



---

## **Analyzing the Impact of Macroeconomic Factors on Bond Price Fluctuations: A Case Study of BSE**

*Esha E*

Kristu Jayanti College

---

### **ABSTRACT**

According to the International Monetary Fund and the Central Statistics Organization, India has emerged as one of the fastest growing major economies in the world. It is also expected to become one of the world's top three economic powers within the next decade or so. Several economic reforms, including tax reforms, liberalization, and trade liberalization, have contributed to the country's rapid growth. One of the most important factors that the Indian economy can rely on is the stock exchange. The Bombay Stock Exchange, India's premier stock market, conducts transactions worth hundreds of crores of rupees each day. The purpose of this study is to examine the Casual Relationship and Volatility of the BSE Index, with a focus on the Indian stock market, using data collected from January to December 2018-2022. Using E-VIEWS, descriptive statistics and standard deviation were developed to show the relationship between share price and various factors influencing it, as well as its casual relationship. This information is very useful for policymakers, institutional investors, traders, and all other stakeholders when making investment decisions.

**Key Words:** Economic, Investment, Inflation ,Institutional Investor

---

### **Introduction**

India's rapid emergence and growth has made it one of the world's most significant economic powers, and it is expected to be among the top three most powerful economies within the next few decades. One of the most visible examples of its stock market is the Indian stock exchange. The current global economic situation has resulted in a variety of highs and lows, one of which is the stock market's unfortunate incidents. The Indian stock market is an institutionalized structure where investors can trade a variety of security instruments. The study of bond price volatility is an important aspect of financial analysis, particularly in relation to the BSE. Bonds are fixed-income securities issued by corporations or governments to raise funds, and their prices can fluctuate due to changes in interest rates, credit ratings, and other economic variables. Several variables should be considered when studying bond price volatility on the BSE. These may include the overall economic environment, interest rate movements, market liquidity, credit risk, and other factors that influence bond prices. One approach to this study could be to analyze historical data on bond prices and their movements on the BSE over time. This data can then be used to identify trends and patterns. Also included are insights into how various economic and financial factors have influenced bond prices.

---

### **Review Of Literature**

The work "Casual Relationship and Volatility of the BSE Index with Special Reference to the Indian Stock Market" reveals the two broad categories. The first one reveals the impact of the movement of prices that prevail in the BSE Stock Indices, and the second one discusses the relationship between the stock market volatility and volatility with special reference to the Indian stock market. There is no significant relationship between price change and volume in two days of bull market and bear market, but there is a significant relationship between the two variables in 20 days through investigating the relationship. Because of unusual fluctuations in a particular security are almost always linked to the unusual interest by someone in that security has attributed that there is a high volume is accompanied by price increases in bull

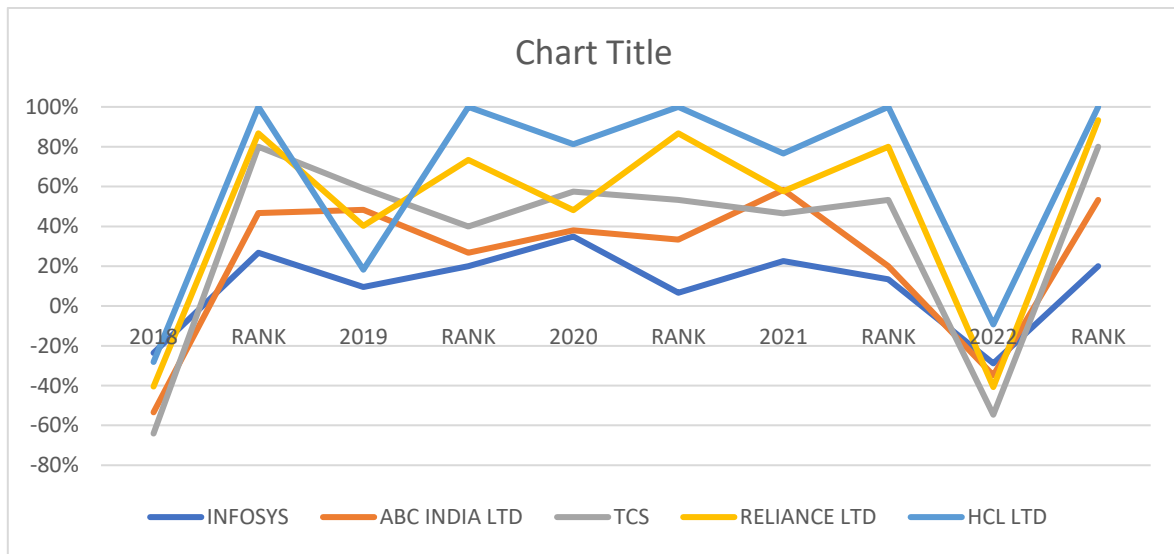
---

### **Objectives Of The Study**

1. To Analyze the impact of BSE indexes on investment decisions in the Indian stock market.
2. To Analyze the impact of BSE indexes on investment decisions in the Indian stock market.

