

Impact of Novel Corona Virus: A Study on Indian Economy

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ABSTRACT

The outbreak of Novel Corona Virus (COVID 19), the new pandemic, has slowed down economic activity all over the world and put most of the economies of the world in front of another recession. The current pandemic situation evolved in Wuhan and spread all over the world. This medical crisis brings the whole world into an economic crisis. The macroeconomic outlook all over the world for the financial year 2020-21 has been adversely affected by COVID 19. The stock markets of emerging economies are affected adversely. The US stock market witnessed one of its worst quarters due to this situation. The Indian stock market also crashed due to the global economic shutdown and panic, but the Indian stock market bounced back gradually. The Indian stock market currently shows no such impact of COVID, but until May 22nd, 2020, the SENSEX was corrected by 23% following the outbreak of COVID-19 in India. This research paper focuses on the impact of the COVID-19 pandemic on the economy. The study mainly depends on secondary data. The present study tries to address the effect of various restriction measures on the economy. It has been evolved that during the period of COVID-19, there is a need for a free flow of adequate funds to the industry through the financial market to sustain economic development. The government should take proper initiative to make this easier.

Keywords: *Indian Economy; COVID 19; GDP; Lockdown*

INTRODUCTION

SARS-CoV-2 (COVID 19) is a health crisis, but this health crisis has transformed the world into an economic crisis. The COVID-19 pandemic is the biggest problem for mankind in recent modern history. It originated in Wuhan, Hubei province, China but has spread to all over the world, putting serious pressure on various sectors of the economy. Almost half the world's population is under strict restrictions imposed by respective governments on movements to control the spread of this highly infectious disease. On March 11, 2020, the World Health Organization (WHO) (Ghebreyesus & World Health Organization, 2020) declared COVID-19 as a global pandemic.

The global economy came to its knees due to this pandemic situation. The whole world is going through a remarkable economic situation. COVID-19 creates uncertainty in the world economy and in our country also. Everywhere in the world, people try to stop the spread of these infectious diseases, which leads to social distancing, shutdown of financial markets, corporate offices, business activities, social events, educational institutions, etc. In other words, lockdown of every activity excluding healthcare.

COVID 19 is a very serious public health emergency of international concern. It has disrupted global economic activity. As a result, various companies across the world, irrespective of their size, stop functioning and create supply-side and demand-side downtrends. Transport facilities among countries are limited or restricted. Consumption is the biggest component of GDP, but the consumption pattern of people has been distorted or changed due to COVID 19. The main focus of most nations is on saving lives because if there is life, there will be livelihood. For the time being, various countries have closed their international and national borders, and all economic activities have come to a halt. India imposed a lockdown on the nation from 25/03/2020 for a period of 21 days initially. Prolonged and widespread restrictions on the movement, containment, and social distancing of people created uncertainty and led

to disruption of every kind of business activity and created a demand and supply shock of goods and services, including crude oil, which fell below zero for the first time in world history.

The world economy has been facing difficulty for the last two years due to COVID-19. Various waves of infection impacted both vulnerable sectors of society and corporate sectors. As of February 28th, 2022, more than 59 lakh people in the world died due to these viral infections and in India 5, 13,843 people lost their lives (NSO, 2022).

The first confirmed case of COVID-19 in India was on January 30, 2020, in Kerala. On February 2nd and 3rd, 2020, another two cases were reported from Kerala. These first 3 cases of COVID were from returnees from Wuhan, China. The first claim of the virus was from Karnataka, where a man was 76 years old and had a travel history to Saudi Arabia. Before the start of lockdown in the whole nation on March 25, 2020, more than 600 people were infected by COVID-19, and the virus had claimed 10 lives.

With the announcement of a complete lockdown of 21 days from March 25th, 2020, economic activities all over the nation were stalled. People stayed at home and went out only for essential commodities. The government of India imposed a strict lockdown to restrict the spread of this virus and three times increased lockdown phases.

During the lockdown period, an estimated 12.2 crore people lost their jobs, according to the Centre for Monitoring Indian Economy (CMIE) (The Hindu, 2020). An estimate shows that the income of 45% of households across the country dropped drastically as compared to the previous year. We know one of the biggest components of GDP is consumption. But due to the economic activity shutdown, consumption of non-essential goods was brought down.

