The Economics of Pandemic

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Abstract:- The entire world is gearing for a war that has not been fought, on both, economical and political fronts. Will it be sustainable? How will this affect the financial sector? As governments across borders have tried to minimise the effects of COVID-19, not only in the health sector but also in other areas, this has become the 'New Normal'. The virus has affected millions of jobs across borders and by extension, the production of the country. The purpose of study is to analyse the growing effects of the virus on the world economy. Through this paper we aim to cover the impact of the virus on three sectors of the economy- The Commodity, Banking, and Pharmaceutical sector. During this unprecedented time, the three sectors have gone through tremendous pressure to restructure the economic models. Furthermore, this paper will also delve into the fiscal policies in place to maintain the equilibrium. The growth specifically affects the financial sector as the availability of credit will be lesser to conduct businesses. Under these circumstances, conducting normal business would be arduous for these sectors due to disrupted supply chain of the pharmaceutical sector as well as the sudden trends in the crude oil-commodity markets as they are under tremendous pressure.

This research paper aims to understand how the current scenario will further lead to an economic U or V Downturn. Using a cross-sectional study of the trends of various countries, this paper aims to understand the effects of viruses on the world economy vis a vis the three sectors chosen in our study. We will study trends of the global market to come to a conclusion of the long term effects and how far this will proliferate.

Keywords:- *COVID-19, Economic Downturn, Financial Sector, Pharmaceutical Sector, Commodity Market, Global Market, Disrupted Supply Chain.*

I. INTRODUCTION

Despite significant advancements in medical sciences over the last couple of centuries, infectious diseases such as influenza, smallpox, malaria etc. still haunt the society by claiming millions of human lives annually. The most fatal pandemic that the world has ever seen was the Spanish Flu of 1918-1919, during which many service-based businesses suffered massive losses (MPH Online, 2020).

Currently the world has been fighting with one such pandemic, the result of which is still being borne by economies throughout the world. Covid-19, this new highly contagious virus, was initially seen to be an epidemic in China, the virus spread worldwide within months leading to The World Health Organisation declaring COVID-19 a pandemic in March, and by the end of the month, the world saw more than a half-million people infected and nearly 30,000 deaths (MPH Online, 2020).

The recent economic projections show that the effect of COVID-19 on the economy will be dramatic, especially with a potential vaccine still several months to a year away. In the current situation, the head of the IMF, Kristalina Georgieva has warned that global lockdowns are capable of producing the worst recession since the famous Great Depression during the 1930s, with more than 170 nations prone to encounter negative per capita GDP development. The whole world is currently undergoing serious lockdowns leading to an inevitable effect on the economies around the world. Keeping in mind the overall impact due to Covid-19, we are conducting our study on the effect of the virus on three sectors :- Crude Oil, Banking and Pharmaceuticals and their overall impact on the global economy.

The purpose of this research is that after health sector crisis, economic recession is the major challenge that the whole world is currently dealing with & studying the impact of this virus on these three sectors would give us an overall idea of its impact on the economy, as all these sectors are very diverse from one another & cover a completely different area. These sectors have also undergone the impact of Covid-19 at different scales, providing a great deal in studying the overall economic effect.

II. METHOD

Through this paper, we have tried to study how the coronavirus outbreak led to spillovers into major sectors of the global economy, and how it might bring a new normal into our lives.

We all decided to work on the global economy, as it was one of the most impacted areas. Economy being diverse, we divided it into sectors and then went ahead with our research. The sectors chosen are on the scale of being most impacted to least impacted, According to a report published by EY. The three chosen sectors are- Crude Oil sector, most impacted; Banking sector, moderately impacted; and Pharmaceutical sector, least impacted.

Next, we divided the sectors amongst ourselves, and started researching, making use of all online sources available to us. The purpose of our research being the study of the impact of Covid-19 on the global economy, we tried to stick to the frequent situational reports released by The World Health Organisation, World Economic Forum, Euro Money, Financial Stability Board, Economic Times etc.