**Table 1: Shows the average return of the selected companies.**

COMPANY/YEAR	2018	RANK	2019	RANK	2020	RANK	2021	RANK	2022	RANK
INFOSYS	-0.098788	4	0.055254	3	0.244312	1	0.172666	2	-0.077489	3
ABC INDIA LTD	-0.124496	3	0.223531	1	0.022019	4	0.275128	1	-0.016136	5
TCS	-0.044578	5	0.062560	2	0.136386	3	-0.090097	5	-0.053323	4
RELIANCE LTD	0.098439	1	0.109218	5	-0.065469	5	0.084254	4	0.037440	2
HCL LTD	0.051808	2	0.126812	4	0.232028	2	0.145623	3	0.084486	1



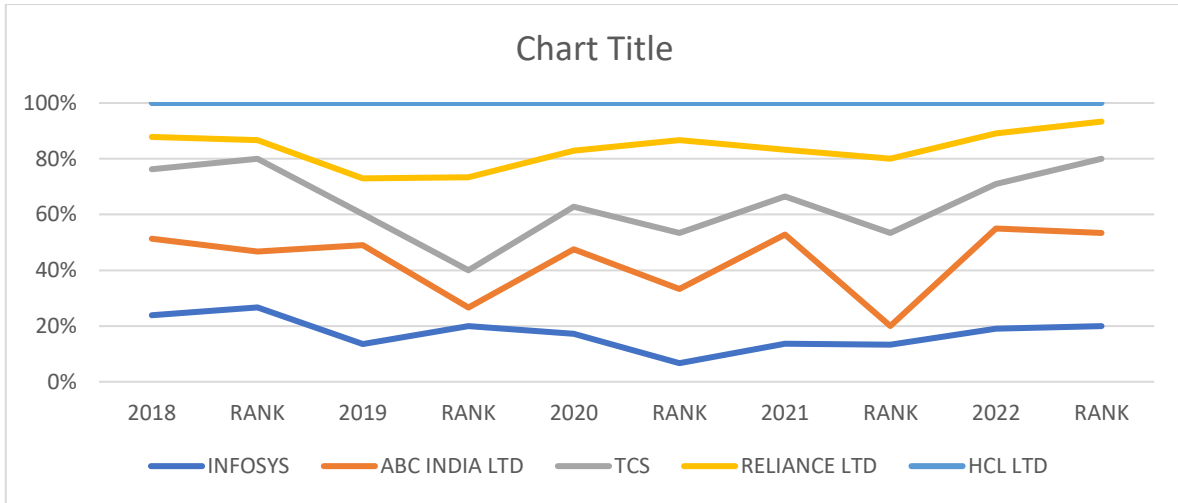
**Interpretation**

Table 1 shows that the mean value of Infosys fluctuated between -0.098788 and -0.077489, the mean value of ABC India ltd fluctuated between -0.124496 and -0.016136, the mean value of TCS fluctuated between -0.044578 and -0.053323, the mean value of Reliance ltd fluctuated between 0.098439 and 0.037440, and the mean value of HCL ltd fluctuated between 0.051808 and 0.084486.

It is concluded that ABC India Ltd's mean value was very high (0.275128) in 2021 and very low (-0.016136) in 2022.

**TABLE 2: Standard Deviation of Selected Companies**

COMPANY/YEAR	2018	RANK	2019	RANK	2020	RANK	2021	RANK	2022	RANK
INFOSYS	3.456884	4	1.748058	3	2.530279	1	1.315537	2	1.744008	3
ABC INDIA LTD	3.960053	3	4.581101	1	4.469461	4	3.765859	1	3.304134	5
TCS	3.606311	5	1.434466	2	2.23403	3	1.315028	5	1.464716	4
RELIANCE LTD	1.671044	1	1.653175	5	2.960493	5	1.61103	4	1.670387	2
HCL LTD	1.767031	2	3.488677	4	2.516906	2	1.61866	3	0.998404	1



