

PRICE INTEGRATION IN INDIAN STOCK MARKET WITH SPECIAL REFERENCE TO BSE AND NSE

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Abstract—Indian stock market is one of the most important sectors that is involved in the financial system. In the development of economic system, the stock market plays a very important role. stock market is a platform where the shares, bonds and the debentures are being used by the investors to purchase and sell in the stock market. There are three largest stock market in India that are the Bombay Stock Exchange (BSE), National Stock Exchange (NSE), and the Calcutta Stock Exchange (CSE). For the market index the Volatility is used as a statistical measure. The estimation of the Volatility is important in the market among different people. Compared to the developed countries the Indian market has started becoming more efficient and effective in the information system regarding the stock market. In this study, we followed systematic, concise, and methodological studies to focus on this report on books, magazines, newspapers and electronic sources as well as on the writers in competition law. The numerous statistical methods and techniques are used to evaluate data or details, like graph, data tabulation, pie-diagram, bar-diagram and basic percentage process, for data analysis and understanding purposes, and I used MS EXCEL for measurement purposes and charts drawing. Overall, from the report it is inferred that there is the gap in the prices of Bombay Stock Exchange and National Stock Exchange between the Bombay Stock Exchange and the National Stock Exchange even a stock market price convergence.

Keywords—BSE, Debentures, Economic System, Indian Stock Market, NSE.

INTRODUCTION

Share market is a location where people buy / sell securities in businesses published by the media. This offers a forum to promote smooth share sharing. Simply stated, if A decides to sell Reliance Industries securities, then the stock market should help him find the seller who is eager to purchase Reliance Industries. It is necessary to remember, however, that an individual can only transact in the stock market through a licensed intermediary known as a stockbroker. The purchasing and sale of shares takes place through electronic means. At a later stage we will talk details of the stockbrokers.

Most of Indian capital market trade takes place on the two stock exchanges: the Bombay Stock Exchange (BSE) and the NSE. The BSE has existed from 1875. The NSE, on the other hand, was established in 1992 and began to trade in 1994. Both markets, though, adopt the same system for pricing, pricing hours and settlement process.

The BSE had 5,518 listed companies as of February 2020, while the rival NSE had about 1,799 listed companies as of 31 Dec 2019. Among all the firms listed on the BSE, just around 500 businesses make up more than 90 per cent among their market capitalization; the remainder of the crowd is extremely illiquid.

Nearly all India's big companies are classified on both the exchanges. BSE is the newer stock market whereas the NSE, in terms of value, is the main stock exchange. The NSE as such is a more liquid market. They're almost equal in terms of market value at around \$2.3 trillion. All exchanges fight for the influx of orders that contribute to reduced prices, business productivity and creativity. The existence of arbitrageurs holds stocks within a very narrow range on the two stock markets.

REVIEW OF LITERATURE AND GAPS

1. Dan Striven The dispute between the Bombay Stock Exchange and the National Stock Exchange was examined. He contrasted BSE and NSE on different issues such as, Influence of Transaction Cost and Access Technology, Governance & Leadership, Brand Depth, Global Reach. He observed that, for four key factors, NSE exceeded BSE on the stock market in just 12 months. First, the fee structure and customer-oriented clearance, settlement and dematerialization

processes of NSE attracted non-Gujarati traders and/or investors with low needs to be part of the financial culture of Gujarati. Second, traders, investors and policy makers with substantial long-term financial and/or political involvement in transforming the Indian stock sector into a profitable and lucrative market were drawn by this opportunity to reshape the business and by NSE's fee structure and customer-oriented processes of clearance, settlement and dematerialization. Thirdly, because of the prospect of electronically trading beyond Bombay, traders and/or buyers -who initially used brokers-, became members of NSE. Fourthly, differences in prices attracted arbitrage traders who supported liquidity at both bonds.

2. Mukherjee Researched on Indian stock market comparative analysis with international markets. The stock market is witnessing heightened activities according to his findings and is gaining increasing importance. This paper summarizes the developments, differences and variations in the Indian stock market 's practices and actions relative to its foreign peers in the present sense of globalization and the eventual convergence of the financial economies. This research examines the New York Stock Exchange (NYSE), Hong Kong Stock Exchange (HSE), Tokyo Stock Exchange (TSE), Russian Stock Exchange (RSE), and Korean Stock Exchange (KSE) from various socio-political and economic perspectives. Both the Bombay Stock Exchange (BSE) and the Indian Limited National Stock Exchange (NSE) were used as a part of the Indian Stock Market in the report.