In our country, crores of migrant labourers are working in various sectors of the economy and staying away from their homes. The unprecedented shock of COVID-19 resulted in lockdown; as a result, major corporations such as Maruti, TATA Motors, and BHEL have temporarily ceased operations or reduced their activities significantly. Many small business houses and companies in the MSME sector have either stopped or reduced operations. As a result, a huge number of employees lost their jobs. According to CMIE data in April 2020 (Vyas, 2022), an estimated 12.2 crore people lost their jobs. But the recovery was fast. During May and June 2020, 31.5 million and 63.2 million jobs came back. India faces an additional 13.3 million job losses during the second wave of COVID-19. In the IT sector, 30,000 people lost their jobs and another 60,000 were working with less pay.

Another area of concern is the financial market, as this market is drastically affected by COVID 19 all over the world. A sound financial system plays an important role in the development of any country's economic growth. The financial system promotes savings and investment in the economy and accelerates the formation of financial assets. The financial markets are an integral part of this system and play an important role. The financial markets act as a link between the surplus sector and the deficit sector of financial resources. It also facilitates efficient mobilization of capital and proper allocation of financial resources among different sectors of the economy for productive use and long-term and sustainable development. The capital market provides the way through which it is possible. We know that long term economic growth is associated with the efficiency of the capital markets, but this unprecedented shock of COVID-19 affected the global capital markets. The crisis due to the outbreak of COVID-19 is not equal to the global financial crisis [GFC] of 2007. The magnitude of the impact of the coronavirus on both the segments of the capital market is unprecedented.

The article is divided into three sections. Section 2 depicts impact of SARS-COV-2 in Indian economy. Section 3 gives concluding observations.

LITERATURE REVIEW

Studies are growing rapidly on the impact of this pandemic on economy as well as on financial markets in India and abroad. Ramelli and Wagner (2020) analyzed the impact of COVID 19 on stock market. Mirza *et al.* (2020) examine the possible policy requirement to maintain solvency level before pandemic.

Zhang, Hu and Ji (2020) investigate country specific risks and system risks in the global financial market due to COVID 19 and concluded that due to pandemic situation global financial market risks have increased substantially. Markets become unpredictable and highly volatile. Liu *et al.* (2020) analyze the short-term impact of the corona virus outbreak on 21 leading stock market indices. Fallahgoul (2021) investigate investor beliefs, sentiment and disagreement, about stock market returns during the COVID-19 pandemic and concluded that sentiment has a sharp decline across all investors between February 19, 2020 and March 23rd, 2020. Klose and Tillmann (2021) analyze the effect of this pandemic on financial markets of European countries and concluded that some policy measures taken by government were effective for reassuring financial market. Varma *et al.* (2021) using event study methodology examine the short-term impact of COVID 19 on Indian stock market and found that this pandemic has increased the risk in the stock market but the sector wise impact was temporary. Various rating agencies and World Bank had initially revised global economic growth for fiscal year 2021.

Objective

The main objective of this article is

- I) To know the impact of COVID 19 on Global economy and Indian economy

RESULTS AND DISCUSSION

Impact of COVID 19 on Economy

- **Global Scenario**

The global economy which was in turbulence in 2019 faces an unprecedented shock due to outbreak of COVID 19 [Table 1]. The virus which was burst in Wuhan in china changed the lives and livelihood of world's people drastically.

Table 1: Global Economy before COVID 19

Real GDP Growth rates %				
Top 10 Countries by GDP		2017	2018	2019
1	U.S	2.4	2.9	2.3
2	China	6.9	6.7	6.1
3	Japan	2.2	0.3	0.7
4	Germany	2.8	1.5	0.6
5	U.K	1.9	1.3	1.4
6	France	2.4	1.7	1.3
7	India	6.5	6.7	5.3
8	Italy	1.7	0.7	0.3
9	Brazil	1.3	1.3	1.1
10	Canada	3.2	2.0	1.6

Source: KPMG, 2020

Each and every sectors of world economy have been affected by this pandemic. Previously world economy has faced worst economic recession in 1930. WHO in January 2020, declares COVID 19 as world health emergency and thereafter on March 11, 2020 declares it as pandemic. The mortality rate of COVID 19 as compared to earlier virus-related health crisis in the world is low but it spreads among the people rapidly than others [Table 2]. The numbers of cases double in every two to three days or even more quickly. Till now we have faced three waves of COVID 19. Already it has claimed 59, 44,342 lives and infected more than 43 crore peoples in the world.

