

A STUDY ON INDIAN STOCK MARKET VOLATILITY

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ABSTRACT

A major topic in financial economics, stock market volatility reflects the unpredictability, swings, and dynamic behaviour of security prices. Due to its integration with international financial systems, sensitivity to domestic macroeconomic developments, and predominance of retail investor participation, the Indian stock market—one of the biggest and fastest-growing among emerging economies—displays distinctive volatility patterns. The rate of inflation, economic crises, social and political factors, shifts in economic policy, economic indicators, and other factors are some of the causes of stock market volatility. Many measures are taken, such as margin trading, pre-open sessions, price bands, circuit breakers, etc., to reduce the impact that these factors cause. This study offers a theoretical investigation of the volatility of the Indian stock market, emphasising its causes, consequences, and connections to behavioural and macroeconomic variables. A theoretical and secondary research approach is used in this study. The study emphasises how domestic policy decisions, global shocks, sectoral movements, and investor sentiment shape volatility in the Indian context. In addition to highlighting the ways in which volatility interacts with economic fundamentals, this paper develops a broad theoretical framework that explains how volatility arises and endures in India's equity markets. It does this by drawing on theories of volatility modelling, efficient market hypothesis, behavioural finance, and global contagion perspectives.

KEYWORDS: *Stock Market, Volatility, Macroeconomic, Investor, Finance, etc.*

1. INTRODUCTION

The degree of fluctuation in asset prices over time is known as stock market volatility, and it is frequently used as a stand-in for risk and uncertainty. Although volatility is a common occurrence, the Indian stock market offers a unique example because of its developing market features, changing regulatory environment, growing interconnectedness with international markets, and extreme sensitivity to domestic political and economic events (Bekaert & Harvey, 1997). Price fluctuations are correlated with market volatility; the more frequent and significant the price fluctuations, the smaller the market's losses. Major domestic and international events, including the Asian financial crisis (1997), the dot-com bubble (2000), the global financial crisis

(2008), demonetisation (2016), the COVID-19 pandemic (2020), and the post-pandemic recovery (2021 onwards), have historically caused significant volatility in the Indian stock market. These swings show that behavioural and structural factors frequently drive volatility in India rather than just reflecting fundamentals. An exceptionally rich context for studying volatility is offered by the Indian stock market. India has transformed from a comparatively closed financial system to one of the most active emerging equity markets over the last three decades, and it currently ranks among the top exchanges in the world by market capitalisation. It is not just academically necessary to comprehend Indian stock market volatility. Monitoring volatility is essential for regulators like the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI) to create policies that maintain stable markets and avert systemic instability. Theoretical understanding of how volatility arises and how to control it forms the basis of tools like circuit breakers, margin requirements, and disclosure standards. India presents a special case for examining the theoretical underpinnings of volatility because of its dual character as globally integrated and institutionally distinct markets. The goal of this paper is to theoretically explain the volatility of the Indian stock market.

Objectives of the study:

- To investigate the idea of stock market volatility and its theoretical underpinnings.
- To investigate how domestic policy, international shocks, and macroeconomic indicators affect volatility.
- To draw attention to how volatility affects investors, regulators, and policymakers.
- To offer theoretical perspectives on controlling and comprehending volatility in developing markets such as India.

2. LITERATURE REVIEW

- **Dr. Debesh Bhowmik (2013)** used relevant financial literature to study a variety of aspects of stock market volatility, such as how it is measured and what kinds of effects it can have. They came to the conclusion that economic depression and political upheaval exacerbated stock market volatility, which slowed the nation's growth rate and had a negative effect on growth rates abroad.
- **Dhingra, Gandhi, and Bulsara (2016)** made an effort to investigate how volatility and stock market returns interact. The Impulse Response Function, which was based on Vector Autoregression, showed that foreign institutional investments had a destabilising effect on stock market volatility through their impact on selling activities.
- **M. Pushpalatha, J. Srinivasan, and G. Shanmugapriya (2019)** investigated the volatility of the Indian stock market, concentrating on the Nifty index and a few companies from the National Stock Exchange's (NSE) financial services sector. They discover that the volatility of individual financial service companies varies greatly, and that the Nifty index is more volatile than the chosen financial service companies.
- **Mukherjee (2011)** investigated whether the stock market volatility of developed and emerging markets has a significant impact on the volatility of stock returns in India. The findings showed that while Hong Kong and China have a negative impact on Indian stock market returns, the United States and the Republic of Korea have a positive impact.

- **Agarwale, Astha (2020).** This study looks at the volatility trends of India's National Stock Exchange (NSE) and Bombay Stock Exchange (BSE). According to the author, the BSE and NSE show comparable patterns of volatility; however, because the BSE is more volatile, investors who use it to invest are at higher risk.
- **Gahlot (2014)** examined the characteristics of volatility and volatility spillover among South Asian nations. He discovered a short- and long-term bilateral causal relationship between the US and India. Furthermore, it has been discovered that the permanent component of volatility is more susceptible to shocks during a recession.
- **Khan A. A. & Zia A. (2019)** looked into how the announcement of SBI and its affiliate banks' mergers affected the volatility of SBI stock returns. The study covered a time period of 300 days (the event window) and employed the GARCH model. The study made use of secondary data from trustworthy sources. The study's findings demonstrated that, in various ways, mergers and acquisitions were the cause of the rise in stock return volatility.
- **Kothari (2016)** to determine the elements influencing volatility in the Indian stock market, looked at investor perception. Factor analysis and multiple regression modelling were among the models used for the analysis of the study's primary data. The study found that the Indian stock market displayed a high level of volatility. It was discovered that external factors had the biggest influence on stock market volatility, followed by stock market and company-specific factors.
- **Verma and Kumar (2012)** used OLS regression to examine the impact of the month of the year on the return series of the BSE Sensex and BSE-500 from January 1991 to December 2010. The research did not discover the existence of the Indian Stock Market's monthly impact. Nonetheless, the descriptive statistics revealed that May had the highest standard deviation or volatility of any month.
- **Srinivasan and Kalaivani (2014)** thoroughly investigated into the day of the week effect in the Indian stock market. Their analysis revealed favourable outcomes for Monday's stock market returns as well as Wednesday. Compared to Wednesday, Monday's average return was significantly higher.