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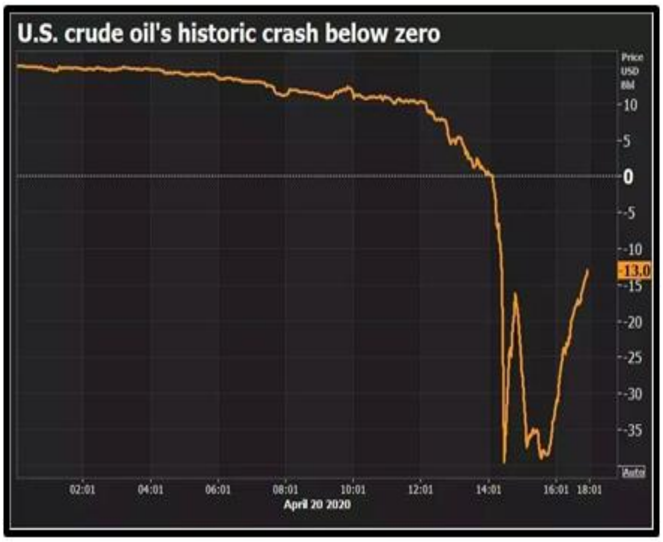
starting with January 1, 2020. We also investigated the 'New Normal' theory, proposed by companies like KPMG, EY, and Deloitte.

III. RESULTS

1. Crude oil

Crude oil is one of the sector's which has been majorly impacted by the pandemic, which is indirectly affecting the regional as well as the global economy.

In the Oil industry, for business, there exist Oil traders, who buy and sell oil contracts regarding future deliveries. Most of the traders in the business are just to make money with future prices, by not actually taking the delivery, and rolling it over to the next month. When the prices go below a limit, it leads to some oil firms going out of cash along with their business, just like what happened with Whiting Petroleum. It further leads to an increment in the bad debts. It was witnessed that there has been plunging fluctuations in the oil prices since the start of January. But no one would have imagined that the same barrel which was at its peak price of $148, during June 2008, would go negative at -$37 per barrel, because of COVID-19 outbreak.



[Figure 1. U.S. oil prices reached below zero for the first time in history on April 20th, 2020. Downloaded from Reuters]

1.1 Current Scenario

Oil markets are currently caught up in a hysteria because of a condition called 'Super Contango'. When a market is in contango, the forward price of a futures contract is higher than the spot price, as in the futures contracts are trading at a premium to the spot price (Saxena, 2020).

The traders that held contracts of May, were trying to sell, and to their surprise, there were no buyers for the same. Due to this sudden panic, the prices fell disastrously. It reached to that extent where the traders had to pay the buyers to take off the load, because all the storage points were already full or reserved. In the United States, they are even trying burning their oil and put a hold on their oil wells to avoid further losses. The price crash was considered as a meaningless interruption, at the early stage, which was just going to impact the May contracts for West Texas Intermediate. But now it's hoped that it will have a substantial effect on the coming months or even years (Busby, 2020).

The major fall in the oil price is impacting the global economy on a greater scale, for some countries it's coming out to be beneficial while for others it's a loss. Oil exporting countries majorly rely on the revenue and tax coming out of exports to fund their government, for example, Russia builds almost 70% of all tax revenue from oil and gas and Venezuela has always relied in the past on oil revenues to fund their generous social spending. This fall causes social problems alongside a significant budget deficit.

On the other hand, the oil-importing countries, for example Germany & India have benefited with the fall in the oil prices. The fall would be greeted by the consumers and firms due to the low prices. If consumers cut back on travel, cheaper petrol doesn't provide much compensation. Therefore, the fall would hardly have any effect for a positive economy.

1.2 Future Predictions

The ground touching prices would be enjoyed in the short run, but it would neither mean profit nor dividend to the companies, indirectly affecting the pension funds provided by them (Saxena, 2020).

The calamity will prove MENA countries with negative demand and supply shock. It is supposed to be global as well as regional. Irregularities in transport would affect supply because of a decline in raw materials and capital.

