A STUDY OF RELATIONSHIP BETWEEN ECONOMIC PARAMETERS & WORLD EXCHANGES WITH INDIAN STOCK EXCHANGE PERFORMANCE DURING COVID-19 PANDEMIC

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Abstract: As the cases of Covid-19 came to light and subsequently spread around the world during the initial months of 2020, Indian stock markets which were nearing their all-time highs started falling. The economic conditions in the country were also worsening as was observed by the 11-year low GDP numbers recorded in last quarter of Fiscal Year 2019. The spread of coronavirus in India subsequently led to a complete lockdown in the country resulting in complete shutdown of the economic activities followed by a fall in GDP, rise in Inflation & Unemployment rates and fall in Interest rates. We have tried to examine if these economic conditions had any impact on the levels of the Indian stock markets and its extent, thereof. We also tried to find if the performance of the major global indices had any impact on the Indian stock market performance.

Index Terms – Stock Market, Economic Indicators, BSE Sensex, NSE Nifty, Covid-19

1. INTRODUCTION

1.1 COVID 19

The epidemic of coronavirus that had started in Wuhan in China, spread at a rapid pace around the world. The cases of COVID 19 was noted in more than 219 countries & territories as a result of which, the World Health Organization subsequently declared Covid-19 as a Public Health Emergency of International Concern.

India observed its first documented case of corona virus on 30 January 2020 and has since risen up to be the country having the second highest number of confirmed cases of COVID 19, behind US. The fatality rate in India, though, has been observed to be the lowest in the world. The highest amount of COVID 19 cases in a single-day was observed on 29th August 2020 with there being 78,761 cases. For restricting the spread of the virus in the country, the Indian government announced an initial lockdown of 55-days which was later increased and regulated in phases and as per the density of the cases in a particular area. Currently more than 26 states and 6 union territories have been impacted due to this disease. The full lockdown that is the closure of every shop was seen in the highly affected areas like Maharashtra and Uttar Pradesh so as to restrict the spread of the virus.

The economies of all the countries including India has been severely affected due to the COVID disease. The tourism industry has been one of the most impacted industry due to this pandemic as a reduction was seen in yearly rail and road passenger traffic. The impact of COVID 19 might soon also be seen in the currency markets and also in the prices of oil. The lesser demand due to the epidemic has also disrupted or affected the supply chains.

The nationwide lockdown might lead to worsening of financial crisis, adding negative effects on different industries of an economy which was already reeling from a lack of demand, pushing the GDP down to an 11-year low of 4.2% for the fiscal year 2020. The lack of demand in 2020 and a diminishing GDP was already playing in on the investors' minds, but an emergence of a pandemic from a neighboring country putting India in a close proximity might result in a further hara-kiri and reflect on the Stock market as the investors prepare for uncertain times.

1.2 GLOBAL STOCK EXCHANGES

The adverse effects of Covid-19 have spilled over onto the global stock markets as well. For the purpose of this study, the major stock exchanges all over the world has been taken into consideration to accurately estimate the measure of effect that the global world exchanges had on the levels of Indian stock exchanges during this pandemic. The aforementioned major stock exchanges that have been considered in the research includes-

1.2 (A)- Bombay Stock Exchange (BSE)

BSE is an Indian stock exchange situated in Mumbai. It is considered to be among one of the two major stock exchanges of India. Sensex was introduced in BSE during the year 1986 as the initial equity index to act as a base for distinguishing the highest 30

commercialism firms of the exchange. It had achieved a market capitalization of over $4.9 trillion by April 2018, making it among the top 10 largest stock exchanges.

1.2 (B)- National Stock Exchange (NSE)

National Stock Exchange is taken as the youngest exchange of India that came into an existence in the year 1992. The main index of NSE is NIFTY 50, which is used by the Indian investors and traders as a benchmark of the Indian capital market. The NIFTY index includes 50 top most companies listed on the NSE exchange market. The capitalization of National Stock Exchange is considered to be more than US$2.27 trillion, which made it the world's 11th-largest stock exchange as on April 2018.

