An Economic Overview of Risk and Risk-Adjusted Returns of Selected Balanced Mutual Fund Schemes

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Abstract

Mutual funds are a vehicle for retail and institutional investors to benefit from the capital markets. They offer different kinds of schemes to cater to various types of investors, companies and institutions. Mutual fund schemes are offered to investors for the first time through a New Fund Offering (NFO). Each investor owns shares, which represent a portion of the holdings of the fund. Thus, a Mutual fund is one of the most viable investment options for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost. Quite simply, a Mutual fund is an intermediary that brings together a group of people and invests their money in stocks, bonds and other securities. There are oodles of investment options available in the market but most of the people consider safety as their key factor for investment & also consider regular income on their priority list. Capital appreciation or growth in their investment comes later in their gist. Therefore, as a result, Balanced Mutual fund schemes are the better investment options available for the investor in which they can invest & earn better returns with safety of their capital.

Keywords: - Mutual Funds, Retail and Institutional Investors, Securities etc.

Research Methodology

The research paper based on secondary data collected.

The Objective of Study

- To overview the Risk Measures associated with selected Balanced Mutual Fund Schemes.

Data Collection

Data has collected from newspaper, books, magazines, reports, and websites.

Introduction

Mutual fund is a trust that pools the savings of a number of investors who share a common financial goal. The money thus collected is then invested in capital market instruments such as shares, debentures and other securities. The income earned through these investments and the capital appreciations realized are shared by its unit holders in proportion to the number of units owned by them. Thus a Mutual fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost.

Balanced Mutual Fund

Balanced funds provide investor with an option of single Mutual fund that combines both growth and income objectives, by investing in both stocks (for growth) and bonds (for income). Such diversified holdings ensure that these funds will manage downturns in the stock market without too much of a loss. But on the flip side, balanced funds will usually increase less than an all-stock fund during a bull market.

The proportion in which the balanced Mutual funds allocate their assets is usually 60% to 65% in stocks and the balance in bonds. The proportion is not disturbed while managing the fund as it is to remain within the pre set minimum and maximum limits.

1) Return Measures

Investors have to look into the return part before investing in the Mutual funds. Returns are the key indicators of their investment performance and are calculated from the historical NAV's.

In Mutual funds, NAV is the basic element used in calculating the returns because it keeps varying from one point of time to other. Thus, the purchase and sale value of investment is derived by multiplying the units purchased with NAV for respective period i.e. purchase date and sale date. In simple words, Net Asset Value is the market value of the securities held by the scheme. Since market value of securities changes every day, NAV of a scheme also varies on day-to-day basis.

A) Annualized Return

Return is the gain or loss in the value of an asset in a particular period. It is usually quoted as a percentage. The general rule is that the more risk you take, the greater the potential for higher return – and loss.

Absolute return or Point to Point Returns: Absolute return is the increase or decrease that an investment achieves over a given period of time expressed in percentage terms. It's calculated as follows:

Absolute returns = 100* (Selling Price – Cost Price)/ (Cost Price)

This measurement of return is the simplest and it does not consider time period. Most times it produces a large number so people are impressed!

Simple Annualized Return: The increase in value of an investment, expressed as a percentage per year.

Simple Annualized Return= Absolute Returns/Time period.

Average Annual Return (AAR)

Average annual return (AAR) is the arithmetic mean of a series of rates of return. The formula for AAR is:

AAR = (Return in Period 1 + Return in Period 2 + Return in Period 3 + …Return in Period N) / Number of Periods or N

B) Benchmark:-

Mutual fund schemes invest in the market for the benefit of unit holders. How well did a scheme perform this job? An approach to assess the performance is to pre-define a comparable - a Benchmark - against which the scheme can be compared.

To put it very simply, a benchmark gives a layman an opportunity to compare the performance of his/her investments with that of the broader market. At the same time, a fund house can also set target returns and strive to perform better than the benchmark index.

2) Risk Measures

Return alone should not be considered as the basis of measurement of the performance of a Mutual fund scheme, it should also include the risk taken by the Fund Manager because different funds will have different levels of risk attached to them.

Risk then, refers to the volatility - the up and down activity in the markets that occur constantly over a period of time. This volatility can be caused by a number of factors - interest rate changes, inflation or general economic conditions. The main indicators of investment risk that apply to the analysis of stocks, bonds and Mutual fund portfolios are Standard deviation and Beta.

A) Standard deviation

The Standard deviation of a fund measures the risk by measuring the degree to which the fund fluctuates in relation to its average return of a fund over a period of time. It is a measure of the consistency of a Mutual fund's returns. A higher Standard deviation number indicates that the Net Asset Value (NAV) of the Mutual fund is more volatile and, it is riskier than a fund with a lower Standard deviation.

B) Beta

Another measure of fund's risk is Beta coefficient. Beta relates a fund's return with a market index and measures the sensitivity of the fund's return s to changes in the market index. In other words, Beta determines the volatility of a fund in comparison to that of its index or benchmark.

Higher the value of Beta of the schemes, greater will be the systematic risk carried by the fund.

Whereas schemes such as HDFC Prudence Fund, HDFC Balanced Fund, ICICI Prudential Balanced Fund schemes also show higher beta that means carries higher systematic risk.

Schemes with minimum Standard deviation and beta are HDFC Arbitrage Fund - Retail Plan, HDFC Arbitrage Fund - Wholesale Plan, ICICI Prudential Equity Arbitrage Fund - Institutional Plan etc.