Except for the economy, international conflicts are also at stake due to oil prices. When an oil-producing country gets a cut on it's revenue stream, they can't take a risk of international aggression. According to Cullen Hendrix, less international conflicts occur when oil prices are low. After the current price fall, Saudi Arabia ended the war against Yemen. On the other hand, all of this could go in the opposite direction too. It might make the oil producing countries more aggressive. The countries which are not able to generate much revenue, might undergo an economic crisis, and divert the popular attention to attack their neighbours. (Busby, 2020).

Although the negative demand and supply shocks originated due to COVID-19 are hoped to end in a short term, it may end to affect other sectors more. Demand and supply will reach back to their positions in a few months/years once the pandemic rests.

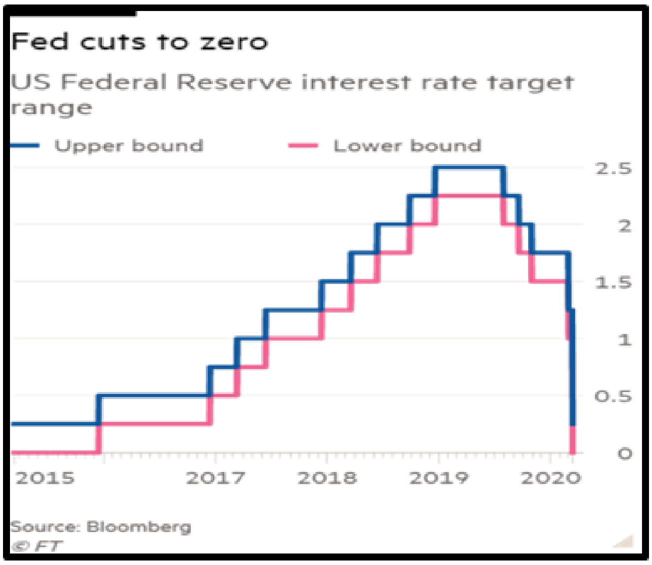
2. Banking

The most taxing test to the post-crisis financial system has proven to be the COVID-19 pandemic. The macro-economic shock comes across as a double edged sword on the world economy and financial system, which consists of managing the increased risk and driving the flow of credit amidst the deteriorating growth. This unanticipated situation has put an immense pressure on the already crumbling financial system. The global economy is now crippled by a 3 in 1 combo-supply breakages and muck ups due to containment efforts in a multitude of economies including China, domestic uncertainties like amplification of demand-side shocks due to the excessive fear in the citizens. (Ramkishen & Sasidaran, 2020) The governments and central banks worldwide are putting out their best bets at minimizing the economic effects of the pandemic and exhausting their policy toolkits, but all in vain. Experts believe that the monetary and fiscal injections and stimulus might be insufficient to tackle the unexpected crisis.

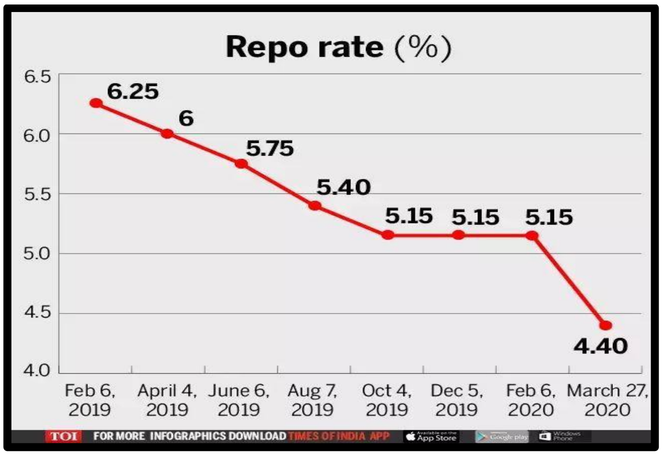
2.1 Spillover to the Financial Sector: Banks

The pandemic has caused a major change in the pricing and positioning of the global markets. Unprecedented volatility in the equities, markets for capital outflows, risky assets from the emerging market & acute variations in the forex have been the known effects of increased risk aversion, downward revisions of economic growth revisions and complete uncertainty about the pandemic's future course with a second wave being expected in some countries including the USA (FSB,2020).