3. Sinha and Pan researched Indian Markets' Power (Law): Analysing data on NSE and BSE markets. They've studied the essence of Indian stock sector volatility. Through tick-by tick data from the National Stock Exchange (NSE) and regular closing price data from both NSE and the Bombay Stock Exchange (BSE), India's two biggest markets, they looked at the trading returns of individual companies. We noted that the frequency of market spreads and the number of transactions is of a type to those seen at the New York Stock Exchange (NYSE). In addition, the price movement of various stocks in the Indian markets is highly correlated.

4. Agarwal and Singh examined the effects of stock price and trading volume patterns on the possible existence of informed trading prior to announcement of merger. Analysis of the event study of forty companies suggested the insider trading evidence. In EMH experiments, case studies are used to determine if markets completely integrate details on the day that the knowledge is released. If EMH holds the event information should be included in the prices before or on the day of the event itself. There should be no after-event effect on returns. Typical case experiments examine the effect of a specific occurrence on the actions of returns. Often it is a macroeconomic or structural case at a certain period or at a certain point of time for which we want to consider the effect on returns such as beginning electronic trading of India or the depository; adding derivatives, etc. A subject of research in scholarly literature has long been the study and review of how financial asset prices respond to the details.

5. Krishnamurti Worked on a paper called "Competition, Liquidity and Volatility-A Comparative Analysis of the Bombay Stock Exchange and the National Stock Exchange." Important discrepancies occur between BSE and NSE in corporate structure, regional scope, and internal control structures and institutionalized risk reduction facilities. To analyse how such significant systemic disparities within such stock exchanges lead to fluctuations in observable market price measures. He used a paired approach to comparison and documented important differences in liquidity and price volatility between the two markets. In several points, he finds that NSE is superior at his department. The quality of NSE's tracking program is indeed higher. NSE adopts a framework powered solely by order while BSE has a program guided by part order and part quotation oriented. All markets have functions of demand stabilisation.

SIGNIFICANT / IMPORTANCE OF THE STUDY

The success and growth of the national stock markets over the time may be inferred by the data itself and may also include some interesting knowledge regarding their partnership. At NSE, gross market capitalization, average turnover, and cumulative sales are around 17500 crores. There are 1,600 listed firms in the NSE Bombay stock exchanges' success and growth over the time may be inferred from the data itself and can also include some valuable details regarding their partnership. At BSE, gross market capitalization, average turnover, and cumulative sales are around 99,230,49 crores. In BSE, the number of companies listed is 5000. It is thought appropriate to investigate the price convergence between the two capital markets in these situations and to see whether they are linked or not.

STATEMENT OF THE PROBLEM

Stock market is a general term used to refer to an organized exchange where the shares of stock are traded. The movement of stock market depends upon the rational as well as the irrational behavior of the investor. Investors expects returns for the amount invested and at the same time, they want appreciation for or on the amount invested

Price Integration in Indian Stock Market with special reference To BSE and NSE

The returns in stock market could be because of the micro economic factors like profits, business growth, dividend announced and the like which are pertaining to a company. Macro-economic factors like inflation and GDP would also affect the overall returns in the stock market.

There are various studies, which have analyzed the co-moments and co integration between various stock exchanges of different countries. We are not sure whether the fluctuations of one index will affect the other and whether they are co integrated or not. This study examines the price integration between two stock price indices BSE and NSE.

OBJECTIVES OF THE STUDY

The strategy is directed at meeting the following goals.

- ❖ To understand the concept of price integration.
- ❖ To understand the concept of stock market.
- ❖ To find out the price integration of Indian stock market with special reference to BSE and NSE.
- ❖ To conclude by given constructive suggestions based on the study.

SCOPE OF THE STUDY

The aim of the project is restricted to discovering the essence and importance of the partnership between stock market returns with respect to Indian stock market price convergence with reference to a one-year span of BSE and NSE in India.

LIMITATIONS OF THE STUDY

- ❖ Short lead time for the ventures. The analysis is time restricted.
- ❖ The researcher's time is less when required. But the researcher could not do thorough analysis.

RESEARCH METHODOLOGY

In this study, we followed systematic, concise, and methodological studies to focus on this report on books, magazines, newspapers, and electronic sources as well as on the writers in competition law. In primary data the main data was composed mainly on or after the investors of stock market from Kolar district by issuing the questionnaire and face to face interview. And in the secondary data the annual report of BSE and NSE, books, websites, articles, internet and etc. In research process it is inevitable to develop a tool for collecting relevant information of the research topic. The group of participants chosen for the analysis was 100 participants from Kolar district who are capital market investors. The structural questionnaire administered to the respondents was aimed at eliciting the most essential data relating to the objective. A scrutiny of all the response was done.

