

Was It the Pandemic Effect or a Bubble Burst: An Empirical Study of The Stock Market Crashes since Liberalisation

Akanksha Dubey*

Shubha Chandra**

INTRODUCTION

An economic bubble or market bubble is the sheer rise in share prices followed by a steep decline in the stock market over a period of time. A market bubble occurs when the share prices on an average rise considerably higher than their intrinsic value. The well-known example includes the Dot-com bubble (2000) and the Housing Bubble (2007). A number of events have occurred in Indian stock markets that prove the presence of Economic bubbles that burst and lead the economy towards a recession. In this paper, we will analyse such market bubbles that aroused over the last 30 years, since the economic liberalisation in 1991 till the present situation of Pandemic of Covid-19.

The Sensex is the benchmark index of BSE first compiled in 1986, It is a 'Market Capitalisation-Weighted' Index of 30 component stocks representing a sample of large and financially sound companies. The BSE-Sensex is the benchmark index of the Indian capital markets. BSE is the first-ever stock exchange in Asia. BSE, the bourse was established as "The Native Share & Stock Brokers' Association" in 1875. The Government of India recognised BSE under the Securities Contract and Regulation Act, 1956 and on 2nd January 1986 S&P BSE SENSEX, the country's first equity index was launched (Base Year: 1978-79 = 100). The Sensex is considered a tool to measure the overall performance of the Bombay Stock Exchange. With the launch of Bombay Training institute, the pace of investment began to rise and it achieved its first milestone of 1000 points in 1990. Since then the Sensex has achieved various milestones, whether be it in terms of technology or performance, it has never looked back and is always on the path of enhancement. It is now the most tracked stock market in the entire world.

There are a number of factors that affect the movement of stock markets including FII, GDP, political stability and the economic situation of the country. These are some of the external factors that affect the stock market movement. Nonetheless, there are various other internal factors associated with individual behaviour. The most important objective of the people to trade is to maximise returns and minimise the risk and in this process the Efficient Market Theory assumes that people are rational. However, the recent research on Behavioural finance proves that people are 'normal'. In the 1970s two economists, Daniel Kahneman and Amos Tversky discovered the concept of cognitive Biases showing that people tend to make decisions that flout clear logic.

In this paper, the movement of the Sensex from the point of view of behavioural Finance is examined. Firstly, the growth of the SENSEX post-liberalisation is analysed and the factors responsible for the escalation. The progress of the Sensex over the years since liberalisation is also discussed to show the augmentation and decline at diverse points of time. Then the market bubbles that aroused since liberalisation are analysed focussing on the present market situation to understand whether the decline in March 2020 was the result of the bubble burst or was it just an impact of the severe crises that occurred.

*Research Scholar, Garden City University, Bangalore, Email id: akanksha.dubey@gardencity.university

**Associate Professor, Garden City University, Bangalore, Email id: shubha.chandra@gardencity.university

The various biases that affect investor behaviour in the stock market are broadly divided into four heads. Heuristics, Disposition effect, Market and the Herd behaviour. Other biases that promote bubbles include overconfidence, anchoring, and representativeness, regret theory which leads investors to interpret increasing prices as a trend that will continue, causing them to chase the market.

OBJECTIVES

1. To study the development of SENSEX post-liberalisation
2. To find out the factors responsible for the directional movements in the stock market at diverse points in time.
3. To show the role of behavioural factors in the current market scenario.

LITERATURE REVIEW

The dynamism in Indian stock markets has increased manifold in the present era. The economic survey 2019-20 said that the economic events since 1991 proved to be a major landmark in relation to Sensex. It said that after the liberalisation and market reforms; the Sensex has been rising hastily, creating each new pinnacle in a shorter span than the previous one.

According to a study conducted by Rao et.al. published in 1999, the number of companies listed on BSE more than doubled between 1991-92 and 1995-96 and the equity capital increased by more than five times. The number of issues increased from 455 in 1991-92 to nearly 1,700 each in 1994-95 and 1995-96. There were three main factors responsible for this rise: Firstly, the stocks scam revealed in the year 1992, where the share prices increased multiple times, gave people a herd mentality that they can earn huge money and the investment increased. Secondly, the optimism created by the culmination of the licensing system. Thirdly, the appearance of government firms and banks in the market created a positive impact on the capital market.

