labour mobility will largely create demand and supply shocks. The lockdown has a major economic impact on the lower sections of the society which mostly are daily wage earners and engaged in the informal economy, which constitute 81% of the total labour force. No minimum wage or any kind of social security is given to 90% of the workforce in informal sector. After introducing the Unorganised Workers Social Security Act (2008), social security has reached only 5-6%. According to Periodic Labour Force Survey of 2017-18 showed that 71.1% population had no job contract, 54.2% population are not eligible for paid leave and 49.6% population has no social security. Only time will reveal the exact span and intensity of the crisis and show the real picture. The study by economists like Evans and Over (2020) provides some potential economic channel of COVID-19 for low and middle-income countries including India. Macro-economic uncertainty impacts the confidence of the consumer/investor. The health, education and infrastructure sectors will see the long-run effect of COVID-19. Deteriorating health will result in loss in income and lifespan. Similarly, education and infrastructure development will be impacted by the government mandates and institution decision which have long-run consequences. After the discussions on theoretical linkages, economic situations in India at national and sub national level with the use of recent data series are explained below. The macro-economic consequences of the pandemic on India's national and sub-national level are highly uncertain. The adoption of demonization in 2016 led to severe economic distress that India is still fighting. COVID-19 is another huge hit. The growth projection for India has been reduced by 1.2% in FY-2020 as per Moody (2020). The states like Maharashtra, Kerala, Delhi and Uttar Pradesh are the most impacted by this. In this part, an existing condition of Indian economy and early estimate of economic impacts will be studied. The data for 2017 clearly show that 70% of the total state GDP comes from these states but most of these states are badly hit by the pandemic (31 March 2020). State's growth performance is affected by the lockdown. Industry, Manufacturing, construction and real estate sector were highly impacted. Interstate and intersectoral linkages will lead to long-lasting contagion effect. Restriction on transportation and labour mobility mostly halter the economic activity initially and demand in the economy in the later period. In the short run, the economic crisis is showing a supply shock to the economy but a demand shock will be created in long-run.

