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Analysis of stock market crash during COVID -19

Samaksh Khandelwal
ksamaksh06@gmail.com
Seedling Modern Public School, Udaipur, Rajasthan

ABSTRACT

The Coronavirus pandemic has been observed to have had a dramatic impact on the Stock market and financial sectors all over the world. The pandemic has severely affected economies and the stock market in many emerging countries and continues to do so. There has been a sudden unprecedented dip which has adversely affected investors in only a short time. This paper aims to analyze and understand the effects of Covid 19 on the stock market and the global economy. The spillover of the pandemic in various sectors like banking, entertainment, health, education is deeply studied and reviewed. The research method used in the paper is a systematic literature review of the research with the cluster of keywords identified as the central objective. The paper aims to understand the different scenarios of the stock market and how it crashed during the pandemic.

Keywords— *Covid 19, coronavirus, pandemic, financial crisis, stock market, spillovers, global recession. outbreak, stock market volatility*

1. INTRODUCTION

Covid 19 was introduced in January 2020 in Wuhan city, China and soon emerged as a deadly disease. The initial spread to thousands of residents in the city forced the Chinese Government to close down the entire city. At first, this move had skeptical reactions from the rest of the world but a few weeks later, after thorough deliberation and understanding of the situation, the world Health organization declared Covid 19 as a serious pandemic. The initial cases in China drifted to South Korea and then to Iran shifting to Europe and the United States in the process, adversely affecting a lot of countries and finally the whole world. The number of cases was increasing sporadically and fatalities were reported on a daily basis. Italy was drastically affected with millions of lives lost. There has been a major economic crisis that emerged since the pandemic started. In the year 2003, when the SARS virus had affected a city in China, the economic strain was huge but it was limited to a single area. With the Coronavirus, the impact has been profound as the entire world is suffering and is in shackles.

It was on march 11th of 2020 that the Corona virus was declared as a global pandemic due to its mass outbreak. The number of confirmed cases shot up daily in every country and continent. With more cases and fatalities, it was declared that strict and stringent quarantine policies are the only way to reduce the mortality rate and the spread of the epidemic. This move had a significant impact on every sector and industry. The economic activities became limited and led to mass unemployment and business failures. Many industries faced hardships and severe negative economic impact. The most dramatic impact of the coronavirus pandemic has been noted in the United States of America with the circuit breaker mechanism going off four consecutive times. The lash of the pandemic has also affected financial markets all across Asia and Europe. Although most stock markets have recently begun rebounding, a great deal of uncertainty still remains as the pandemic continues.

Economic turmoil associated with COVID-19 has affected the financial market severely which includes both stock and bond markets. Due to this pandemic, there has been a large fall in the prices of oil and a large increase in the prices of gold. Firzli (2020), refers to this pandemic as “the greater financial crisis.” In many countries now, businesses are highly indebted, weak companies are more destabilized, and corporate debt stands at a very high level. This has increased the level of unemployment and piled up huge debts for small and big companies alike. The major Asian and US stock markets have recovered with time thanks to the introduction of vaccines, but the FTSE (Financial Times Stock Exchange) is still negative and has dropped over 14.3% which is deemed as the worst performance since the year of 2008. The banks in the United Kingdom have slashed their interest rates in order to encourage spending and to eventually boost the economy.

The paper is henceforth organized as follows. The literature survey encompasses the survey of different literature regarding the research area, a discussion of how Covid 19 affected the stock market meltdown and its implications in fields of travel, sports, oil process and industry, banking and Fintech, financial markets, event industry, entertainment industry, health, and education. This is followed by an overall discussion of the negative effects of the pandemic on banking and capital markets sectors all over the world.

2. LITERATURE SURVEY

Since the emergence of Covid 19, the pandemic and its subsequent restrictions have been a major topic in empirical studies in major economies. One such study was conducted by *Ozili and Arun (2020)*. Their study consisted of learning the effect of the 30-day social distancing policy on the economies. It was learned that the policy has had an adverse and negative impact on the stock prices.

Shehzad et al.2020 conducted another study that analyzed the overall pattern and behavior of financial markets in the US, Italy, China, Japan using the GARCH model. It was concluded that the pandemic affected and harmed the stocks of the S&P 50, creating a huge economic meltdown and crash leading to recession.

