Stock market Behaviour to COVID-19 Pandemic: Empirical Insights of G20 Countries

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by

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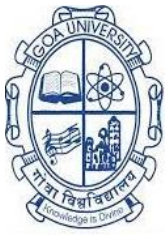

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DECLARATION BY STUDENT

I hereby declare that the data presented in this Dissertation / Internship report entitled, "Stock Market Behaviour to COVID-19 Pandemic: Empirical Insights of G20 Countries" is based on the results of investigations carried out by me in the MBA (Financial Services) at the Goa Business School, Goa University under the Supervision/Mentorship of Dr. Prachi Kolamkar and the same has not been submitted elsewhere for the award of a degree or diploma by me. Further, I understand that Goa University or its authorities will be not be responsible for the correctness of observations / experimental or other findings given the dissertation.

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COMPLETION CERTIFICATE

This is to certify that the dissertation report "Stock Market Behaviour to COVID-19 Pandemic: Empirical Insights of the G20 Countries" is a bonafide work carried out by Ms. Sanjana Vivekanand Inchalmath under my supervision/mentorship in partial fulfilment of the requirements for the award of the degree of Master's degree in the Discipline MBA (Financial Services) at the Goa Business School, Goa University.

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CHAPTER-1 Introduction:

1.1 Introduction

The sudden spread of COVID-19 poses an unprecedented and horrifying threat to both the health and socioeconomic well-being of people around the world, the severity and scale of which is still unknown to the world. The epidemic has strained health systems, disrupted trade, and depressed production, consumption and investment. Traces of its impact can be seen in virtually all economic regions, whether developed or emerging.(Sahoo & Ashwani, 2020)

When China's National Health and Fitness Commission (NHFC) confirmed that the virus had spread from person to person, the world's attention was drawn to one such unexpected outbreak (H. Liu et al., 2020). The first case in Washington was confirmed by the US Centers for Disease Control and Prevention (CDCP) shortly after the news was made public. Stock markets exhibited volatility amid widespread uncertainty and fear regarding the virus's spread as a result of such announcements. This was a sign of the impact that these announcements had on the rest of the world.

On the day of the announcement, market indexes plummeted because the world was already in a state of panic and pessimism. For instance, the DAX30 index in Germany, the CAC40 index in France, and the FTMIB index in Italy all experienced declines of more than 12%. Around 10% of the major US stock indices and the FTSE 100 Index (UK) were down. That day, the Dow Jones Index plunged 2,353 points, its steepest decline since "Black Monday" in 1987. Additionally, the stock markets of numerous nations, including Brazil, Canada, India, Indonesia, the Republic of Korea, Mexico, and others. have been sparked in succession. As the government attempted to stop the virus from spreading, it imposed travel restrictions both domestically and internationally and completely shut down the affected areas.

The biggest impacts are in tourism and hospitality, retail, civil aviation, and labor-intensive and supply chain-based manufacturing sectors, leading to increased layoffs and consequent unemployment. The coronavirus epidemic has also affected the oil sector. In early May 2020, major oil indices fell more than 60% due to lower demand in aviation and manufacturing, restrictions on free movement and internal structural problems. Crude oil prices plunged below $30 a barrel. On April 21, 2020, West Texas Intermediate (WTI) oil prices plummeted by more than 300% of his. The uncertainty of the pandemic has also triggered a rapid outflow of capital, leading to sharp market declines and sharp fluctuations in exchange rates in the G20 countries.

The crisis caused by COVID-19 has entered a new stage of crisis for the global economy. This could have a direct and devastating impact globally, increasing risk sharing between various assets and markets, and significantly altering investor sentiment and market conditions around the world. (Badar Nadeem Ashraf, 2020, Conlon et al., 2020, Goodell, 2020) This research was conducted to understand the market volatility of stock markets in G20 countries.