2. Impact of COVID-19 on Indian Economy

The global economy has faced the worst recession after the great depression of 1930. Now the pandemic of COVID-19 has halted and affected the economic functioning across the globe. The concept of trade business cycle after the great depression was introduced by Classical economist Keynes. The growth rate and real GDP are measured by the four stage of trade cycle. According to the International Monetary Fund (IMF), the GDP growth is projected to be 1.9%. After the liberalisation policy of 1991, this shows the worst growth performance of India due to the pandemic. In its latest edition of the World Economy Report, the IMF has placed India being the fastest growing economy in 2020. Surpassing the bad performance of the financial crises in 2008-09, the global economy is projected to decline by -3% in 2020. The real or predictive sectors of the Indian economy will see worse impacts than that witnessed in 2008 crises. Challenges in terms of financial crises, health crises, collapse in commodity prices and much more are in front of the country. Because of the demand-side shocks that arise due to uncertainties as well as lock down in the market, banking system has increased the surplus liquidity. Financial shock that includes stock market crash, liquidity crises began to drain out from global market in banking system and various changes in monetary policies. Due to huge collapse of earnings, dollar denominated debts; the US dollar credit crunch has started to affect the world economy. This has resulted in companies that depend upon international trade to suffer severe pressure. The global economic production is on decline and expecting a huge recession in the entire economy. This country had previously questioned the dream of the Indian economy of USD \$5 Trillion with 7% of GDP by the year 2024. India is expected to grow 1.5 percent to 2.8 percent as well as according to IMF, it has projected a GDP growth of 1.9 percent in 2020 and to achieve the object of USD \$5 Trillion economy it is expected to grow at 9 percent every year for five years, as per the World Bank latest assessment. The entire chain of production and demand cycle that includes the various facilities and services provided by the Indian government and private sectors such as Tourism, Hospitality and Aviation are the major sectors that are facing maximum loss in the present crises due to the huge uncertainty and fall in market. With employees around 42.7 million of people, the tourism that account for 9% of GDP may decline at least next 2-3 quarters while Aviation that contributes around 2.4% of GDP has severely impacted. Due to less of demand, sectors such as auto, that contributes 10% of GDP and employee around 40 million of people, is declining continuously resulting in the marginal firms and other industries to shut down. The retail sector and the consumption pattern of consumer in terms of essentials and luxury goods is affected due to closing of cinema halls, declining in shopping from complex malls. Postponing the purchase decisions of most luxury goods is resulted by the constant fear of the pandemic in the public has affected people's mental well-being and confidence. The service of travel and transport has also had a direct impact on slowdown in economic activities, accounting for a loss of \$4.5 billion per day of the lockdown. The hotel services are catching huge cancellation from business travellers from various conferences, workshops seminar that got cancelled on such a large scale. In the supply side, some targeted industries go for the shutdown that is the marginal firms. Due to the delay in supply of goods from China, India being the highest exporter of raw material and import source of goods that are required for their intermediate and final goods are on pause. A shortage of required component by various sectors such as pharmaceuticals, automobiles, electronics and chemical products etc. is faced. China accounts for 27% of India's automotive part imports and India imports about 85% of active pharmaceuticals ingredients (API) from China. But due to the factor there is a possibility of shortage in availability and thus prices may increase. The business is hampering with the production cycle that will further affect the investments due to the lockdown and global pandemic. About 55% of electronics are imported from China decreased to a great extent. The world will suffer from recession owing to the fact that global economy is declining in terms of output and production. The Indian currency will average 77 per US dollar in 2020 and 80 in 2021 and steep monetary easing is predicted by The American Credit Rating Agency Fitch. In the short run steep monetary easing will pressure the rupee weaker but over the long term it is expected of overvaluation of Indian rupee. The foreign investors have pulled out \$14 billion dollar in March 2020. Consumption levels are impacted by the huge crashes and wealth erosion faced by the economy. Due to fall in oil prices, Sensex and Nifty closed sharply backed by weak global cues. On 21 April 2020, BSE Sensex closed 1,011 points lower at 30,636 and NSE Nifty ended 280 points lower at 8,981. When following the trend of the global equity markets, both the BSE Sensex and NSE Nifty crashed by more than 8% in a single day as was seen by the domestic equity markets. This single day fall off resulted in an estimated Rs 10 lakh crore of market cap. The pandemic has already dropped out equity wealth to 40 percent of the expected size of India's gross domestic product (GDP). With its fall from Rs.155.53 lakh crore on December 31, 2019 to Rs. 103.69 lakh crore in March 24,2020, the aggregate market capitalism of all BSE listed shares are of 52 lakh crores. The lowest repo rate fallen till now was seen when the Reserve Bank of India (RBI) reduced the repo rate by 75 basis points (bps) and bring it down to 4.4 percent. The rate cut will result in growth and financial stability. The transportation sector is important sector that was affected instantly by lockdown. Disruption in the transport system quickly affecting the demand in the service sector that is crucial for micro, small and medium enterprises (MSME) which are more fragile to market demands. India is earning huge revenue from the transportation sector considering three modes of transportation-aviation, railway and road. The demand and supply in the economy was affected by this shut down of both public and private mode of transportation

As national and many private air carriers are facing huge losses for a long time, the aviation sector in India is already in a financial distress situation. India has earned 29,834.9 and 27,648.5 million rupees in the year 2017–2018 and 2018–2019 respectively from international airlines and flight passing through Indian air zone and in January 2020, airways carry 12.78 million domestic passengers. Close down of aviation sector nationally and internationally will reduce the revenue sources for the entire world and India as well. Owing to its wide connectivity and affordability, the Indian railway is another important mode of domestic transportation. In January 2020 India railways earned approximately 47,926.2 million rupees and these earning are very much sustainable according to recent data. The railways have suffered an enormous amount due to the lockdown. One of the largest in the world, India's road network covers 5.8 million kilometres which shares 64.5% of goods and 90% of the passenger commute. The roads are considered as a lifeline of India's transportation. The toll fee and annual data on toll fee from national highway is one mode of revenue generation from the road; this reveals that India has earned 91,876.7 million rupees in 2018–2019. Many other sources of revenue generation are available, such as vehicle tax, fines,