1.2 (C)- New York Stock Exchange (NYSE)

The New York Stock Exchange is situated in New York. It originated in 1817, and adopted the name of New York Stock Exchange in 1963. It achieved a market capitalisation of $23.12 trillion in March 2018, which was around 40% of the stock market value of the world. More than 2400 companies are listed on the NYSE. The most famous index used in the New York Stock Exchange is the Dow Jones.

1.2 (D)- NASDAQ

The NASDAQ stock exchange is situated in New York. NASDAQ had always worked on an automated system of trading which included computer and telephone-based system. The NASDAQ was the second largest stock exchange as its market capitalization reached nearly US $10.93 trillion during March 2018. The major index of NASDAQ included the Nasdaq 100.

1.2 (E)- Tokyo Stock Exchange

Tokyo Stock Exchange (TSE), which originated in 1878, is located in Japan. It is the largest stock exchange in Asia and the third largest in the World with more than 2200 companies listed on TSE accounting for a market capitalisation of more than US$5.67 trillion, as of 2019. The benchmark index of the TSE is Nikkei 225 which tracks the performance of 225 top companies listed on the TSE.

1.2 (F)- Hong Kong Stock Exchange

The Hong Kong Stock Exchange, which originated in 1891, is the fifth largest stock exchange in the world with a market capitalisation of $4.46 trillion as of March 2018. The Hong Kong Stock Exchange has more than 2300 companies listed on it. The large part of its market capitalization is from the twenty largest stocks, including AIA, Tencent Holdings and HSBC Holdings.

1.2 (G)- Korea Exchange

Korea Exchange is situated in Busan, South Korea. The Korea Exchange was formed by the combination of Korea Futures Exchange, Korea Stock Exchange and KOSDAQ Stock Market which comes under the Korea Stock & Futures Exchange Act. As of May 2020, Korea Exchange had market capitalization of approximately US$1.42 trillion from 2354 companies listed on it.

1.2 (H)- London Stock Exchange

London Stock Exchange is counted among the eldest stock exchanges in the world. The London Stock Exchange ranked as the sixth largest stock exchange in the world with a market capitalization of more than $4.38 trillion, as of March 2018. FTSE 100 is the most followed index of LSE. This index includes the 100 top companies which has been listed on the exchange and which involves Barclays, BP and GlaxoSmithKline.

The economy has a very close relationship with the stock market. If the stock market is moving in the higher direction, it signals favourable economic conditions for firms which results in higher profitability and vice-versa. However, this may not always hold true. Over the long period, these movements in the stock market are likely to show patterns of the economy even though the correlations may be difficult to detect while looking at the day-to-day patterns.

1.3 ECONOMIC PARAMETERS

There are several Economic Parameters which has been affected adversely by the Covid-19 situation, which may have subsequently impacted the stock markets. The aforementioned indicators considered in this study include:

1.3 (A) Inflation

Inflation is referred to as the general rise in prices in an economy over a time. A high inflation rate severely impacts the purchasing power of the people. Usually, if the inflation is less, the interest rates are increased to reduce the flow of money in the economy in a bid to control the inflation & vice-versa. India's inflation during the pandemic constantly hovering above 6% after March, with the CPI being 6.93% for the month of November. (See: Appendix-II)

1.3 (B) Interest Rates

Interest rate is a tool for the central bank to control the liquidity in the economy and keep the inflation in check. In case of rising inflation, the central bank adopts a contractionary approach by increasing the interest rates to control the money supply in the economy and an expansionary approach by reducing the interest rates to lower the cost of borrowing for business, thereby boosting the demand in case of decreasing inflation.