Table2: Mortality Rates and Infection Rates of COVID-19 and Other Epidemics

Epidemics	Mortality Rate	Infections Rate (Per Infected Person)
Ebola	50%	1.5–2.5
MERS	34.30%	0.42–0.92
SARS	10%	3
COVID 19	1% - 3.4%	1.5 – 3.5
Seasonal Flu	1% - 3.4%	1.3

Source: Asian Development Bank, 2020

Due to pandemic fears, uncertainty increases, and various policy measures adopted by most of the country in the world to control the transmission of disease, illiquid situation in the market have contributed to a global supply and demand shock in manufacturing as well as service sector. COVID-19 related lockdowns, maintenance of social distancing and quarantine across the affected countries has stopped global economic activity. As a result, expectations of shallow recovery from 2019 low economic condition of the world have been dashed.

Global economic growth which was projected at -3.00% by IMF (2020a) earlier this year in the month of April, is now downgraded by another 1.9 percentage to -4.9 as per World Economic Outlook (IMF, 2020b) forecast June 2020. This shows that impact of COVID 19 pandemic on world economic growth has more catastrophic than anticipated in April 2020 forecast. Advanced economies as a group are forecast to experience a negative growth of -8.0 % in 2020 which is 1.9 percentage point lower than earlier projection of April 2020 WEO. U.S. economy as projected by the IMF to decline by 8%, close to double the rate of decline experienced in 2009 during the global financial crisis. The rate of economic growth in the Euro area is projected to decline by 10.2% of GDP. Not only advanced economies, Emerging Market and Developing Economies and Emerging and Developing Asia group's projected growth shows downgraded compare to earlier projection of this year in April 2020. Maximum countries in the world are struggling to control the transmission of the disease. Table 3 shows the IFM projected growth.

Table 3: Projected Real GDP growth (Percent Change)

	Year over Year					
	Projections		Estimate		Projections	
	2020	2021	2020	2021	2022	2023
world Output	-4.9	5.4	-3.1	5.9	4.4	3.8
Advanced Economies	-8	4.8	-4.5	5.0	3.9	2.6
U.S	-8	4.5	-3.4	5.6	4.0	2.6
Euro Area	-10.2	6	-6.4	5.2	3.9	2.5
Germany	-7.8	5.4	-4.6	2.7	3.8	2.5
France	-12.5	7.3	-8.0	6.7	3.5	1.8
Italy	-12.8	6.3	-8.9	6.2	3.8	2.2
Spain	-12.8	6.3	-10.8	4.9	5.8	3.8
Japan	-5.8	2.4	-4.5	1.6	3.3	1.8
U. K	-10.2	6.3	-9.4	7.2	4.7	2.3
Emerging Market and Developing Economies	-3.0	5.9	-2.0	6.5	4.8	4.7
Emerging and Developing Asia	-0.8	7.4	-0.9	7.2	5.9	5.8
China	1.0	8.2	2.3	8.1	4.8	5.2
India	-4.5	6.0	-7.3	9.0	9.0	7.1

Source: IFM, 2020a and IFM, 2022

It has been found from the above table that IFM projected a recovery of world economy in 2021, but the duration of this pandemic shock is unknown at the time of projection and the performance of world economy was better than estimated except India in 2020.

After the outbreak of COVID 19, almost all the countries announced nationwide lockdown to save the life of the peoples. It creates uncertainty among the various sectors and the whole economy under the different kind of shock, such as labour shock, demand side shock, supply shock, shock in international trade cost, shock to international tourism etc. Almost we are in pandemic for two years. Projection of economic recovery in June 2020 was true for maximum economies. The present projection of economic recovery shows steady recovery of world economy.

World Trade

As a result of economic impact of COVID 19, world trade volumes expected to be reduced between 13% and 32% as initially projected by World Trade Organization (WTO) on April 08, 2020. In the recent press release on 4th October 2021, WTO projected world merchandise trade growth from 2020 as shown in Table 4. According to WTO this unexpected health crisis forced the government of every nation to take unprecedented measures to protect the lives of peoples. Again, the emergence of infectious Delta variant forced various countries to impose restriction once again impacted world trade.