etc. The impact of the revenue collection from road transport is rather huge. The manufacturing firms and their supply chain over the world are affected by COVID-19. The supply chains and manufacturing operations daily are being impacted. Due to COVID-19, many industries are forced to shut down their assembly lines temporarily in the U.S and Europe along with a developing economy like India. China is responsible for many global industries. Due to the pandemic, the manufacturing units in China have already shut down and will be shut down for next few months. COVID-19 has affected the supply lead time because it takes around 30 days for shipping from China to U.S or Europe. It means if China has shut down their manufacturing units in January then shipments will arrive in February and there will be spike in the temporary closure of manufacturing units in the mid-March. For example, for temporary shut down their production has been announced by Fiat Chrysler automobiles in Serbia as the parts imported from China. In the same fashion, due to the disruptions in the supply chain because of COVID-19, Hyundai has also announced to suspend their assembly lines in the Korea. The effect of COVID-19 has already visible to world as there is decrease in 40% of departures from the ports of China due to COVID-19 outbreak which is showing that there is a major effect on the manufacturing worldwide.

3. MSMEs

A huge part of the manufacturing sector in India is covered by the micro, small and medium enterprises (MSMEs) because they play an important role in providing large scale employment. 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, according to recent annual reports on MSMEs. While many of the micro enterprises are small, household-run businesses, over 98% of MSMEs can be classified as micro firms, and 94% remain unregistered with the government. However, many aspects of government policy are at best scale neutral and do not explicitly favour these enterprises. Adequate, timely and affordable institutional credit is rarely available to MSMEs. Only around 7% borrowing from formal institutions and government sources are used to finance more than 81% MSME. The MSMEs are present in manufacturing, trade and service sectors. Growth of credit was either low or negative for the MSMEs. The low performance of MSMEs can be due to demonetisation and GST. Credit allocation to this sector is hampered by the recent problems with the NBFC sector. Although all businesses have been affected by the pandemic, reduced cash flows caused by the nationwide lockdown has been the biggest hit to the MSME sector. Apart from their supply chain that has been severely disrupted, they have been adversely affected by the lack of availability of migrant workers, restrictions in the raw materials availability, by the disruption to exports and imports and also by the widespread travel bans, closure of entertainment centres and educational institutions etc. This has had a negative impact on the MSME businesses. The All India Manufacturers Organisation (AIMO, June 2020) conducted a survey on MSMEs that showed that 35% of MSMEs and 43% of the self-employed said that the chance of recovery in their businesses are nil and have begun shutting down their operations. This has resulted in loss of jobs of the hundreds of thousands of people who work for these small. MSME and MFI: To cope with adverse events they require immediate liquidity, since most MSMEs primarily operate on cash. Collateral free automatic loans to the tune of Rs. 3 lakh crores over the next five months have been guaranteed by the government. According to the government, the stimulus is Rs. 5.9 lakh crores for MSMEs (3% of GDP). But the estimates show that the fiscal implication is only Rs. 16,500 crores (0.08% of GDP). Unfortunately, this will only benefit a small number of firms. For MSMEs from the larger firms, supply chain disruptions have also created demand problem. At least 78% of the MSMEs are not satisfied with the financial package execution according to a survey by All India Manufacturers Organisation (AIMO). An alternative financial mechanism than just loans and provide a wage stimulus for their workers is demanded from the government. Through interest free loans, deferring tax refund, and reducing GST slabs, some relief can be provided. Survival and recovery in the next few months are the big and immediate problem.

4. Financial markets and institutions

The risk aversion of the banking system will get significantly aggravated, as the ramifications of the pandemic and the repercussions of the country-wide lockdown become clearer day by day. Corporate delinquencies will go up and the level of NPAs in the already fragile banking system will increase precipitously as more and more firms struggle to stay afloat and are unable to repay their dues amidst the massive demand and supply disruptions. Deterioration in banks' asset quality due to disruption in economic activity has made Moody's Investors Service to change the outlook for the Indian banking system to negative from stable. During the period of 2011-2019, bulk of the NPAs originated in the private corporate sector. These were secured loans where some recoveries are possible especially given the IBC. Defaults from the retail sector are likely to increase with the pandemic disrupting jobs and income sources of millions of people. Indian households were already highly leveraged going into the current crisis. With increasing unemployment and loss of income sources especially for those connected to the informal sector, the people will find it difficult to repay existing loans and that will lead to a halt in making new expenditures. All these are unsecured loans which make the situation worse. India does not have a personal insolvency law yet, which means that, there is no recourse for either the defaulting individuals or the banking system when personal loan defaults start rising, both from urban and rural regions of the country. The private sector banks will be worse affected than the PSBs this time. Most of the NPAs originated in the infrastructure and other heavy industries who had borrowed from PSBs during the credit boom period of 2003-2008, in the earlier crisis. The firms in these industries either began leveraging or they are already undergoing bankruptcy resolution in the courts as the TBS stress began to unfold during the 2011-2019 period. The banking system and the NBFCs will who lend to the MSME (Micro, Small and Medium Enterprises) sector will see major rise in defaults as the MSME earnings will fall sharply. The large micro-finance sector (NBFC-MFIs) that provides support to innumerable small and micro enterprises throughout the country will face tremendous stress. Many low-income poor people with their saving and credit services are served by Micro finance institutions (MFIs). High repayment rates are a feature of micro finance. Repayment rates may fall drastically now as borrowers struggle to make ends meet due to this