In an article by Singh Ajit (1998) the stock market boom was created as a result of the entry of a large number of domestic and foreign markets.

In the paper by Benjamin F. King (1966) said that an interesting implication of the analysis is that there exists a high degree of correlation between changes in market factors and the corresponding change in the logarithm of Standard & Poor's Composite Index. He explains that the prices of a security are affected by any incoming information that is distinctive to that security.

M K Roy (2001) identifies 6 factors that affect the stock market movement. These are the index of industrial production (DIIP), the yield on Treasury bill (YTB), the yield on long term government bond (YGB), interest on debenture (DEB), rate of inflation (DINF) and the money supply.

White Eugene N. (1990) found that an important reason for the crash of 1929 was the irrational behaviour of the investors. People who had never even bought stocks earlier also entered the market due to a sudden and sharp rise. Other factors that led to the decline were the Credit Policy, New issues, changes in duties and tariffs, international effects like monetary policies of other countries and the interest rates.

Mukerjee D. (2007) observed that Indian Markets have closely integrated with the world markets. The Indian stock markets react to any new happening in the global scenario be it macroeconomic or country-specific affects the various markets.

A study conducted by Tuyon &Ahmad (2016) examines the state of market efficiency in the Malaysian stock market. They observed that investor behavior is bounded, rational and that there exists a weak form of efficiency in the Malaysian stock market. The stock markets are too much affected by economic crises.

Another study conducted by Yurttadura & Ozcelikb (2019) establishes that the psychological biases of the people affect their decision making. Demographic factors like age, gender, income, education, occupational background, psychological and emotional factors affect decision making. They concluded that low-income individuals associate their earnings with their abilities while the losses to their luck.

Oprean & Tanasescu (2014) studied the factors that affect the emerging markets. They observed that trading is influenced by investor's irrational behaviour. People behave like animals. If everyone does the same, they feel safe and this results to herd behaviour.

Bujang et.al. (2016) studied the impact of investor behavior and sentiments on the decision-making process. They concluded that investor sentiments have an influence over stock returns, fundamental factors also influence future returns and there is an existence of rational bubbles during the financial crises.

Bertella et.al. (2014) examined the effect of confidence level over agents and ultimately on stock markets. They explained that due to behavioral heterogeneity there exists excess volatility of risky assets relative to their fundamental value. The confidence level of agents also changes over time, which affects their market behaviour and leads to the reoccurrence of market bubbles.

Shiller (2003) explained that EMH will not be able to explain correctly the reasons behind the stock market bubbles. He also has criticized Fama on two grounds. First, he says that neither there is no principle of psychology nor any research on financial anomalies, that proves people often under react. The second statement of Fama, which says market anomalies often disappear with time or with an improvement in research methodology, is not true either. Shiller says that the biggest anomaly of the stock market is excess volatility and this cannot disappear, neither with time nor with any scholarly studies. This can be well supported from the stock market volatility during the 2000 market bubble.

Growth of Sensex since Liberalisation

The beginning of Liberalisation in India led to one of the greatest reforms in the Indian financial market and that was the advancement of the world's oldest stock exchange "The SENSEX". It was just one of the results that the stock market increased from a mere 1000 mark to 4000 points within a year. The SENSEX has grown at an accelerating pace post liberalisation. While it was in the year 1999 that for the first time it crossed the 5000 mark but since then the duration taken to reach the incremental milestone has reduced over the years.

The long and painful process of liberalisation was invoked with the presentation of the Union Budget on 24 July 1991. The so-called "long and painful process" was due to the introduction of capital reforms in the country and the end of the monopoly of the public sector in a number of areas thereby resulting in the loss of jobs by unskilled and more of governance by the private sector. The introduction was necessary to meet the rising Balance of Payment crises before 1991. Besides this, there were several reasons which forced the then government to implement the policy. The International oil prices were rising, the government expenditure in the form of subsidies on oil, petroleum and LPG were huge. There was a flight of capital from the Non-residents due to much uncertainty. The Fiscal deficit was acute. The inflation was high. In short, the economy was on the verge of decline. However, to reincarnate the economy a milestone was achieved with the presentation of the Union budget of 1991.

It was since then various improvements have taken place in different sectors including Exchange rate adjustments, changes in industrial policy directing liberalised licensing policy in different segments and the much-awaited economic reforms that opened the Indian economy to the world, inviting companies from all over the world, opening competition, trying to rebuild a sense of belief over the economy. The Bombay Stock Exchange suddenly found a new life.