Table 4: Merchandise trade volume and real GDP, 2017-2022, Annual % change

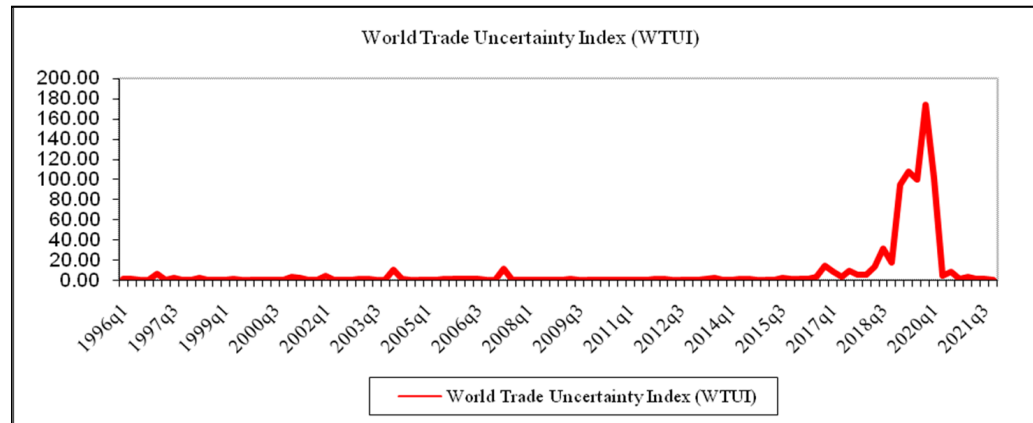
	2017	2018	2019	2020	2021p	2022p
Volume of world merchandise trade	4.8	3.1	0.1	-5.3	10.8	4.7
Export						
North America	3.4	3.8	0.3	-8.6	8.7	6.9
South and Central America, Caribbean	2.2	-0.2	-2.2	-4.7	7.2	2.0
Europe	4.1	1.9	0.6	-7.9	9.7	5.6
Asia	6.7	4.8	-2.2	-11.6	5.0	9.6
Import						
North America	4.4	5.1	-0.6	-6.1	12.6	4.5
South and Central America, Caribbean	4.4	5.6	-2.6	-9.9	19.9	2.1
Europe	3.9	1.9	0.3	-7.6	9.1	6.8
Asia	8.5	5.0	-0.5	-1.2	10.7	2.9
Real GDP at market exchange rates	3.2	3.1	2.4	-3.5	5.3	4.1
North America	2.3	2.8	2.0	-4.0	5.6	3.7
South and Central America, Caribbean	0.7	0.3	-0.5	-7.5	4.9	2.9
Europe	2.7	2.0	1.5	-6.4	4.3	4.0
Asia	5.0	4.7	3.9	-0.9	6.1	4.7

Source: WTO, 2021

Figures for 2021 and 2022 are projections, GDP projections are based on scenarios simulated with the WTO Global Trade Model

As per WTO wide range in forecasted merchandise trade is associated with the degree of uncertainty and economic impact of corona virus.

Figure 1 shows the World Trade Uncertainty Index form 1996 Q1 to 2021 Q4. World trade uncertainty is an equally GDP weighted average of 143 countries, measures the trade uncertainty across the world.