1.2 Literature Review:

Pandemics and stock market

The stock market is considered an important pillar of the financial sector. According to Pearce (1983), changes in stock prices affect overall spending, making the economy predictable. Rising stock markets encourage consumers to spend more and boost economic growth. And vice versa. Comincioli (1995) states that stock prices reflect opportunities for profitability and are therefore directly related to economic activity. However, according to Carp (2012), the stock market is sometimes seen as a hindrance to economic growth due to its vulnerability to market failure. Market failures are caused by impending crises (unpredictable risks). According to Liu, Manzoor, Wang, Zhang, and Manzoor (2020), the pandemic is impeding the growth of the investor economy. According to Capital Partners (2020), the S&P 500 index fell 24.7% in 1918 and rose 8.9% in 1919 in the aftermath of the 1918 Spanish Flu. The S&P 500 index rose 24.0% in 1957 and 2.9% in 1958 when the 1957 Asian Flu epidemic struck. The S&P 500 index rose 12.5% in 1968, and 7.4% in 1969, during the 1968 Hong Kong Flu epidemic. (2013) found that biotech industry stocks were responding positively to the pandemic. Differences between different crises can be related to investor sentiment, which also directly influences stock market behavior (Shu, 2010).

Regarding COVID-19, we have observed a significant negative impact on the performance of major stock indices, and Asian countries have responded swiftly. However, there is a slight recovery later in the pandemic (H. Liu et al., 2020). Hartl, Klaus, and Weber (2020) worry about the impact on the stock market, as it is likely to be more time-intensive and more volatile than the Spanish Flu. According to Kumar (Mishra & Mishra, 2021), COVID-19 has caused Indian and US stock markets to drop 30% and 32% respectively within days. Anil Sarin 2020, his CIO-Equities at Centrum Broking, shares that the Indian stock market has fallen more than his 20 years due to unpredictability in other markets due to the oil war between Saudi Arabia and Russia. bottom. Investors should therefore plan carefully (Nathan, 16 March 2020). McKibbin and Fernando (2020) observed that investors moved their funds to other assets and countries they considered safe. However, Valigra (March 9, 2020) said the stock market usually adjusts automatically after such a breakout, so investors will need to be patient.

Inter-Market Linkages

The world today is connected. Market news affects not only a particular market, but also other related markets. Chiang, Jeon, Li (2007), Sun, Hou (2018), Morales, and Andreosso (2012) point out that market volatility is highly correlated due to interconnected global markets after globalization. Positive news is not harmful, but negative news is harmful. Research by In, Kim, and Yoon (2002) also shows that markets become more connected during a pandemic. So it makes sense that the more interconnected they are, the higher the risk during a crisis.

Therefore, we plan to test the impact of COVID-19 on the G-20 stock market. Various emerging countries, especially his severe financial crisis that began in Asia in 1997, and the idea of recognizing a few major countries in the global debate led to the creation of the G20 group. In September 1999, a group of seven finance ministers and central bank governors expanded their discussions on key economic and fiscal policy issues, fostering systematic inter-economic cooperation and improving the stability and sustainability of the world. It planned to promote economic growth. Finance ministers and central bank governors of systemically important advanced and emerging economies first met in Berlin, Germany, in December 1999 and have continued since. It was raised to its highest level in 2008 in response to the 2008 Global Financial Crisis (GFC).

With this in mind, various types of crises are known to hit stock markets hard due to investor herd behavior. In addition, the stock market also influences the functioning of the economy, financial and economic integration. Therefore, given the severity of the COVID-19 pandemic compared to other economic and health crises, we wanted to examine the impact on stock markets, including the experiences of the G-20 countries. The main objective of this study is to accurately assess the downside risk of G20 stock markets during the COVID-19 epidemic and compare it within the G20 divided into Asian and non-Asian countries. . The results of this study will help investors understand the short-term behavior of the stock market during times of crisis, facilitating decision-making in the current period.

In addition, it helps investors measure the maximum value they can lose on their current investments and plan for the future accordingly.

1.3 Objectives:

1. To study the impact of severity of COVID-19 pandemic on the stock market behaviour of G20 countries.
2. To investigate the Volatility of the G-20 stock market during the COVID-19 outbreak and compare it with Asian and Non-Asian Countries within G20 Group.

1.4 Research Gap:

This study imparts to the literature in two aspects: first, it is a overall study of stock market responses' to the pandemic in the the G20 Countries; and second, it identifies the macroeconomic variables which determine the stock market risk amid the pandemic in G20 Countries.