pandemic. This is dangerous because any slip in repayment rate makes these institutions insolvent. The consumers will experience reduced revenues in this period and Most of them operate in the micro or even smaller enterprises and borrow for the short term. Moreover, most of the transactions are in cash, so even if borrowers are able to repay, collection of the payments is a hurdle. The financial viability of the MFIs will be hurt by the inability of the SMEs to repay. The probability of them defaulting will commensurately go up with the extent that these NBFCs have been borrowing from banks. Officers in an already risk-averse banking system are likely to become even more reluctant to extend fresh loans because of the already increasing NPAs on existing loans, especially if the banks are not adequately capitalised. In other words, there are multiple channels can be responsible for the worsening condition of the financial system as the crisis worsens, thereby aggravating the slowdown. The turbulence in the debt markets due to covid-19 has resulted in the credit spreads of corporate debt papers seeing a sharp rise to levels higher than what was witnessed in the aftermath of the IL&FS crisis of September 2018. Investors are nervous and insecure because Debt mutual funds, even those that invest at the short end of maturity – liquid funds, ultra-short duration funds etc. have taken serious hits to their net asset values (NAVs). Decline in the NAVs is worrisome because these funds are considered investments second only to bank deposits in terms of safety. The current disruption in the debt market is the result of several factors at once. Due to arbitrage between international interest rates and Indian rates along with a generally stable currency, Foreign institutional investors (FIIs) have been steady investors in Indian debt over the last few years. These investors sold large volumes of Indian debt paper, in addition to stocks because of the pandemic began spreading especially the USA leading to growing risk aversion and flight to safety. Up to March 31, 2020, FPI outflows were of the order of USD 7.1 billion in 2019-20. In India, March is generally tight liquidity period. Advance tax payments, financial year ending, the general risk aversion triggered by the Covid-19 outbreak and the associated business disruption, etc. will result in greater demand for cash and are likely to push firms to redeem their investments in debt funds and stock pile cash. This has already created extra ordinary redemption pressures on Mutual Funds. Selling the debt securities that they have been holding to interested buyers in the secondary market can be a solution for Mutual Funds. Because of high risk aversion on part of the biggest liquidity suppliers in the markets i.e. the banks, Mutual Funds will not be able to sell. Indian banks are avoiding participation in the secondary debt market. As shown in figure 7a earlier, during H2:2019-20 (up to March 13, 2020), banks' investments in commercial papers, bonds, debentures and shares of public and private corporations, as reflected in non-SLR investment, were lower than a year ago (RBI, 2020). With the largest liquidity pool away from the secondary markets, distress selling securities at whatever price they get is the only option left with Mutual Funds in order to meet the redemptions. Their NAVs are severely affected which may further exacerbate investor concerns leading to more redemptions and triggering a vicious cycle. Since the outbreak of Covid-19, the equity market has been hitting new lows every day. In March 2020, panic selling due to the pandemic resulted in 23% market capitalisation of companies listed on the National Stock Exchange (NSE) being completely shaved off within a span of one month. In the BSE S&P Sensex, 23% of its value was completely lost during March 2020. Although the sell-off was witnessed across-the-board, industries that are hit the hardest by the Covid-19 pandemic and the consequent lockdown, such as tourism and hotels, real estate, asset financing services, banks, metals industry, automobile and ancillaries, textiles, electricity, mining and food product companies saw the most severe consequences. Stock markets mostly behave accordingly with the people confidence and market conditions. High volatility due to the outbreak of the virus was experienced by the capital market across the world. In the middle of February 2020, a remarkable downfall in case of Sensex and Nifty both (refer to Figure 5) was witnessed in India's share market. This fall is more rapid post 3rd March 2020. Bringing investor confidence in the market is very difficult without proper policy incentive and reduction in the cases of COVID-19. In absence of a liquid and well-functioning bond market, the banking system needs to step up to provide the necessary credit to firms as well as households given the extra-ordinary nature of the crisis and given the dependence of the Indian economy on banks. This will result in too many enterprises will getting destroyed and unemployment going up dramatically. *Resolving firms:* We know that the COVID-19 pandemic is a temporary shock. To tide them over the difficult period, standard economic theory tells us that the optimal response to a temporary shock is for (viable) firms and households to obtain financing. Over the next few months, three categories of firms will emerge: a) firms that are capable of paying their dues throughout the crisis period; b) provided they are given adequate credit support, firms that are fundamentally viable and can survive; and c) firms with broken business models and who will become bankrupt as a result of this shock. It will be crucial that the banks distinguish among these firms in a proper way. Firms in category (a) should be left alone by banks as they are self-sufficient, with firms of category (b) give the 6-month loan moratorium and also credit support *only* to firms in category and maintain a systematic database with information on these firms (b), and the firms in category (c) need to be taken to the insolvency and bankruptcy courts. The suspension on IBC needs to be lifted so that in particular firms in category (c) the cases can get resolved fast and resources that need to be used for more productive purposes currently locked up in these firms can get deployed. Delay in the resolution of failed firms thereby causing significant deterioration in the value of the underlying assets and worsening the eventual losses for the creditors is possible in the absence of IBC. Once the 6-month moratorium period is over, several firms which are in category (b) may default. It is unlikely that their financial situation will improve significantly in this 6-month period. In the usual 90dpd cycle starting October 2020 and banks should write off the assets in their books as per the prudential norms of RBI and declare them NPA. RBI should leave the decision to banks to figure out which firms need a one-time restructuring of their loans and let them work out the details of the restructuring schemes. Firms in the (c) category who are fundamentally bankrupt are exempt from this. This solution should be applied only to firms who are genuinely not able to repay because of the cash-flow shock or any other genuine reason.