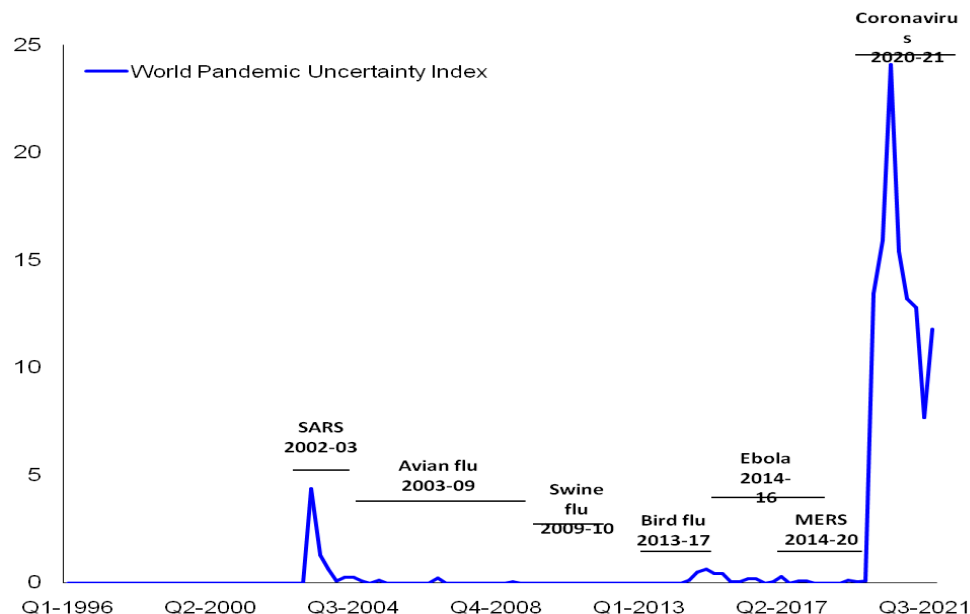


Source: Ahir, Bloom and Furceri, 2022

Figure 1: World Trade Uncertainty Index

Uncertainty

Economic uncertainty refers to an economic situation that can spoil the investment climate in an economy. The higher the economic uncertainty, the higher the systematic risk and the higher the cost of capital in the economy. Therefore, high economic policy uncertainty reduces investment or investment opportunities in the economy. The outbreak of COVID-19 is a new event and any information short of that was unavailable regarding its severity and the change of its mutation. Till date, the whole world has faced various waves of this pandemic. Uncertainty related to this pandemic has caught the whole world. This crisis-related uncertainty began with a public health emergency and has progressed to an economic emergency. Countries impose a nation-wide lockdown, and the uncertainty in the world increases. Figure 2 shows the uncertainty related to COVID-19 and another pandemic and epidemic in the world.



Source: <https://worlduncertaintyindex.com>

Figure 2: world Pandemic Uncertainty

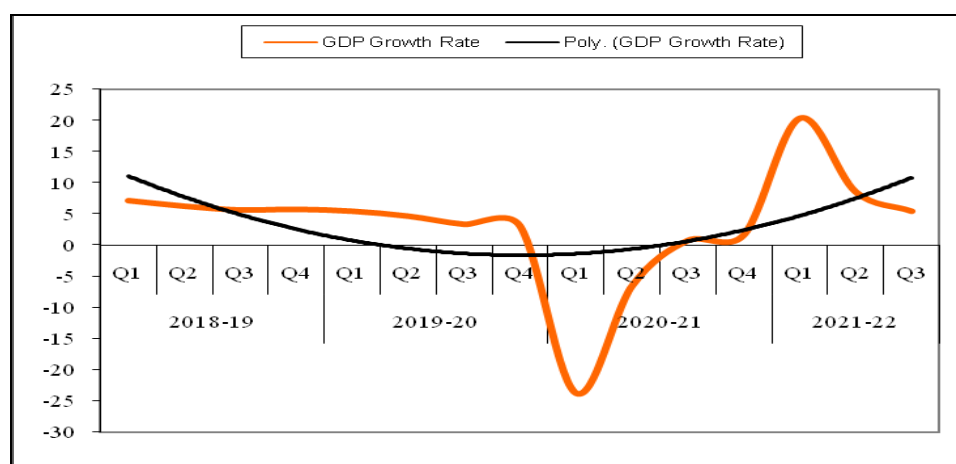
It has been shown from the above figure that the uncertainty related to COVID 19 is much higher than previous disease in the world such as Severe Acute Respiratory Syndrome (SARS), Ebola, Middle East Respiratory Syndrome etc.

Impact COVID 19 on Indian Economy

Before the outbreak of COVID 19, various rating agencies and the World Bank had forecasted India's economic growth with the lowest figures after India's economic liberalization in the 1990s. India has already faced 3 recessions in the economic sectors in the fiscal years 1958, 1966, and 1980. The present economic contraction due to COVID-19 is the fourth and seems to be more harmful to the Indian economy. As a result, India's GDP was expected to grow by 5% in the beginning of 2020, but after the outbreak of the coronavirus in India, various restriction measures taken by the government of India as a result have stalled economic activity across the country. Various rating agencies such as CRISIL, RBI, and IFM have anticipated that India's quarterly GDP will decline over 9% between April and June 2020. According to State Bank of India research estimates, a contraction of over 40% in GDP will be seen in Q1 FY21 (The Economic Times, 2020).

