



IMPACT OF CORONA VIRUS (COVID-19) ON ECONOMIC GROWTH OF INDIA

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AUTHORS' CONTRIBUTIONS

This work was carried out in collaboration among all authors. Authors AS, MA, DP and BKP designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors AS and DP managed the analyses of the study. Authors HSH and WE managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Economic growth depends upon many factors but the most important factor is continuity of economic activities. Economic growth of India and rest of world was immensely affected by Covid 19. This study tries to explain the impact of Corona (COVID-19) on economic growth of India. Many initiatives taken by government of India and RBI to face this adverse effect on economy due to Covid-19. This study used secondary data published by government of India, RBI, WHO, IMF and various other organisation to understand the exact situation and other related issues faced by Indian economy. Study tries to explain the impact of pandemic on GDP growth rate, Exchange rate, Sensex also on 5 Badly affected sectors of India from Covid-19. Indian economy is now slowly returning on the track as Central government announced the package of Rs. 20 Lakh Crore to boost economy, including Rs 8.01 lakh crore of liquidity measures announced by the RBI since March 2020. This pandemic will leave a long lasting impact on all economies whether they are developed or developing.

Keywords: COVID-19; economic growth; RBI.

1. INTRODUCTION

The process of economic growth, especially when it is on high growth line, human resource plays a very important role in this growth process. The health of population really matters a lot for its economic growth. India is having large amount of population

and also has invested a large amount of its budget on skilling its people. When human resource health is not well a country can not perform well.

Corona virus first case reported on 1 December 2019 in China. Its origin was Wuhan, Hubei, China. Wuhan is the capital of Hubei form where it all started [1-4].

Now this virus has been spread in more than 184 countries. The first case of the COVID-19 pandemic in India was reported on 30 January 2020.

Janata curfew (People’s curfew) was **first effort** to combat Corona virus spread, introduced by the Prime Minister of India, Narendra Modi, on Sunday, 22 March in the wake of the Corona virus pandemic.

Second effort On 24 March, the prime minister announced that India go under 'total lock-down' for the next 21 days and continuous extension till 31 May. The Government divided all the districts into three zones based on the spread of the virus green, red and orange Zones with relaxations applied accordingly. Now the complete lockdown of a country means **stoppage of production of Goods and Services except** some essential activities. This will make a very adverse impact on the economy and its people.

On 30 May, it was announced by the government that the ongoing lockdown would be further extended till 30 June in containment zones, with giving relaxation i.e. services resuming in a phased manner starting from 8 June. It was termed as "Unlock 1".

As we know only human resources mobilize and utilize Natural resources properly and also only the existence of physical capital can't do anything for economic growth and development. In order to boost economic growth they must be properly utilized. To, operate machinery & equipment **without the involvement of human resource it is impossible to run factories and industries.** Production at full capacity boost economic growth but as we know there is Pandemic is going on factories and productions houses can't be run at full capacity because there is a need of social distancing to combat the spread of Covid-19.

If vaccine not find on time then COVID-19 can make a very adverse impact on Indian economy as well as on world economic growth. Let's understand the impact of Corona Virus (COVID-19) on Indian Economy and its consequences on world.

2. LITERATURE REVIEW

As Covid-19 is spreading in India and all around the world, Several studies, surveys and predictions has been conducted by various organizations for example IMF, World Bank, RBI, Finance ministry of India etc. Also several research papers and case studies in the area of Economic impact of this pandemic have been published. Each and every study gives the same

result that there will be a very adverse effect on every economy where Covid-19 has shows its bad impact on humans.

2.1 How Top economies May Perform a Prediction by IMF

We can see that most of top economies are going in negative growth except India and China, these two big developing economies export worldwide. US has been hard hit by Covid-19 following Brazil and other countries.

Barclays economists projected a more pessimistic picture, estimating zero growth for India in 2020, and only 0.8% during the fiscal year 2020-21.

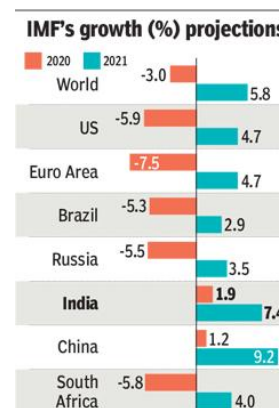


Fig. 1. Source: IMF Top economies growth projection

On April 9, 2020 the **chief of IMF, Kristalina Georgieva** said that the year 2020 could see the worst global economic fallout since the Great Depression in the 1930s, with over 170 countries likely to experience negative per capita Gross Domestic Production (GDP) growth due to the Covid-19 pandemic.