Reviving credit growth: As explained earlier, now that uncertainty about firms' prospects has only increased RBI's strategy of adding more liquidity to the system has already been tried, without success; it is unclear why it would work now. Two functions simultaneously are performed simultaneously when RBI takes a decision to issue a loan: it is assuming risk, and it

is allocating capital. In the current circumstances, RBI can still figure out which firms are more likely to be adversely affected by the crisis and which firms are going to be less affected and, in this way, it is still possible for banks to allocate capital. That is, relative risk is calculated in this case. The problem for the banks is that the *absolute* level of risk cannot be assessed or studied right now, because they don't have any idea about the length, severity and the intensity of this COVID-19 pandemic i.e. they are uncertain right now. And this shock has come at a time when given the last few years of balance sheet problems banks have already become risk-averse. Because of these circumstances, they find it difficult to lend, especially to new customers. Giving the banks more liquidity, exhorting them, coming up with any number of subsidy schemes is not going to work, given the special circumstances. The heightened risk aversion in the banking system right now cannot be overlooked and steps must be taken to first address this in order to make other policy actions effective. It is in the hands of the government, not the RBI, to relieve the banks of the burden that it cannot manage i.e. the burden of risk. Capitalization of a fund which will then give loan guarantees can be provided by the government. Some selection criteria should be followed in this scheme, say MSMEs that have been current on their bank loans. Maximum rupee amounts per firm, pegged say to the annual revenues of the company would be specified. The actual selection of the firms would be done by the banks only once the eligibility criteria are specified by the government. This will lead to the process of identifying the best firms, originating the loans, and then applying to the fund for guarantee coverage. To discourage them from using the fund unnecessarily, the banks should be charged a fee for this. In this way, the law of comparative advantage could be used to obtain better economic outcomes: the government and the banks would do what they do best in crisis, namely bearing risk and allocating capital respectively.