The Government of India on 24th March 2020, announced the first 21 days of complete lockdown from 25th March 2020, restricting 1.3 billion people. This restriction was extended 3 times up to 31st May 2020. During first 21 days of complete lockdown Indian economies has expected to lose more than 32,000 crore every day. From the 2nd phase of lockdown some areas of economies activities can function with 50% staff such as information and technology companies. Agricultural and horticultural activities will remain fully operational. Limited economic activities are getting permission to resume outside of the COVID 19 containment zones from phase 2, 3 and 4 of lockdown and from unlock 1, 2, 3 and 4 to revive economy.

The Figure 3 below shows the quarterly GDP growth rate of India for the last 15 quarters from Q1 2018-19 to Q3 2021-22.



Source: Compiled by author

Figure 3: Quarterly GDP Growth Rate

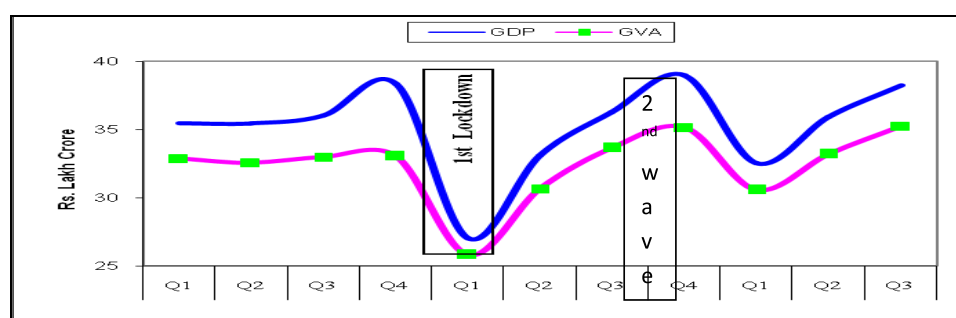
It has been clear from the above figures that the Indian economy is continuously losing its growth trend. India's economic growth slipped to 3 percent in the 4th quarter of 2019-20 [January-March]. This was due to the slowing down of overall economic activity in the world and also WHO's declaration of a public health emergency. Gross domestic product (GDP) at Constant Prices (2011-12) in Q1 of 2020-21 was estimated at 27.03598 lakh crore, as against 35.48958 lakh crore in Q1 of 2019-20, showing a contraction of 23.8 percent as compared to 5.4 percent growth in Q1 2019-20 and gross value added (GVA) also contracted by 8.4% during the period 2020-21 compared to previous year, according to National Statistical Organization [NSO] shown in Table 5 and Figure 4, Figure 5, shows the various waves of COVID 19 in India.

Table 5: Quarterly Estimates of GVA at Basic Prices

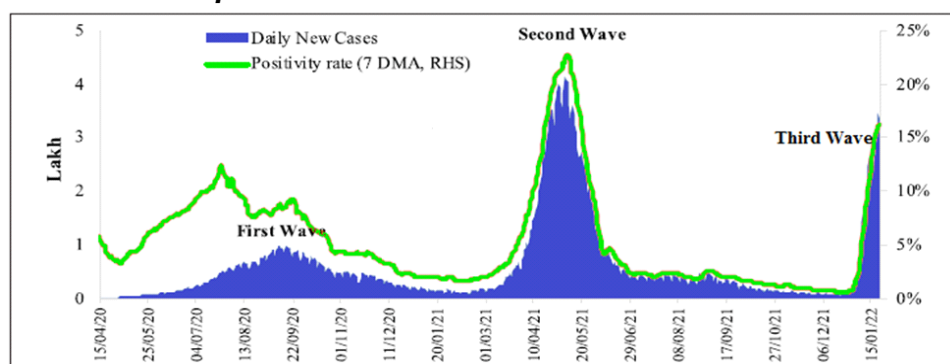
Industry	April –December (Rs. Crore)				
	2019-20	2020-21	2021-22	% change over Previous year	
				2020-21	2021-22
1.Agriculture, Forestry & Fishing	14,50,983	15,01,708	15,49,362	3.5	3.2
2.Mining & Quarrying	2,25,227	2,01,262	2,28,265	-10.6	13.4
3.Manufacturing	16,73,033	15,69,881	17,93,755	-6.2	14.3
4.Electricity, Gas, water Supply & Other Utility Services	2,27,743	2,14,471	2,32,905	-5.8	8.6
5. Construction	7,58,228	6,31,086	7,35,525	-16.8	16.5
6. Trade, hotel, Transport, Communication & Service related to Broadcasting	19,59,864	14,42,537	16,41,693	-26.4	13.8
7. Financial, real Estate & Professional Services	22,70,302	22,79,686	23,79,167	0.4	4.4
8. Public Administration, Defence & Other Services	12,76,492	11,74,401	13,46,016	-8.0	14.6
GVA at Basic Prices	98,41,873	90,15,032	99,06,688	-8.4	9.9