Due to lockdown the demand of goods and services sharply get decline only few essential goods and services were in demand so producers cut down there production and hence cut in employment level and most of the organization are cutting a part of salary of its employees. This means fall in income due to cut in salary will put pressure to demand less. Three major components of aggregate demand- consumption, investment, and exports are likely to stay affected for a long period of time. In addition to the collapse in demand, there will also be widespread supply chain disruptions due to the unavailability of raw materials, leaving urban areas by migrant workers, and restrictions on shipment and Airlines related services by all affected countries. (S. MahendraDev and Rajeswari Sengupta 2020).

According to Asian Development Bank (ADB) which has headquartered in Manila, Philippines the Covid-19 outbreak could cost the Indian economy between \$387 million and \$29.9 billion in personal consumption losses (www.livemint.com).

3. OBJECTIVES OF THE STUDY

This research paper has following objectives:

1. To understand the impact of COVID-19 on economic growth of India.
2. To understand the impact of a deadly disease on an economy.
3. To predict the impact of adverse intensity of COVID-19 post lockdown in India.
4. What will be the overall impact on Indian economy?

4. LIMITATIONS OF STUDY

This research is conducted on secondary data Published by WHO, Government and different media houses and organizations etc. The complete impact can only be known once this pandemic comes to end and then only we can see the complete impact of COVID-19 on economies. This research paper was written in the mid of 2020 so in this research we have use the data that is available till then. The complete impact can only be known after the end of this pandemic.

5. RESEARCH METHODOLOGY

This research is purely based on secondary datapublished by various national and international organizations and agencies like CRISIL, FICCI, IMF, WHO,RBI, MoF, McKinsey & Company and CARE Ratings etc for detail study. All the fact and figures are primarily collected by all these organization and their experts.

I have chosen various reports and surveys mostly published from February to June months of 2020 to understand the impact of COVID-19 on Indian economy and various sectors. Also, I have studied few research papers and News articles which publish in these months. Due to lockdown and the contagious level of Covid-19 it was hard to collect primary data from the market.

All the data, Tables and diagrams are primarily collected by all the above mentioned organization, I have taken data and figures wherever required in this research and also I have mentioned the source of the concerned data.

6. ANALYSIS AND INTERPRETATION

India was facing economic slowdown when Covid-19 pandemic attack Indian economy. India's GDP was consistently declining after peaking out at 7.9 in Q4 of FY 2018. Low demand was pressurizing producers to cut in production and hence unemployment level was rising in the end of quarter of 2019 and starting of 2020.

Almost all countries where corona shows its presence, shut their entire economy by putting Lockdown to prevent the spread of Covid-19 because the Corona Virus is highly contagious. So shutting down entire economy means a sudden stop of production of goods and services and at the same time fall in sudden demand of goods and services.

One thing is common is that COVID-19 is creating supply, demand and market shock in all the economies. We can see the below table to understand the shock that is created by 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

Fig. 2. Source: Respective countries National Statistics Office, Haver Analytics

Above table showing the Real GDP growth rate. We can clearly see the impact of Deadly disease on economies. If we observe the above table it can be seen clearly that there is fall in real GDP but not much fall why it is because if we talk about the financial year 2019-20 the **impact of Covid-19 can be seen on the last quarter of the financial year 2019-20**. Now there will be a large decline in real GDP of the financial year 2020-21.

The first case of the COVID-19 pandemic in India was reported on 30 January 2020. Janata curfew (People’s curfew) on Sunday, 22 March and complete lockdown from 24 March till 30 May in entire country and 30 June in containment zone. So the impact of Covid-19 [5-13] will be more on 2020-21 financial year as compare with financial year 2019-20.

Mostly all countries face Covid-19 in early 2020 so the worst impact on economies can be seen in 2020-21 financial year.

As on June 28, 2020 confirmed cases in India were 5,30,997 and Active cases were 2,03,449 as per the data shown on Covid19 India.org [14] website that is official Covid-19 tracking website.

In India illiteracy and awareness is very low and as we know that Covid-19 is very contagious, the spread of Covid-19 in India couldn’t be stop easily. Lockdown entire country was [14] the only option remaining with India and that’s what did by Prime Minister Shri NarendraModi on 24 of March the entire nation was shut for 21 days later was extended

till 30 may and 30 June in containment zone to prevent [15] the spread of Covid-19.