5. Conclusion

Major sector which get affected is economy or financial sector. Being the backbone of the country pandemic poses major threat to this sector. Outbreak of covid-19 adversely hit this sector. Now problem in front of government is to support his economy, it made some laws, policies keeping in mind the framework rules, and its impact in long term for both formal and informal sectors. keeping this problem into account now government have to focus on two things, first on healthcare sector as it should be super strong in order to tackle the epidemic properly. Second, supporting economy, it can be achieved by providing liquidity in form of incentives, cash etc. into informal and formal sectors. The major problem in economy sector had been faced by MSMEs and low enterprises, Government have to keep in mind the special packages for this sector, like moratorium of payments, loans etc. Government have to pay special attention to its already existed schemes like Jan Dhan Yojana, MGNREGA, PM-Kisan and pension scheme along with recapitalization of banks which will revive the demand in the economy. There should also need to temporarily increase the quantity of food distribution through the public distribution system (possibly free of cost) to ensure the food security of the vulnerable groups. The manufacturing and supply chains have been adversely affected which led the shutdown of many industries and impacted economies of many developed nation like U.S.A, Europe etc and now severely affecting developing nations like INDIA, bangladesh etc. Government along with citizens have to take extra efforts and care for tackling this COVID-19 pandemic.

References

1. Johnson, E. (2020). Logistics Technology: Covid-19 forces Freightos into proactive layoffs. JOC. Accessed 31 March 2020, from https://www.joc.com/technology/freight-procurement-systems/covid-19-forcesfreightos-proactive-layoffs_20200317.html
2. Kemp, S. (2020). China City & Industry Report: A Guide for U.S. Exporters. Beijing: US Commercial i. Service. Accessed from https://2016.export.gov/china/build/groups/public/@eg_cn/documents/webcontent/eg_cn_105813.pdf
3. IHS Markit (2020e). IHS Markit/CIPS Flash UK Composite PMI, 24 March 2020. News Release, Chartered Institute of Procurement & Supply (CIPS) and IHS Markit. Accessed 29 March 2020 at: <https://www.markiteconomics.com/Public/Home/PressRelease/0f164ac0128b429ea1c329104afd62c3>
4. Hussain, S. (2020). One third of humanity under virus lockdown. AFP. Accessed 31 March 2020, from <https://www.afp.com/en/news/15/one-third-humanity-under-virus-lockdown-doc-1q57be13>
5. Fazl-e-Haider, S. (2020). Coronavirus brings a halt to China's trillion-dollar Belt and Road Initiative. The New Arab. Accessed 31 March 2020.
6. Jamwal, A., Bhatnagar, S., & Sharma, P. (2020). Coronavirus Disease 2019 (COVID-19): Current Literature and Status in India.
7. DeBord, M. (2020). General Motors and Ford are ramping up ventilator production to fight the coronavirus pandemic. Here's where they are now. Business Insider. Accessed 31 March 2020, from <https://www.businessinsider.com/coronavirus-general-motors-ford-ventilator-production-progress-2020-3>
8. Giuffrida, A. (2020). Italy and China in plan for new Silk Road-style trade network . The Guardian. Accessed 31 March 2020, from <https://www.theguardian.com/world/2019/mar/23/italy-china-new-silkroad-belt-and-road-g7>
9. Fernandes, N. (2020). Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy. 11. March 22. Available at SSRN: <https://ssrn.com/abstract=3557504> or <http://dx.doi.org/10.2139/ssrn.3557504>
10. IHS Markit (2020c). IHS Markit Flash Eurozone PMI, 24 March 2020. News Release, IHS Markit. i. Accessed 29 March 2020 at: <https://www.markiteconomics.com/Public/Home/PressRelease/30078c37216c413bb410af22ae547068>
11. International Labour Organization. (2020). COVID-19 and the world of work: Impact and policy responses. Genève. Accessed from https://www.ilo.org/wcmsp5/groups/public/---dgreports/--dcomm/documents/briefingnote/wcms_738753.pdf

