



## Behavior of Capital Markets (BSE) - Before and After Covid-19 Pandemic

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# **Behavior of Capital Markets (BSE) - Before and After Covid 19 Pandemic**

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## **ABSTRACT**

Covid-19 has opened a Pandora's box filled with volatility, uncertainty, complexity, and ambiguity. Its disruptive characteristics bear resemblance to the Great Depression of 1930 but in a much more grotesque fashion. Economic Analysts and Market Pundits are in a quandary as each passing day weighs on to economic activities slumping it to the bottom of an abyss, but perhaps the darkest hour is near the dawn, similarly, amidst such tumultuous times, we have a glimmer of hope for the Indian economy that emerged from a lofty fall in crude oil prices from \$70 per barrel to a record multi-year low of \$22 per barrel au courant the levels have increased to \$40 per barrel, nonetheless, this historic fall in oil prices may turn India's economic nightmares into a daydream.

This study is focused on the performance of S&P BSE Sensex in three scenarios, which are pre pandemic, during pandemic and post pandemic i.e., in the year 2019, 2020 and 2021 respectively. It outlines the index's performances month wise during the three years and also the 52 Week High and Low of each year. The study concluded that investors have been highly prudent in terms of investing in the market during unstable economy. Another conclusion is as and when the economy gained its momentum back, investors increased their capacity to invest and also the risk-taking appetite.

**Keywords:** Covid-19 pandemic, S&P BSE Sensex, Index performance.

## **1. Introduction**

**February 19<sup>th</sup>, 2020** marked the peak of stock market before the outbreak of the COVID-19 Pandemic triggered a freefall in share prices. COVID-19 has changed the whole world's normal. It has transformed individual's lives, the economies of the world and the fate of all businesses around the world. The fundamentals of some companies have accelerated bringing them to a different level of operation, whereas for some companies, wind has turned into hurricanes.

The initial impact of Covid-19 outbreak on capital markets has been acute, with sharp price adjustments observed across fixed income and equity markets. Debt managers faced increased financing needs, higher funding costs, large foreign capital outflows and uncertain investor behavior while fulfilling their funding needs.

During the Covid-19 Pandemic, accessing the international debt market will be a costly affair or rather be impossible for many EMDE (Emerging Markets and Developing Economies) government issuers. As a result, issuers may need to divert their focus from international market to domestic capital market.

Covid-19 did not spare the private sector as well and the deterioration of private sector balance sheets geared up. This deterioration was a result of the economic shutdown for both financial and non-financial borrowers. Corporate issuers, particularly with lower credit rating, had even greater difficulties in accessing international markets, thus had to diversify their focus from international markets to domestic capital market.

## **2. Literature Review**

**2.1** Monika Choudhary, P. R. Sodani and Shankar Das in their research paper, Effect of COVID 19 on Economy in India: Some Reflections for policy and programme state that the outbreak of COVID-19 brought social and economic life to a standstill. The study focuses on effects of COVID 19 Pandemic on sectors like aviation, tourism, retail, capital markets, MSMEs, and oil. It states that the aviation revenue will fall down by USD 1.56 billion. Oil prices have gone down to 118 years low i.e., \$22 per barrel in March and Foreign Portfolio Investors have withdrawn about USD 571.4 million. While rupee is continuously depreciating, MSMEs will face a severe cash crunch.

The pandemic witnessed a terrifying moment when people started migrating to their hometowns on foot.

The authors said that India must rethink about her development paradigm and make it more inclusive. COVID 19 has also provided some unique opportunities to India. A chance to contribute in global supply chains as the major fact is that multinationals are losing its trust in China. To give “Make in India” a success, several reforms are needed and labour reform is one of them.

**2.2** Paulo Vitor Souza de Souza and César Augusto in their research paper, *Effects of Covid-19 Pandemic on International Markets* analyze the effects of the crisis generated by COVID-19 pandemic on international capital markets. The authors presented the performance of the 44 most representative indexes from 44 economies of the world. They used correlation analysis and average price texts, graphical analysis of returns, and multiple linear regression analysis of index efficiency were made along with cultural dimensions and macroeconomic aspects of the market.