DATA ANALYSIS AND INTERPRETATION

The numerous statistical methods and techniques are used to evaluate data or details, like graph, data tabulation, pie-diagram, bar-diagram and basic percentage process, for data analysis and understanding purposes, and I used MS EXCEL for measurement purposes and charts drawing.

BSE TRADE DATA ON NO. OF SECURITES, NO. OF TRADES AND AVERAGE TRADE IN RUPEES

	NS	NO__OF_TRADES	AVTRSIZE
Mean	646365.1	3.63E+08	24642.45
Median	692750.0	3.52E+08	22498.00
Maximum	776168.0	7.11E+08	68666.00
Minimum	347724.0	1.28E+08	12022.00
Std. Dev.	133206.3	1.59E+08	11563.05
Skewness	-1.079121	0.399393	2.841105
Kurtosis	2.842276	2.552332	11.79485

Jarque-Bera	3.902406	0.698722	91.36404
Probability	0.142103	0.705138	0.000000
Sum	12927301	7.26E+09	492849.0
Sum Sq. Dev.	3.37E+11	4.80E+17	2.54E+09
Observations	20	20	20

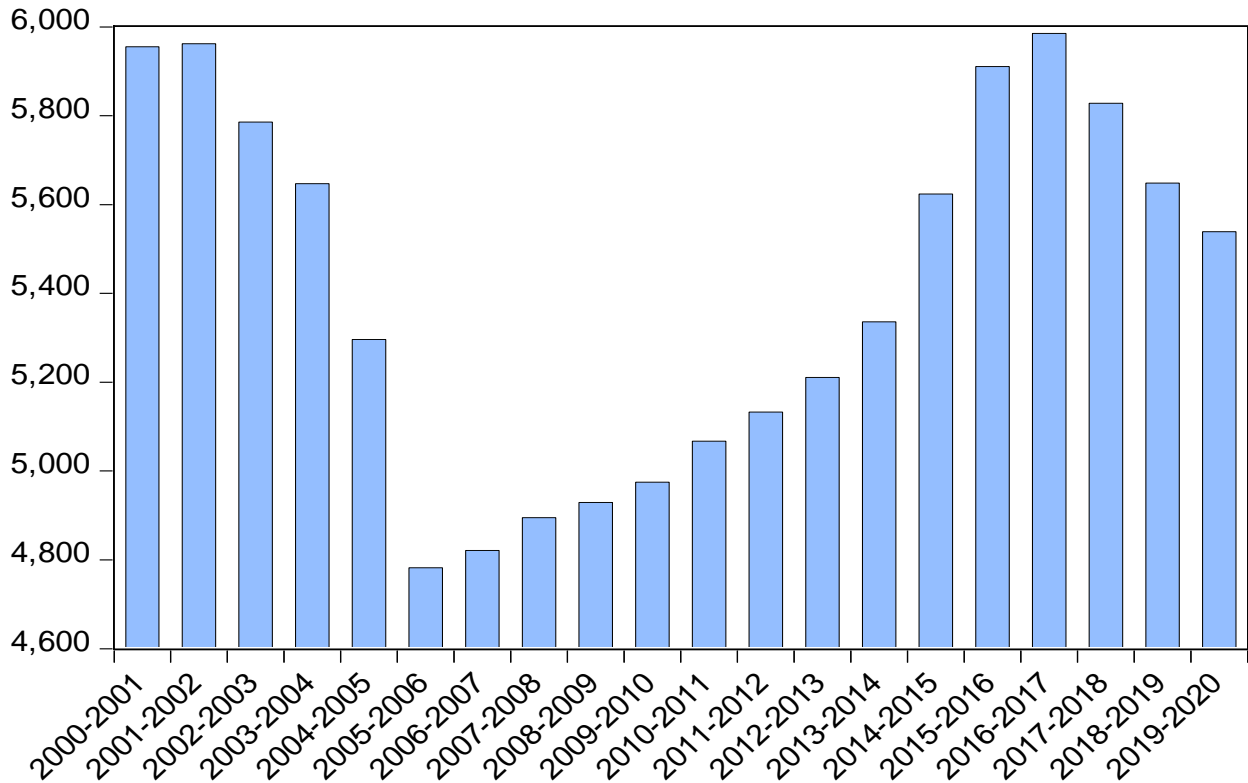
INTERPRETATION

There are as many 5000 companies listed in the Bombay stock exchange. The following table shows the NO. OF SECURITIES, NO. OF TRADES AND AVERAGE TRADE IN RUPEES. As per the above analysis No. of securities (NS) traded at an average is 646365.1 in lakhs of rupees. The maximum was 776168.0 in lakhs of rupees and minimum was 347724.0 lakhs of rupees. The Standard deviation was 133206.3 in lakhs of rupees.