3. RESEARCH METHODOLOGY

A theoretical and secondary research approach is used in this study. The research design used in this paper is both exploratory and descriptive. It synthesises knowledge from existing literature, financial theories, and empirical findings pertinent to stock market volatility rather than gathering original data. Data sources include books, working papers, peer-reviewed journals, and reports from various official websites.

4. DISCUSSION

Although the theoretical framework presented in this paper provides a comprehensive perspective for examining stock market volatility in India, a number of more general issues come to light when these concepts are placed within the larger body of research on financial markets and volatility. Numerous local and international factors contributed to volatility in India. The main ones include political motivations, economic policies, governmental regulations, globalisation and privatisation, the overall impact of FIIs, domestic and international civil unrest, psychological factors, etc. The value of Indian stocks is also impacted by changes in global

markets. Because stock markets are fluctuating, investing in them is thought to be risky. Because macroeconomic factors impact the stock market and have an impact on stock prices, there is volatility in the market.

4.1 CAUSES OF VOLATILITY IN INDIAN STOCK MARKET:

- 1) **Inflation and Interest Rates:** When inflation is high, investors sell their equity holdings because it lowers real corporate earnings. The Reserve Bank of India (RBI) frequently raises policy rates, or repo rates, to combat inflation, which makes borrowing more expensive. This deters investment and decreases market liquidity, which raises volatility.
- 2) **Speculative Trading and Derivatives:** Overzealous futures and options (F&O) speculation increases volatility in the short term. Derivatives trading frequently experiences sharp price swings during occasions like Union Budget announcements.
- 3) **Behavioural Biases & Investor Sentiment:** Any new information can trigger a market hive, which raises share prices. Investors may choose to buy the stock over rational valuation in order to stay ahead of the curve. In a similar vein, investor anxiety may cause stock prices to decline as in order to prevent losses, investors scramble to sell off their shares as quickly as possible.
- 4) **Government Policies:** Before stabilising, reforms like the introduction of the GST, privatisation, and the relaxation of FDI regulations first caused instability. A brief market downturn resulted from the demonetisation decision in 2016. Market sentiment is affected by changes to SEBI regulations, the capital gains tax, or restrictions on foreign investment.

4.2 STEPS TO CONTROL VOLATILITY:

1. **Price Bands and Circuit Breakers:** Individual stocks are subject to price bands (upper and lower limits) in order to reduce excessive speculation and stop panic buying or selling. Typically, circuit breakers have a predetermined percentage value. The circuit breaker is activated when the price of an index or stock moves outside of this predetermined range. Depending on the circumstances, stock market trading is stopped when the circuit breaker is triggered and then resumed after a specific amount of time.
2. **Margin Requirements:** In order to deter excessive speculation, SEBI periodically modifies the margin requirements in the futures and options (F&O) segment. In times of volatility, higher margins guarantee that only serious investors take part.
3. **Pre Trading Session:** Stock market trading in India begins at 9:15 AM and ends at 3:30 PM. However, the market is open from 9:00 AM to 9:15 AM. The purpose of this 15-minute period before the market opens was to stabilise market volatility and unusual movements brought on by significant announcements and events that occur overnight.
4. **Other Measures:** The NSE and BSE's implementation of fast, transparent, and tightly regulated trading platforms reduces technical hiccups and guarantees equitable price discovery. In mutual funds and retirement funds, promoting SIPs (Systematic Investment Plans) lowers short-term speculative trading and improves market stability. By absorbing shocks, a robust bond and derivatives market keeps equity markets from taking the full brunt of volatility.

5. CONCLUSION

The Indian case reveals a more complex reality in which sentiment, institutional features, and international capital flows are equally decisive, in contrast to developed markets where volatility is frequently interpreted primarily as a function of information assimilation. It is necessary to examine India's volatility from both a macro-level (policy, flows) and micro-level (liquidity, trading behaviour) perspective. The efficiency of the stock market is increasing, which may be due to factors like increased retail participation, disclosure regulations, and technological advancements. Investing in various stocks on stock markets is an easy way to reduce risk because it permits investments across multiple entities. By combining their small investments into a larger sum, investors can readily reduce the risk. While maintaining market efficiency, policymakers and market players can lessen needless volatility by enhancing transparency, strengthening liquidity infrastructure, and creating calibrated macroprudential tools. Through the incorporation of a thorough theoretical framework, this paper intends to enhance comprehension of one of the most crucial aspects of India's financial environment. In order to maintain financial stability and equitable economic growth, it will be crucial to manage and interpret volatility as the Indian stock market grows in size, complexity, and global integration.

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