There were a series of reforms in the Indian capital market in the 1990s that paved the way for the enhancement of the SENSEX. The establishment of SEBI and provision of the statutory powers in 1992 was a landmark as it

was responsible for transparency in trading and also development of the capital market. The establishment of NSDL in 1996 and CDSL in 1999 opened the Electronic Trading Facility (ETF), promoting a conducive environment for reducing the trading cycle. Introduction of Index Futures and option proved the hedging option in the market.

Another important development of the reforms process was the opening up of the Mutual Fund Industry to the Private sector in 1992, breaking the monopoly of the government. Since 1992, Foreign Institutional investors were permitted to invest in the Indian markets and also Indians were allowed to trade in ADR's, GDR's, Foreign Currency Convertible bonds and Exchange Commercial Borrowings. Foreign companies were also allowed to raise money from the domestic market. The introduction of Exchange Traded derivative instruments Futures and Options in the year 2000 has provided the investors with the option of hedging and minimising risks. To sum up the Indian Capital Markets have gone through a series of reforms the results of which are bearing upon now and has made the BSE the largest tracked stock market in the world.

The success of liberalisation mainly depends on the extent to which the financial markets of the country are able to evolve and make the efficient utilization and mobilisation of financial resources in a productive manner. Since liberalization, the stock markets in the country are reaching new heights and the time to reach new milestones is also reducing with time. In this paper, we will go through the various highs and lows which one of the world's oldest Stock Exchange the BSE went through and will try to understand the factors responsible for such diverse movements. We shall also discuss the concept of Market bubbles and analyze the extent to which they have existed in Indian stock markets and whether the bursting of this bubble in 2020 led to the start of the recession phase in the country.

The boom and bear phases since 1991

Within these long cycles, the markets went through short periods of sharp upswings and downswings, particularly since 1991. Since 1991 we had seven bull markets and six bear markets of varying time periods and intensity. The bull market of 1991-92 witnessed 260 per cent appreciation in one year. During the long bull market of 2003-07, the index rose impressively from around 2500 to 21000, giving a return of 600 per cent in around 55 months.

During 1991, the stock market opened at 1027.38 points and by the end of the year, it has reached 1955.29 points. This was the result of policies implemented by the government.

The year 1992 saw the biggest rise in SENSEX. It opened at the beginning of the year with 1908.85 and reached 4546.58 points within the same year, making the biggest rise in the history of BSE at that point in time. However, on 28 April 1992, the Sensex saw the biggest decline of approx. 14% in any single day. The reason for the decline was the Harshad Mehta scam that came into the limelight after the enquiry was established to find out the cause for the decline leading to a bearish trend that lasted for about 2 years.

On March 31, 1997, the Sensex fell 302 points or 9 per cent closing at 3,360.89 due to uncertain political factors.

It was in the late 1990s that the prices of many tech companies began to rise with the expectation of a boom in the near future. As the internet expanded and started taking a big share in the lives of the people, the prices of such tech companies went on increasing. The "dotcom" economy was rising along with new internet-based companies seeming to pop up every single week. Companies were going to market with IPOs and fetching huge prices, with stocks sometimes doubling on the first day. This had made the people join the rally and make an investment, who were already thrilled with such a price rise. However, by the Month of March things began to change. The market crash started. On 4th April 2000, the Sensex value was 4907.41 and fell by 361 points resulting in one of the biggest declines in the index. In less than a month, nearly a trillion dollars' worth of stock value had completely disappeared. The Dot-com bubble that had been building up for the last few years came to a halt. The stocks sunk, fortunes were lost, and the economy came on the verge of a recession that lasted for a few years now.

Again on May 17, 2004, the Sensex crashed by more than 565 points or 12.53 per cent, amid fears that the new government may halt the privatisation of government-run companies. The investor wealth reduced by \$27 billion.

On May 18, 2006, the index fell by 826 points resulting in approx. 6% decline in the Sensex following heavy selling by foreign institutional investors, retail investors and weak global markets. The other reasons included the US, increasing CPI and the weakness in London Metal Market.