In the year of 2010-2011 the No. of Securities maximum amount of Rs 776168 has been increased at the same time the NS Amount Decreased to 347724 in the month 2001 to 2002. As like that No. of Trades (ES) maximum amount of Rs 7.11 lakh crores in year of 2014 to 2015 at the same time the ES has been Decreased to Rs 1.28 lakh crores in the year of 2001-2002 as like that Average Trade (Avtrsize) has been increased Rs 68666 in the year of 2000-2001 but it has been decreased Rs 12022 in the year of 2014-2015.

NO. OF COMPANIES

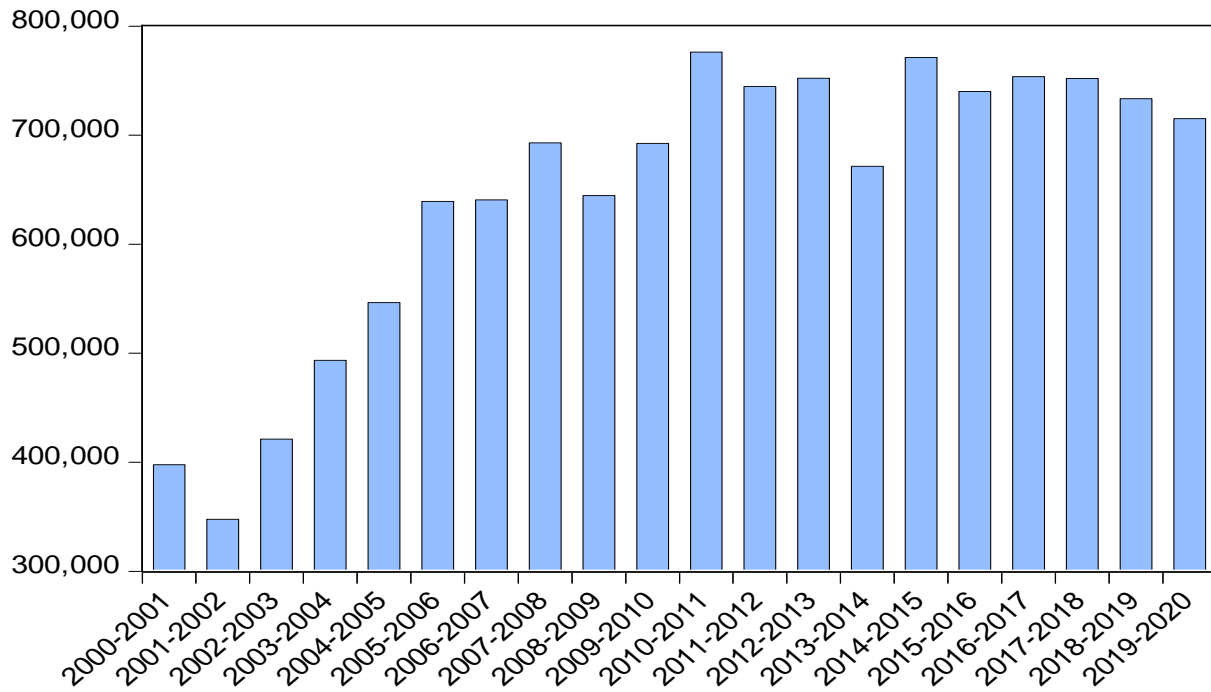
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SECURITY TRADED

Trading securities are investments in **debt** or equity is a new investment option. In other words, trading securities are **stocks** or **bonds** that goes through the stock exchange BSE & NSE and other stock exchanges across the country.

