

RESEARCH ARTICLE
RELATIONSHIP BETWEEN NYSE & BSE - A STUDY

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ARTICLE INFO

Article History:

Received 5th, June, 2015

Received in revised form 12th, June, 2015

Accepted 6th, July, 2015

Published online 28th, July, 2015

Key words:

stock exchange, BSE, NYSE

ABSTRACT

The popularity of stock exchange is synonymous with the evolution of the companies. They provide a ready-made market for the securities provided by the companies. With the evolution of the companies, the stock market has grown considerably in various parts of the world. The stock exchange movements are watched all over the world as they are considered the barometers of industrial performance. It provides a platform to deal in securities where demand & supply factors determine the pricing of the stock. It also helps in spreading the equity cult thus enabling the companies to get the required amount of investment directly from the public. The researcher has attempted to find out the effect of changes in NYSE due to changes in Indian stock market. In this study the researcher has chosen Bombay Stock Exchange(BSE) as its sensex is the oldest as well as being more popular stock exchange in India. The NYSE is the largest stock exchange in the world & its movements affect the world's economy. This paper deals with the relationship between BSE & NYSE. The researcher has tried to find out whether movement in the stocks in BSE has an effect on NYSE & vice versa. It also takes into account the fluctuations in the returns obtained from the stock exchanges. In this paper it has also attempted to show the effect of changes in the returns of the stock exchange over the GDP of the country. The data of 11 years were taken into account for doing the research.

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INTRODUCTION

The growth of industrial sector adds a certain fillip to any country's economy. The stock exchanges help the industry to effectively mobilise funds required for their effective functioning. More efficiently mobilized savings because capital accumulation which industries tap to finance large projects needed for expanding and modernizing industrial and commercial concerns via equity issues (Levine and Zervos, 1996; Adjasi and Biekpe, 2006). By pooling resources on larger projects, which would otherwise have difficulty accessing finance, stock markets can mobilize savings and spur the rate of investment (Greenwood and Smith, 1997).

A strong stock market can generate, promote and acquire more information about firms, the innovative activity of entrepreneurs, the aggregate state of technology or their consequences also plays important role in the investment decisions, thereby promoting efficient resource allocation, improving the productivity of capital and achieving better growth (Caporale *et al*, 2004; Atje and Jovanovic, 1993; Grossman and Stiglitz, 1980; Allen, 1993:81-108). A new stock exchange can increase economic growth by aggregating information about firms' prospects, thereby directing capital to investment with returns (Greenwood and Jovanovic, 1990; King and Levine, 1993). Based on such accurate and improved information, the organization makes investment decisions

through intelligent profit projections which improve resource allocation and promote economic growth.

When the stock market goes up, people feel wealthier and they tend to spend more. When the stock market falls, they feel poorer and crunched by debt run up during the good times, so they slash their spending (Ruggiero, 2001). The stock market serves as a genuine tool in the mobilization and allocation of savings among competing uses which are critical to the growth and efficiency of the economy (Alile, 1984). According to Fama (1990), Liua and Sinclair (2008), Oskooe (2010), *inter alia*, economic growth influences the profitability of firms by affecting the expected earnings, dividends of shares and stock prices fluctuations. Leon and Filis (2008) posit that GDP shocks offset stock market volatilities, however, stock market volatility may give a rise to GDP volatilities. New York Stock Exchange (NYSE) - Headquartered in New York City. Market Capitalization (2011, USD Billions) – 14,242; Trade Value (2011, USD Billions) – 20,161. It is the largest stock exchange in the world by both market capitalization and trade value. NYSE offers a broad and growing array of financial products and services in cash equities, futures, options, exchange-traded products (ETPs), bonds, market data, and commercial technology solutions. Featuring more than 8000 listed issues it includes 90% of the Dow Jones Industrial Average and 82% of the S&P 500 stock market indexes volume. Bombay Stock Exchange, commonly referred to as the BSE, (*Bombay hare B za r*) is a stock exchange located on Dalal Street, Mumbai,

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Maharashtra, India. It is the 11th largest stock exchange in the world by market capitalization as of 31 December 2012 [6]. BSE provides an efficient and transparent market for trading in equity, debt instruments, derivatives, mutual funds. It also has a platform for trading in equities of small-and-medium enterprises (SME). More than 5000 companies are listed on BSE making it world's No. 1 exchange in terms of listed members. The companies listed on BSE Ltd command a total market capitalization of USD Trillion 1.32 as of January 2013. BSE Ltd is world's fifth most active exchange in terms of number of transactions handled through its electronic trading system. It is also one of the world's leading exchanges (3rd largest in December 2012) for Index options trading (Source: World Federation of Exchanges).