The pandemic, though, presented a double-edged sword scenario for the RBI as the economy that was already ailing from the lack of demand, now also faced the prospect of rising inflation. The RBI employed a neutral outlook towards the economy and undertook two continuous rate cuts in March from 5.15% to 4.4%, and later in May to 4%. (See: Appendix-II)

1.3 (C) Unemployment Rate

Unemployment rate acts as a vital indicator of the health of the economy as it shows the amount of labour force that are unemployed in the economy. An increase in unemployment rate is a concern for the country as it usually results when the country is in a period of poor economic condition. India observed a considerable increase in the unemployment rate during the Covid-19 pandemic as the businesses went into lockdown and the migrant labour force started migrating back to their home states. It reached at its peak in April with 23.5% of the labour force being unemployed during the same period. Gradual unlocking of the businesses from August onwards has contributed in substantially bringing down the rate, with it being 6.5 in November.

1.3 (D) Global Markets

The global economic trends even affect the Indian exchange. This is often a result of the Indian economy being exposed to international markets. Over the past few years, there has been big fund inflows into the Indian market. Any major news affecting the global markets often tends to affect the Indian markets as well, as seen by the market movements on the day of vaccine availability announced by US and Russia. Similarly, the Tech and IT stocks' bullish run in the initial days of Covid-19 pandemic acted as a catalyst for the Indian markets to rise from its March lows.

2. LITERATURE REVIEW

In preparation for this paper, many previous works were looked into for guidance. Our topic pertains to recent period of pandemic and hence, there has not been much previous work has been conducted during this time period. However, there are some works related to the topics of stock markets, SARS Cov-2, impact of various economic indicators on stock markets etc. which we found helpful. The ones we found most relevant in the process of conducting this study have been enlisted below:

- Md. Gazi Salah Uddin (2009) in his paper "Relationship between Interest Rate and Stock Price: Empirical Evidence from Developed and Developing Countries" examines the relationship between stock market and interest rates. The changes in the interest rate has obvious impacts upon the market so to minimize the market risks, understand the monetary policy and fiscal policy it is important to know the relationship.

- Prof. D. V. Lokeswar Reddy (2009) in his paper on "IMPACT OF INFLATION AND GDP ON STOCK MARKET RETURNS IN INDIA" analysed the impact of economic indicators like GDP, Inflation rates and Interest rates on stock market returns. He found significant relationship between the interest rates & GDP with the stock market returns in India.

- Prof. Nashir Shamshi (2013) in his paper "IMPACT OF GDP ON ECONOMIC DEVELOPMENT" (2013), found GDP to be the most astute indicator of how well an economy is doing. He found significant relationship between GDP and stock market returns.

- Prof. Hatane Semuel and Stephanie Nurina (2005) in their paper "ANALYSIS OF IMPACT OF INFALTION, INTEREST RATES AND EXCHANGE RATES ON GDP ON INDONESIA" discuss the concept of inflation, interest and exchange rate and then tries to examine their relationship with GDP. In his study, he found negative relationship between GDP and interest rates and positive relationship between Exchange rates and GDP.

- Mohammad Noor Alam, Kavita Chavali and Md Shabbir Alam's (July 2020) research paper was amongst the most recent and relevant work pertaining to our field of study as they discussed the situation caused by the Covid-19 pandemic as it sent the world's stock markets crashing down. This paper has tried to examine the relationship that the major domestic measures like lockdown announcement had on the performance of the some of the major companies' stocks listed on BSE.

- Ramelli and Wagner's (2020) research paper was another which pertained to the similar time period as ours and it bore a resemblance as they examined the effect of Covid-19 pandemic on the US markets. It also studied the effect that the US financial policies and international trade had on the US markets. The author noted how the pandemic created an economic crisis which widened as the cases around the world rose and the counties went into lockdown.

- Adda (2016) had tried to find out what impact a spread of viral disease would have on the economic activities and how would the possible reactions of the economies around the world would be in countering it. He also examined the role that police would play in maintaining law & order and the effectiveness of possible govt. measures such as reduction of interpersonal contact and closure of public transport networks. He concluded that even though the aforementioned measures helped in reducing the spread of the disease, but it is not cost effective.