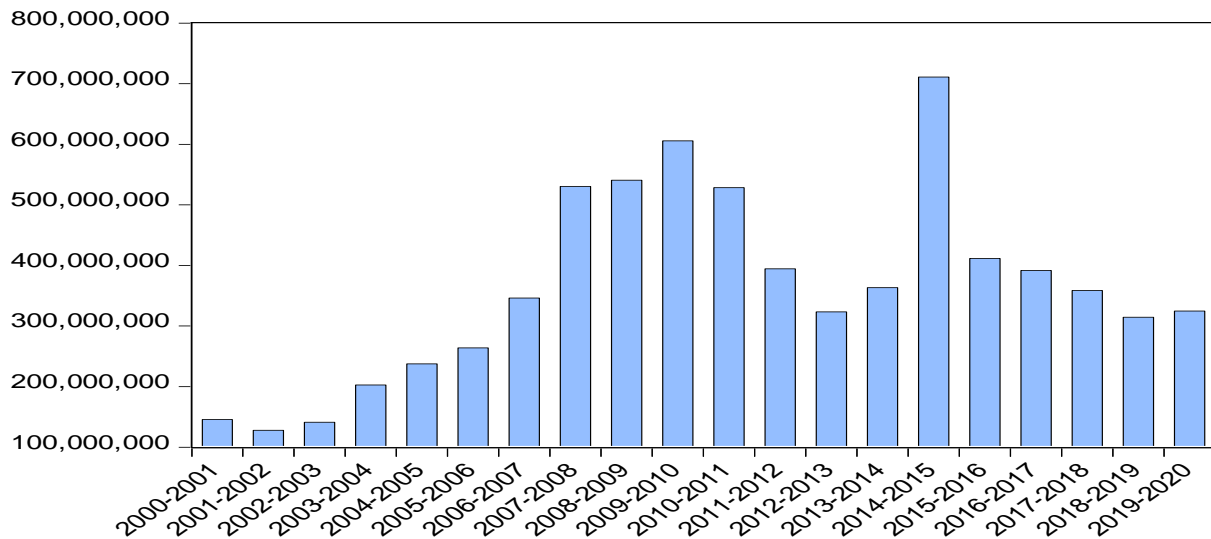
No. of Securities Traded



TRADE

When it comes to trade volume lakhs of crores worth of trade happens through the Bombay stock exchange, it shows the growth of the country.

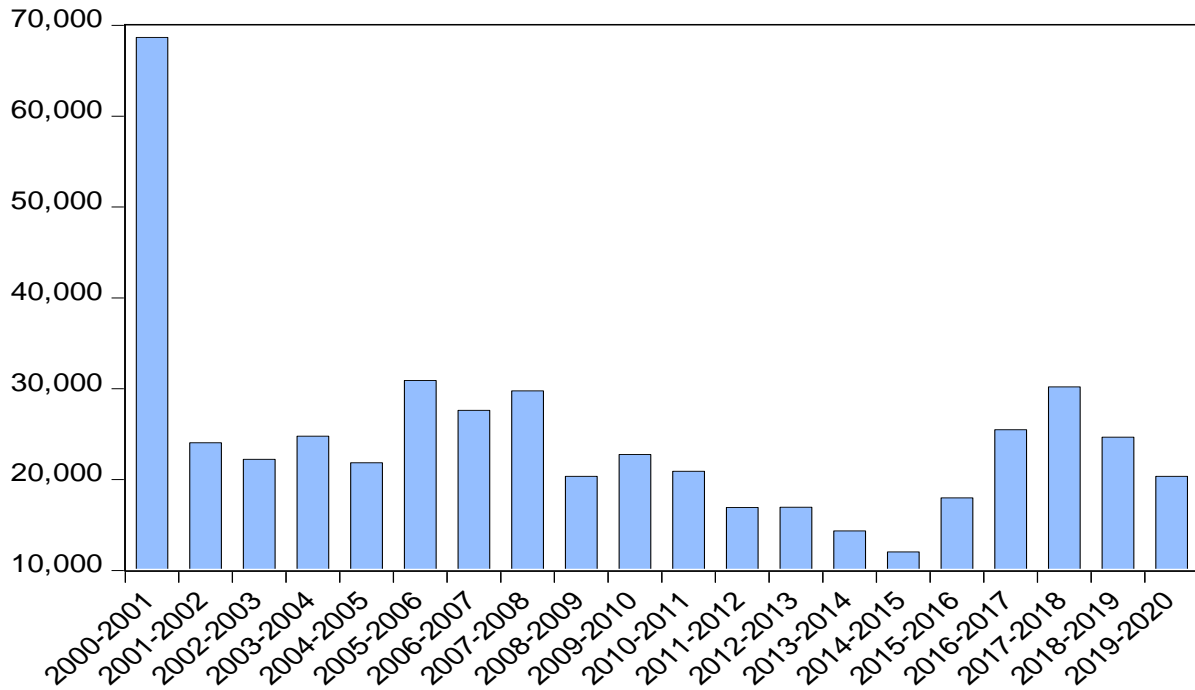
No. of Trades



AVERAGE TRADE SIZE

The average trade size of equity, currency, derivatives, and bonds shows the growth story of a country how the companies are rising capital to fund their new investment and creating jobs and contributing for economic growth.