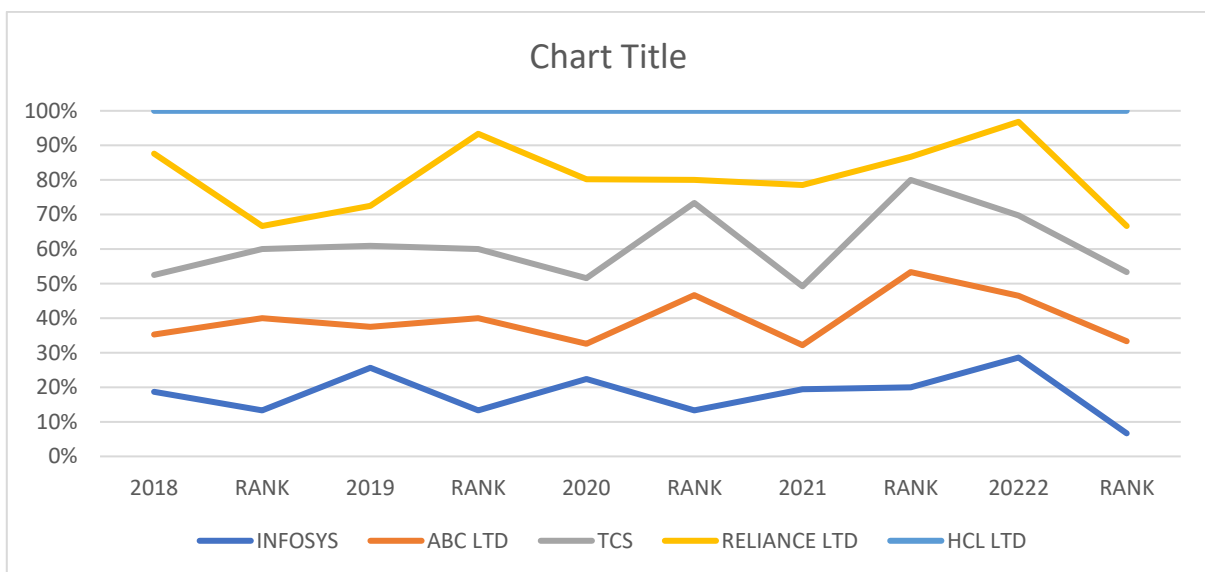
**Interpretation**

Table 2 shows that the standard deviation value of Infosys fluctuated between 3.456884 and 1.744008, the standard deviation value of ABC India ltd fluctuated between 3.960053 and 3.304134, the standard deviation value of TCS fluctuated between 3.606311 and 1.464716, the standard deviation value of Reliance ltd fluctuated between 1.671044 and 1.670387, and the standard deviation of HCL ltd fluctuated between 1.767031 and 0.998404.

It is concluded that the standard deviation of ABC India Ltd. was found to be very high (4.5811101) during 2019, and the mean value of TCS was observed to be very low (1.1315028) during 2021.

TABLE 3: BETA OF THE SELECTED COMPANIES

COMPANY/YEAR	2018	RANK	2019	RANK	2020	RANK	2021	RANK	2022	RANK
INFOSYS	0.750795	2	0.342832	2	0.855208	2	0.700297	3	1.097476	1
ABC LTD	0.664444	4	0.157539	4	0.388922	5	0.458700	5	0.685634	4
TCS	0.691858	3	0.313402	3	0.722722	4	0.613419	4	0.893958	3
RELIANCE LTD	1.407404	1	0.154576	5	1.094351	1	1.054899	1	1.038257	2
HCL LTD	0.497481	5	0.367504	1	0.755833	3	0.774488	2	0.121904	5



**Interpretation**

Table 3 shows that the beta value of Infosys fluctuated between 0.750795 and 1.097476, that of ABC India Ltd fluctuated between 0.664444 and 0.685634, that of TCS fluctuated between 0.691858 and 0.893958, that of Reliance Ltd fluctuated between 1.407404 and 1.038257, and that of HCL Ltd fluctuated between 0.497481 and 0.121904.

It is concluded that the beta value of Reliance Ltd was found to be very high (1.407404) during 2018, and the mean value of HCL Ltd was observed to be very low (0.121904) during 2022.

---

## **Conclusion**

Overall, a study on bond price volatility on the BSE would be an important contribution to the field of financial analysis, providing insights into how bond investors can manage their portfolios in the face of changing market conditions.

## **Reference**

---

1. Robin M. Greenwood (2005): "A cross-sectional analysis of the excess co-movement of stock returns" Finance research paper no.05-069 of Harvard Business School.
2. Yao.Zheng (2013), "The linkage between aggregate stock market investor sentiment and commodity futures returns" Applied Financial Economics, Volume 24, Number 23, 1491-1513