- Lee and Brahmasrene (2018) in their research examined the affect that the macro and microeconomics factors like supply of money, inflation rate, interest rates and industrial production index had on the Korean Stock Market in the long as well as short-run. The research found no substantial evidence to conclude that the global news had any effect on the stock prices of Korea.

- Gormsen and Koijen (2020) in their paper had tried to find the impact of growth on dividend. The lockdown in Italy resulted in a dip in the dividend and GDP forecast in European countries and the US. They also found the adverse effects on dividend growth to be as severe as it was during the Financial Crisis of 2008.

- Baker et al. (2020) tried to ascertain the impact that Covid-19 pandemic would have on the behaviour of stock market by comparing it with previous outbreaks of such kind such as Bird Flu, SARS, Swine Flu, Ebola and MERS. It was observed that none of the previous outbreaks affected the stock market fluctuations in the proportion that Covid-19 had.

- Ozili and Arun (2020) in their research paper tried to analyse the effectiveness of the various government measures that were undertaken to ease out the impact of coronavirus strain in the economies all over the world. The initial reaction of most of the economies was to impose the lockdown and social distancing measures. The economic stress, later on, forced the hands of the governments into re-opening of the economies which led to second strain of virus spread in many European countries. The policies examined ranged from the fiscal measures by the RBI to the normal social distancing norms. The research also found that restricting the local movements and higher spending on the part of the government resulted in a positive impact on the level of economic activities and increasing amount of coronavirus cases did not affect the level of economic activities significantly.

- The research article titled 'Combating the COVID-19 Pandemic: The Role of the SARS Imprint' discussed the reasons for the delayed response in combating Covid-19 by the countries that were not affected by the SARS pandemic. The countries that were deeply impacted by SARS tuned in to search for information regarding Covid-19 as soon as China reported its first case and as the details of the severity of the disease started arising. There was a significantly delayed response on the part of governments that had not experienced the SARS epidemic. The study found that the amount of cases and deaths due to Covid-19 has been more in countries that had not faced the SARS and thus, were underprepared to tackle such a situation.

The previous literary works conducted have found significant impact between the stock market returns and some economic indicators like inflation, GDP and interest rates both in the short and long run. However, such works conducted during the Covid-19 pandemic have been scarce and thus, it presents us with an opportunity to examine if the stock market followed any trends or were affected by the economic conditions prevailing in the economy or not. Hence, we've undertaken this research to find the impact that economic indicators and global markets sentiments had on the Indian stock markets during the Covid-19 pandemic.

3. OBJECTIVE OF THE RESEARCH

The current study, which has been undertaken during the Covid-19 pandemic, has following objectives:

1. To establish a relationship between the two major Indian indices, i.e., the NSE and BSE.
2. To understand the impact various economic indicators on the Indian stock indices.
3. To understand the impact of major global exchanges on the domestic stock exchanges.

3.1- RESEARCH METHODOLOGY

3.1 (A) - TYPES OF RESEARCH

Business research methods is outlined as a well-organized and systematic process of data collection, compilation, analysis, interpretation, and implication. The type of the research that will be used depends on the nature of the study. This study uses Descriptive research to identify the effect of economic indicators on the stock markets during the Covid-19 pandemic.