Average Trade Size



NSE TRADE DATA ON NO. OF SECURITIES, NO.OF TRADES AND AVERAGE TRADE IN RUPEES

	NO. SECURITES	NO. OF TRADES	AVERAGE OF TRADES
Mean	1703.050	13483.90	27723.90
Median	1605.000	14014.00	25432.50
Maximum	3122.000	31460.00	79923.00
Minimum	804.0000	1676.000	19460.00
Std. Dev.	758.2237	8734.598	12753.56
Skewness	0.659259	0.356237	3.640498
Kurtosis	2.104287	2.365224	15.58430
Jarque-Bera	2.117328	0.758800	176.1478
Probability	0.346919	0.684272	0.000000
Sum	34061.00	269678.0	554478.0
Sum Sq. Dev.	10923161	1.45E+09	3.09E+09

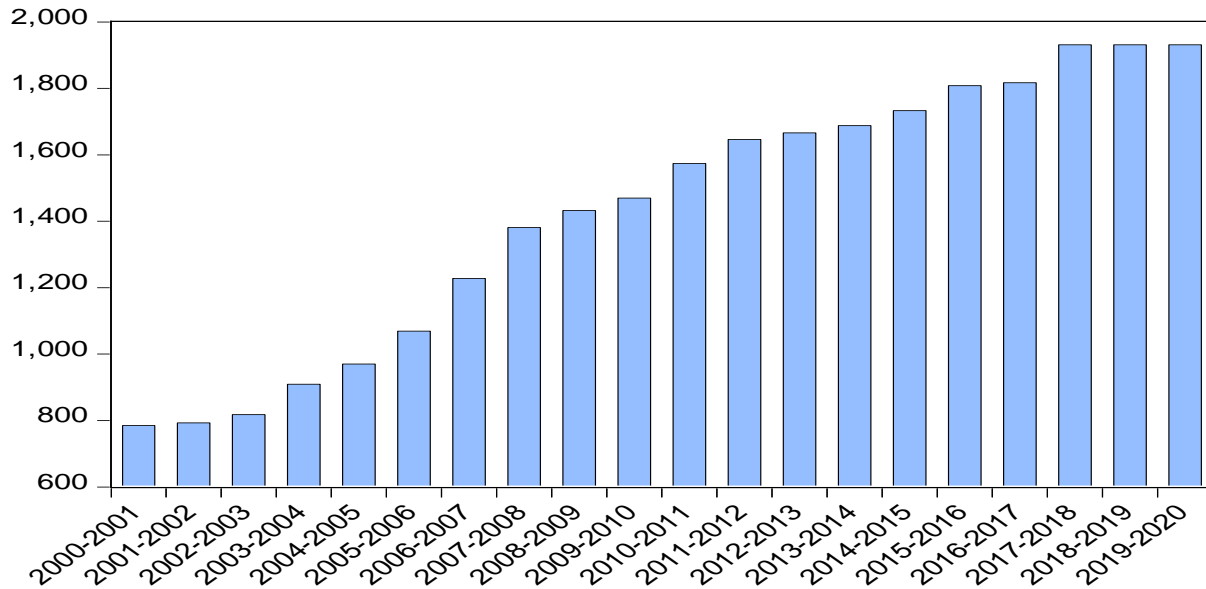
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Observations	20	20	20

Source: Eviews output

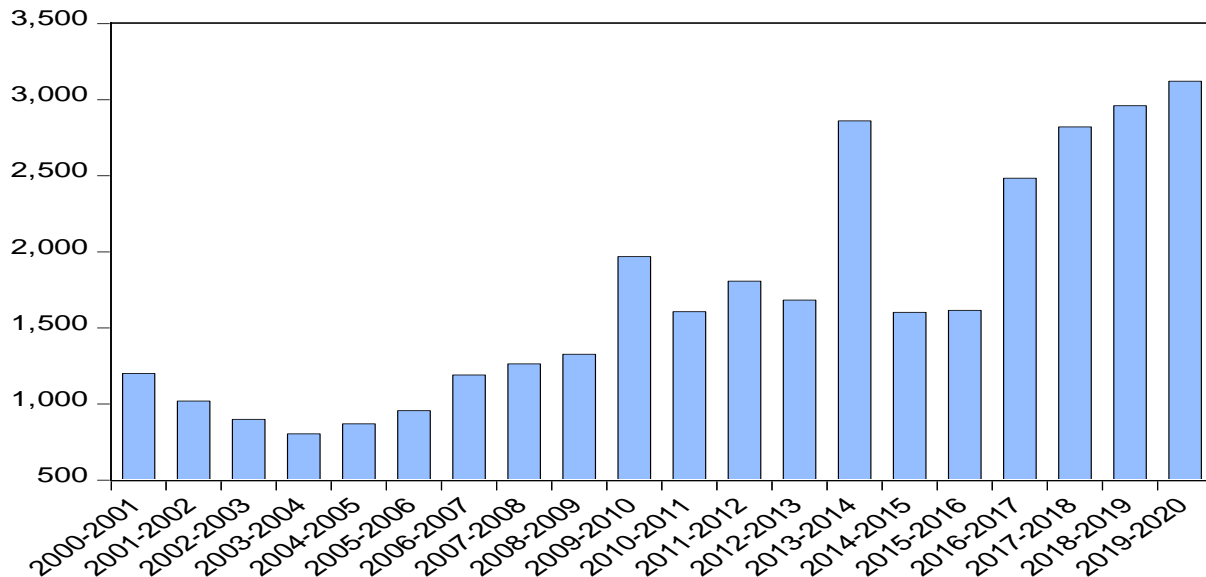
There are as many 1900 + companies listed in the Bombay stock exchange. The following table shows the NO. OF SECURITIES, NO. OF TRADES AND AVERAGE TRADE IN RUPEES