The literature on the causes of recessions is vast with so many examples from the past, but the cause of the 2020 global recession was novel in the history of mankind. The corona virus triggered a new type of recession that was different from the past triggers of a recession. This was concluded as something mankind has never witnessed and something humans had never prepared for.
For example, the Asian debt crisis of 1997 was caused by the collapse of the Thai baht in July 1997, creating a huge panic and financial crisis across Asia. *(Radelet and Sachs,1998)*.

The next one is the 2008 global financial crisis, which translated to a recession, causing subprime mortgages, weak regulatory structures, and high leverage in the banking sector with a known cause being a very poorly drafted monetary policy *(Allen and Carletti, 2010)*. The 2016 recession in Nigeria was caused by the fall in the price of crude oil, the balance of payment deficit, adoption of a fixed-float exchange rate regime, an increase in the pump price of petrol, activities of pipeline vandals, and infrastructure weaknesses. Yet another example is the 2010 recession in Greece caused by the after effect of the global financial crisis, structural weaknesses in the Greek economy, and lack of monetary policy flexibility as a member of the Eurozone *(Rady, 2012)*.

The stock market crash has asked the most important question: why is there such a huge impact on the stock market due to the pandemic? In their paper "The unprecedented stock market impact of covid 19" by (*Baker, Bloom, Davis, and Kost),* National bureau for economic research paper suggest that the reasons are threefold. The first reason is quite the extreme severity of the pandemic. The comparison with Spanish Flu does have a clearer understanding of the situation. It is mentioned that the mortality rate of Covid 19 is deemed as the number one reason followed by more information available on the topic at present. More info about Covid 19 is a trigger for stock market jumps and volatility. The third reason stresses the role of cross-border flows of goods in the modern economy, driven by decades of falling transport costs, falling communication costs, and until recently, falling tariffs.

The pandemic has triggered a number of channels, including the labor markets, global supply chains, consumption behaviors, all of which can affect the global economy. Among these channels, one of the most important components is definitely the stock markets (*Ahmar and Del Val, 2020; Al-Awadhi et al., 2020).* Given the slowest pace of economic growth and lack of capital inflows, emerging markets have relatively limited resources to cope with the impacts of the pandemic and therefore are expected to severely suffer.

Although the overall economic impacts are not yet straight, financial markets already reacted to COVID-19 by early March. In addition, recent studies indicate that the risk level of all countries increased dramatically in March when COVID-19 spread to more than 200 destinations *(Gormsen and Koijen, 2020; Zhang et al., 2020).* By late March, however, governments and central banks adopted a wide range of economic policies (*Elgin et al., 2020; Nicola et al., 2020; Carlson-Fortaleza et al., 2020)* in order to slow down the impact of the lockdown and the sparking fear caused by the pandemic.

3. STOCK MARKET SPILLOVER AND ITS EFFECT ON INDUSTRIES

In the initial stage, it was expected that Covid 19 would be a small-scale situation but with time that was proved wrong. Many major countries got affected and the government opting strict social distancing rules impacted every possible human endeavor. This finally led to economic recessions and major stock meltdowns and crashes. In this paper, we are going to discuss the spillovers in multiple industries to understand the overall damage on the financial market.

3.1. Travel Industry

With the global spread of pandemic, most of the countries imposed a travel ban and also stopped issuing visas to curb the spread of the virus. This had a profound impact on the travel industry. It was noted that this stage caused the aircraft and aviation industry to go through heavy revenue losses as mass ticket cancellations became a regular occurrence. It is estimated that the travel industry lost over 200$ billion globally. With the indefinite style of the pandemic, this remains unchanged. However, the uplifting of the travel ban slowly in many countries has been a beam of hope for the industry.

3.2. Sports industry

The sports industry was severely affected during the corona virus outbreak. In the football segment, major European football leagues in England and Scotland were suspended. The Turkish super league was the last major European league to suspend its matches. The Monaco Grand Prix was canceled. The Tokyo Summer Olympic and Paralympic Games were also postponed. The 2020 hockey games in England were postponed. All major baseball league season games in Mexico and Puerto Rico were called off. The Motorsport game in Portugal was postponed after the Portuguese government declared a state of emergency and suspended all sporting events. The resulting loss in revenue to the sponsors and organizers of the canceled games ran into billions of dollars, adversely affecting the sports industry and the sportsmen.