3.1 (B) - RESEARCH DESIGN

The present study uses secondary data as a basis of research. The secondary data so collected pertains to the weekly data of the stock indices around the world, the economic indicators affecting the economy, the Covid-19 cases around the world and the subsequent performances of the economy & stock markets. The aforementioned secondary data is used to establish a correlation between the two major indices of India, i.e., NSE and BSE. With the help of the secondary data, the study aims to find the effect of economic indicators on the stock indices and the impact of global market on Indian stock indices is also ascertained. The quantitative data is gathered by using offline and online data collection method. The collected data has been analyzed by performing Correlation coefficient, Trend line analysis & Linear Regression Analysis using SPSS Statista 26.0

3.1 (C)- DATA TYPE AND SOURCE

The present study uses secondary data which has been taken from the sources such as:

- Research works of other authors
- Journals
- Websites related to economic indicators and stock markets

4. ANALYSIS AND INTERPRETATION

4.1 Correlation between NSE and BSE

The Correlation coefficient shows the relationship between the two variables by mapping their movements and the direction of the movements. In our study, we seek to find out whether the BSE Sensex and Nifty are correlated. Hence, we have conducted a correlation test on the two variables by comparing their weekly closing price for the period of January 2020 to November 2020 (See: Appendix 1). The output generated is as follows:

Table 1: Correlation between NSE and BSE

Correlations

		BSE	NSE
BSE	Pearson Correlation	1	1.000**
	Sig. (2-tailed)		.000
	N	48	48
NSE	Pearson Correlation	1.000**	1
	Sig. (2-tailed)	.000	
	N	48	48

**. Correlation is significant at the 0.01 level (2-tailed).

As per the output obtained in Table 1, the Pearson correlation coefficient establishes a perfectly positive correlation between the two major indices of Indian stock market i.e. it implies that a change in either of the indices would result in a change of similar proportion, and in the similar direction, in the other index as well.

Since the significance value for this correlation model is less than 0.001, which is lesser than the value of 0.05, there is enough evidence to suggest that the correlation is statistically significant and thus, it can be inferred that the correlation obtained on this sample of data actually holds true for the entire population, which in this case is the overall performance of the two major Indian stock indices throughout the year 2020.

Also, since now we have established a perfectly positive correlation between both the Indian stock index, we shall, hereon, perform the regression analysis only on BSE Sensex as it will yield a similar result for the NSE owing to the relationship established.

4.2 Regression Analysis of BSE Sensex with Economic Parameters

Regression Analysis establishes a cause and effect relationship between the independent and dependent variables. We aim to find the effect that the economic parameters had on the BSE Sensex during the period of January-November 2020 by conducting a regression analysis on the Monthly data of the indices & economic parameters (See: Appendix II). The output obtained is as follows:

Table 2.1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825[a]	.681	.545	2785.94574

a. Predictors: (Constant), Unemployment, Interest Rate, Inflation

b. Dependent Variable: Sensex

The R squared is often referred to as the goodness of fit measure for regression models. Hence, an R-squared value of 0.681 obtained above in Table 2.1 indicates that around 68.1% of the data is a good fit for the regression model.

The adjusted R-square of 0.545 obtained in Table 2.1 means that about 54.5% of the variance in the dependent variable i.e. SENSEX can be explained by this model comprising of the 3 independent variables namely- Inflation rate, Unemployment rate and Interest rate. The large variation in R-square and adjusted R-square value indicates a presence of independent variable which is not correlated with the dependent variable, and thereby, the value of R-square is decreased.

Table 2.2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	116075033.972	3	38691677.991	4.985	.037[b]
	Residual	54330455.506	7	7761493.644		
	Total	170405489.478	10			

a. Dependent Variable: Sensex

b. Predictors: (Constant), Unemployment, Interest Rate, Inflation

As per Table 2.2 above, the significance value of the model is 0.037, which is less than 0.05, hence the model holds statistically significant impact on the output variable i.e. the dependent variable. Thus, the output obtained through this model can be accepted and can be used to come to a conclusion regarding the hypothesis.