The findings in the study states that the markets became more correlated by increasing the correlation levels of the indexes in the period after the pandemic. There was a significant difference in the correlation coefficient of the periods before and after the pandemic which indicates a behavior change of the correlation index. Markets represented a reduction in their returns and increase in the volatility after pandemic. Pre pandemic market’s efficiency and aversion to uncertainty was low and there was increased inflation. Whereas, in the post-pandemic period market’s efficiency was increasing

**2.3** Janga Bahadur Hamal and Rishi Raj Gautam in their research paper *Capital Market Response to Covid-19 Pandemic – A Systematic Review on Stock Volatility and Performance* aims to identify the impact of Covid-19 Pandemic on stock market volatility and market return as well as the impact of government response to Covid-19 pandemic on stock market performance. The study identified that the short-term impact of the Covid-19 outbreak and government policy measures had a significant and adverse impact on the stock market volatility, return and overall performance. In the long term, the stock markets slowly started to stabilize and revive. The performance of the stock market is also based on the investor’s sentiments and thus in later stages the targeted government response had a positive effect on boosting investor confidence towards the market.

**2.4** Satrajit Mandal in his research on the topic, Effect of Covid-19 Pandemic on Stock Markets, investigates the effect of Covid-19 Pandemic on the stock markets of three most affected countries i.e., the USA, India and Brazil. The study takes into consideration the three benchmark indices to study the American market, Brazilian market and the Indian market, namely the S&P 500 of New York Stock Exchange, Ibovespa of B3 – Brazil Stock Exchange and Over-the-Counter Market, and S&P BSE SENSEX of Bombay Stock Exchange. The variables used in the study are **daily new Covid-19 cases** and **daily new Covid-19 deaths**. The study employed historical stock prices and the Covid-19 dataset between the start of the outbreak in these three countries and also employed the Granger Causality test.

The study concludes that the daily return of new Covid-19 cases and daily return of new Covid-19 Granger – cause daily return of closing stock index prices.

The study also concludes that if the daily return of new cases of Covid-19 in these countries increases, then the daily return of the stock indices closing price decreases since the Pearson correlation coefficients between the daily return of new cases of Covid-19 and the daily return of closing stock indices pricing are negative.

The study showed that Covid-19 started making a significant impact on the American Stock market from 21<sup>st</sup> February 2020, on Indian Stock market from 30<sup>th</sup> January 2020 and on the Brazilian Stock market from 5<sup>th</sup> March 2020.

**2.5** Saba Mahmood Al Amoodi in her research states that the outbreak of COVID-19 has affected the entire global financial market in an unprecedented way. Due to the disruptions that emerged in the global market; the financial market of India also reacted to the pandemic and witnessed sharp volatility. Given the COVID-19 situation, this paper empirically investigates the impact of COVID-19 on the Indian stock market. Using daily closing prices of indices such as Nifty and Sensex, this study examines the volatility of these indices over the period 3rd September 2021 to 10th February 2022. Further, the study has attempted to make a comparative analysis of the return of the stock market in pre-COVID-19 and during the COVID-19 situation. GARCH model is used to capture the volatility of the indices. Findings reveal that the stock market in India has experienced volatility during the pandemic period. While comparing the results with that of the pre-COVID-19 period, we find that return on the indices is higher in the pre-COVID-19 period

than during COVID-19. The return of both the stock market reached the bottom line during the first lockdown period, which is from 24th March to 6th April.

### **3. Methodology**

A secondary data study is conducted to know the behavior of capital market; Bombay Stock Exchange (BSE), to be more precise. The study focuses on the rise and fall of the BSE Index i.e., S&P BSE Sensex, before and after the hitting of COVID-19 Pandemic.

The study analyses the opening and closing of the S&P BSE Sensex for the calendar year **2019**, the year before pandemic; **2020**, the year of pandemic; and **2021** the year after pandemic.

