

Study on Comparison of Risk-Return Analysis of Public and Private Sector Banks listed on Bank Nifty

Suresh A.S.

Assistant Professor, MBA Department, PES Institute of Technology – Bangalore South Campus, India, sureshas7007@gmail.com

Sai Prakash L.

Student, IV semester MBA, PES Institute of Technology– Bangalore South Campus, India, lsaiprakash1994@gmail.com

Abstract

Risk and Return analysis plays a very important role in individual decision making process. If the investor wishes to earn more return investor should be in the position to accept higher risk. Banking sector is the backbone of the country's economy and this sector has contributed good returns for the investor in the past. The paper concentrates on analysing the performance of twelve nationalised banks listed in NSE in terms of return, risk and beta for the period 1st January 2016 to 31st December 2016. Sector wise portfolio returns are also calculated for the same period, to compare the returns generated by public and private sector banks. This paper analyses the performance of banking sector taking Bank Nifty Index as benchmark. The study is based on secondary data collected from NSE. The data were collected based on the monthly prices of the banking stocks listed in Bank Nifty. The study shows that the shares of Yes bank and Federal bank have given positive returns during the study period. Whereas the return of Axis Bank, Bank of Baroda and Bank of India were negative during the same period. The beta of Bank of India, Canara Bank, Punjab National Bank, State Bank of India, Axis Bank, ICICI Bank and Yes Bank were more than one, indicating that these stocks carry a higher market risk. The reason for choosing monthly prices is to measure the short term fluctuations in the banking stocks due to changes in market factors.

Keywords: Beta, NIFTY, NSE, Return, Risk.



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INTRODUCTION

Banks play a very important role in building the economy of an individual as well as nation. In India banking sector forms the lifeline of economic activity for both rural and urban areas. So any changes in stock price of banks will be definitely affect the investment pattern of investor and also affects the economy.

Risk and return go jointly, every investment is subjected to risk to some extent. The best investment is that increases the return by taking minimum risk into consideration. For the purpose of minimizing the risk the market information is necessary. In finance, it is certain that the money supply is insufficient and the investors want to maximize their return. If the investor wishes to maximize their return, risk integrated with it is also higher. Further risk can be classified as systematic risk and unsystematic risk. Systematic risk is one which cannot be eliminated and every investor is required to undergo some amount of systematic risk on a regular basis. Unsystematic risk are those which can be eliminated as it is a company specific risk, an investor can eliminate unsystematic risk by simply avoiding the buying of such stock. It is not possible for any investor to avoid or eliminate systematic risk, however smart or intelligent an investor may be.

The main focus of this study is to analyse the Bank Nifty movement behaviour towards the listed equity stocks of public and private banks. The object of this study is to evaluate the performance of banking stock, with prime focus towards identification of required rate of return and to reveal the risk associated with each particular stock and also to evaluate the portfolio return and risk of public and private banks individually. Study was carried out for a brief period to analyse the performance of listed equity shares with a time frame of 1 year from January 2016 till December 2016.

Objectives of the study:

- To identify the return and risk of public and private banks listed on Bank Nifty.
- To rank the stocks on the basis of returns.
- To compare the performance of each stock against their benchmark index.
- To measure the portfolio return and risk of public and private banks listed on Bank Nifty

SCOPE OF THE STUDY:

- The study is based on 12 securities listed in Bank Nifty in NSE
- The study covers a period of 12 months, i.e. starting from 1st January 2016 till 31st December 2016.

Research Methodology:

Sources of data:

The study is based on secondary data collected from NSE website. Data is collected for a period of 12 months (i.e. for 1 Year) from banking stocks listed in Bank Nifty. Additionally the data are also collected from newspaper, websites, journals, books reports by researchers and scholars.

Duration of the study:

The study covers a period of 1 year (i.e.12 months from. 1st January 2016 till 31st December 2016 has been considered.

Limitations of the study:

Only 12 stocks listed on Bank Nifty are considered for the study and the study is conducted only for one year time period.