Table 2.3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20031.607	14603.358		1.372	.212
	Inflation	3918.530	1581.183	.545	2.478	.042
	Interest Rate	-1432.841	1743.882	-.179	-.822	.438
	Unemployment	-323.726	146.191	-.479	-2.214	.062

a. Dependent Variable: Sensex

A figure less than 0.05 in the significance column implies that the factor has a statistically significant impact on the outcome variable. Thus, from Table 2.3, it can be inferred that Interest rate, with a significance value of 0.438, and Unemployment rate, with a significance value of 0.062, did not have a statistically significant impact on the levels of the BSE Sensex index. However, Inflation rate, with a significance value of 0.042, did have statistically significant impact on the variation of the BSE Sensex levels. Hence, Inflation rate is the only good-fit predictor for this regression model.

4.3 Regression Analysis of BSE Sensex with Major Stock Indices

We seek to find out the impact that the 6 major World indices namely, NASADAQ, NYSE Composite, FTSE 100, HANGSENG, Nikkei 225 and KOSPI had on the BSE Sensex by conducting a regression analysis on the weekly closing prices for the period of January-November 2020 (See: Appendix I). The output obtained is as follows:

Table 3.1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.974ᵃ	.949	.942	1085.30369

a. Predictors: (Constant), NYSE, NASDAQ, HANGSENG, FTSE, NIKKEI225, KOSPI

In the given output, illustrated in Table.3.1, the value of R square is 0.949, which indicates that about 94.9% of variance in the movement of SENSEX is accounted for by the selected 6 major global stock indices.

The adjusted R square accounts for the number of predictor variables that have been included in the model. Hence, a measure of 0.942 means that about 94.2% of the variance in the dependent variable i.e. SENSEX can be explained by this model comprising of the 6 independent variables, i.e., the 6 of the major global indices namely- NYSE Composite Index, Nikkei 225, NASDAQ, FTSE, HANGSENG and KOSPI, the 6 major world indices.

Table 3.2

ANOVAᵃ

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	906214030.452	6	151035671.742	128.226	.000ᵇ
	Residual	48293247.891	41	1177884.095		
	Total	954507278.344	47			

a. Dependent Variable: SENSEX

b. Predictors: (Constant), NYSE, NASDAQ, HANGSENG, FTSE, NIKKEI225, KOSPI

As illustrated above in Table 3.2, the significance value of the model is 0.00, which is less than 0.05, hence the model holds statistically significant impact on the output variable i.e. the dependent variable a.k.a. the BSE Sensex.

Table 3.3

Coefficientsᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-14281.107	4197.712		-3.402	.002
	NIKKEI225	.101	.383	.045	.263	.794
	NASDAQ	-.553	.514	-.159	-1.077	.288
	FTSE	-4.042	1.073	-.538	-3.767	.001
	HANGSENG	.969	.293	.311	3.310	.002
	KOSPI	1.351	4.124	.070	.328	.745
	NYSE	4.200	.765	1.096	5.492	.000

a. Dependent Variable: SENSEX

A figure less than 0.05 in the significance column implies that the factor has a statistically significant impact on the outcome variable. Thus, from Table 3.3, it can be inferred that the US stock index NASDAQ with a significance value of 0.288, Japanese stock index Nikkei 225 with a significance value of 0.794 and Korean stock index KOSPI with a significance value of 0.745 did not have a statistically significant impact on the levels of the BSE Sensex index. However, the European stock index FTSE with a significance value of 0.001, Hong Kong stock index HANGSENG with a significance value of 0.002 and US stock index NYSE Composite with a significance value of less than 0.001 have a statistically significant impact on the levels of BSE Sensex over the selected period.

5. RESULTS

Correlation between NSE & BSE was observed to be 1, as shown in Table.1, thereby, showing that NSE and BSE are perfectly positively correlated.

For the regression analysis conducted to find the effect of economic indicators on the movement of NSE Sensex levels, the significance value observed was 0.037, as seen in Table 2.2, rendering the model significant enough. The model had an adjusted R-square value of 0.545, as shown in Table 2.1. The individual significance values of the economic indicators was found to be 0.042 for Inflation rate, 0.438 for Interest rate & 0.062 for unemployment rate, as obtained in Table 2.3.

