

Understanding the Psychology of March 2020 Stock Market Crash

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ABSTRACT

The COVID-19 pandemic has impacted the global economy dramatically, which includes the biggest stock market crash since the Global Financial Crisis of 2008. Like many other previous stock market crisis, the March 2020 stock market crash is also inadequately explained by the traditional finance paradigm. In this paper, this phenomenon has been analyzed from a behavioral finance perspective. The analysis shows that psychological biases such as loss aversion, availability bias, and representativeness bias and herd behavior operating simultaneously played a key role in bringing about the dramatic decline in global stock prices in March 2020.

Keywords : Behavioral finance, COVID 19, Stock Market Crash, Loss Aversion, Availability bias, and Representativeness bias, Herd behavior

1. Introduction

On March 11, 2020, the novel Coronavirus (COVID 19) outbreak was officially declared a global pandemic by the World Health Organization (WHO). This pandemic has not only resulted in a health emergency across the globe, but it has also dramatically affected the world economy. The March 2020 stock market crash, also popularly known as the Coronavirus Crash, was an extensive and abrupt global stock market crash. The crash was known for the quickest decline in global stock markets' history and the most spectacular crash. The key reason behind the 2020 crash was aggregate investors' behavior because they were anxious about the influence of the COVID-19 pandemic on their stock returns. On March 9, 2020, most of the world's stock markets witnessed the biggest crash since the Global Financial Crisis of 2008. This date began to be referred to as Black Monday. Three days later, there was another wild drop, Black Thursday. The major indices across North America and Europe fell by more than 9 %. During March 2020, the stock market indices in most G20 nations witnessed a decline of at least 25% to 30%. The Indian stock market indices also fell by 23% each during March. The traditional financial paradigm assumes that human beings behave correctly while making an investment decision but fails to explain such wild fluctuations in the stock market. However, the modern behavioral finance paradigm proclaims that the stock prices are determined by what investors are willing to pay for stocks, which is driven by their animal instincts of greed and fear in addition to rational economic considerations. According to the behavioral finance approach, investors exhibit various

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psychological biases while making investment decisions. These psychological biases are the key factors responsible for causing the dramatic stock market crash of March 2020.

2. Review of Literature

The COVID-19 has impacted the stock market in an unparalleled manner compared to previous contagious disease outbreaks (Baker et al., 2020). Therefore many studies have been conducted to examine the impact of the COVID-19 pandemic on the stock market.

Beck et al. (2020) investigated ten emerging stock markets during the pandemic period and found evidence that most stocks were adversely affected. Topcu and Gulal (2020) have also documented a negative impact of COVID-19 on the emerging stock market. They have also found that this negative impact is vital in Asia and weakest in European emerging markets. Erdem (2020) studied the reactions of stock market indices of 75 nations and concluded that the pandemic had negatively influenced stock markets. Mishra et al. (2020) revealed that the adverse impact of COVID-19 on Indian stock market returns was more substantial than the negative influence of contemporary structural changes such as demonetization and the implementation of goods and services tax. Awadhi et al. (2020) reported that the stocks comprising the Hang Seng Index and Shanghai Stock Exchange Composite Index had responded negatively to the COVID-19 outbreak. Similarly, Ali et al. (2020) documented that in countries such as Germany, the US, UK and South Korea, stock market volatility has risen significantly from the epidemic (December 2019 to March 10, 2020) to the pandemic period (post March 10, 2020).

However, there is a lack of research investigating the possible triggers which led to this catastrophic cause. This study aims to bridge this gap by gaining an in-depth insight into this well-documented stock market crash, which will shed some light on the possible causes of this phenomenon. This article shed some light on some prominent psychological biases that have contributed to the dramatic

stock market crash of March 2020.

3. Methodology

The most widely used methodology for conducting an in-depth investigation of an event to identify the underlying causes is the case study method. Since this study also has a similar objective, the case study method has been employed. This case study has been carried out by collecting qualitative data from existing psychological bias literature, literature on past stock market crashes and contemporary news on stock market and COVID-19 and analyzing them to reach a logical conclusion regarding the possible causes that triggered the March 2020 stock market crash.

4. Discussion

4.1 Loss Aversion

Daniel Kahneman and Amos Tversky developed loss aversion bias in 1979 as a prospect theory (Pompian, 2006). It refers to the inclination of investors to avoid losses rather than earn profits. It has been documented that the investor's desire to avoid losses is almost twice their desire to earn a profit. Also, this desire to avoid loss is amplified during periods of crisis and may lead to the fall of share prices (Barberis, 2011). In their series of experiments, Thaler and Johnson (1990) proved that people who have suffered a loss later become more loss averse. They suggested that people do not take gambles that they would like to take in the absence of the past loss. Thus we can state that after suffering through one loss, investors would like to avoid such a painful situation in their life again (Barberis, 2011). Initially, the decline in share prices may force investors to bear the losses, but as the prices decline, it may lead the investors to be more loss averse. As a result, investors start reducing the portion of their holdings in share, which in turn causes a further decline in share prices (Thaler and Johnson, 1990).