No of co.s listed*



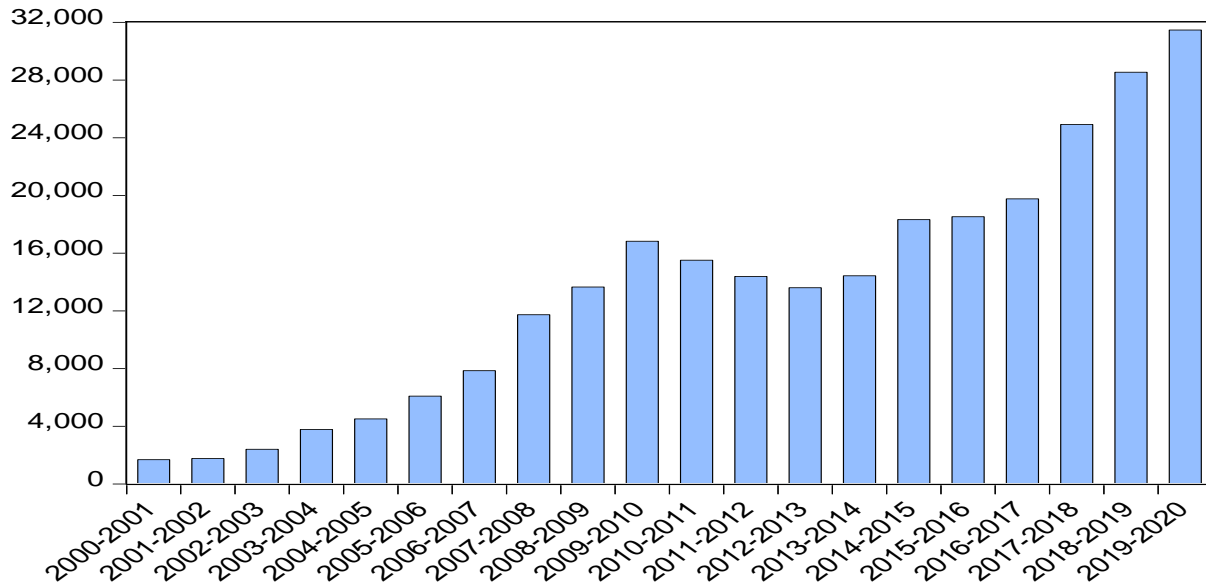
from the above graph which is the number of Companies listed in National Stock Exchange it is analysed that in the year 2000 - 2001 there are 785 Companies listed in the National Stock Exchange in 2001-2002 and by 2019-20. From the above analysis we can observe that from the year 2000-2001 till the year 2018-19 the listing of the companies in National Stock Exchange is increasing continuously from past 20 years

