RESEARCH REVIEW JOURNALS
ICIMP-2018
SEP- 2018
Special Issue

ISSN: 2455-3085 (Online)
RESEARCH REVIEW International Journal of Multidisciplinary
www.rrjournals.com [UGC Listed Journal]

Stock Market Volatility of Banks in Bombay Stock Exchange

[*1]S.Preethi & [2]Dr. S.Leema Rosaline

[*1]*Research Scholar, Department of Commerce, Nirmala College for Women, Coimbatore, Tamil Nadu (India)*
[2]*Assistant Professor, Nirmala College for Women, Coimbatore, Tamil Nadu (India)*

ARTICLE DETAILS

Article History
Published Online: 03 Oct 2018

Keywords
BSE, Volatility, Average Return, Standard deviation

***Corresponding Author**
Email: preethiraju.0110[at]gmail.com

ABSTRACT

Stock market plays an important role in every country's economy. Volatility arises due to various factors which is affecting the stock market. Volatility in the Indian stock market arises due to the financial slowdown in India after the global crisis. This paper has examined the Return and volatility of five private sector banks which is listed in BSE Sensex. These banks were taken on the basis of well-established and financially soundness. The data has been analyzed by using average return, variance and standard deviation on monthly returns and yearly returns. Covering the period from January 2008 to August 2018.

1. Introduction

A stock market is also called as equity market or share market which is nothing but a collection of buyers and sellers of stocks. The ownership interest by the companies is represented by stocks. Publicly or privately traded securities are included while trading done by the companies. Bigger companies usually list their stock in a stock exchange to make their stocks more liquid because it is easy to buy and sell. This liquidity is done to attract many international investors. The relationship between volatility and stock market return is usually nonlinear and dynamic and it has a strong positive relationship.

Stock market volatility is considered as risky because it is volatile in nature. There are various factors which affect the volatility in the stock market and one among them is the macroeconomic variable which influence and affect the stock prices. These factors may have an impact on the firm stock prices. Volatility is determined as variations in asset prices which change over a period of time. Estimating volatility accurately is difficult because stock market keeps on fluctuating. Once the investor finds the volatility pattern and market condition it is easy for him to make money without any loss.

2. Bombay Stock Exchange

BSE is an Indian stock exchange. It is the Asia's first stock exchange and world's 10th largest stock exchange. It claims as world's fastest stock exchange when compare to other stock exchanges. It has a median trade speed of 6 micro seconds. As on April 2018 BSE has an overall market capitalization of $2.3 trillion. Bombay Exchange was founded by Premchand Roychand. Bombay Stock Exchange was the first stock exchange in India to be recognized by the Indian Government under the Securities Contract Regulation Act on August 1957. During the year 1986 BSE developed the S&P BSE Sensex index to measure the overall performance of the exchange. Further, in the year 2000 BSE open its derivatives using this index and in the year 2002 BSE has started expanding its trading platform.

In the beginning there was an open outcry floor for trading and in the year 1995 BSE has changed to an electronic trading system which is developed by CMC Ltd. within 50days of time this transition was done. The transformation is automated screen-based trading platform and it is called BSE On-Line Trading (BOLT). It has a capacity of 8 million orders per day. Now BSE has introduced many internet based trading system that too centralized exchange like BSEWEBx.co.in. This helps the investors to trade anywhere in the world in the BSE platform. BSE has increased his capital by issuing shares. On 3rd May 2017 BSE share in NSE is closed with Rs. 999. In the year September 2012 BSE joined with United Nations Sustainable Stock Exchange as a partner exchange and also BSE has founded India NIX in the month of 30th December 2016. It is the first international exchange of India.

3. Research Methodology

The study is based on the secondary data. This paper has analysed the average return, variance and standard deviation by taking the data of five private banks which is listed in BSE. They are Axis Bank, HDFC Bank, ICICI Bank, Kotak Mahendra Bank and Yes Bank. The data has been taken from BSE website for the analysis for the period from 2008 to 2018.

4. Review of Literature

Prashant Joshi (2014) has forecasted the daily volatility of BSE Sensex by using three different models they are GARCH. EGARCH and GJR-GARCH for the period from January 2010 to July 2014. It is found that the stock market exhibits the persistence of volatility, mean reverting behavior and volatility clustering. It is revealed that the presence of leverage effect is implying an impact on volatility of bad news than the good news. It is concluded that GARCH is the best model for forecasting the stock market volatility.

M.Sriram Mahadevan (2012) has analysed the volatility in the returns of BSE Sensex for the period from April 2003 to March 2012. It is found that the time series data is stationary but not normally distributed by using various models like GARCH, TARCH, Coefficient, Auto Correlation and Leverage.

This shows that a positive/negative return leads to future forecast of the variance to high/low for a long period of time. TARCH model is applied to analyse the leverage effect and the result shows the presence of leverage effect and the asymmetry in the market. It has been concluded that bad news of volatility has more effect on the good news.