The regression model to find out the impact of major global stock indices on the movement of NSE returned a significance value less than 0.001, rendering the model statistically viable enough for its findings to be considered for the study. The adjusted R-square value of the model is 0.949, as shown in Table 3.1. The individual significance values of the global indices, as seen in Table 3.3, was found to be 0.794 for Nikkei 225, 0.258 for Nasdaq Composite, 0.001 for FTSE 100, 0.002 for Hangseng, 0.745 for Kospi and 0.020 for NYSE.

6. CONCLUSION

We analyzed the performance of major Indian and Global indices over the first 11 months of 2020, which was majorly engulfed under the clouds of COVID-19 pandemic. Most indices showed a similar trend of downward movement till March 2020 indicating a global catastrophe may be on the cards, owing to the rapid spread of Covid-19 to different countries, which was justified by the announcement of lockdowns all around the world due to rising cases. The markets, later on, hinged on the optimism of re-opening of economies and imminent vaccine arrival to mount a bullish rally. The global situation also had an effect on the domestic markets as did the various measures undertaken by government to influence the adverse economy.

Overall, as the global economies joined hands in keeping a safe distance and closing their borders, the spill-over of the pandemic was seen in all walks of life. Some thrived in the situation, but majority fell off by this sudden development and were forced to behave in an unprecedented manner. Our findings pertain to a very short period of time, most exclusively limited to the period of Covid-19 pandemic, and hence the results derived may not hold true for the population over a larger period of time. In this period of pandemic, the stock indices, economic parameters as well as the global market sentiments reacted in an unprecedented manner and hence, our work should be seen in isolation for this period.

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APPENDIX- I

Date	BSE	NSE	NYSE	NASDAQ	NIKKEI	KOSPI	HNGSNG	FTSE
01-01-2020	40869.47	12053	13,898	9069	23576	2176	28322	7,574
08-01-2020	41952.63	12362	14,037	9251	24025	2239	28885	7,622
15-01-2020	41323.81	12170	14,110	9371	23865	2240	27985	7,611
22-01-2020	40966.86	12056	13,878	9270	23216	2177	27950	7,481
29-01-2020	40789.38	11980	13,863	9468	23085	2158	26676	7,440
05-02-2020	41216.14	12108	14,054	9639	23686	2223	27584	7,499
12-02-2020	40894.38	11993	14,039	9733	23194	2209	27530	7,382
19-02-2020	40281.2	11798	13,144	8966	22605	2104	26893	7,018
26-02-2020	38623.7	11303	12,543	8684	21083	2014	26285	6,718
04-03-2020	35634.95	10451	11,793	8344	19867	1963	25393	5,960
11-03-2020	30579.09	8967	10,063	7335	17012	1672	23264	5,295
18-03-2020	26674.03	7801	9,658	7418	18092	1610	22663	5,446
25-03-2020	29468.49	8598	10,302	7700	18917	1755	23603	5,672
01-04-2020	30067.21	8792	10,537	7887	18950	1824	24253	5,705
08-04-2020	30690.02	8994	11,172	8516	19639	1857	24435	5,791
15-04-2020	30636.71	8981	10,706	8263	19281	1879	23794	5,641
22-04-2020	32114.52	9381	11,320	8608	19771	1934	24576	5,959
29-04-2020	31453.51	9206	11,135	8809	19619	1895	23869	5,849
06-05-2020	31371.12	9197	11,056	9003	20366	1922	24246	5,995
13-05-2020	30196.17	8879	11,249	9185	20433	1981	24388	6,002
20-05-2020	30609.3	9029	11,603	9340	21271	2030	23385	6,068
27-05-2020	33825.53	9979	12,046	9608	22326	2087	23996	6,220
03-06-2020	33956.69	10047	12,620	9954	23091	2189	25057	6,336
10-06-2020	33605.22	9914	12,161	9896	22582	2138	24344	6,243
17-06-2020	35430.43	10471	12,078	10131	22549	2131	24907	6,320
24-06-2020	34915.8	10302	11,894	10059	22288	2108	24427	6,170
01-07-2020	36674.52	10800	11,990	10344	22615	2164	25976	6,190
08-07-2020	36033.06	10607	12,015	10489	22587	2184	25478	6,180
15-07-2020	37930.33	11162	12,509	10680	22884	2229	25636	6,270
22-07-2020	38492.95	11301	12,491	10402	22657	2257	24773	6,129
29-07-2020	37687.91	11095	12,612	10941	22574	2280	24947	6,036
05-08-2020	38407.01	11323	12,849	10783	22750	2419	24891	6,154
12-08-2020	38528.32	11385	12,910	11211	23051	2348	25367	6,077
19-08-2020	38843.88	11472	13,002	11466	23297	2367	25486	6,037
26-08-2020	38900.8	11470	13,114	11940	23138	2350	25185	5,862
02-09-2020	38365.35	11317	12,688	10848	23274	2402	24624	5,930
09-09-2020	39044.35	11522	12,967	10854	23455	2444	24733	6,106
16-09-2020	37734.08	11154	12,603	11050	23360	2333	23717	5,830
23-09-2020	37973.22	11222	12,603	10633	23539	2328	23276	5,898
30-09-2020	39574.57	11662	12,838	11168	23434	2366	23981	5,950
07-10-2020	40625.51	11935	13,212	11365	23602	2403	24650	5,970
14-10-2020	40544.37	11897	13,092	11769	23567	2358	24570	5,889
21-10-2020	40522.1	11889	12,818	11485	23486	2331	24787	5,729
28-10-2020	40261.13	11814	12,877	11005	23295	2343	24940	5,787
04-11-2020	43277.65	12631	13,708	11591	24906	2453	26301	6,297
11-11-2020	43952.71	12874	13,949	11786	26015	2539	26415	6,365
18-11-2020	44523.02	13055	14,250	11802	26166	2618	26588	6,432
25-11-2020	44149.72	12969	14,192	12094	26434	2591	26341	6,391