15. Leigh, G. (2020). The Number Of Daily Flights Is Now Dropping Drastically: The Latest In Aviation. Forbes. Accessed 31 March 2020, from <https://www.forbes.com/sites/gabrielleigh/2020/03/30/the-number-of-daily-flights-is-now-dropping-dramatically-the-latest-in-aviation/#701c2b9943d4>
16. Letzing, J. (2020, March 18). How many policy tools are left to soften the impact of COVID-19?. World Economic Forum. Accessed 27 March 2020 at: <https://www.weforum.org/agenda/2020/03/covid-19-coronavirus-policy-tools-economic-impact/>
17. MarketWatch (2020, March 10). Coronavirus sends food prices soaring in China. MarketWatch. Accessed 22 March 2020 at: <https://www.marketwatch.com/story/coronavirus-sends-food-prices-soaring-in-china-2020-03-10>
18. Moore, M. (2020). APAC: COVID-19 impact on tourist arrivals by country or region 2020 | Statista. Accessed 1 April 2020, from <https://www.statista.com/statistics/1103147/apac-covid-19-impact-on-touristarrivals-by-country/>
19. Pallini, T. (2020, March 26). 55 global airlines have completely stopped flying scheduled flights due to travel bans, airspace closures, and low demand for travel — see the full list. Business Insider. Accessed 31 March 2020 at: <https://www.businessinsider.com/coronavirus-global-airlines-stopping-flights-suspending-operations-2020-3#tame-45>
20. Paris, C. (2020). Coronavirus Rattles Shipping Industry as Supply Shock Moves to Demand Decline. Wall Street Journal. Accessed 1 April 2020, from <https://www.wsj.com/articles/coronavirus-rattles-shipping-industry-as-supply-shock-moves-to-demand-decline-11585249552>
21. Pickert, R. (2020, March 26). U.S. Jobless Claims Jump to 3.28 Million, Quadruple Prior Record. Bloomberg. Accessed 28 March 2020 at: <https://www.bloomberg.com/news/articles/2020-03-26/u-s-jobless-claims-surged-to-record-3-28-million-last-week?>
22. Sandbu, M. (2020). Coronavirus: the moment for helicopter money. Financial Times .Accessed 27 March 2020, from <https://www.ft.com/content/abd6bbd0-6a9f-11ea-800d-da70cff6e4d3>
23. Gautam, N., Ojha, M. K., Swain, P., Aggarwal, A., & Jamwal, A. (2019). Informal Investigation of Fourth Party and Third-Party Logistics Service Providers in Terms of Indian Context: An AHP Approach. In *Advances in Industrial and Production Engineering* (pp. 405-413). Springer, Singapore.
24. Sharm, P., Jamwal, A., Aggarwal, A., Bhardwaj, S., Sood, R. (2018). Major challenges in adoption of RFID for Indian SME's. *Int. Res. J. Eng. Technol*, 5, 2247-2255.
25. Singh, P. L., Sindhwani, R., Dua, N. K., Jamwal, A., Aggarwal, A., Iqbal, A., & Gautam, N. (2019). Evaluation of Common Barriers to the Combined Lean-Green-Agile Manufacturing System by Two-Way Assessment Method. In *Advances in Industrial and Production Engineering* (pp. 653-672). Springer, Singapore.
26. Jamwal, A., Aggarwal, A., Gupta, S., & Sharma, P. (2019). A study on the barriers to lean manufacturing implementation for small-scale industries in Himachal region (India). *International Journal of Intelligent Enterprise*, 6(2-4), 393-407.
27. Aggarwal, A., Gupta, S., & Ojha, M. K. (2019). Evaluation of Key Challenges to Industry 4.0 in Indian Context: A DEMATEL Approach. In *Advances in Industrial and Production Engineering* (pp. 387-396). Springer, Singapore.
28. Darby, J, J Ireland, C Leith and S Wren-Lewis (1998), "COMPACT: a rational expectations, intertemporal model of the United Kingdom economy", *Economic Modelling* 16(1): 1-52.
29. Keogh-Brown, M R, S Wren-Lewis, W J Edmunds, P Beutels and R D Smith (2009), "The possible macroeconomic impact on the UK of an influenza pandemic", *Health Economics* 19(11).
30. Krishnan, Deepa and Stephan Siegel (2017), "Survey of the Effects of Demonetisation on 28 Slum Neighbourhoods in Mumbai", *Economic and Political Weekly*, Vol. 52, Issue No. 3.
31. Sengupta, Rajeswari and Harsh Vardhan (2017), "This time it is different: Non-performing assets in Indian banks", *Economic & Political Weekly*, 52(12), 25 March 2017.
32. Sengupta, Rajeswari and Harsh Vardhan (2019), "How banking crisis is impeding India's economy", East Asia Forum, 3 October 2019; <https://www.eastasiaforum.org/2019/10/03/banking-crisis-impedes-india-economy/>