The study also throws some light on the **52-week high and low** of the S&P BSE Sensex for the year 2019, 2020 and 2021.

### **Objectives**

1. To study the fluctuations in the S&P BSE Sensex for the calendar year 2019, 2020 and 2021.
2. To study the 52-week high and low of S&P BSE Sensex for the calendar year 2019, 2020 and 2021.
3. To analyze the market condition before, during and after the Covid-19 Pandemic.

## **4. Results and Discussion**

### **4.1 Data Representation of 2019 (before pandemic)**

**Table No. 1**

<b>2019</b>				
<b>Month</b>	<b>Open</b>	<b>Close</b>	<b>High</b>	<b>Low</b>
JAN	36,161.80	36,256.69	36,701.03	35,375.51
FEB	36,311.74	35,867.44	37,172.18	35,287.16
MAR	36,018.49	38,672.91	38,748.54	35,926.94
APR	38,858.88	39,031.55	39,487.45	38,460.25
MAY	39,036.51	39,714.20	40,124.96	36,956.10
JUN	39,806.86	39,394.64	40,312.07	38,870.96
JUL	39,543.73	37,481.12	40,032.41	37,128.26
AUG	37,387.18	37,332.79	37,807.55	36,102.35
SEP	37,181.76	38,667.33	39,441.12	35,987.80
OCT	38,813.48	40,129.05	40,392.22	37,415.83
NOV	40,196.07	40,793.81	41,163.79	40,014.23
DEC	41,072.94	41,253.74	41,809.96	40,135.37

The table explains the S&P BSE Sensex fluctuations in the calendar year 2019, when factors like Covid-19 does not exist. The chart also shows the monthly high and low of the year 2019.

**Graph No. 1**



The graph explains that there was active trading prevalent as the investor’s investing strategies were not influenced by any negative factors like Covid-19. The market showed a 10.989% during the year.

