

An Analysis on Performance of Exchange Traded Funds

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Abstract: The article attempts to analyse the performance of Exchange traded funds listed with national stock exchange. The analysis shows that almost all the ETF produces an attractive return. Choosing right ETF will enable the investors to achieve good return.

Keywords: Mutual fund, Exchange Traded Fund, Risk, Sharpe ratio, Treynor ratio.

I. INTRODUCTION

In recent times, Exchange-traded funds (ETFs) have gained a wider acceptance as financial instruments whose unique advantages over mutual funds have caught the eye of many an investor. These instruments are beneficial for Investors that find it difficult to master the tricks of the trade of analyzing and picking stocks for their portfolio. Exchange Traded Funds are essentially Index Funds that are listed and traded on exchanges like stocks. An ETF is a basket of stocks that reflects the composition of an Index, like CNX Nifty. The ETFs trading value is based on the net asset value of the underlying stocks that it represents. In this article an attempt has been made to analyse the performance of the ETF listed in NSE stock exchange

II. OBJECTIVES OF THE STUDY

- (2) To analyse the risk and return associated with the ETF listed in NSE stock exchange.
- (3) To analyse the performance of the ETF using risk adjusted performance measure.

III. RESEARCH METHODOLOGY

A. Funds selected for the study:

Funds that has been listed in NSE stock exchange and which has been performing from September 2012 has been selected for the study. Accordingly 13 ETF's has been selected for the study

B. Period of study:

EFT performance has been analyzed by taking 3 years' time period that is from September 2012 to September 2014.

C. Source of data:

The study is based on the secondary data. For analyzing the performance of the ETF the monthly NAV data has been collected from www.nse.com.

D. Tools used for the study:

The return is calculated by using the formula:

$$R = \frac{NAV_t - NAV_{t-1}}{NAV_{t-1}}$$

Risk is calculated by using standard deviation of return and beta.

Risk adjusted performance measure is calculated by using Sharpe and Treynor ratio's.

$$\text{Sharpe ratio} = \frac{\text{Return} - \text{Risk free rate}}{\text{Standard deviation of return}}$$

$$\text{Treynor ratio} = \frac{\text{Return} - \text{Risk free rate}}{\text{Beta}}$$

IV- ANALYSIS OF RISK AND RETURN ASSOCIATED WITH THE ETF FUNDS

Analysis of return percentage for 3years of study period show that out 13 funds only 1 fund has produced less return than the market otherwise all the 12 funds has performed above the market. Among them the top three funds are Reliance Banking – ETF with return of 72.8%,Goldmansachs Nifty Junior- ETF with the returnof 55.29% and Motilal Oswal M100-ETFwith the return percent of 54.73.

TABLE-1

Risk and Return of ETF Schemes

S.No.	Scheme name	3 years Return in %	Standard deviation	Beta Value of Fund
1	Birla Sun Life - ETF	47.24	4.32	0.44
2	Goldmansachs S&P CNX Nifty - ETF	40.56	5.80	0.39
3	Goldmansachs Banking Index-ETF	53.88	8.65	1.82
4	Goldmansachs Infrastructure - ETF	45.87	9.23	1.50
5	Goldmansachs – Nifty ETF	44.25	3.90	0.89
6	Goldmansachs- Nifty Junior ETF	55.29	5.48	1.13
7	Goldmansachs PSU bank - ETF	45.31	12.61	2.32
8	Kotak Nifty - ETF	43.03	4.03	0.92
9	Kotak PSU bank ETF	39.61	11.80	2.29
10	Motilal oswal M100 – ETF	54.73	6.32	1.24
11	Motilal oswal M50 – ETF	45.82	5.17	1.12
12	Quantum Index- ETF	46.64	4.42	0.98
13	Reliance Banking - ETF	72.80	7.69	1.37
	Market - CNX Nifty	43.89	4.24	1

Risk involved in funds is measured by using standard deviation. The standard deviation figure show that Goldmansachs PSU Bank –ETF has highest risk of 12.61. Beta value also shows that many funds has more risk when compared to market. Among 13 funds the highest beta value is possessed by Goldmansachs PSU bank – ETF.

V. ANALYSIS ON RISK-ADJUSTED PERFORMANCE

TABLE-2

Risk- Adjusted Performance Measure

S.No.	Scheme name	Sharpe Ratio	Treynor Ratio
1	Birla Sun Life - ETF	44.28	18.18
2	Goldmansachs S&P CNX Nifty - ETF	38.32	6.92
3	Goldmansachs Banking Index-ETF	52.37	46.73
4	Goldmansachs Infrastructure - ETF	44.46	37.23
5	Goldmansachs – Nifty ETF	40.92	29.70
6	Goldmansachs- Nifty Junior ETF	52.92	43.78
7	Goldmansachs PSU bank - ETF	44.28	39.77
8	Kotak Nifty - ETF	39.80	28.92
9	Kotak PSU bank ETF	38.51	33.93
10	Motilal oswal M100 – ETF	52.67	44.27
11	Motilal oswal M50 – ETF	43.30	34.23
12	Quantum Index- ETF	43.70	33.36
13	Reliance Banking - ETF	71.11	63.36
	Market - CNX Nifty	40.83	30.87

Analysis of risk adjusted performance measure based on Sharpe and Treynor ratio show that all the funds have positive ratio which reveals that fund earns the return greater than risk-free return. Sharpe ratio very clearly show that out of 13 funds only 3 funds have sharpe ratio below the market and other funds have above the market. The top three ETF funds according to Sharpe ratio are Reliance banking – ETF with Sharpe ratio of 71.11 which is followed by Goldmansachs Nifty Junior –ETF and Motilal Oswal M100 ETF.

Treynor ratio depicts that out of 13 funds 4 funds has Treynor ratio below the market and the rest 9 funds has Treynor ratio above the market. Top 3 funds according to Treynor ratio are Reliance Banking- ETF with Treynor ratio of 63.36,

Goldmansach Banking index-ETF and Motilal oswal M100 – ETF.

VI. CONCLUSION

The exchange traded funds is one of best source of investment for investors. It give an return which ranges from 72.80 % to 40.56%. The analysis very clearly reveals that all the funds produce returns higher than the risk-free return. The best ETF's based on the analysis are Reliance Banking-ETF, Gold mansachs Nifty Junior- ETF, Motilal Oswal M100 ETF and Goldmansachs banking index ETF.

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