1.5 Data and Methodolody:

1.5.1 Data

To compare the volatility of stock prices during COVID-19, we have divided the G20 Group into Asian and Non-Asian countries within the total time period that demonstrated substantial volatility in stock market prices. According to the Australian Department of Foreign Affairs and Trade, the G20 countries account for 85 percent of the world economy, 75 percent of world trade, two-thirds of the world's population, including more than half of the world's poor. Therefore, it is reasonable to believe that the G20 countries represent the impact of COVID-19. In other words, evaluating the stock markets of these countries would give a rough idea of other markets keeping other factors constant. On the other hand, most of the G20 countries have also been worstly affected by COVID-19 pandemic. The list of the G20 Countries along with their stock exchange (Table 1) is provided below. All the stock market data has been gathered from the web database of Investing.com.

The whole information gathered has been divided into two parts – first, the return volatility within the chosen stock market data is examined using the GARCH (1,1) model for the COVID-19 period, for this purpose the period from 2nd January 2019 to 30th December 2020 is considered as the COVID-19 pandemic era as this period the spread of covid was to its maximum and the sudden shocks in demand and supply across different countries affected the opinions of investors in the global market, second Panel approach method of random effects is used to identify the macroeconomic variables impacting the stock market during the COVID-19 period. The macroeconomic variables considered to study this approach are inflation rate and crude oil price along with the covid variables of Confirmed cases and Death cases during the pandemic period.

1.5.2 Methodology

This study has taken the case of G20 Countries stock market depending upon the COVID-19 pandemic era and degree of its spread across the world.

Table 1: G20 Countries and their Stock Exchange

G20 Countries	Stock Indices
Argentina	MERVAL
Australia	ASX200
Brazil	IBRX
Canada	SPTSE
China	SSE
France	CAC40
Germany	DAX
India	NIFTY 50
Indonesia	JKSE
Italy	IT40
Japan	Nikkei 225
Republic of Korea	KOSPI
Mexico	BIVA
Russia	IMOEX
Saudi Arabia	TASI
South Africa	JTOPI
Turkey	XU100
United Kingdom	TFTSE
United States	S&P500
European Union(represented by Spain)	IBEX

Daily Data Period : 2nd January 2019 to 31st December 2020

Information of all the countries and their Stock Indices are from their official website.

The GARCH 1,1 model is a type of univariate time series model that specifies a conditional variance equation for a single time series. The model assumes that the conditional variance of the time series is a function of its past squared residuals and past conditional variances.

The conditional mean equation and Conditional Variance equation for the GARCH 1,1 model is

$$\text{Conditional Mean Eq } R_{i,t} = \gamma_0 + \gamma_1 \text{CVD}_{i,t} + \gamma_2 \text{VIX}_{i,t} + \omega_{i,t} \qquad (1)$$

$$\text{Conditional Variance Eq } \alpha^2_{i\,t} = \phi_0 + \phi_1 \omega^2_{i\,t-1} + \phi_2 \beta^2_{i\,t-1} \qquad (2)$$

In equation (1) $R_{i,t}$ is the log difference of the stock market index, generally known as the stock market return, in the stock market i at time t. $\text{CVD}_{i,t}$ is the % change of Covid-19 confirmed cases of the G20 countries i at time t. In equation (2) $\alpha^2_{i\,t}$ is the forecast variance which is one period ahead of the past performance flow, ϕ_0 being the intercept, the ARCH term is $\omega^2_{i\,t-1}$ which reflects past performance of the volatility and $\beta^2_{i\,t-1}$ is the GARCH term of previous forecast variance. Chicago Board Option Exchange Volatility Index which is $\text{VIX}_{i,t}$ in this equation VIX is based on return which is popularly known as the fear index as it measures the investors sentimental pessimism, fear, market risk and uncertain behaviour. $\omega_{i,t}$ is the residual of the equation. The daily data of Covid-19 confirmed cases is been gathered from the database of ourworldindata.org and the daily data of CBOE VIX is gathered from the web database of investing.com.

$$\text{Abnormal Stock Market Returns: } AbR_{i\,t} = R_{i,\,t} - Ex\,(R_{i,\,t}) \qquad (3)$$

In this equation, $R_{i,\,t}$ is considered as the real return of the stock market index i, $Ex\,(R_{i,\,t})$ is the expected return of the stock index i and $AbR_{i\,t}$ is the abnormal return of the stock index i.