**4.2 Data Representation of 2020 (during pandemic)**

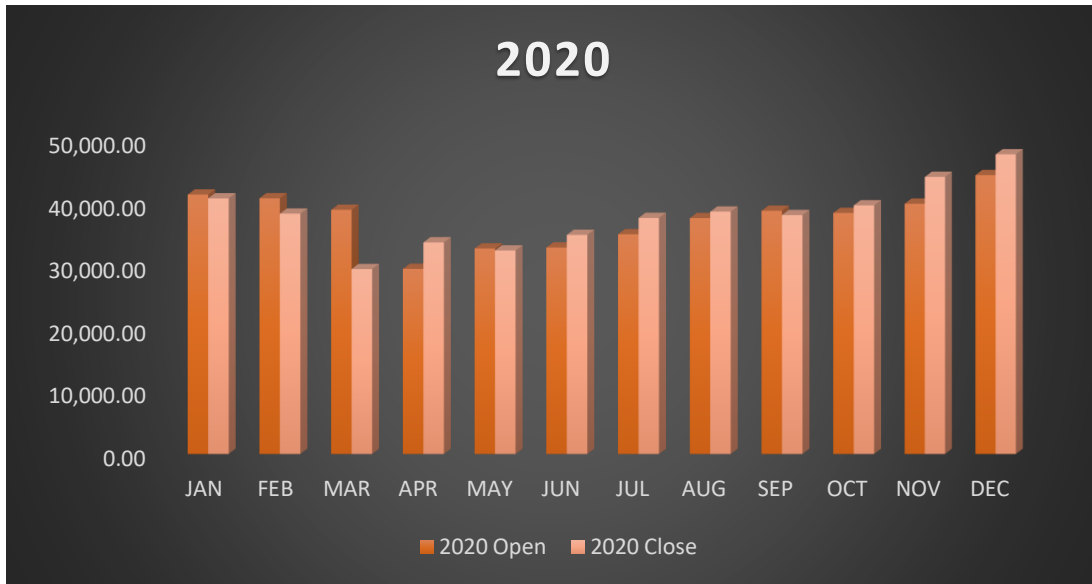
**Table No. 2**

<b>2020</b>				
<b>Month</b>	<b>Open</b>	<b>Close</b>	<b>High</b>	<b>Low</b>
JAN	41,349.36	40,723.49	42,273.87	40,476.55
FEB	40,753.18	38,297.29	41,709.30	38,219.97
MAR	38,910.95	29,468.49	39,083.17	25,638.90
APR	29,505.33	33,717.62	33,887.25	27,500.79
MAY	32,748.14	32,424.10	32,845.48	29,968.45
JUN	32,906.05	34,915.80	35,706.55	32,348.10
JUL	35,009.59	37,606.89	38,617.03	34,927.20
AUG	37,595.73	38,628.29	40,010.17	36,911.23
SEP	38,754.00	38,067.93	39,359.51	36,495.98
OCT	38,410.20	39,614.07	41,048.05	38,410.20
NOV	39,880.38	44,149.72	44,825.37	39,334.92
DEC	44,435.83	47,751.33	47,896.97	44,118.10

The table explains the S&P BSE Sensex fluctuations in the calendar year 2020, when factors like Covid-19 were at peak. The chart also shows the monthly high and low of the year 2020.



**Graph No. 2**



The graph shows that there was not much active trading during the beginning of the pandemic and the lockdown. This happened because people lost jobs and they developed a tendency to hoard money and considering stock market as a volatile area, investors held themselves back.

#### 4.3 Data Representation of 2021 (after pandemic)

**Table No. 3**

2021				
Month	Open	Close	High	Low
JAN	47,785.28	46,285.77	50,184.01	46,160.46
FEB	46,617.95	49,099.99	52,516.76	46,433.65
MAR	49,747.71	49,509.15	51,821.84	48,236.35
APR	49,868.53	48,782.36	50,375.77	47,204.50
MAY	48,356.01	51,937.44	52,013.22	48,028.07
JUN	52,067.51	52,482.71	53,126.73	51,450.58
JUL	52,638.50	52,586.84	53,290.81	51,802.73
AUG	52,901.28	57,552.39	57,625.26	52,804.08
SEP	57,763.53	59,126.36	60,412.32	57,263.90
OCT	58,889.77	59,306.93	62,245.43	58,551.14
NOV	59,577.48	57,064.87	61,036.56	56,382.93
DEC	57,365.85	58,253.82	59,203.37	55,132.68

The table explains the S&P BSE Sensex fluctuations in the calendar year 2021, when factors like Covid-19 were settled to some extent. The chart also shows the monthly high and low of the year 2021.

**Graph No.3**



The graph shows that there has been a rise in the investing pattern but the market still remains less volatile as major part of the economy was still unemployed. Speculation at this time can be said to be equal for both, bullish market and bearish market.