Shutting down the entire country leads to a sharp decline in demand of goods and services except some necessary goods and services. Transportation, hospitality, malls, Cinemas, restaurant and self employed people are the most affected units from shut down.

Companies are allowed to work with 30 to 50% capacity of employees. It means reduction in production of goods and services and hence reduction in supply that will be a shortage against aggregate demand. When Aggregate demand is more than aggregate supply that means there is excess demand situation that leads to an increase in general level of price. So **in coming months we can see a rise in inflation level**. Once situation get normal people get back to work and companies start their production at full capacity then only we can see an increase in supply of goods and services and hence supply will meet with demand and price can be control.

India’s economy was growing well, after demonization economic growth starts falling as money flow suddenly get shock due to demonetization which was announced on November 8, 2020 by Prime Minister of India, we can see in the figure given below. Indian companies were facing the problem of liquidity people were doing digital transactions, definitely this move enhance digitalization in India but at the same time it creates pressure on physical currency to flow very slowly.



Fig. 3. Showing Covid-19 status as on 28 June, 2020

Source: <https://www.covid19india.org/>

GST was rolled out in India on 1 July, 2020 economy start growing and after peaking out at 7.9 in Q4 of FY 2018 it again start declining. It was a long term impact of demonetization and GST as demand was get affected by these two moves by the government of India. India start facing economic slowdown as demand was low and people were losing their job.

In the beginning of 2020 India was already facing economic slowdown and then sudden outbreak of Covid-19 in China , Italy and US and finally in India leads to decrease in consumption, investment, and exports are the most responsible for a sudden fall in GDP growth.

After peaking out at 7.9 in Q4 of FY 2018, GDP continuously was declining. Initially it was declining because of economic slowdown but from March when

action taken in the form for Janata Curfew and Lockdown to combat Covid-19 GDP sharply declines.

RBI takes various steps to combat economic slowdown it decreases Repo Rate in February after seeing the current situation RBI continuously decreasing its repo rate that is the most responsible rate for money supply can credit creation.

In Fig. 5 clearly showing how Reserve Bank of India decreasing Repo Rate from 1 August, 2020. Initially Reserve Bank of India decreases Repo Rate to face economic slowdown till 6 February but after February from march now there was Covid-19 push down GDP so for facing this problem in order to boost economy it has to increase money supply to create demand in economy so RBI again cut Repo Rate to give a boost to Indian economy.

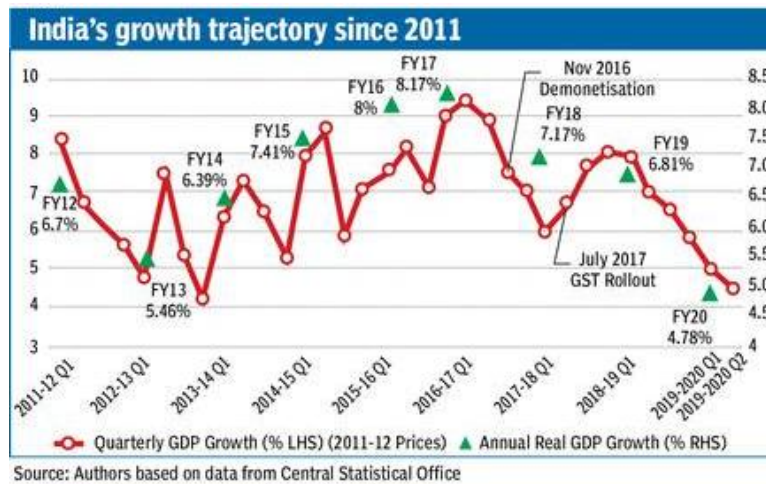
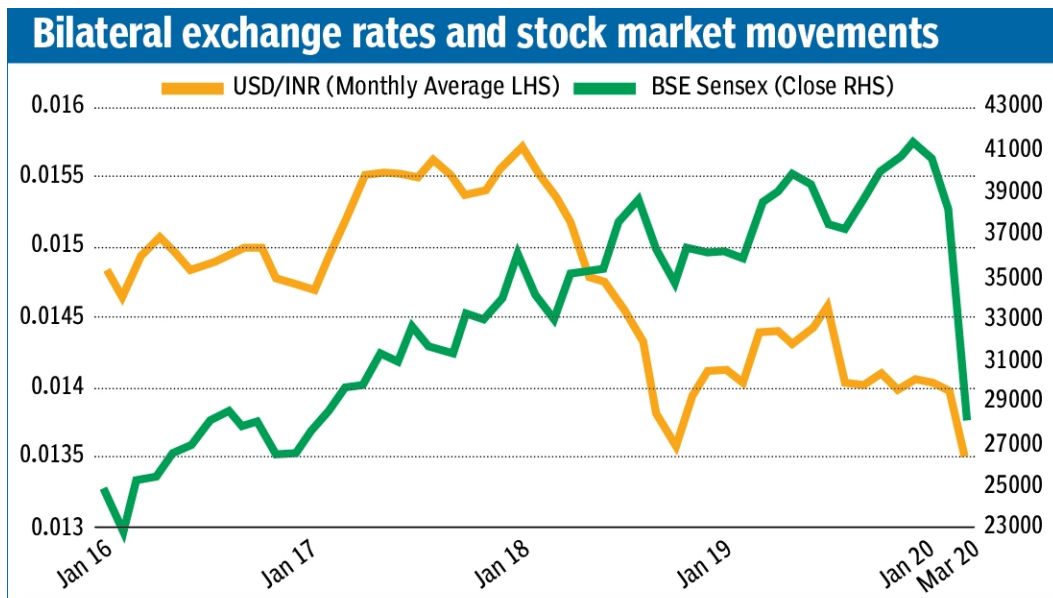