The year 2008 saw many big declines when there were international factors and that Indian stock markets are very well affected by global factors as we have seen in the previous cases when the markets fell. The reason for the decline was the so-called subprime crises that began in the US and then affected almost all the stock markets of the world and Indian Capital markets cannot dwell away from this fall. Easy credit and rising home prices resulted in a speculative real estate bubble.

While the market crashed in 2008, the problem started years earlier. In September 2008, the well-known investment firm in the US, Lehman Brothers collapsed, which added another factor responsible for the on-going issues. The subprime mortgage crisis was the collective creation of the world's central banks, homeowners, lenders, credit rating agencies, underwriters, and investors. The borrowers who borrowed money for their homes at subprime rates could not return due to job losses and unemployment that created due to the fall of some of the biggest companies that asked for the bailout from the government.

As a result, the share prices began to decline as there were no more new investors entering the market and the fear of a deeper fall made people to keep away from it that ultimately resulted in the bursting of the bubble. The subprime mortgage crisis didn't just hurt homeowners; it had a ripple effect on the global economy leading to the Great Recession which lasted between 2007 and 2009. This was the worst period of economic downturn since the Great Depression of 1929.

As we can see that at the beginning of the year the Sensex was trading at 18919.57 points and in the same year on 24th October it turned down to 9570.71 points. The markets fell by more than 2000 points on 21st January and the by 2273 points the next day on 22nd January creating approx. 13.32% decline. The decline continued during the times ahead and the stock markets saw once again the biggest crash on 24th October 2008 when the Sensex fell by 13% approx. The recession phase that has started by now kept on during a few more years.

It was on 24th August 2015 that once again the Sensex saw a major decline of more than 1700 points on any single day from its peak. The major reasons for the crash included the crash in Asian markets, the fall of the rupee to its lowest for two years and the continuous fall in the crude oil prices.

The beginning of the year 2020 marked a new milestone in Sensex history as it reached its highest ever score on 20th January 2020 at 42273.87 points. The investors were very much positive with the Sensex making new records despite the economic survey showed a decline in the GDP during 2018-19. Due to political certainty and a huge mandate from the public and the expectations of a booming economy from a stable government made people invest in the stock market. However, this rise in January 2020 converted into fall slowly and steadily when the world began facing the aftermaths of a new virus that has entered almost all the countries of the world. The countries, for the first time, closed their economies to prevent the spreading of an unknown virus that emerged in China known as Covid-19.

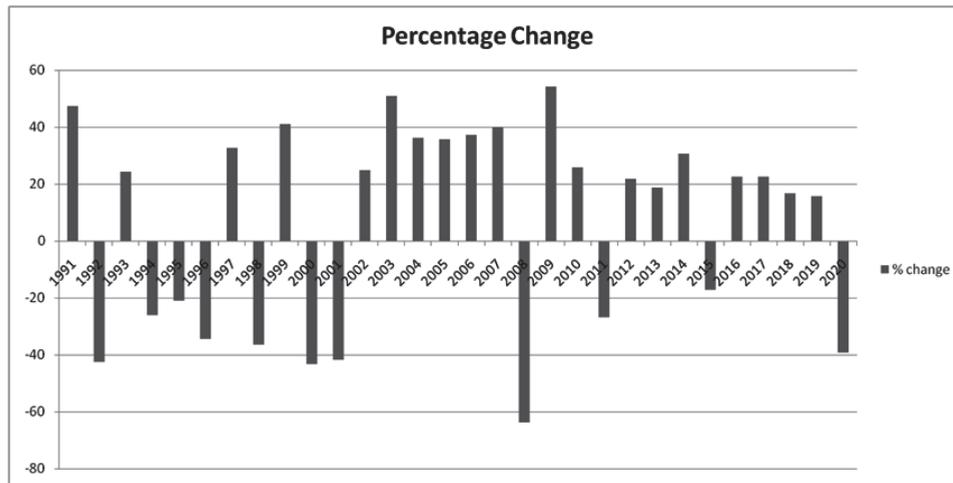
As a result, the Sensex fell by 1092 points on 1 February 2020 with the rising expectations of the spread of the disease in the country and the unavailability of any proper medicine at the moment. Again on 28 February, the Sensex fell by 1526 points. On 6th March the Sensex fell by 1460 points. On the rising uncertainty with the unavailability of any medications and increasing spread of the disease along with the political pressure to shut down the entire economy, the ambiguity in the stock market kept on rising, leading to a decline and the Sensex

made its 52-week low as on 24th March 2020 at 25638.9points. From the table below it is clear that the growth bubble burst in 2000, then recovered only to be slammed by the housing bubble of 2008, and then the 2010s drove up multiples to coming into the decade of the 2020s. Table 1 shows the maximum percentage declines in Sensex since 1991.