3) Risk-adjusted Return Measures:-

An alternative approach to evaluate the performance of the Fund Manager is through the risk reward relationship. The underlying principle is that return ought to be commensurate with the risk taken. A Fund Manager, who has taken higher risk, ought to earn a better return to justify the risk taken. A Fund Manager who has earned a lower return may be able to justify it through the lower risk taken. Such evaluations are conducted through *Risk-adjusted Returns*. There are various measures of risk-adjusted returns. Some of which commonly used in the market are:-

A) Sharpe Model/Ratio

Sharpe ratio compute the risk premium of a fund as difference between the fund's Average return and the return of a risk – free Government security or Treasury bill

over a given period. Sharpe ratio divides the risk premium by the fund's total risk i.e. Standard deviation. The formula of Sharpe ratio is:-

Sharpe ratio = $(R_P - R_F)/\sigma_P$ Where, σ_P is Standard deviation of the fund.

The higher a fund's Sharpe ratio, the better a fund's returns and have been relative to the volatility the fund has experienced (as measured by standard deviation). Investors can then assess whether a fund's return justifies the risk or not.

B) Treynor's Model

Like Sharpe measure, Treynor ratio also compute the risk premium of a fund as difference between the fund's Average return and the return of a risk-free Government security or Treasury bill over a given period but with reference to systematic risk instead of total risk.

C)   Jensen Model

In simple sense, Jensen model is yet another risk-adjusted performance measure. This measure is developed by Michael Jensen and sometimes referred as the differential return method. This measure involves evaluation of the returns that the fund has generated vis-à-vis the return actually expected of the fund given the level of its systematic risk. Required return of a fund at a given level of risk can be calculated as:

Jensen's alpha = Portfolio Return − [Risk Free Rate + Portfolio Beta * (Market Return − Risk Free Rate)]

The difference between a scheme's actual return and its optimal or expected return is its *Alpha-* a measure of the Fund Manager's performance. Positive alpha is indicative of out-performance by the Fund Manager; negative alpha might indicate underperformance.

These Schemes earned high rate of return even more than average market rate of return at the same time they manage to place beta into lower side both together result into better and positive Jensen measure. Whereas, Lowest Jensen's measure found in HDFC

Arbitrage Fund - Retail Plan , ICICI Prudential Advisor Series - Cautious Plan , HDFC Arbitrage Fund - Wholesale Plan .

D) Fama Ratio

Following the work of Sharpe, Treynor and Jensen M. C., Fama suggested a somewhat finer breakdown of performance. He developed an analytical framework that elaborates on the three risk-adjusted return methods (Treynor Index, Sharpe Index and Jensen alpha) to allow a more detailed breakdown of the performance of a fund.

This Eugene Fama's evaluation model assumes that the returns on managed portfolios can judged relative to those of naively selected portfolios with similar risk levels. This model is different from all the above mentioned models in the sense that unlike them it is not primarily oriented to the analysis of overall performance of a fund but rather develops a more refined breakdown and assesses the source or components of performance. The technique uses the simple one-period version of the two-parameter model, all the perfect market assumptions, and derives the ex ante market line, which indicates the following equilibrium relationship between expected return and risk for any security.

$$Rp = RFR + \{[Rm – RFR] / \sigma m\} \; X \; \{[Cov \, (Rp, Rm)] / \sigma m$$

This equation indicates that the expected return of a portfolio is equal to the risk less rate of return plus market price per unit of risk, times the risk of asset which is $Cov.(Rp,Rm)]/\sigma m$. If a Fund Manager believes that the market is not completely efficient and that he can make better judgment than the market, then an ex post version of this market line can provide a benchmark for the manager's performance. This ex post market line provides the benchmark used to evaluate managed portfolios in a sequence of more complex measures.

In this research study, an attempt has been made to examine the components and sources of investment performance in order to attribute it to specific activities of portfolio managers.

These Schemes earned high rate of return even more than average market rate of return at the same time they manage to place beta into lower side both together result into better and positive Fama's Net selectivity.

Whereas, Lowest Fama's Net selectivity found in HDFC Arbitrage Fund - Retail Plan , ICICI Prudential Advisor Series - Cautious Plan , HDFC Arbitrage Fund - Wholesale Plan .

Conclusion

From above Performance and Risk analysis of the selected Balanced Mutual fund schemes, it' s clear that all the funds have performed well during the study period except HDFC Arbitrage Fund - Retail Plan & Wholesale Plan. The fall in the Nifty 50 during the year 2011 has impacted the performance of all the selected funds. Beside this, all funds beat the Market or Benchmark i.e. generating higher returns than the Market. It can be also said that the market timing ability of fund managers is also admirable. In the ultimate analysis it may be concluded that all the funds have performed well in the high risky or volatile market movement and market timing and superior stock selection ability of Fund managers is also worthy.

References

- Modigliani, F., and L. Modigliani, 1997, *" Risk-Adjusted Performance,"* Journal of Portfolio Management 23 (2), 45-54.

- Grinblatt M. and Titman S. (1994), " A study of monthly Mutual fund returns and performance evaluation techniques" , Journal of Financial and Quantitative Analysis, Vol. 29, PP. 418-44.

- Mishra B. and Mahmud R. (2002), "Measuring Mutual fund performance using lower partial moment" , Global Business Trends, Bhubaneswar, India.

- Chan Z. and Knez P.J. (1996), " Portfolio performance Measurement: Theory and Applications" , Review of Financial Studies, 9, 511-556.

- Deb, S. G. (2007), " Market Timing and Stock Selection Ability of Mutual funds in India: An Empirical Investigation" , Vikalpa, 52(3), 39-51.

Websites

- www.amfiindia.com
- www.valueresearchonline.com
- www.nseindia.com
- www.mutualfundsnavindia.com

Newspaper

1) Times of India

2) Indian Express

3) Economy Times