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A Comparative Analysis Study of Factors Influencing Stock Market Volatility

Ronak Joshi
Research Scholar
The Byramjee Jeejeebhoy College of Commerce, Mumbai, Maharashtra, India

Abstract: *Financial market risk is a key factor in investment decisions, risk management, and regulation. It is often quantified in terms of asset-return volatility. In this paper , we study the factors that influence the stock market volatility. Improved stock market indices across all metrics indicated reduced volatility variability. A nation's recession or depression gave rise to an extremely turbulent stock market that is irreversible in the short term. The stock market was negatively impacted by political unrest, instability, or disorder, which increases volatility. A country's growth rate is negatively correlated with the volatility of the stock market; that is, high volatility slows down growth. They are related to each other. Because fluctuations in the stock market can lead to economic crises, growth in other nations has ultimately been negatively impacted as well. There is a negative correlation between stock market volatility and international commerce. Specifically, volatility raises current account and capital account deficits and decreases trade volume.*

Keywords: stock market

I. INTRODUCTION

The stock market is a dynamic environment. Daily gains and losses are experienced by market indices; during more stable times, the S&P 500 gains or loses less than 1% daily. However, the market occasionally sees abrupt fluctuations in price—a phenomenon referred to as "volatility." Increased volatility can indicate trouble, but in the long run, it's almost a given in investment—in fact, it might be one of the secrets to successful investing.

II. OBJECTIVE

- To examine the reasons for the stock exchange's volatility in India.
- To examine the various facets of Indian stocks converse close to one another.
- To assess the actions taken to control volatility.

III. REVIEW OF LITERATURE

Debjit Chakraborty" (1997) claims that in his research, he tried to determine a connection between important economic indicators and stock market dynamics. It also examines how the stock market responds to shifts in the overall state of the economy. Action, funds, GDP growth, scale de cit, and credit-deposit ratio are the criteria taken into consideration. The BSE National Index of Equity Prices (Natex), which consists of 100 companies, was chosen due to and consequently the trend inside the stock markets. The study demonstrates that, in addition to political stability, wide funds, in action, the C/D ratio, and scale de cit all have a significant impact on stock market movements.

Suresh G Lalwani" (1999) highlighted the significance of risk management on the stock exchange, emphasizing in particular stressing the value of taking a risk. He said that rather than things getting better, there's a good risk that they go worse since the stock exchange is a "vicious animal."

Nath and Verma" (2003) conducted an analysis on the interdependence of the three major stock exchanges in the stock market indices of South Asia. Specifically, using bivariate and multivariate co integration analysis to simulate the relationships among the stock markets in Taiwan (Taiex), Singapore (STI), and India (NSE-Nifty), no cointegration was discovered for the whole time (daily data from January 1994 to November 2002).They came to the conclusion that there is never a day's end balance.

"Bhanu Pant and Dr. T.R. Bishnoy" (2001) state that from April 1996 to June 2001, they independently tracked the lead of positive Indian stock exchange records using a stochastic approach, step by step and without fail.They discovered that the Indian stock market indices did not adhere to a stochastic process.

IV. RESEARCH METHODOLOGY

Data Gathering: Secondary data form the basis of this investigation. The necessary information about the Bombay stock exchange in India exchange (BSE), National stock exchange (NSE), and Federal Reserve Bank of India bulletins, Ministry of Commerce publications, SEBI Handbook of Statistics, and Indian government publications are among the sources from which they are gathered. CNX Nifty statistics can be downloaded from the NSE websites. The annual index value is calculated by averaging the daily closing index values, which is considered a more realistic measure of the index for the entire year than any one day or month's closing index value.

V. WHAT IS STOCK MARKET

The term "stock market," "equity market," or "share market" refers to the gathering of buyers and sellers of stocks, also known as "shares," which are ownership claims on businesses. Securities listed on a public stock exchange and privately traded stock, such as shares of private companies offered to investors through equity crowdfunding platforms, can both be considered stocks. Typically, while making an investment, one has an investment strategy in mind.

VI. WHAT IS STOCK MARKET VOLATILITY

Market volatility is the amount and frequency of upward or downward price changes. The market is considered to be more volatile when price movements are greater and occur more frequently.

"If markets went straight up, then investing would be easy and we'd all be rich," says Nicole GopoianWirick, CFP, founder of Prosperity Wealth Strategies in Birmingham, Michigan.

"Market volatility is a normal part of investing and is to be expected in a portfolio."

VII. HOW IS STOCK MARKET VOLATILITY MEASURE

Determining the standard deviation of price changes over a certain period of time is how market volatility is calculated. You may determine the degree to which anything deviates from an average value using the statistical idea of a standard deviation.

For now, just remember that "the higher the standard deviation, the more that portfolio is going to move around, up or down from the average," advises Brad Lineberger, CFP, president and founder of Seaside Wealth Management in Carlsbad, California. We'll teach you how to calculate it below.

Standard deviations are significant because they offer a framework for the likelihood that a value will vary as well as information on how much it may. Values will be within one standard deviation of the average 68% of the time, within two within 95% of the time, and within three within 99.7% of the time.