Fig. 4. Showing Covid-19 GDP

Effective Date	Repo Rate	%Change
22 May 2020	4.00%	0.40%
27 March 2020	4.40%	0.75%
6 February 2020	5.15%	0.25%
07 August, 2019	5.40%	0.35%
06 June, 2019	5.75%	0.25%
04 April, 2019	6.00%	0.25%
07 February, 2019	6.25%	0.25%
01 August, 2018	6.50%	0.25%
06 June, 2018	6.25%	0.25%
02 August, 2017	6.00%	0.25%

Fig. 5. Showing Covid-19 Repo Rate

Source: <https://www.bankbazaar.com>



Source: Authors based on Pacific Exchange Rate Database and Bombay Stock Exchange
 Note: A rise (fall) implies an appreciation (depreciation) of USD vis-a-vis INR

Fig. 6. Showing Covid-19 exchange rate and stockmarket



Fig. 7. Showing Covid-19 performance of BSE Sensex
 Source: BSE official website <https://www.bseindia.com/sensex/code/16/>

Central government of India also announced a package of Rs. 20 Lakh Crore to boost economy, including Rs 8.01 lakh crore of liquidity measures announced by the RBI since March 2020.

First tranche of this Package comprised Rs 5.94 lakh crore that is for small businesses and support to shadow banks and electricity distribution companies.

The **second tranche** comprised Rs 3.10 lakh crore included free foodgrain to the migrant workers for two months and credit to farmers.

The **third tranche** comprised Rs 1.5 lakh crore spending on agriculture infrastructure and other measures for agriculture and its allied sectors.

The **fourth and fifth tranches** comprised Rs 48,100 crore will deal mostly with structural reforms.

Stock market of India also faces the bad impact of Covid-19. The spread of the Covid-19 has triggered panic across the world and shaken the confidence of investors. We can see in the below given graph green line curve is showing **BSE Sensex** index that shows the growth of 30 well-established and financially sound companies listed on Bombay Stock Exchange of India.

On 20 January 2020, around 09:47 AM - The BSE SENSEX crossed 42,000 mark with an **all time high** of 42,273.87. Everything was going well before Pandemic; Sensex was growing as RBI was taking monetary measures to boost economy.

On 24 March 2020, SENSEX **lost a big value since the beginning of 2020** that was 3,934.72 points to end at 25,638.90 Due to Coronavirus Pandemic and nationwide lockdown.

Also, INR was falling against USD due to crude oil war and then due to Covid-19 as nationwide lockdown affected export, and hence supply of USD got affected very tremendously.

7. LAST 6 MONTHS PERFORMANCE OF BSE SENSEX

Above diagram showing performance of BSE Sensex with an all time high of 42,273.87 in 2020 and all time low 25,638.90 in 2020 till now.

Central government and RBI continuously working on to built the confidence of investors through various measures. Sensex start to return on its path after several measures taken by the Central government and RBI such as package of Rs. 20 Lakh Crore to

boost economy, including Rs 8.01 lakh crore of liquidity measures announced by the RBI since March 2020.

Once confidence back in the share market investors will start investing and normal life cycle will come back on the track.