Table 1

Year	Maximum points	Minimum Points	% change
1991	1955.29	1027.38	47.46
1992	4546.58	2615.37	-42.48
1993	3459.07	2617.78	24.32
1994	4643.31	3436.87	-25.98
1995	3943.66	3110.49	-21.13
1996	4131.22	2713.12	-34.33
1997	4605.41	3096.65	32.76
1998	4322	2741.22	-36.58
1999	5150.99	3042.25	40.94
2000	6150.69	3491.55	-43.23
2001	4462.11	2594.87	-41.85
2002	3758.27	2828.48	24.74
2003	5920.76	2904.44	50.94
2004	6617.15	4227.5	36.11
2005	9442.98	6069.33	35.73
2006	14035.3	8799.01	37.31
2007	20498.11	12316.1	39.92
2008	21206.77	7697.39	-63.7
2009	17530.94	8047.17	54.1
2010	21108.64	15651.99	25.85
2011	20664.8	15135.86	-26.76
2012	19612.18	15358.02	21.69
2013	21483.74	17448.71	18.78
2014	28822.37	19963.12	30.74
2015	30024.74	24833.54	-17.29
2016	29077.28	22494.61	22.64
2017	34137.97	26447.06	22.53
2018	38989.65	32483.84	16.69
2019	41809.96	35287.16	15.6
2020	42273.87	25638.9	-39.35

**As on 31st August 2020*



The given graph clearly shows that the year 2008 was the worst hit, with more than 63% decline in Sensex in any year. The subprime crises affected the global markets, which resulted in a sharp decline. Also in the year 1992, when the Harshad Mehta scam took place, the Sensex fell by 43% approximately. After that, due to intervention by regulatory bodies, things improved when again in 1999 another scam came into light. Along with that, the Tech bubble burst in 2000 lead to a decline in Sensex by more than 43% and by 42% the subsequent year when the situation began to improve, and the markets started rising, reaping the benefits of a growing economy. The current pandemic has affected Sensex to a great extent, leading to a decline of 40% from its highest value.

Table 2 shows the biggest falls on any single day since 1991.

Table 2

Biggest falls in Sensex since 1991 on any single day			
Date	High	Sensex Fall (points)	Percentage Decline
21-01-2008	18919.57	2062	10.90
09-03-2020	36950.2	1841	4.98
24-08-2015	26730.4	1741	6.51
28-02-2020	39087.47	1526	3.90
24-10-2008	9570.71	1205	12.59
01-02-2020	40905.78	1092	2.67
17-03-2008	15326.93	1022	6.67
03-03-2008	17227.56	944	5.48
06-03-2020	37747.07	1460	3.87
22-01-2008	17068.57	2273	13.32
18-05-2006	12163.98	826	6.79
28-04-1992	4112.78	570	13.86
17-05-2004	5020.89	565	11.25
15-05-2006	12272.64	463	3.77
22-05-2006	11142.9	457	4.10
19-05-2006	11697.11	453	3.87
04-04-2000	4907.41	361	7.36
12-05-1992	3307.71	334	10.10
14-05-2004	5416.04	330	6.09
06-05-1992	3579.87	327	9.13

(Source: BSE India)

*The percentage decline is calculated as the ratio of Sensex fall to the maximum value of the index on any single day.

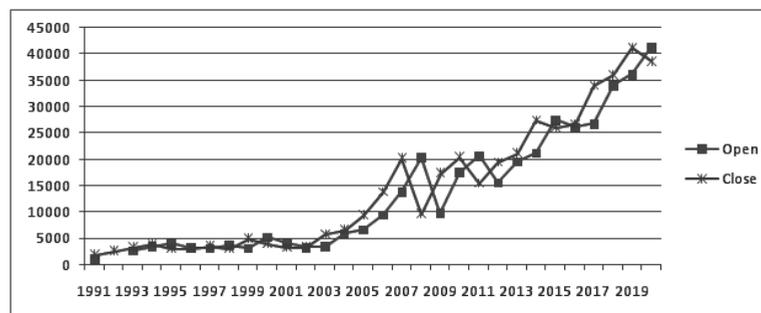
*Sensex Fall is calculated as the difference between the highest value of the Sensex on any single day and the minimum value on any single day.