Literature review

Shaini & Mallikarjunappa (2016): The author believes that stock market is highly volatile and it is up to the investors to decide how he could make use of the stock market to gain higher returns. According to the author Beta would be very helpful in comparing the relative systematic risk involved in different stocks. In practice investors use Beta to judge the riskiness of each stock. An investor should remember risk is directly related to return and hence he should ensure to keep risk associated proportional to returns. In general it is believed that higher the risk, higher will be the returns, but seeking excessive risk may not be advisable as it does not ensure excessive returns. At a particular level of return, security has its own degree of risk. It is advised that investor should analyse the market on a continuous basis, which in turn would help them pick the right stocks to invest.

Prathibha & Dinakar (2016): The author analysed the risks of 12 banks listed in bank nifty for a period starting from 7th December 2015 till 8th February 2016. The author found from their research that, all the stocks had negative returns during the study period except Yes bank and Kotak Mahindra bank. The author founded that Yes Bank had given the highest return and the lowest return was given by Punjab National Bank. It was also found that systematic risk was highest for SBI and lowest for Yes bank. The author concluded that the Bank of India and Syndicate Bank where less affected by market risk due the negative beta, while Punjab National bank and Bank of Baroda had the highest market risk.

ANALYSIS

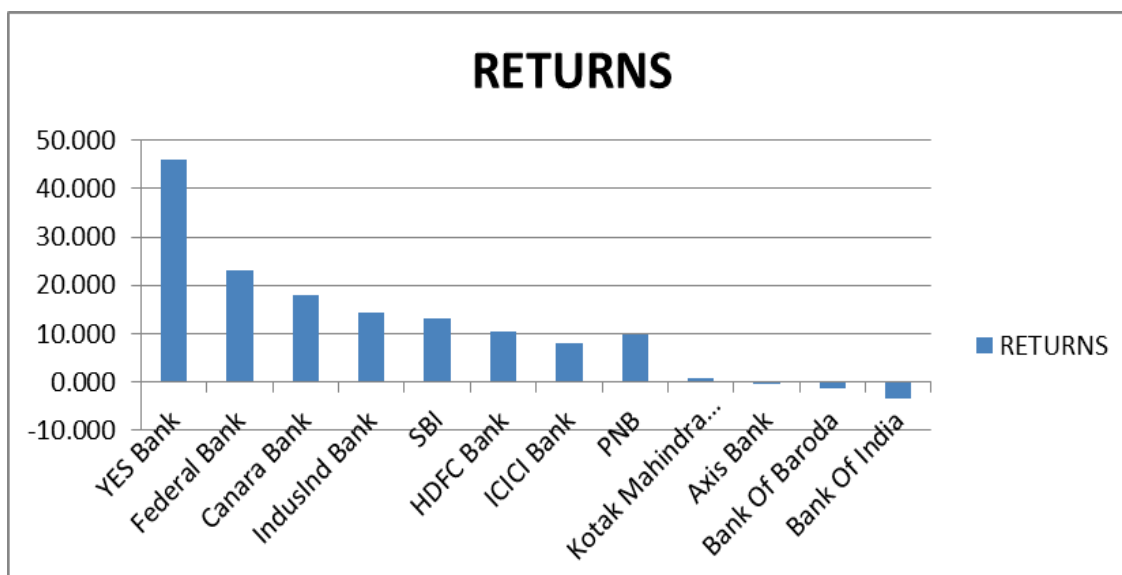
TABLE 1: Stocks listed on Bank NIFTY.