Figure 1: The weekly performance of major global stock indices

(Source: Author)

APPENDIX-II

Date	NSE	BSE	NASDAQ	NYSE	NIKKEI	KOSPI	HNGSNG	FTSE
01-01-2020	12170	40723	9151	13614	23205	2119	26313	7286
01-02-2020	11202	38297	8567	12381	21143	1987	26130	6581
01-03-2020	8598	29468	7700	10302	18917	1755	23603	5672
01-04-2020	9860	33718	8890	11372	20194	1948	24644	5901
01-05-2020	9580	32424	9490	11803	21878	2030	22961	6077
01-06-2020	10302	34916	10059	11894	22288	2108	24427	6170
01-07-2020	11073	37607	10745	12465	21710	2249	24595	5898
01-08-2020	11388	38628	11775	13046	23140	2326	25177	5964
01-09-2020	11248	38068	11168	12702	23185	2328	23459	5866
01-10-2020	11642	39614	10912	13092	22977	2267	24107	5577
01-11-2020	12969	44150	12199	14006	26434	2591	26341	6266

Figure 2: Monthly Data of Major Global Stock Index

(Source: in.finance.yahoo.com)

Economic Data			
Month	Inflation	Interest	Unemployment
Jan	7.59	5.15	7.2
Feb	6.58	5.15	7.8
Mar	5.84	5.15	8.8
Apr	7.22	4.4	23.5
May	6.26	4.4	21.7
Jun	6.23	4	10.2
July	6.73	4	7.4
Aug	6.69	4	8.4
Sept	7.27	4	6.7
Oct	7.61	4	7
Nov	6.93	4	6.5

Figure 3: Monthly Data of Economic Parameters

(Source: Tradingeconomics.com)