No. of securities traded #



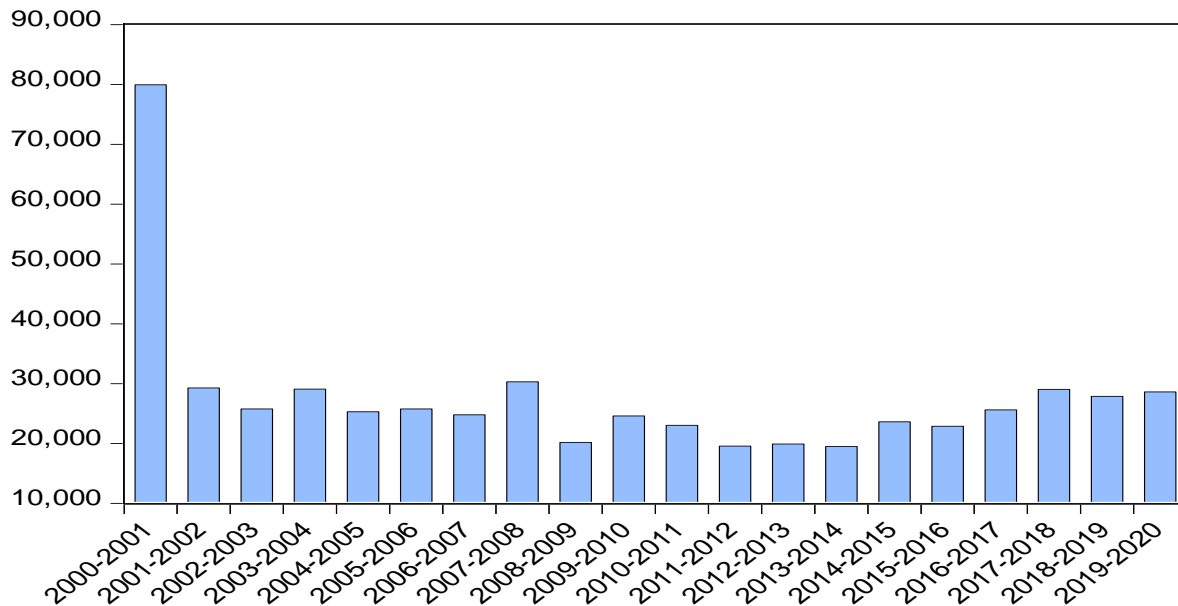
The above graph shows the number of securities traded in National Stock Exchange from the year 2000 2001 to 2019 20 it is analysed that in the year 2000-2001 there are 1201 securities traded. By 2019-20 it went up to 3122 securities from the past 20 years we can observe there is an exponential growth.

No. of trades (lakh)



The graph shows the number of trades in lakhs in National Stock Exchange analyse that in the year 2000-2001 1676 lakh rupees of trading is done in National Stock Exchange. By 2019-2020 it is 31460 lakh rupees.

Average Trade Size



the above graph shows the average trade in the National Stock Exchange from 2001-2002 till 2019-20 it is analysed that in the year 2000-2001 the average trade size in the National Stock Exchange is 79723 in the year 2001-2002 and by 2019-20 the average trade size of National Stock Exchange is 27860 at an average.

FINDINGS

There are as many 5000 companies listed in the Bombay Stock Exchange. The following table shows the no. of securities no. of trades and average trade in rupees. As per the above analysis no. of securities(ns) traded at an average is 646365.1 in lakhs of rupees. The maximum was 776168.0 in lakhs of rupees and minimum was 347724.0 lakhs of rupees. The standard deviation was 133206.3 in lakhs of rupees.

In the year of 2010-2011 the no. of securities maximum amount of Rs 776168 has been increased at the same time the ns amount decreased to 347724 in the month 2001 to 2002. As like that no. of trades (es) maximum amount of Rs 7.11 lakh crores in year of 2014 to 2015 at the same time the es has been decreased to Rs 1.28 lakh crores in the year of 2001-2002 as like that average trade (avtrsize) has been increased Rs 68666 in the year of 2000-2001 but it has been decreased Rs 12022 in the year of 2014-2015.

There are as many 1900+ companies listed in the Bombay Stock Exchange. The following table shows the no. of securities, no. of trades and average trade in rupees.

National Stock Exchange as on 2000 - 2001 there are 785 Companies listed in the National Stock Exchange by 2019-20 it is 1953 companies. From the above analysis we can observe that from the year 2000-2001 till the year 2018-19 the listing of the companies in National Stock Exchange is increasing continuously from past 20 years that is new companies are registered and coming up.

National Stock Exchange from the year 2000 2001 to 2019 20 it is analysed that in the year 2000-2001 there are 1201 securities traded. By 2019-20 it went up to 3122 securities from the past 20 years we can observe there is exponential growth. National Stock Exchange from 2001-2002 till 2019-20 it is analysed that in the year 2000-2001 the average trade size in the National Stock Exchange is 79723 in the year 2001-2002 and by 2019-20 the average trade size of National Stock Exchange is 27860 at an average.

SUGGESTIONS OF THE STUDY

❖ The Bombay Stock Exchange and the National Stock Exchange find that ample evidence existed for market convergence between the two stocks

CONCLUSION

This research explores the convergence of financial markets between BSE and NSE from an investor's point of view. Several convergence concepts were employed all of which provided a somewhat different incorporation assumption. Long-run price convergence data indicated that financial exchanges would tolerate shifts in equity prices of BSE and NSE.

Overall, from the report it is inferred that there is the gap in the prices of Bombay Stock Exchange and National Stock Exchange between the Bombay Stock Exchange and the National Stock Exchange even a stock market price convergence.

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