Sl. NO.	BANKS	SECTOR
1	Bank of Baroda	Public Sector
2	Bank of India	Public Sector
3	Canara Bank	Public Sector
4	Punjab National Bank	Public Sector
5	State Bank of India	Public Sector
6	Axis Bank	Private Sector
7	Federal Bank	Private Sector
8	HDFC Bank	Private Sector
9	ICICI Bank	Private Sector
10	IndusInd Bank	Private Sector
11	Kotak Mahindra Bank	Private Sector
12	Yes Bank	Private Sector

TABLE 2: Ranking of the banks on the basis of the returns

RANK	BANK	SECTOR	RETURN (%)
1	YES Bank	PRIVATE	46.130
2	Federal Bank	PRIVATE	23.032
3	Canara Bank	PUBLIC	18.012
4	IndusInd Bank	PRIVATE	14.409
5	SBI	PUBLIC	13.017
6	HDFC Bank	PRIVATE	10.399
7	ICICI Bank	PRIVATE	8.000
8	PNB	PUBLIC	9.791
9	Kotak Mahindra Bank	PRIVATE	0.704
10	Axis Bank	PRIVATE	-0.406
11	Bank Of Baroda	PUBLIC	-1.287
12	Bank Of India	PUBLIC	-3.386

Graph No. 1: Graph showing returns of the public and private banks according to their ranks (on the basis of the returns)



INTERPRETATION:

The above graph shows that the YES bank gave the highest return of 46.130% for the year 2016, where the Bank of India has given the lowest return of -3.386% for the year 2016. All the banks listed in Bank Nifty yields positive returns for the year 2016 except Kotak Mahindra bank, Axis bank, Bank of Baroda and Bank of India.

TABLE 3: Table showing standard deviation and Beta of stocks listed on Bank Nifty

Sl. No.	Banks	Sectors	Standard Deviation	Beta
1	Bank of Baroda	Public	8.742	0.47
2	Bank of India	Public	10.289	1.084
3	Canara Bank	Public	12.379	1.497
4	PNB	Public	16.343	1.513
5	SBI	Public	10.179	1.368
6	Axis Bank	Private	8.592	1.128
7	Federal Bank	Private	10.449	0.796
8	HDFC Bank	Private	4.93	0.693
9	ICICI Bank	Private	9.769	1.349
10	IndusInd Bank	Private	6.911	0.944
11	Kotak Mahindra Bank	Private	5.613	0.766
12	Yes Bank	Private	9.422	1.248

INTERPRETATION:

The above analysis shows the beta value is highest in case of PNB i.e. 1.513% and Canara Bank i.e. 1.497%, which indicates higher risk. The beta are lower in case of Bank of Baroda i.e. 0.47% and HDFC bank i.e. 0.693%, indicating lower risk, thus if there is an increase in 1% market, the scrip return increases by 0.47% and 0.693%.

PORTFOLIO RETURN AND RISK:

An attempt has been made to compare the performance of Bank Nifty index against private and public sector banks which are listed on Bank Nifty to check which sector is doing well during the study period. In order to check the performance at first, the portfolio return and risk of index is calculated, followed by portfolio return and risk of public and private banks. Then, the portfolio return and risk of index is compared with the portfolio return and risk of public and private banks. For the purpose of calculation equal weights are assigned for each stock.

TABLE 4: Calculation of Return of Bank Nifty Index (12 stocks, assuming equal weights to all stocks).

BANKS	ANNUAL RETURNS	WEIGHTS	RETURN
Axis Bank	-0.406	0.083	-0.034
Bank Of Baroda	-1.287	0.083	-0.107
Bank Of India	-3.386	0.083	-0.281
Canara Bank	18.012	0.083	1.495
Federal Bank	23.032	0.083	1.912
HDFC Bank	10.399	0.083	0.863
ICICI Bank	8.000	0.083	0.664
Indusind Bank	14.409	0.083	1.196
Kotak Bank	0.704	0.083	0.058
PNB Bank	9.791	0.083	0.813
SBI Bank	13.017	0.083	1.084
Yes Bank	46.130	0.083	3.829
BANK NIFTY RETURN			11.49%

TABLE 5: Showing Return and Risk of Bank Nifty Index (12 stocks, assuming equal weightage to all stocks).