8. BADLY AFFECTED SECTORS OF INDIA FROM COVID-19

8.1 MSME Sector

The Micro, Small and Medium Enterprises (MSMEs) are the most important sectors of Indian economy it is the backbone of all Indian sectors and they generally engaged in manufacturing and export activities. Due to the lockdown all production activities get shut down and this sector got into crisis and having not enough money to pay its employees. A majority of the small units may get to shut shop if they do not get a relief package soon, Government has announced a package of Rs. 20 Lakh Crore to boost economy it will defiantly help this sector too.

8.2 Tourism and Hospitality Sector

People move from one place to another and explore tourist destinations. Indian tourism and hospitality sector is very important as it provides employment to many people. As of 2019, 4.2 crore jobs were facilitated by Indian tourism sector in India, which was 8.1 per cent of the total employment in the country. Many studies and reports states that tourism sector will be worst affected due to the Covid-19 pandemic. A KMPG report predicted that in India more than 3.8 crore jobs will lose in Indian tourism and hospitality sector due to Covid-19 as people will not be willing to travel as they do in normal situations. Tourism and Hospitality Sector is expected to stay under pressure for at least next few months due to Covid-19.

8.3 Aviation Sector

Most important industry of service sector that connects nations across the world is facing very bad impact of Covid-19 as fewer passengers take flights, retrenchment and pay cuts can be seen in various Airlines. IndiGo is India's largest private airlines having employees more than 23,000 in numbers. IndiGo had a 48.9% market share of Indian Aviation industry as of March 2020. As on 31 March 2020 IndiGo decided to lay off 10% of its workforce and also planned for salary cut and on 27 July 2020 Company decided second round of salary cuts, pilots to take up to 13% in pay cuts with CEO Ronojoy

Dutta to take a 35% pay cut. However Air India did not do layoffs and salary cut but cabin crew members allowances like check allowance, quick return allowance and flying allowance reduced by 20%.

8.4 Automobile Sector

This sector along with other manufacturing industries was forced to stop key manufacturing activities and due to this Automobile Sector faced a Sharpe decline in productions, sales and revenue. India imports input products for automobile industry from Chinalike automotive parts. Crucial automotive parts like airbag components, pumps use in fuel injection, EGR modules, headlights and other electronic items used in auto industry, turbochargers, etc stoppage of production of these items can limit the further production of this sector. Mostly all plants were shut in lockdown period resulting the sudden decrease in production. All big automobile manufacturing companies have already announced pay cuts due to this crisis.

8.5 Real Estate Sector

Real estate also suffered badly due to lockdown. A real estate ANAROCK Group in a report stated that housing sales will fall in the range of 25-35% while sell of office lots will fall in the range of 13-30% this year. Due to lockdown constructions activities were also shut down for several weeks and till now as on 10th of august 2020 several areas that comes under containment zone are still in lockdown, therefore construction activities are still on hold in these areas. Many migrant workers were involve in these construction activities now they are unemployed, these people hardly have savings, they work on daily wage basis have to suffer a lot. The central as well as state governments has urged to all employers to not cut wages or lay off such labourers, but many reports suggest that due to cash flow issues such companies are no longer left with to go with government urge but to let their workers go. It will take time may be several months to get back to normal situation.

9. CONCLUSION

Impact of this pandemic on Indian economic growth as well as global economic growth is going to be huge. Indian GDP growth rate was 3.1% in the last quarter of 2019-20 and that was its slowest growth rate since early 2003. Asian Development Bank had projected that India's GDP growth rate would slip to 4% in the current fiscal year. After peaking out at 7.9 in Q4 of FY 2018-19 India start facing slowdown and hence its GDP growth rate was continuously falling and now its GDP growth rate has reached to 3.1% in the last quarter of 2019-20. After lockdown economic

activities started again but not at full capacity level. The impact of Covid-19 can be seen on every sector of Indian economy. Other top most countries where Covid-19 entered and showed its bad impact are like USA, Brazil, Russia, South Africa, Mexico, Peru and many more as Covid-19 spread in more than 184 countries. All these countries are important for the world economy, will definitely show negative impact of Covid-19 and hence the whole world has to face. India and China were the highest growing economies but now these are also facing the same. This pandemic will leave a long lasting impact on all economies whether they are developed or developing.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

ETHICAL APPROVAL

This article does not contain any studies with human. Participants or animals performed by any of the authors.

AVAILABILITY OF DATA AND MATERIAL

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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