Table 3 shows the highs, lows, open and close of Sensex in this duration.

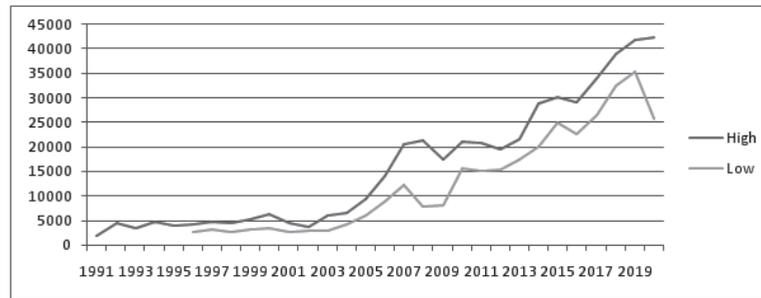
Table 3
Movement of Sensex and its Open, High, Low, Close since 1991

Year	Open	High	Low	Close
1991	1027.38	1955.29		1908.85
1992		4546.58		2615.37
1993	2617.78	3459.07		3346.06
1994	3436.87	4643.31		3926.9
1995	3910.16	3943.66		3110.49
1996	3114.08	4131.22	2713.12	3085.2
1997	3096.65	4605.41	3096.65	3658.98
1998	3658.34	4322	2741.22	3055.41
1999	3064.95	5150.99	3042.25	5005.82
2000	5209.54	6150.69	3491.55	3972.12
2001	3990.65	4462.11	2594.87	3262.33
2002	3262.01	3758.27	2828.48	3377.28
2003	3383.85	5920.76	2904.44	5838.96
2004	5872.48	6617.15	4227.5	6602.69
2005	6626.49	9442.98	6069.33	9397.93
2006	9422.49	14035.3	8799.01	13786.91
2007	13827.77	20498.11	12316.1	20286.99
2008	20325.27	21206.77	7697.39	9647.31
2009	9720.55	17530.94	8047.17	17464.81
2010	17473.45	21108.64	15651.99	20509.09
2011	20621.61	20664.8	15135.86	15454.92
2012	15534.67	19612.18	15358.02	19426.71
2013	19513.45	21483.74	17448.71	21170.68
2014	21222.19	28822.37	19963.12	27499.42
2015	27485.77	30024.74	24833.54	26117.54
2016	26101.5	29077.28	22494.61	26626.46
2017	26711.15	34137.97	26447.06	34056.83
2018	34059.99	38989.65	32483.84	36068.33
2019	36161.8	41809.6	35287.16	41253.74
2020	41349.36	42273.87	25638.9	38628.29

(Source: BSE India) *As on 31st August 2020.



*Open and close values since 1991-2020 (as on 31st August 2020)



**Highest and Lowest values of Sensex since 1991-2020 (as on 31st August 2020)*

The Stock Market behaviour and the Pandemic effect:

The worldwide Stock markets have a history of crash and recovery, and the Indian Stock Market is no different from that. The current market has crashed around 30 per cent in less than three months. Due to COVID-19, no one knows when the economy will be back on track. Some Experts even compare this meltdown of economies with the "Great Depression" of the 20th Century. The "Great Depression" started in 1929 and lasted until the late 1930s. Between 1929 and 1932, worldwide Gross Domestic Product (GDP) fell by an estimated 15 per cent. By comparison, worldwide GDP fell by less than 1 per cent from 2008 to 2009 during the Great Recession.

The behaviour of the people during these times has affected a lot the movement of the stock market. The Efficient Market Hypothesis by Fama says that people are rational. However, we have seen repeatedly that people are normal and are affected by a lot of cognitive biases like trading in herds, being overconfident while trading and taking decisions based on their previous experiences. Such factors are recognised as behavioural factors that affect the decision making of the people when they are trading in the stock market.