RETURN OF BANK NIFTY (Assuming equal weights for all 12 stocks)	11.49%
RISK OF BANK NIFTY (Assuming equal weights for all 12 stocks)	26.13%

INTERPRETATION:

From the above table, it is clear that the return of Bank Nifty Index is 11.49% and the risk of the index is 26.13%, when the index return and risk are compared with individual returns of banks then we can see that, Axis bank, Bank of Baroda, Bank of India, HDFC bank, ICICI bank, Kotak Mahindra bank, Punjab National Bank (PNB) have returns less than the index return.

PORTFOLIO RETURN AND RISK OF PUBLIC SECTOR BANKS:

TABLE 6: Calculation of Portfolio Return of Public sector banks (5 stocks, assuming equal weights to all stocks).

No.	BANKS	ANNUAL RETURNS	WEIGHTS	RETURN
1	Bank Of Baroda	-1.287	0.200	-0.257
2	Bank Of India	-3.386	0.200	-0.677
3	Canara Bank	18.012	0.200	3.602
4	PNB	9.791	0.200	1.958
5	SBI	13.017	0.200	2.603
PORTFOLIO RETURN OF PUBLIC SECTOR BANKS				7.23%

TABLE 7: Showing portfolio return and risk of public sector banks (5 stocks, assuming equal weightage to all stocks).

PORTFOLIO RETURN OF PUBLIC SECTOR BANKS (Assuming equal weights)	7.23%
PORTFOLIO RISK OF PUBLIC SECTOR BANKS (Assuming equal weights)	35.23%

PORTFOLIO RETURN AND RISK OF PRIVATE SECTOR BANKS:

TABLE 8: Calculation of Portfolio return of Private Sector Banks (7 stocks, assuming equal weights to all stocks).

BANKS	ANNUAL RETURNS	WEIGHTS	RETURN
Axis Bank	-0.406	0.143	-0.058
Federal Bank	23.032	0.143	3.290
HDFC Bank	10.399	0.143	1.486
ICICI Bank	8.000	0.143	1.143
IndusInd Bank	14.409	0.143	2.058
Kotak Mahindra Bank	0.704	0.143	0.101
YES Bank	46.130	0.143	6.590
PORTFOLIO RETURN OF PRIVATE SECTOR BANKS			14.61%

TABLE 9: showing portfolio return and portfolio risk of private sector banks

PORTFOLIO RETURN OF PRIVATE SECTOR BANKS (Assuming equal weights)	14.61%
PORTFOLIO RISK OF PRIVATE SECTOR BANKS (Assuming equal weights)	23.25%

TABLE 10: Summary of all possible portfolio return and portfolio risk

PORTFOLIO	Return	Risk
BANK NIFTY (12 STOCKS)	11.49%	26.13%
PUBLIC SECTOR BANK LISTED ON BANK NIFTY (5 STOCKS)	7.23%	35.23%
PRIVATE SECTOR BANK LISTED ON BANK NIFTY (7 STOCKS)	14.61%	23.25%

INTERPRETATION:

From the above table it is clear that the portfolio returns is highest in case of private sector banks i.e., 14.61% when compared to other possible portfolio combination and risk is also lower in case of private sector banks.

Conclusion:

The study is based on the analysis of stocks listed on Bank Nifty. This gives an idea to the investors to determine whether he is required to purchase the stocks on the basis of performance of the stock for a given period. A stock with higher beta value is not preferred as it is exposed to higher market risk which cannot be diversified like unsystematic risk, hence such stocks are better to avoid for constructing a portfolio. This study is an attempt to evaluate the returns of banking stocks listed on Bank Nifty and to identify the best stocks to invest and the worst stocks to be ignored. If the investors are ready to take in higher risk for extra return, then

the investors are suggested to invest in stocks like Yes bank and IndusInd bank where the return are higher but investors are also required to check on the risk associated with the stocks that are giving higher returns. The investors who are looking for low risk with moderate return are suggested to invest in HDFC bank. However by constructing a portfolio the investors can minimise the risk of getting lower return. While taking decision, the investor can also consider the fundamental and technical analysis.

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