3.3. Oil prices and dependant countries
Early in 2020, the price of oil fell due to the oil price war between Russia and Saudi Arabia. The coronavirus pandemic worsened the situation through the reduction in the demand for oil. The imposed travel restrictions during the pandemic, which led to a reduction in the movement of people and goods, resulted in a fall in demand for aviation fuel, coal, and other energy products, which subsequently led to a fall in oil prices due to low demand. With the pandemic affecting so many energy sources like coal and gas, the oil markets took a huge blow. A drastic decline in their prices and demand has made oil dependent countries such as Venezuela, Angola, and Nigeria severely suffer. The sustained decline in the global oil price due to the COVID-19 pandemic meant that the current national budget became outdated for most oil dependent countries, and had to be revised because it did not reflect the current economic reality since the budget was priced at a higher oil price from 2019. Consequently, the national budget of some oil-dependent countries ran into massive deficits which forced these countries to either (i) seek a foreign loan from the IMF, World Bank, and other lenders to fund their budget deficits, or (ii) create a new budget that was priced using the current low oil price in the global market.

3.4. Import dependant countries
With the Covid 19, pandemic and restrictions imposed on the import dependent countries led to them suffering huge revenue losses. Many countries import their essential commodities from major exporting countries like China, India, and Japan, and depend largely on these countries for the consumption of essential commodities. The reduction in goods flowing through the global supply chain, and substantial reliance on China for imported goods led to shortages of supplies to import-dependent countries as China shut down many of its export factories. This led to increases in the prices of the remaining stock of imported supplies left in import-dependent countries, which also triggered inflationary pressures on the price of basic commodities despite the general low demand for imports due to the coronavirus pandemic. Inflation and lesser revenue both affected the overall situation of the countries.

3.5. Health industry
The health industry was quite in a fix when the service demand increased with the global pandemic. Countries like China and Iran struggled with providing medical support to the immense number of patients. The burden on the healthcare sector increased manifold over time, however, it has now achieved a normal curve. The effect of the pandemic is clearly visible even in the pharmaceutical companies as the materials for most of the drugs came from China and this outbreak basically shut down every industry in China. Many pharmaceutical companies did not store up substantial amounts of APIs prior to the corona virus outbreak, and as a result, some essential drugs were in short supply. The pharmaceutical companies that had stored up a substantial number of APIs in their warehouse refused to sell them due to the fear of running out of supplies while others were willing to sell at a very high price. The over reliance on Chinese API manufacturers posed the biggest risk to the global pharmaceutical industry and the COVID-19 outbreak amplified the risk even further.

4. REVIEW OF THE IMPACT OF CORONA VIRUS ON BANKING, STOCKS
The macroeconomic slowdown led to a rise of nonperforming loans in the banking sector by 250 basis points. Private sector banks had the highest exposure to credit risk during the outbreak. Non-performing loans arose from loans issued to small and medium scale enterprises (SMEs) to airlines, hotels, tour operators, restaurants, retail, construction, and real estate businesses. During the pandemic, there was a general decline in the volume of bank transactions, a decline in card payments, and a fall in the use of ATM cash machines worldwide. This led to fewer fees collected by banks which negatively affected banks' profit.

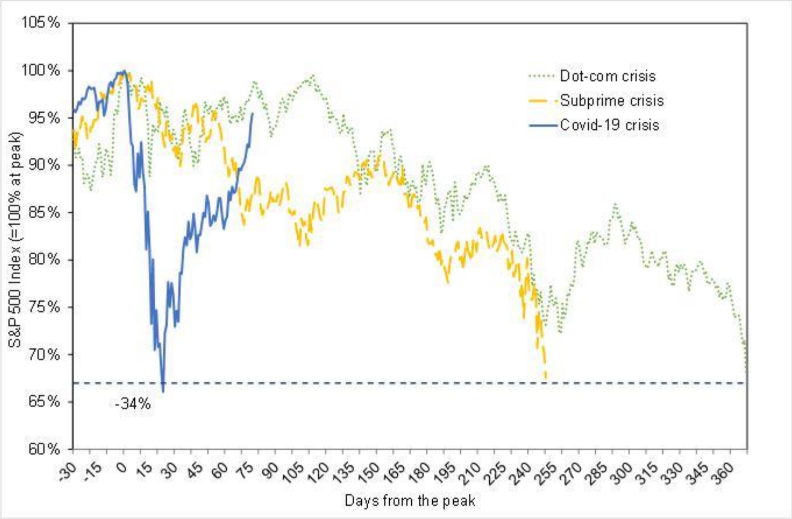
FinTech businesses were also affected. Some Fin Tech businesses witnessed very low patronage by consumers leading to loss of revenue and profits, which negatively affected the equity investment of venture capitalists that funded existing and new FinTech firms. This made many venture capitalists begin to hoard new equity which led to the drying up of financing for some FinTech businesses. On the other hand, the lockdowns due to the corona virus outbreak resulted in higher demand for some sorts of online services such as online shopping.