Quennsly Jeyanthi (2009) has investigated in her paper about the stock market volatility in Indian stock exchanges by analyzing the return and volatility. Data were collected from BSE Sensex and NSE Nifty. The returns were calculated on the basis of inter and intra-day-volatility. The inter-day-volatility is computed by using close to close and open to open volatility. Similarly, intra-day-volatility is computed by using daily share price ie., open to close volatility. Parkinson model and Garman & Klass model were used. During the study period it is found that the average return of the Sensex and Nifty has been showing positive and negative return. The researcher has used Bear and Bull phase to know the volatility in the market and it is found that Bear phase is more volatile than the Bull phase.

Venkataramanaiah.M (2008) has examined in his study about the average returns and average volatility on daily basis across the index which was varying over time and space and this divergence is highly demonstrable. He says volatility plays a vital role in the secondary market which influence a lot on the investment decisions and that affect the tendency of inter-day-volatility and intra-day-volatility in Indian stock market. He found that by using mean returns and standard deviations. During the study period i.e. from 1999-2008, there is low volatility for the year 2002, 2003 and 2005 regarding the intra-day-volatility. The volatility levels are almost identical over the period of study in respect to inter and intra-day volatility.

Dr. Rajkumar & Hariom Gupta (2007) evaluated in his research about the return of 20 securities which is present in NIFTY by calculating standard deviation, GARCH etc. In the year 1998-1999, 2000-2001, 2002-2003, 2006-2007 most of the securities were negative and in the year 1999-2000 it has been high volatile for all the 20 securities because of uncertainty in India arising out of various restrictions imposed by the developed countries after nuclear test. It is also noted that, the period after 2000-2001 has comparatively been stable than preceding period. Thus, most of the companies were highly volatile with low or even negative return.

5. Empirical Results

The table shows the average return, variance and standard deviation of five private sector banks which is listed in BSE for the period from January2008 to August 2018. For the analysis daily closing price, monthly price of these banks have been taken. Volatility in the stock market affects the stock prices of these banks also.

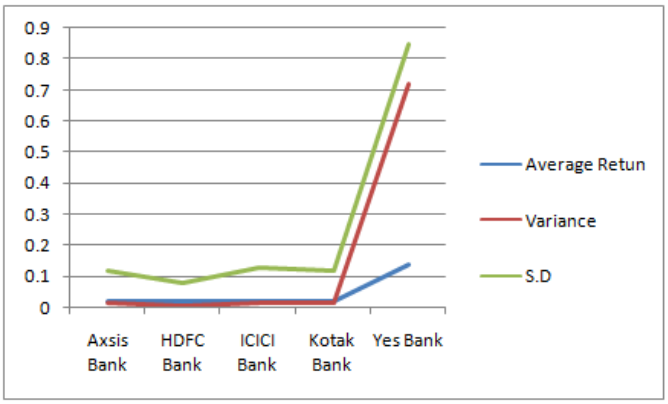
Table: 1

Bank/ Year	Axis	HDFC	ICICI	Kotak	Yes
2008	0.168	0.134	0.170	0.201	0.185
2009	0.161	0.100	0.170	0.243	1.883
2010	0.070	0.086	0.075	0.053	0.084
2011	0.148	0.068	0.132	0.084	0.112
2012	0.076	0.046	0.098	0.077	0.111
2013	0.138	0.062	0.115	0.064	0.164
2014	0.073	0.048	0.087	0.059	0.139
2015	0.059	0.048	0.070	0.033	1.800
2016	0.084	0.049	0.099	0.053	0.097
2017	0.031	0.031	0.063	0.039	0.102
2018	0.085	0.047	0.084	0.069	0.097
Average return	0.018	0.019	0.017	0.019	0.138
Variance	0.013	0.005	0.015	0.013	0.718
S.D	0.117	0.076	0.126	0.116	0.847

Interpretation

The above table shows the calculation of five private sector banks which is listed in BSE. It is found that the average return of Yes bank has higher value of 0.138 followed by HDFC bank and Kotak Mahendra bank share the same average return value of 0.019 and thereafter followed by Axis bank with the average return value of 0.018. ICICI bank has the least average return value of 0.017 when compare to other banks. Regarding the standard deviation calculation, Yes bank has the highest standard deviation of 0.847 followed by HDFC bank with standard deviation of 0.126. The third highest standard deviation is Axis bank with the value of 0.117 and thereafter followed by Kotak Mahendra Bank with standard deviation of 0.116. ICICI bank has the least standard deviation of 0.076 when compared to other banks.

Exhibit: 1



6. Conclusion

It is concluded that Average return and standard deviation has been used to find the return and volatility of the five banks which is listed in BSE as per well established and financially sound. It is found that Yes bank has higher return value when compare to other banks. According to standard deviation ICICI bank has the least value and it is clear that ICICI bank has very less fluctuations i.e. less volatility during the period. Thus volatility and return has an impact on the banks stock prices.

References

1. M. Sriram Mahadevan A Study on Volatility Modelling of BSE Sensex International Journal of Banking, Risk and Insuranc.
2. Dr.Rajkumar Volatility in the Indian Stock Market: A Case of individual securities.
3. T. Mallikarjunappa and Afsal E. M. The impact of Derivatives on stock market volatility: A study of the Nifty Index. Asian Academy of Management Journal of Accounting and Finance.
4. Prashant Joshi Forecasting Volatility of Bombay Stock Exchange. International Journal of current Research and Academic Review