Adding on to the already mounting pile of economic travesty, the economies have faced hurdles in funding markets due to the extreme demand for cash and near cash assets. The stress metrics have recorded historically high levels while the mostly highly liquid markets have witnessed price discovery and impaired activity. Many central banks have taken the action of slashing the interest rate in an attempt to revive the economy. For example- The Federal Reserve has slashed the interest rate effectively to zero in an attempt to bolster the US economy (Heather, 2020).



[Figure 2. For example- The Federal Reserve has slashed the interest rate effectively to zero in an attempt to bolster the US economy (Heather, 2020).]



[Figure 3. The Reserve Bank of India responded to the coronavirus induced crisis with a cut in the repo rate, bringing it down to 4.4%. Downloaded from https://timesofindia.indiatimes.com/business/india-business/rbi-reduces-repo-rate-rate-by-75-basis-points-to-4-4-key-points/articleshow/74840356.cms]

Rahul Bajoria, Chief India Economist, Barclays said that The Reserve Bank of India has exceeded the presumptions by implementing higher standards as compared to the market expectations, and its assurance to 'do whatever it takes' has turned out to be beneficial.

The pandemic has put the banks under tremendous pressure to provide more funds while concurrently going through multiplying non-remittances from the clients whose earnings have been sinking as a result of the lockdown. Due to this, the debt of the banks will keep on increasing and in turn, the Non-Performing Assets will increase.

According to a study by KPMG, banks profitability has been under pressure due to:

- Depletion of the usage of the credit under collapsed market situations and prudent customer viewpoint.
- Decline in proceedings of banking revenue as a result of restrictions in cross border trade.
- Inactive Net Interest Margin in modest interest amount mechanism.

2.2 How Banks Should Respond?

Due to the expansion of the consequences caused by the pandemic, the banks need to understand the severity involved by being extremely responsible and accordingly act as systemic stabilizers.

The banking sector can be backed up by the capital markets. Here, one impactful mode that has emerged to induce the private capital for the public good is social bonds. The deterioration of the central bank considerations and the escalation of the debt-to-GDP ratios arise causing the terror to grow all over the world. Therefore, a crucial role has to be played by the social bonds in order to win this conflict against the coronavirus as well as its consequences. It will help in establishing adaptability against upcoming adversities. Their returns could capitalize the pharmaceuticals, spurn the health insurance charges, and

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assist minor businesses in order to obstruct insolvencies (Nyshka, 2020).

Dividends should be eliminated by the banks, despite of the fact that obtaining these is a massive cause for possessing the bank stocks. In order to preserve capital for lending, this would be one solution. It is transparently known that buybacks should also be dismissed. Third, they should hold up the staff restriction. Cost reduction needs to stand by for the time being. Finally, they should restrain risk taking as a way to boost earnings (Peter, 2020). Also, the banks should prioritize these three measures in order to minimize the repercussions due to COVID-19:

- Normalizing the measures of workforce for multi-month sustainability.
- Providing retail consumers with the vital baking services.
- Fulfilling the social mission to sustain business and household with credit.(Kevin et al, 2020)

According to Theodore (2020), "The most fruitful outcome for a bank in the era of the pandemic should not be concluding a juicy commission-lavish deal but provide protection to the business from virus-prompted bankruptcy and its employees from desisting".

3. Pharma Sector

Covid-19, is prominently leaving a huge mark on the pharmaceutical industry. Countries like the US, China and Japan together comprise more than half of the pharmaceutical market and simultaneously are one of the worst affected countries leaving a huge hole in this particular market. Few major problems suffered by these countries include hospitals giving preference to patients suffering from Covid-19 & patients with not a serious illness being deprived of a timely treatment, launch and supply of pharmaceuticals getting disrupted and delayed because of late approvals & travel restrictions. (Fortune Business Insights, 2020).