The most visible outcome of the COVID-19 crisis on financial markets was the effect on the global stock market. Global stock markets lost $6 trillion in value over six days from 23 to 28 February, according to S&P Dow Jones Indices. Between February 20 and March 19, the S&P 500 index fell by 28% (from 3,373 to 2,409), the FTSE 250 index fell by 41.3% (from 21,866 to 12,830), and the Nikkei fell by 29% (from 23,479 to 16,552).

In the same period, large international banks witnessed a plunge in their share prices. For example, Citigroup's share price fell by 49% (from US$78.22 to US$39.64), JP Morgan Chase's share price fell by 38% (from US$137.49 to US$85.30), and Barclays' share price fell by 52% (from £181.32 to £86.45). Although the oil price war, in which Russia and Saudi Arabia were driving down oil price by increasing oil production, played a role in the fall in stock markets indices, the subsequent fall in stock market indices in March was mainly due to investors' flight to safety during the coronavirus pandemic.

5. GRAPHICAL REPRESENTATION
This figure below is from "the stock market and the economy: Insights from the COVID-19 crisis" written by Gunther Capelle-Blancard and Adrienne Desroziers who discussed the Dot com crisis and the Covid 19 crisis. The comparison of the drop is being measured through the S & P 500 index. In March 2020, it took only one month for the S&P 500 to lose one-third of its value, while it took one year for the subprime crisis to decline the same amount, and one year and half for the dotcom bust. Three main findings about stock market reactions were discussed in this paper. Stock markets reacted strongly to the increase in the number of infected

people in each country, while volatility surged as concerns about the pandemic grew. The writers have concluded that following the intervention of central banks, shareholders have no longer seemed much troubled by the news of the health crisis, and prices rebounded all around the world and there was a quick catch-up event that was observed.



Secondly, they have mentioned how country-specific characteristics appear to have had little influence on stock market responses. The reaction and effect on stock markets where the pandemic was more adverse have not been affected similarly. Next is the government interventions through lower policy interest rates, and lockdown measures which successfully mitigated the decline in stock prices.

6. CONCLUSION

Coronavirus, which was initially detected in China, took over the entire globe with the World Health Organization declaring it as a serious pandemic. Even though our Globe and time have passed through several such epidemics, this pandemic is different as the times are different. Needless to say, the impact that the pandemic has had on several industries was huge. The review of the effect of the Corona Virus on stocks is that they have been majorly hit. The economies of developing and developed countries were widely affected. The United States of America took a huge blow, leading to different strategies announced later in the year. The most visible outcome of the COVID-19 crisis on financial markets was the effect on the global stock market. Global stock markets lost $6 trillion in value over six days from 23 to 28 February, according to S&P Dow Jones Indices. Between February 20 and March 19, the S&P 500 index fell by 28% (from 3,373 to 2,409), the FTSE 250 index fell by 41.3% (from 21,866 to 12,830), and the Nikkei fell by 29% (from 23,479 to 16,552) as discussed in the paper already.

The stock crash has been witnessed in multiple countries in multiple industries like banking, Fintech, education, health, sports, entertainment. The developing countries and the countries which are oil and import-dependent have also seen a huge decline in their revenue with fewer streams of income, however the situation of Coronavirus is getting better as the world has come back to a level of normalcy. There has been an opening up of the industries and the implementation of relaxed social distancing norms is helping the revenue and stock markets to soar high and revamp from the dreadful states. It will be just a matter of time and effort before the stock market crash could fully be reversed and the revenue and economy be brought back on track.

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