Table 2 Pre- event and Post- event stock market returns in the G20 countries

			Pre-Event		Post- Event	
Countries	Stock Index	Trading Days	Mean Return	Standard Deviation	Mean Return	Standard Deviation
Argentina	MERVAL	478	0.001737	0.035675	-0.0002	0.0082
Australia	ASX200	478	0.000503	0.015068	0.0003	0.0103
Brazil	IBRX	495	0.000571	0.021528	-0.0004	0.0055
Canada	SPTSE	478	-0.018384	0.0136948	-0.0018	0.0204
China	SSE	495	0.021348	0.0048103	0.0003	0.0074
France	CAC40	495	-0.000264	0.015886	-0.0016	0.0275
Germany	DAX	495	0.000596	0.001603	-0.0002	0.0057
India	NIFTY 50	498	0.00071	0.0092	-0.000501	0.015481

Indonesia	JKSE	372	-0.002174	0.0145767	-0.0001	0.0070
Italy	IT40	495	0.000417	0.017032	-0.0003	0.0169
Japan	Nikkei 225	478	-0.004154	0.002008	-0.001	0.0083
Republic of Korea	KOSPI	493	-0.000725	0.013793	0.0008	0.0072
Mexico	BIVA	495	0.000111	0.012504	-0.001	0.0179
Russia	IMOEX	495	0.0003	0.0053	-0.000603	0.012739
Saudi Arabia	TASI	478	0.0002	0.006	-0.193683	0.0396796
South Africa	JTOPI	478	0.0013	0.0109	-0.026868	0.0163506
Turkey	XU100	478	0.0015	0.0004	-0.023954	0.015747
United Kingdom	TFTSE	478	-0.01865	0.0136792	-0.0018	0.0082
United States	S&P500	478	-0.017911	0.0137183	-0.0065	0.0003
European Union(represented by Spain)	IBEX	495	0.000253	0.016405	-0.0018	0.0147

Lastly, Panel Approach method is used to understand the macroeconomic variables which are affecting the stock market behaviour and the pessimism and uncertain behaviour of the investors during the COVID-19 period over the world. For this approach Brent Oil Price and Inflation Rate are taken as the macroeconomic variable and Covid-19 confirmed cases and Death Cases are considered as the Covid-19 variables. Stock market returns are taken as the financial shock variable and volatility index is taken as the mediating variable for the investor's sentiments and pessimistic behaviour towards the COVID-19 confirmed and death cases.

$$AbR_{i\,t} = \gamma_o + \gamma_1\, CVD_{i\,t} + \gamma_2\, R_{i\,t} + \gamma_3\, VIX_{i\,t} + \gamma_4\, BOP_{i\,t} + \gamma_5\, INFR_{i\,t} + \omega_{i\,t} \quad (4)$$

$$AbR_{i\,t} = \gamma_o + \gamma_1\, DTC_{i\,t} + \gamma_2\, R_{i\,t} + \gamma_3\, VIX_{i\,t} + \gamma_4\, BOP_{i\,t} + \gamma_5\, INFR_{i\,t} + \omega_{i\,t} \quad (5)$$

In these equation, $AbR_{i\,t}$ is the abnormal stock market return of index $_{i,}$ $CVD_{i\,t}$ is the percent change of the confirmed cases of COVID-19 in the G20 countries $_{I,}$ $DTC_{i\,t}$ is the percent change of the death cases of COVID-19 in the G20 countries $_{I,}$ $R_{i\,t}$ is the return of the G20 stock returns of the index i, $VIX_{i\,t}$ is the volatility return of index $_{I\,,}$ $BOP_{i\,t}$ is the Brent Crude Oil Price in the country $_{I}$, $INFR_{i\,t}$ is the inflation rate of G20 countries based on CPI (Consumer Price Index). Cross-sections are allowed for these equations in random effect model. Hausman test is been analyzed under this Random Effects model.