Importance of stock exchange

- Providing new capital through IPO's
- The company can realize their investment by providing employees extra incentives by granting share options which in turn will create a sense of belonging towards the company.
- Listing in the stock exchange will increase their public profile
- It provides reassurance to the customers and suppliers
- Provides a readymade market for the buyers & sellers

Objectives of the study

1. To analyse the performance of BSE,NASDAQ & NYSE
2. To know the risk & return of the stock exchanges
3. To correlate the performance between BSE, NASDAQ & NYSE

METHODOLOGY

To understand & evaluate stock exchanges & their impact on our country's GDP, a clear assessment is done by taking into account various statistical tools. For this purpose, the tools selected are correlation, median, standard deviation & variance which is applied on the returns from the respective stock exchanges. The collection of data is done from secondary sources only. The secondary information is gathered from the official publications, text books, magazines, journals etc. and related website links, published materials.

Analysis & Interpretation

Table 1 BSE 30 Index (India) Yearly Returns

Year	Ending Price	RETURNS(X)	X-mean	(x-mean) ²
2002	3377.28	3.52	-21.27	452.606
2003	5838.96	72.89	48.10	2312.172
2004	6602.69	13.08	-11.71	137.231
2005	9397.93	42.33	17.54	307.492
2006	13786.91	46.70	21.91	479.849
2007	20286.99	47.15	22.36	499.766
2008	9647.31	-52.45	-77.24	5966.721
2009	17464.81	81.03	56.24	3162.426
2010	20509.09	17.43	-7.36	54.237
2011	15454.92	-24.64	-49.43	2443.775
2012	19426.71	25.70	0.91	0.820

SOURCE :Istock1

Descriptive Statistic	
Mean	24.79455
Standard Deviation	37.9198
Sample Variance	1437.9112
Range	133.48
Minimum	81.03
Maximum	-52.45

Table 2 NYSE Composite Index Yearly Returns

Year	Ending Price	RETURNS(X)	X-mean	(x-mean) ²
2002	5000.00	-19.83	-24.785	614.319
2003	6440.30	28.81	23.855	569.040
2004	7250.06	12.57	7.615	57.981
2005	7753.95	6.95	1.995	3.978
2006	9139.02	17.86	12.905	166.527
2007	9740.32	6.58	1.625	2.639
2008	5757.05	-40.89	-45.845	2101.805
2009	7184.96	24.80	19.845	393.806
2010	7964.02	10.84	5.885	34.628
2011	7477.03	-6.11	-11.065	122.444
2012	8443.51	12.93	7.975	63.593

SOURCE :Istock1

Descriptive Statistic	
Mean	4.95545
Standard Deviation	19.3784322
Sample Variance	375.5236
Range	69.7
Minimum	-40.89
Maximum	28.81

YEAR	GDP	Trend
2002	3.9	100
2003	7.9	202
2004	7.8	200
2005	9.3	238
2006	9.3	238
2007	9.8	251
2008	3.9	102
2009	8.5	218
2010	10.5	269
2011	6.3	162
2012	3.2	82

Corelation	
Between NYSE & BSE	0.879
Between BSE & GDP OF INDIA	0.563

The mean of the returns of BSE index are 24.745 where as mean of the returns of NYSE are 4.955. Standard deviation depicts the degree of fluctuation within the index which is 37.92 in BSE & 19.38 in NSE. This depicts that the variance is higher in BSE rather than NSE. The sample variance for BSE is 1437.91 where as for NYSE, sample variance is 375.524. The maximum & minimum returns of BSE are 81.03 & - 52.45 respectively. The maximum & minimum returns of NYSE are 28.81 & - 40.89 respectively.

The range of BSE is 133.48 & as for NYSE the range is 69.7.

The correlation between NYSE & BSE is 0.879 where as correlation between BSE & GDP OF INDIA is 0.564.

The GDP shows an increasing trend until 2007 But has significantly decreased in 2008 due to financial crisis

CONCLUSION

The era after post liberalisation has shown enormous growth in India. India should try to be the powerhouse for the future

generations to come & make its presence felt in the world scenario. More & more instruments should be developed to have more impact on NYSE and measures should be taken to increase the growth in Indian economy

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How to cite this article:

Puja Archana Sahu., Relationship Between Nyse & Bse – A Study. *International Journal of Recent Scientific Research Vol. 6, Issue, 7, pp.4927-4929, July, 2015*