Source: NSO, 2022

Indian economy was in lockdown from 25th March 2020 for a period of close to two months. As a result, each and every sectors of the economy affected except agriculture, forestry and fishing shrank sectors which have been the least impacted by COVID 19. Impact of corona virus on Indian economy is unprecedented. As a results trade, hotel, transport, communication and service related to broadcasting sectors witnessed a massive negative growth of 26.4 % during the period 2020-21. COVID restrictions, panic among the people, increasing daily new COVID cases, case positivity rate death toll and new infectious variant played a catalyst role for economic downtrend in India. From manufacturing sector to service sector, export, import, financial market, primary capital market every part of economy affected. After gradual withdrawal of COVID restrictions economy starts too bounced back.



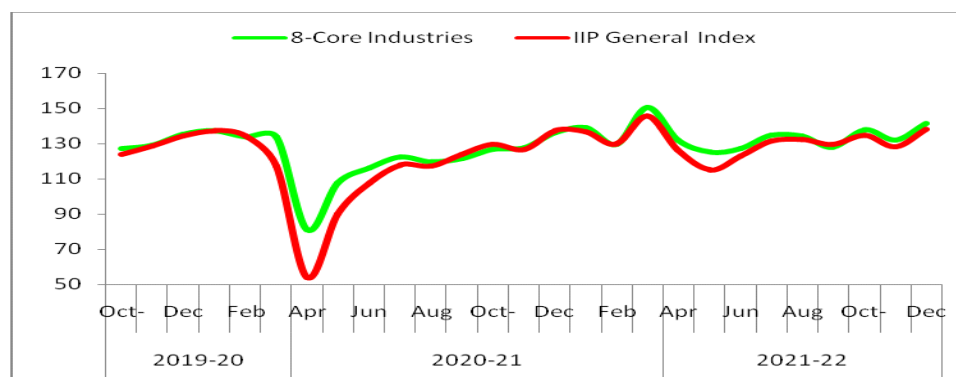
Source: Compiled by author

Figure 4: Gross domestic output

Source: Compiled by author

Figure 5: Waves of COVID 19 in India

To know the general level of monthly industrial activity in Indian economy Index of Industrial production [IIP] plays very important role. Through IIP data we can judge contraction and revival in industrial activity. Another valuable index is 8 Core industries Index. Figure 6 shows industrial output in Indian economy for the period 2019-20 to 2021-22 (Up to December 2021) through IIP index and 8 core industries index.