4.2 Regret Aversion Bias

Regret aversion bias seeks to deal with the pain of regret associated with low or uncertain decisions making. A cognitive bias often arises

in investors, causing them to make errors in their decisions (Pompian, 2006). Due to this bias, investors become apprehensive about entering into financial markets which have recently generated losses, and they feel more inclined to conserve and start selling their stocks.

Governments worldwide responded to the threat of the COVID 19 pandemic with mandatory business closures and stringent restrictions on commercial and social activities. This led to adverse impacts on company earnings which in turn resulted in the decline of stock prices. With the end of the pandemic not in sight in the foreseeable future, the prospect of companies and their stocks appeared to be bleak. Consequently, to circumvent the probable losses in the near future due to uncertainty caused by the COVID 19 pandemic (Pan et al. 2020), investors' regret aversion bias magnified manifolds, and they started liquidating their stocks and channelize their funds to gold which is traditionally considered as a haven in turbulent times. This fear of losing money is associated with regret aversion behavior, as exhibited by individuals during this pandemic (Kuruppu and De Zoysa, 2020).

4.3 Availability Bias

This bias occurs when investors give undue weightage to information that is available (Barbaris, 2001). It, therefore, refers to a mental shortcut that relies on an instant case or example that comes to investor's minds when assessing a specific decision (Esgate and Baker, 2005). It manifests itself in two forms:

- *Recency bias* involves investors assigning higher weights to the current market trends rather than putting the short-term market fluctuations into a proper long-term context. These trends are, in fact, random shifts that have no power to predict the direction of the market.
- *Saliency bias* refers to the fact that investors pay more attention to that piece of information that has been more highlighted and discussed.

During this period, the media coverage was

heavily inclined towards COVID 19 pandemic. Due to saliency bias, the investors focused mainly on this extensive media coverage of news related to the pandemic. Social media also exaggerated the influence of the COVID 19 pandemic (Esveld, 2020) and increased the perceived likelihood of evocative outcomes on individuals due to media (Lichtenstein et al., 1978). It resulted in the amplification of the sentiment of fear prevailing in the stock market and the declining investors' trust in stock as an investment instrument. This pattern of public behavior has been observed in the case of previous infectious disease outbreaks as well (Blendon et al., 2004; Mairal, 2011; Young et al., 2013).

4.4 Representativeness Bias

Representativeness bias refers to a cognitive bias that associates a current event with a similar event that occurred in the past, and people tend to predict the outcome of the current event based on the outcome of the analogous historical event. In the case of investment decisions, this bias causes investors to predict the future stock price movements after a significant event based on historical stock market movements following similar events in the past. In reality, these are significantly different circumstances (Pompian, 2006).

The March 2020 stock market crash was frequently compared with the 2008 global Financial Crisis and the Great Depression of the 1930s by experts. Such comparisons are prominent evidence that representation bias was dominant in market psychology. As a result of such biased comparisons, the investors expected the stock price to follow a declining trajectory recorded in 2009 and 1929. Hence, a mass selling of stocks resulted in the dramatic decline of the global stock market.

4.5 Herd Behavior

Herd behavior refers to making decisions based on what others are doing, which is either motivated by the need to feel safe or the need to avoid conflict. Christie and Huang (1995) defined herding as a situation where investors follow collective decisions. When individual

investors see others buying or selling and not to be left out of the profit-making or left taking the losses, respectively, they follow suit. Herd behavior is triggered by one person's actions known as the "catalyst," and others follow him mindlessly without considering whether his behavior was rational or appropriate.

In March 2020, some investors falling prey to this bias and started selling their stock investments, and these investors acted as a catalyst and triggered herd behavior among a significant portion of investors, causing the market to decline dramatically. Earlier research in this area also stated that herd behavior significantly affected the stock markets' movement (Jaiyeoba et al., 2018; Ph and Uchil, 2019; Dhall and Singh, 2020). This explanation gains strength from the fact that increased herd behavior has also been documented during the 1997 Asian Financial Crisis (Chiang et al., 2007)

5. Conclusion

From the above discussion, it is evident that various psychological biases played a crucial role in bringing about the dramatic march 2020 stock market crash in response to the COVID 19 pandemic. When faced with such an unprecedented situation, the inherent loss aversion of investors escalated. Additionally, the media frenzy caused by the ongoing COVID 19 pandemic and the increased reach of such news to the investors due to easy access to smartphones and computers led to immediate reactions to such news. Such quick reactions are more often motivated by fear or greed rather than analysis or reason. Thus, extensive media coverage and easy availability of news have intensified the psychological biases exhibited by investors. Finally, these irrational responses

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