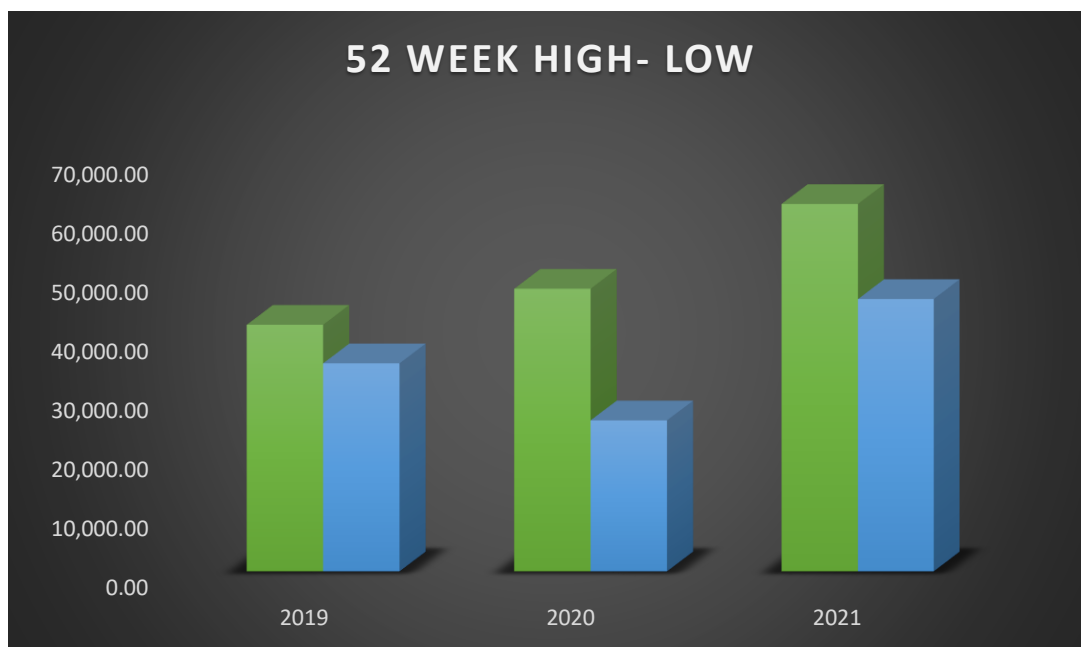
#### **4.4 52 WEEKS HIGH and LOW**

**Table No. 4**

<b>52 WEEK HIGH- LOW</b>		
<b>Year</b>	<b>High</b>	<b>Low</b>
<b>2019</b>	<b>41,809.96</b>	<b>35,287.16</b>
<b>2020</b>	<b>47,896.97</b>	<b>25,638.90</b>
<b>2021</b>	<b>62,245.43</b>	<b>46,160.46</b>

The table shows the 52 Weeks High and Low for the S&P BSE Sensex.

**Graph No. 4**



The above graph shows the 52 Weeks High and Low for the years before pandemic, during pandemic and after pandemic.

The interpretation through this table and graph can be made that the market has fallen with a major spread in the year 2020 when the Covid-19 Pandemic was at peak.

The high and low difference for 2019 was 6522.8 points; in 2020 the difference was 22258.07 points and for the year 2021 the difference was 16084.97 points.

## **5. Conclusion**

The Covid-19 Pandemic has been a true test taker of the investor's trust in the market and also about the level of knowledge amongst the investors. The market has been highly volatile and unpredictable in these three years.

In the normal days, i.e., in the pre pandemic era, the market has been volatile and the number of trades executed were also high. The average of market's 52 week high and low in 2019 was 38,548.56 points. The same for the year 2020 and 2021 was 36,767.935 points and 54,202.945 points respectively.

This signifies that the investor's mindset towards the market being unstable during the pandemic times. The investors saw a substantial room for the market to grow after the unlock of the economy, which is evident by the 2021's average.

Since then, the market has been reviving and performing well when compared with the stagnation in the market during Covid-19 Pandemic.

## **6. References**

### **Research Papers**

- ❖ Effect of COVID-19 on Economy in India: Some Reflections for Policy and Programme (Monika Choudhry, P.R. Sodani, Shankar Das)
- ❖ Effects of Covid-19 Pandemic on International Markets (Paulo Vitor Souza de Souza and César Augusto)
- ❖ Capital Market Response to COVID-19 Pandemic – A Systematic Review on Stock Volatility and Performance (Janga Bahadur Hamal and Rishi Raj Gautam)
- ❖ Impact Of Covid-19 Pandemic Investor Behaviour-Indian Stock (Bear Market) Perspective (Saba Mahmood Al Amoodi)
- ❖ Effect of Covid-19 Pandemic on Stock Markets (Satrajit Mandal)

### **Articles**

- ❖ The impact of Covid-19 on capital markets, one year in (McKinsey & Company)

### **Links**

- ❖ <https://search.yahoo.com/search?fr=mcafee&type=E211US714G0&p=capital+market+durin+g+coronavirus>
- ❖ <https://pubdocs.worldbank.org/en/776691586478873523/COVID-19-Outbreak-Capital-Markets.pdf>
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- ❖ <https://www.cnbc.com/2019/12/31/the-stock-market-boomed-in-2019-heres-how-it-happened.html>