Results and discussions

Figure 1 Stock Market Indices in G20 countries

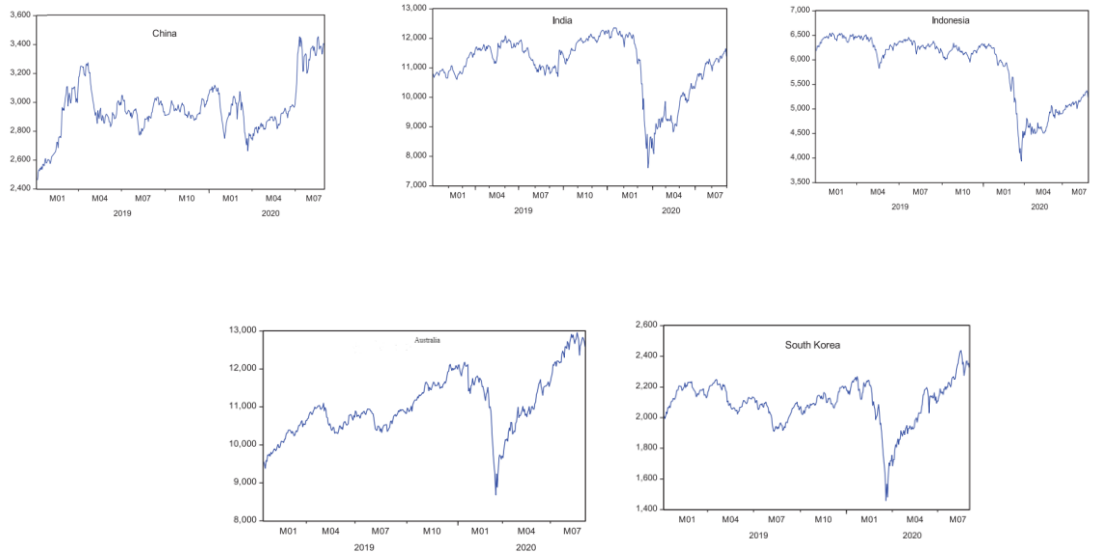

Figure 2 Stock Market Returns in G20 countries

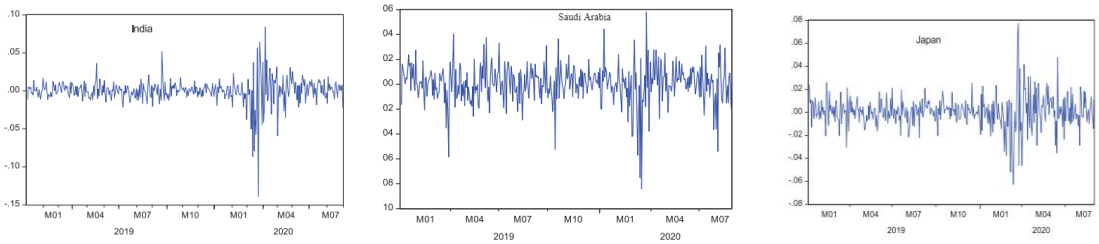

Table 3 Stock Market Return Volatility of G20 Countries during COVID-19 Period (Conditional Mean Equation)

Conditional Mean Equation	Coefficient	Conditional Mean Equation	Coefficient
China		**Argentina**	
C	-0.01247	C	0.002655
CVD	-0.05139	CVD	0.005726
VIX	-0.007342	VIX	-0.027823
Germany		**Australia**	
C	0.001224	C	0.000752
CVD	0.006371	CVD	-0.002384
VIX	-0.001283	VIX	-0.002787
Italy		**India**	
C	0.000835	C	-0.00046
CVD	-0.001674	CVD	0.00968
VIX	0.001437	VIX	-0.000503
Japan		**Brazil**	
C	-0.024234	C	-0.001266
CVD	-0.426048	CVD	0.009468
VIX	-0.021663	VIX	-0.001566
Mexico		**Canada**	
C	-0.000199	C	-0.005851
CVD	-0.020214	CVD	-0.090623
VIX	-0.00342	VIX	0.181202
Saudi Arabia		**Indonesia**	
C	-0.017973	C	-0.010701
CVD	0.718035	CVD	-0.031842
VIX	-0.037918	VIX	-0.107567
South Africa		**Republic of Korea**	
C	-0.022211	C	-0.000377
CVD	-0.086225	CVD	0.083486
VIX	0.002339	VIX	0.001017