3.1 Current Scenario

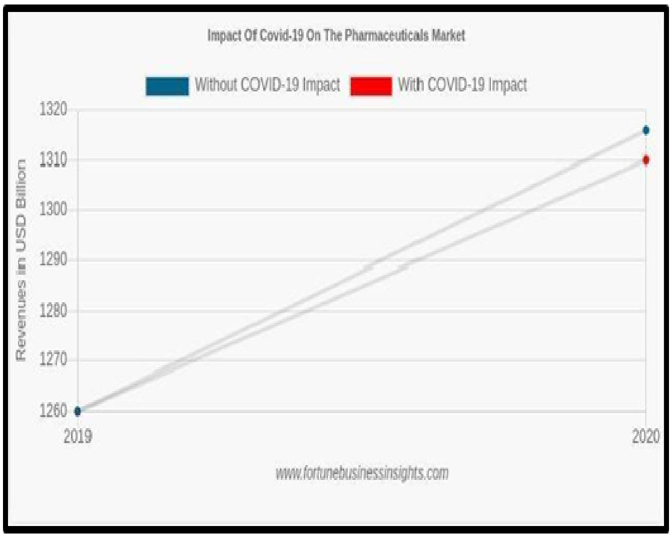
India's pharmaceutical industry gets 70% of the active pharmaceutical ingredients (APIs) for their medicines from Chinese imports & supplies it to the rest of the world, as China happens to be the world's largest producer and exporter of API's by volume (Chatterjee, 2020). Because of such disruptions in the supply chain, the production of API's in the country was reduced which resulted in less availability, higher costs of raw materials and restrictions in product delivery which led India to keep its 26 API's to make medicines for its own domestic usage and not export it to other countries. Due to such restrictions, many countries & administrations like the US Food & Drug Administration were undergoing scarcities of these drugs. (Balfour, 2020).

The effect of Covid-19 is not just limited to disruptions in supply chain and production units but hospitals are also dealing with the consequences of this outbreak. A sudden decline was noticed in the number of patients that visit hospitals in the month of February and March 2020 as a result of a lockdown.

In many countries like India, with less per capita healthcare spending of people & not very efficient medical policies, healthcare spending will decrease by a massive amount as in such countries people have to spend out of their own pockets for their treatment & with the economy being slow & less income, people wouldn't prefer spending on medical services or pharmaceuticals which again will be a major hit for the sector.

There was also a delayed launch of new generic drugs or molecules because of a change in the kind of medicines bought as there was a sudden demand of antiviral medicines as a result of Covid-19 and patients started to ignore all other kinds of illnesses & left them untreated. This had a major impact on the global pharmaceutical market. (Fortune Business Insights, 2020).

As per the interpretation of Fortune Business Insights, in the short-go, Covid-19 is predicted to have less growth of the worldly pharmaceuticals trade as compared to earlier estimation of 4.4% to a changed result being 4.0% in 2020. Pharmaceuticals trade, all over the world was previously examined to be valued at USD 1316.0 billion in 2020. After Covid-19, is now being anticipated to induce USD 1310.0 billion as per income calculation during this year.



[Figure 4. Thus, the result of the coronavirus outbreak has been overall negative in the pharma sector. (Balfour, 2020)]

3.2 Response of Government & Pharma Companies

In order to neutralize the effect after the reduction in demand for generic drugs, the pharmaceutical industry is focusing on developing drugs and vaccines by collaborating with different pharmaceutical companies & labs all across the globe & huge R&D investments with the hope of launching drugs and vaccines by 2021in order to revive the industry and fight the pandemic. However, it is believed that the increase in the demand of antiviral drugs might also be one of the factors leading to revival of the pharmaceutical industry. (Fortune Business Insights, 2020).