The Noble Laureate Robert Shiller recently said that this pandemic is generating a lot of scary narratives which is affecting investor behavior. "This is creating a Heuristics effect, a kind of mental shortcut that people use while taking decisions instead of rational thinking". In the present time, there is so much fear everywhere and therefore people are reacting with a lot of emotions. He added that COVID-19 has brought about two pandemics, not just one. The first is COVID-19 health pandemic. The second is a pandemic of anxiety over the economic consequences of the first. The pandemic of financial anxiety, spreading through panicked reaction to price drops and changing narratives, has a life of its own.

As per an interview Steve Chiavarone, a portfolio manager and equity strategist, this pandemic effect is different from the previous crashes. This is because it is the first time in history that we have seen a shutdown of the entire economy. Things have come to a standstill around the world. The complete lockdown was imposed on 24th March in the country, which continued till 31st May 2020. During this time period, economic activities were completely hampered. The productions as well as the distribution activities were held back. This results in a situation of fear among the people. The internet bubble of 2000 was caused due to the rise in market rates of internet-based securities, much higher than their intrinsic value. In 2007 the markets crashed due to the bursting of the Housing bubble impacting the entire world. However, this crash hasn't been caused by an imbalance in balance sheets but a life-and-death struggle with a microscopic invader, the virus that causes the lung disease, Covid-19. Extreme social distancing is hell for airlines, cruise ships, restaurants, hairdressers, retailers—the list goes on. Few companies have not announced mass layoffs yet, but they're bound to do so soon if no money is coming in.

"This is different. The thing that is scarier about it is you've never been in a scenario where you shut down the entire economy," Steve Chiavarone, portfolio manager and equity strategist with Federated Hermes, told Bloomberg News on March 16. "You get a sense in your stomach that we don't know how to price this and that markets could fall more."

CONCLUSION

During the time span of approx. 30 years, the Sensex has travelled a long way from being negligible at 1000 points to gigantic 42000 points. A number of financial reforms since liberalisation within the country along with the opening of the economy to global markets have geared up the Sensex to move upwards slowly and steadily. Although the Global markets at times had negative effects on the stock market, we cannot always stay in isolation. Globalisation also has made the stock market to improve by diverting the net worth from FII's to the Stockmarkets, allowing foreign companies to make fresh issues in Indian markets and the Indian companies to issue ADR's and GDR's. All these have resulted in the stock market making new highs.

However, we have seen many times, after a positive run for a few years, such factors arise that force the stock market to decline incessantly that pushes the economy towards recession. This can be said that the business cycle continues to operate at the rear and even the stock markets cannot escape from this cycle.

According to Wikipedia, a stock market bubble occurs when "market participants drive stock prices above their value in relation to some system of stock valuation." Even though COVID-19 (Corona Virus December 2019) was first identified in December 2019, it was not recognized as a pandemic until February 2020, when the Indian stock market commenced to drop by more than 60% i.e. from approx 42000 points on January 20, 2020, to approx. 25000 points through mid-March. But then remarkably it recovered, even though corporate earnings remain in the dumps. The Indian economy is officially in a recession, data released by the Ministry of Statistics and Programme Implementation showed that India's Gross Domestic Product had contracted by 23.9% for the first quarter.

Nevertheless, the Sensex has started rising once again after reaching its minimum in March despite the fact that the economy is still under turn down, which can be clearly seen from the growth rate of GDP. So it can be said that even though the pandemic tried to burst the bubble, it could not. At first, observers believed that COVID-19 would be the match that lit the market's overvaluation tinder, but they were wrong, at least so far. As we know the stock market will reconnect with the economy, it is not far off that we can see the bursting of the bubble. The pandemic is not yet over, and its repercussions will be felt for years after a vaccine is found. It's not going away. So, the famous quote can be functional here: You can ride the bubble, but remain vigilant for the pin.