Turkey		**France**	
C	-0.008679	C	-0.001135
CVD	-0.082967	CVD	-0.007595
VIX	-0.086291	VIX	-0.005105
United Kingdom		**Russia**	
C	-0.000842	C	-0.000953
CVD	-0.090053	CVD	-0.000397
VIX	0.010097	VIX	-0.004017
United States		**European Union**	
C	-0.00859	C	-0.000496
CVD	-0.108355	CVD	-0.007227
VIX	0.542217	VIX	-0.005432

Table 4 Stock Market Return Volatility of G20 Countries during COVID-19 Period (Conditional Variance Equation)

Conditional Variance Equation	Coefficient	Conditional Variance Equation	Coefficient
China		**Argentina**	
C	0.000421	C	0.000129
ARCH	0.016078	ARCH	0.281008
GARCH(-1)	0.997912	GARCH(-1)	0.634263
Germany		**Australia**	
C	6.72E-06 (0.023)	C	5.55E-06 (0.0007)
ARCH	0.148689	ARCH	0.234788
GARCH(-1)	0.829019	GARCH(-1)	0.749257
Italy		**India**	
C	7.01E-06 (0.002)	C	4.70E-06 (0.0029)
ARCH	0.162224	ARCH	0.16289
GARCH(-1)	0.818462	GARCH(-1)	0.818145

Japan		**Brazil**	
C	0.001093	C	1.37E-05 (0.0084)
ARCH	0.026588	ARCH	0.206789
GARCH(-1)	1.002405	GARCH(-1)	0.742004
Mexico		**Canada**	
C	3.42E-06 (0.0134)	C	0.008157
ARCH	0.1149	ARCH	0.01622
GARCH(-1)	0.86137	GARCH(-1)	0.558236
Saudi Arabia		**Indonesia**	
C	0.095906	C	0.009228
ARCH	0.165113	ARCH	0.021542
GARCH(-1)	0.45112	GARCH(-1)	0.572992
South Africa		**Republic of Korea**	
C	0.010016	C	7.47E-06 (0.0043)
ARCH	0.024874	ARCH	0.132623
GARCH(-1)	0.605889	GARCH(-1)	0.816864
Turkey		**France**	
C	0.015056	C	6.42E-06 (0.0078)
ARCH	0.023716	ARCH	0.279593
GARCH(-1)	0.366366	GARCH(-1)	0.733294
United Kingdom		**Russia**	
C	0.007558	C	4.07E-06 (0.0135)
ARCH	0.017486	ARCH	0.170499
GARCH(-1)	0.569678	GARCH(-1)	0.80429

United States		**European Union**	
C	0.002378	C	6.23E-06 (0.0012)
ARCH	0.011308	ARCH	0.243949
GARCH(-1)	0.794727	GARCH(-1)	0.749459

Table 3 demonstrates the outcomes of the conditional mean equation. It shows that Germany and Saudi Arabia's markets' coefficients of the the change in percent of COVID-19 confirmed cases is positive whereas the other countries shows the negative impact which clearly means that global spread of Covid-19 has made an impact. Negative coefficients also means that the impact is not statistically significant which means that the announcement of the spread of COVID-19 may not have been directly impacted the investors behavior. There is a negligible percent of change in the CVD coefficients. Due to this CBOE VIX Index variable which is also known as the fear index has been considered in the conditional mean equation to understand the investors pessimistic behavior and uncertainty. As seen in table 3 that almost all the G20 countries except for Italy, South Africa, United Kingdom, and United States of America the VIX coefficient is negative which clearly means that it is statistically significant that the investors behavior has made an impact on the stock market returns.

Table 4 shows the Conditional Variance Equation. It is observed that GARCH values are statistically significant and positive for all the G20 Countries. It shows that there is the presence of clustering in the stock market returns in the COVID-19 period. A huge pessimistic information is interpreted from the previous days forecast which makes volatility in the stock market returns. The observation satisfies the condition of stability as the sum of ARCH and GARCH is less than or equal to 1. Still the forecast of these cannot be totally because of the investor's behavior and uncertainties of post- covid period.

It is important to know the probable factors which might have affected the stock market behavior so to understand this aspect we have studied the random effect model. Random effect panel regression is estimated for the pre-covid period and the post-covid period.