The governments across the globe are also coming up with various strategies to deal with the present situation with the available resources. For Instance, The Indian government, in order to be able to domestically produce API's and other medical materials & equipment, decided to allocate approximately $181 million for the promotion of the same. (Dadhich, 2020). The government is also taking steps towards technological advancement in the pharmaceutical sector by providing medical services to people in need digitally through social media, telephones etc. as a result of travel restrictions & this has actually led to an increase in the number of patients seeking help even for illnesses other than Covid-19. People have also started using services like ordering their medicines through online pharmacies. The government has also started to loosen up the export restrictions regarding these drugs. (Fortune Business Insights, 2020).

Even though the pandemic is going to impact many sectors of the economy in a very deadly manner, it's not going to be tough for the pharmaceutical industry to neutralise its effect. Therefore the impact of Covid-19 on the pharmaceutical sector will only be for a short term & not any long term effects, but this will only be true if countries like India remove its technological and financial barriers and increase the API production to be able to produce its own medicine and not be dependent on China. (Fortune Business Insights, 2020).

IV. DISCUSSION

It is clear that this whole pandemic has introduced a whole new era that we and our future generations will witness, the post-virus era also called the "New Normal ". This New Normal will be very different from the approach in which the society used to earlier operate including businesses & households. To find out what this next normal would look like, we have tried to find the answer to a few questions in our whole study. The initial question being what many of us thought during our history classes: How did people survive during the war? Which got us thinking about What the Next Normal would look like? and How will it be different from our previous lives? And as an answer to these questions, we analysed three major sectors that helped us to form an overall conclusion for the global economy. This pandemic and it's after effects are not going to end soon, leaving it's imprint for the future generations as well. Our answer is a call to act across these five stages, leading from the crisis of today to the next normal: Resolve, Resilience, Return, Reimagination, and Reform, which we have tried to portray through the three sectors.

However, further academic research is what should be the wisest step to arrive at a more concrete conclusion to our research question. It is only with the backing of formal quantitative data, will we be able to support our inferences with increased confidence.

During the process of completing our research we did undergo certain limitations during the whole study. Major one being, limited dataset leading to limited analysis. We would have been able to study the impact of government policies during coronavirus better if the research period was a little longer. Due to new additions to the subject each day & the unpredictable future events, we couldn't include everything justifiably. Being a recent subject, we had to stick our research to the information provided by online research papers, articles & journals. Due to the current lockdown situation, we couldn't actually visit the field to interview any of the experts. Conducting a survey wouldn't be as fruitful as the sample space would be small, leading to less accurate findings and wouldn't do justice to the report.

Despite these limitations, we have done our best to do justice to the overall purpose of the research. Our research could be used to make analysis of the whole pandemic scenario due to diversification of the three sectors that we have chosen, and it could be of help to formulate further policies and reports after conducting a proper statistical study for the same.

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APPENDIX

Banking

The Global Crisis of 2008-09 produced what came to be known as the Great Trade Collapse. It occurred between the third quarter of 2008 and the second quarter of 2009. It was, and still is, the steepest fall of world trade in recorded history, and the deepest fall since the Great Depression. The drop was sudden, severe, and synchronised.

Similar to conventional bonds, social bonds propose fixed returns for investors, however, they utilize proceeds solely for social causes—equivalent to green bonds that centralize upon the environment.

“Particularly, any activities accountable for leading a bank into new positions involving risk – such as M&A and alike transactions which may make seem like more reasonable during comparatively normal times – should be well eluded for a while,”

Pharma

The market has been severely affected as the supply chain has been unable to meet the overall demand that exists in the pharma sector. The two largest producers of pharmaceutical ingredients(APIs) and generics, China being the epicentre of the disease and India recently being caught in a national lockdown and the imposition of trade restrictions to meet domestic demands has created a vortex in the supply chain.

CRUDE OIL

According to Invest India, it is believed that there would be a decline in global consumption of around 7 times bigger than the quarterly decline, which the world witnessed after the Great Depression. It is a result of major mismatch in the demand and supply of oil worldwide.