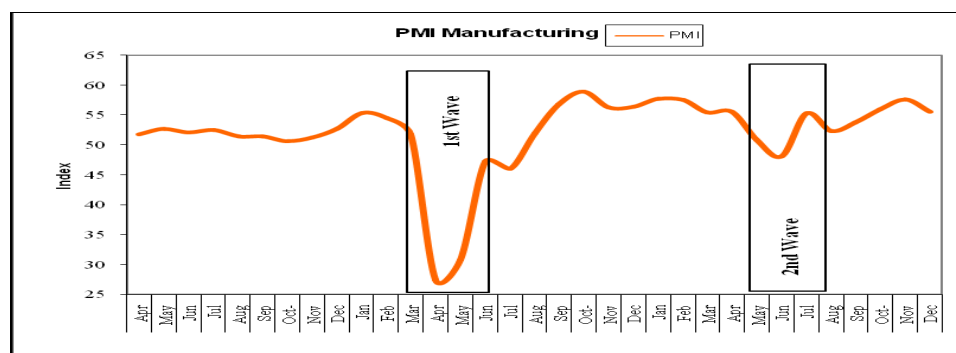


Source: Compiled by author

Figure 6: Industrial output

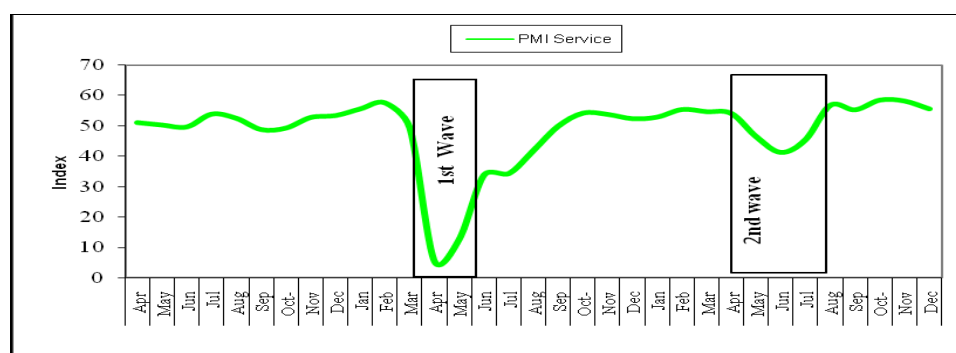
It has been clearly shown from above Figure that industrial output in Indian economy heavily affected during the 1st wave of COVID 19 as the lockdown measures imposed by the government. Thereafter industrial sectors gradually improve, but much not impacted when 2nd wave surge in our country as the vaccination drive started and restriction like complete nationwide lockdown not imposed.

Another area of concern regarding affect of COVID 19 is Purchase Manager Index (PMI). It is the most closely watched indicators of global business activity, both in manufacturing and service sectors. A figure of 50 and above in PMI index indicates expansion, while below 50 indicates contraction. PMI index for manufacturing sector declined to 27.4 in April 2020 and it showed some positive improvement in May 2020, but in July it contracted slightly to 46 from 47.2 in June 2020 (Figure 7 & 8). Service sector PMI contracted to 5.4 from 49.3 in March 2020. At the end of December 2021, it increased to 55.5.



Source: Compiled by author

Figure 7: India's Manufacturing Sectors PMI



Source: Compiled by author

Figure 8: India's Service Sectors PMI

Measures taken by Central Government

The government of India has taken various measures to tackle the economic situation arises due to outbreak of COVID 19. On 26th March 2020 a Rs. 1, 70,000 crore economic relief package announced to combat COVID 19 (India Today, 2020). On 12th May 2020, Prime Minister announced an overall economic package of Rs. 20 lakh crores, 10% of Indian GDP to overcome the pandemic crisis and emphasis on “economic self-reliance” (Misra, 2020). To reduce the affect of COVID in MSME (Micro & Small Industries) sectors government announces 6-month moratorium and deferment of interest for 1.3.2020 to 31.8.2020 and credit guarantee scheme. Government under public procurement policy increases market access of MSME sectors. Government of India approved Production Linked Incentive Scheme for 13 industrial sectors, such as pharmaceutical drugs, electronics, automobiles, telecom etc.

CONCLUSION

The Indian economy and global economies are also in contraction due to the Covid-19 pandemic. The global economy actually contracted by 3.1% compare to an estimation of a higher contraction. The Indian economy contracted more than estimated. It has contracted more than 23% during the 1st quarter of 2020–21.

The Indian economy shows negative growth during the 1st wave of COVID due to strong nationwide lockdown measures taken by the Indian government from the 25th of March 2020. From the IIP data to PMI index of manufacturing and service sector shows the effect of this health crisis in India. But after the easing of nationwide lockdown and various stimulus packages announce by central government and policy measures taken by Reserve Bank of India shows a 'V' shaped recovery of Indian economy.

The most important role in the economy's development was the development of the COVID vaccine and its free emergency use by the people of India under government supervision. Vaccination minimizes the loss of lives and increases confidence among people for the development of the economy.

Another positive sign is that the unemployment rate that increased to 23.5% in April and May after a nationwide lockdown was imposed, resulting in huge job losses in the country, came down to a pre-lockdown level of 8.5%.

A highly liquid secondary market, with normal volatility, low interest rates, and government stimulus packages, helped the Indian economic ecosystem to live with the virus and overcome the uncertainties of the COVID-19 pandemic. Increasingly positive investor sentiment all over the world market, including India's rebound economy.

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