BIBLIOGRAPHY

- Azarmi, T., Lazar, D., & Jeyapaul, J. (2011). *Is The Indian Stock Market A Casino?* *Journal of Business & Economics Research (JBER)*, 3(4). <https://doi.org/10.19030/jber.v3i4.2767>
- Banga, R. and Das, & Abhijit. (2012). *TWENTY YEARS OF INDIA'S LIBERALIZATION: EXPERIENCES AND LESSONS.* *Centre for WTO studies.*
- Bertella, M. A., Pires, F. R., Feng, L., & Stanley, H. E. (2014). *Confidence and the stock market: An agent-based approach.* *PLoS ONE*, 9(1), 1–10. <https://doi.org/10.1371/journal.pone.0083488>
- Bujang, I., Fauze, A., Hamit, A., Lai, A. A., Fikri, M., Taufik, L., Hakim, A., & Karia, A. A. (2016). *A parametric survival analysis of fundamental factors and sentiment index towards future stock returns: a new chapter of global financial crisis 2007.* *Journal of Business and Retail Management Research (JBRMR)*, 10(2), 9–10.
- *Financial Crisis 2007-2009. How Real Estate Bubble and Transparency and Accountability Issues Generated and Worsen the Crisis,* Bilal Aziz, *Estudios Fronterizos, nueva época, vol. 13, núm. 26, julio-diciembre de 2012.*
- 2020, *Pandemic Coronavirus Covid 19.* Retrieved from <https://www.weforum.org/agenda/2020/04/pandemics-coronavirus-covid19-economics-finance-stock-market-crisis/>.
- Shiller. R. (2020), *Why investors are comparing Covid 19 to the Great Depression.* Retrieved from <https://www.thinkadvisor.com/2020/04/24/robert-shiller-why-investors-are-comparing-covid-19-to-the-great-depression/#>.

- 2020, Top ten biggest falls in Sensex. Retrieved from <https://www.moneycontrol.com/news/business/markets/market-mayhem-top-10-biggest-single-day-falls-in-sensex-5017111.html> accessed on 18/06/2020
- 2015, 25 years of Liberalization. Retrieved from <https://www.firstpost.com/business/25-years-of-liberalisation-a-glimpse-of-indias-growth-in-14-charts-2877654.html>.
- 2020, 1991 economic liberalisation and Political Process. Retrieved from <https://www.livemint.com/Opinion/l46jd4x7sEnYgxizMcnq3M/1991-economic-liberalization-and-political-process.html>.
- Joshi, M. C. (2013). Factors Affecting Indian Stock Market. *International Journal of Contemporary Research in Management, Engineering and Health Sciences*, Vol. 2. <https://doi.org/10.2139/ssrn.2238539>
- Oprean, C., & Tanasescu, C. (2014). Effects of Behavioural Finance on Emerging Capital Markets. *Procedia Economics and Finance*, 15(14), 1710–1716. [https://doi.org/10.1016/s2212-5671\(14\)00645-5](https://doi.org/10.1016/s2212-5671(14)00645-5)
- Press, C. (2019). Market and Industry Factors in Stock Price Behavior, Benjamin F. King, *The Journal of Business*, Vol. 39, No. 1, Part 2 : Supplement on Security Prices Published by: The University of Chicago Press Stable URL: [https://www.jstor.org/stable/39\(1\),139-190](https://www.jstor.org/stable/39(1),139-190).
- January 2020, Press, Ministry of Finance, Promoting Pro-Business Policy Critical for India to become a \$5 trillion Economy says Economic survey.
- Rao, K., Murthy, M. R., & Ranganathan, K. V. K. (1999). Some aspects of the Indian stock market in the post-liberalisation period. *Journal of Indian School of Political Economy*, Oct-Dec, 595–622. <http://58.68.105.147/pdf/WP9907.pdf>
- Sedighi, M., Jahangirnia, H., Gharakhani, M., & Fard, S. F. (2019). A novel hybrid model for stock price forecasting based on metaheuristics and support vector machine. *Data*, 4(2), 1–28. <https://doi.org/10.3390/data4020075>
- Shiller, R. J. (2015). *Irrational exuberance*. Princeton, NJ: Princeton University Press.
- Singh, A. (1998). Liberalisation, the stock market and the market for corporate control: a bridge too far for the Indian economy? <http://mpira.ub.uni-muenchen.de/54929/>
- Weekly, P. (2011). Market in Indian a Liberalised Economy Experiences. *Economic And Political Weekly*, 36(4), 367–369.
- White, E. N. (1990). The Stock Market Boom and Crash of 1929 Revisited. *Journal of Economic Perspectives*, Volume 4 (Number 2), 67-83.
- Yurttadur, Mustafa ; Ozcelik, H. (2019). Evaluation of the Financial Investment Preferences of Individual Investors from Behavioural Finance: The Case of Istanbul, 3rdWorld Conference on Technology, Innovation & Entrepreneurship. *Procedia Computer Science* 158, 761-765.