Now let us look again at standard deviations in relation to market volatility. Standard deviations of market values are computed by traders using end-of-day trading values, intraday volatility—changes in values within a trading session—or anticipated future value changes.

Most people who observe markets casually are probably most aware with the last technique, which is employed by the Volatility Index of the Chicago Board Options Exchange, sometimes known as the VIX.

VIII. FACTORS INFLUCING STOCK MARKET VOLATILITY

There are various reasons why the share market can be volatile. The issues in question can be broadly classified into three categories: psychological, political, and economic.

8.1. ECONOMIC FACTORS

The value of practically anything in a nation is mostly determined by economic variables. Important variables include the pace of GDP growth, the unemployment rate, and consumer desire to spend money on products and services.

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A country's interest rates and the cost of products and services are impacted by rising inflation rates. Elevated inflation leads to a decrease in consumer happiness and an increase in interest rates, and vice versa.

Conversely, low rates of inflation can lead to economic stagnation and uncertainty, which can make markets erratic and volatile.

One important aspect influencing borrowing costs is the rate of inflation. The volume of loan requests decreases when these expenses are large. The market's prices fluctuate and the stock market's volatility rises when the RBI modifies interest rates.

8.2. POLITICAL FACTORS

Elections approaching raise questions about who will form the next government, what policies will be changed, and how the changes will impact the economy as a whole. Particularly in the run-up to and following elections, markets are quite prone to volatility.

The government is constantly changing a variety of policies. The nation is impacted differently by changes to various policies, including trade agreements and tax laws. When SEBI alters the policies already in place or implements new ones, the markets become extremely volatile.

Market crashes can be very severe when geopolitical events occur, such as war or terrorist strikes. They have the potential to incite investors' extreme panic, which would compel them to sell their holdings and increase trading activity.

8.3. PSYCOLOGICAL FACTORS

Market volatility is significantly influenced by investor psychology, regardless of the political or economic developments occurring in the nation. The price of a stock is greatly impacted by the opinions of investors regarding the direction that the markets will take.

Positive market sentiment causes prices to rise because investors are purchasing more. On the other hand, when these attitudes are unfavorable, a lot of stock sales cause prices to drop.

Another reason is the phenomenon known as "herd mentality," in which investors purchase an item merely because others are doing so. One wellknown illustration of this herd mentality is Bitcoin. A stock's price will rise and experience price volatility when it is inclined toward purchase.

Investors begin liquidating their shares when certain occurrences send them into a panic. Similar to this, a big volume of purchases causes prices to climb when the market grows greedy.

IX. MEASURE TO CALCULATE MARKET VOLATILITY

While we have already calculated the numerical method to calculate the volatility of a stock price, it is also measured in two more terms.

9.1. BETA

It is the proportional discrepancy between a stock's return and the return of the appropriate market index. It's an additional way to determine a stock's historical volatility. A stock's beta value changes by one unit, which corresponds to a 100% return on its related index.

We shall calculate a stock's beta in reference to its related index, for instance, if it is the Nifty midcap 50. Now, if the stock has a beta value of 1.5, it indicates that the stock's value will fluctuate by 150% for every 100% change in the Nifty midcap 50's value.

Comparably, if a firm's beta value is 0.75, it indicates that the stock value will move by 75% for every 100% change in the Nifty midcap 50.

9.2. VOLATILITY INDEX (VIX)

The Chicago Board Options Exchange first proposed the volatility index concept in 1993. It was introduced with the intention of determining how much the market anticipated price volatility and fluctuation in the stock market.

For the same reason, the NSE unveiled the India Volatility Index, or India VIX, for the Indian stock market in 2003. It is a reliable indicator of market volatility for the Indian stock market and shows the value of market volatility as a percentage

X. CONCLUSION

The stock market is a means of reducing risk by distributing investments among several businesses, which is accomplished via pooling a range of tiny investments into a large bucket. The stock exchange is the ideal place for average people to invest since it provides a very inexpensive opportunity to participate in a professionally managed, diversified portfolio. The literature analysis has shown that:

The listing of corporate securities in multiple stock markets at the same time enhances the securities' liquidity and the stock market's overall performance.

Unrestrained speculation occurs on the Indian stock exchange.

Risk cannot be quantified or measured. However, the calculation of risk is based on historical volatility.

Outside political factors, the broad money supply, inflation, the C/D ratio, and the scale of the economy all have a significant impact on stock market movements steadiness.

Derivatives, particularly futures, have low execution costs, which makes them ideal for frequent, short-term trading to better manage risk.

The examination of the stock exchange cycles reveals that, on average, during the reference period, bull phases are longer and their amplitudes are larger is higher, which causes the volatility during bull phases to also be higher. In stock exchange cycles, the gains during expansions outweigh the losses during down markets. In the post-liberalization era, the bull introduces contrast with its preliberalization character is more steady. Our analysis's findings also demonstrate that stock exchange cycles have slowed down recently. In the post liberalization era, volatility has decreased during the bull and bear phases of the stock market cycle.

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