Table 5 Factors affecting the abnormal stock market returns in the G20 countries

	Pre-Covid Period		Post- Covid Period	
Coefficient	Model 1 (RE)	Model 2 (RE)	Model 1 (RE)	Model 2(RE)
COVID-19 Confirmed Cases	-0.001052 (0.141648)		-0.003794 (0.13061)	
COVID-19 Death Cases		-0.030085 (0.20547)		-0.047297 (0.21443)
Inflation Rate	0.001009 (2.2067)	0.001008 (2.3001)	0.001074 (2.8075)	0.001075 (2.8100)
Brent Crude Oil Price	-0.012989 (-1.6824)	-0.01118 (-2.6824)	-0.011963 (-2.8803)	-0.0131 (-2.9828)
Stock Index Return	0.020542 (83.536)	0.01846 (83.456)	0.01416 (85.009)	0.01853 (86.800)
Volatility Index	0.0031 (21.079)	0.0030 (21.562)	0.001052 (24.880)	0.003794 (25.079)
Constant	0.003319 (1.067)	0.0044 (1.0667)	0.0045 (2.0054)	0.00454 (2.015)
F-Stat (p-val)	1.695 (0.00008)	1.469 (0.00009)	1.968 (0.00007)	1.885 (0.00008)
R Sq	0.083953	0.083954	0.083954	0.083954
Adj R Sq	0.034437	0.034436	0.034438	0.034438
Hausman Test Stat (p-val)	2.1104 (0.0281)	2.1104 (0.00835)	3.2040 (0.009838)	3.1011 (0.03592)

It is observed in Table 5 that COVID-19 confirmed and death cases in the pre- covid period as well as in the post- covid period is negative and significantly not statistical. It means that it has affected the abnormal stock market returns as it has some effect on the investors sentiments. The stock index returns which signifies the health of the economy and the financial well-being of households and firms are statistically significant both in pre and post covid period and are also positive. As investors take into consideration the health of the economy when anticipating the stock market returns, stock index return is the determining component of the abnormal stock market return. Volatility index has also been observed as positive and significant towards the abnormal stock market return. Market researchers attribute this observation to investors' greed and the omission of certain critical dangers (Li, 2020). It may also reflect the very less pessimism among investors during the COVID-19 pandemic, which may have acted as accelerators for a positive relationship between stock market volatility and stock index returns. Table 5 shows that the influence of oil prices on

stock index returns is notably negative in both circumstances. This insight was critical when the global lockdown and travel and transportation restrictions were enforced in the G20 countries, resulting in a significant drop in oil demand and futures trades in the post-COVID-19 period. As a result, investors' portfolios may have been diverted away from investments in oil futures in favor of higher stock returns on other financial assets. The oil price changes are negatively correlated with the stock index returns. In the post- covid period inflation rate has significantly positive relation with the stock index return. The Covid variables confirmed cases and death cases and the macroeconomic variables inflation rate and brent crude oil price, stock index returns and market volatility all these variables has a role in determining the impact on the Abnormal stock market return because of the World spread COVID-19 pandemic.

The study’s findings thus validate the hypothesis that

(i) The stock market performances can be highly impacted by the COVID-19 pandemic.
(ii) There can also be high influence of volatility index return on stock market performances of G20 countries.
(iii) Oil price changes also changes the stock market performances of the G20 Countries.
(iv) Inflation rate changes has also made positive effect on stock market performance.

CONCLUSION

This Study has understood the effect of COVID-19 Pandemic on the stock market performance. The empirical insights of this article reveals that the investors sentiments and uncertainty towards the buying behavior is mainly due to COVID-19 Pandemic. Due to the severity of the pandemic, stock market has seen high level of volatility in the G20 countries. The announcement of the Covid spread all over the world has made an impact on the stock market as well as the investors sentiment towards the stock market returns. COVID-19 confirmed cases, death cases, inflation rate, and crude oil prices also has an adverse negative effect on the stock market performances. Especially percent change in COVID confirmed cases and COVID death cases has made a negative impact on the abnormal stock market return. It is critical to phase in the operation of services, manufacturing, construction, travel, and tourism, international trade. This COVID -19 period will certainly go a long way to stabilize all the market performance and the health of the economy. This article has ignored certain aspects which can be extended to study further on this topic, individual stocks can be studied and impact of COVID-19 pandemic can be seen and analyzed on these individual stocks either of G20 countries or even just Asian countries.

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