

MUTUAL FUND PERFORMANCE

Measuring MF Performance

- Dividends and Capital Gains are the major sources of return
- Investor should track the value of his investments in terms of
 - Return on such investments
 - Decide whether he needs to switch to another fund

Methods of Measuring / Evaluating MF Performance

- Absolute Return Method
- Simple Annual Return Method
- Compounded Annual Average Rate Method (CAGR)
- Total Return Method (when Dividend is Reinvested)
- Expense Ratio Method
- Income Ratio Method
- Total Return Method
- Transaction Cost Method
- Fund Size
- Cash Holding Percentage
- Portfolio Turn over Ratio Method

Absolute Return Method

- Absolute returns are returns for a specific period
- Absolute returns are calculated for less than 1 year period
- If NAV Changes from 20 to 22 in 6 months, Absolute return is $2/20 * 100 = 10\%$

Simple Annual Return Method

- Simple Annual Return Method computes returns as follows
- Lets take the previous example
 - NAV changed from 20 to 22 in 6 months period
 - Annual return is

$$\frac{(22-20)}{20} \times \frac{12}{6} \times 100 = 20\%$$

Total Return Method

- Formula for Total Return when dividend is received but not reinvested:

$$\frac{\text{Dividend distributed} + \text{Change in NAV}}{\text{NAV at the start}} \times 100$$

- Total Return when Dividend is not received but reinvested
- This method is used to calculate return on investments when Dividends are declared and reinvested at ex Dividend NAV price
- See Example as given below for calculating Total Returns

Contd....

Total Return Method (When Dividend not reinvested at NAV) - An Example

- Assume Units are purchased when NAV is 20
- Assume that Dividend of Rs. 4/- is distributed when NAV Ex Dividend is 21
- Assume NAV at the end of the year is Rs. 22/-
- Simple Total returns for the year will be as under

$$\frac{(22-20) + 4}{20} \times 100 = 30\%$$

20

Total Return or ROI or CAGR Method

Compounded Average Annual Return Method

Formula

$$A = P \times (1 + R/100)^N$$

P = Principal invested

A = Maturity Value

N = Period of Investment in years

R = Annualized compound interest rate in %

$$R = [(N\text{th Root of } A/P) - 1] \times 100$$

Compounded Average Annual Return Method

An Example

- Begin NAV – 100
- End NAV – 200
- Period of Investment – 10 years
- Average Annual Compound Return - Is it 10% or lower ?
- $200 = 100 \times (1+R/100)^{10}$
- Solving for 'R' gives Annualised compound rate of 7.1773% or 7.2%
- Apply thumb rule of 72
- SEBI prescribes Average Annual Compound Return Method to be followed for advertising Returns for over 1 year Period

Returns impacted by Loads

- The above example assumes a No Load Fund
- If there is an Entry Load, you will be allotted lesser number of units since you will pay more than NAV
- If there is Exit Load, you will get lesser amount per unit than NAV

Expense Ratio / Income Ratio

Method of Fund Evaluation

- Evaluation based on Expense ratio and Income ratio
- Expense Ratio: It is the ratio of total expenses to Average Net Assets of the fund
 - It is an important ratio for evaluating Bond Funds
 - Expenses do not include brokerage paid since it is capitalized and therefore expenses may be understated
- Income Ratio =
$$\frac{\text{Net Investment Income}}{\text{Net Assets}}$$
 - Income ratio is suitable for evaluating Bond Funds

Portfolio Turn Over Rate Method of Fund Evaluation

- Another Measure of Fund Evaluation is Portfolio Turn Over Rate
- Portfolio Turnover Rate =
$$\frac{\text{Total Sales \& Purchases}}{\text{Net Assets of the Fund}}$$
- Higher Turn Over Rate indicates
 - More churning of Portfolio
 - More transaction costs
- Portfolio turn over ratio relevant for actively managed funds

Importance of Benchmarking in Evaluating Fund Performance

- Three methods of evaluating Fund Performance
 - Evaluating Fund Performance against Benchmarks
 - Evaluating Fund Performance against other Peer Group Mutual Fund Schemes
 - Evaluating Fund Performance against other Financial Products

Fund Evaluation against Benchmarks

- Funds Performance can be evaluated against some 'Performance Indicators' called Benchmarks
- Mutual Funds are required by regulations to state the benchmark in the OD against which scheme performance will be compared
- Investors expect Fund Performance better than the benchmark

Types of Benchmarks :

- Relative to Market as a whole
- Relative to other Mutual Funds
- Relative to other comparable financial products

Benchmarks for Equity Funds

Type of Equity Fund	Name of Benchmark
Index Funds	BSE Sensex Index or S&P CNX Nifty Index
Diversified Equity Funds	BSE 200 Index
Sector Funds	Sector Specific Index

Growth Funds with over 60% in Equity should use Broad Equity Index (BSE 200 Index)

Benchmarks For Debt Funds & Money Market Funds

Type of Debt Fund	Name of Benchmark
Gilt Fund	Government Security Index
Debt Fund	Corporate Bond Index
Money Market Fund	MIBOR reflecting inter bank call money market interest rates.

*Bond Funds with over 60% in Bonds to use Bond Market Index
Balanced Funds should use Tailor made Index*

Benchmarks For Debt Funds & Money Market Funds

- There are various Indices for benchmarking of Debt Funds
- I-Bex Index of I-SEC is used for tracking Govt. Security performance
- CRISIL has 8 Debt Indices for tracking performance of Corporate Bond Market & Money Market
- NSE has Govt. Security Index & Treasury Bill Index

Benchmarking against other Mutual Funds

Peer Group Comparisons :

- Performance of Fund can be compared with similar schemes of other Mutual funds
- Criteria for Peer Group Comparison would be similarity in
 - Investment objectives and rating profile of portfolios
 - Average maturity of debt portfolios
 - Size of fund (big or small)
- Higher Expense Ratio of a Debt Fund hurts long term debt investors

Benchmarking with other Financial Products

Comparison with other comparable Financial Products

- Risk Return Relationship to be considered
- Liquidity factors to be considered
- Average Annualized compound returns to be compared

Fund Performance Ranking

- Fund performance evaluation & ranking by CRISIL
- Fund house rating by CRISIL

Sources for tracking Mutual Fund Performance

Following sources of information can be used to track performance of Mutual Fund Schemes

- Mutual Funds Annual periodic Reports
- Mutual Funds website.
- AMFI website
- Daily Financial News Papers
- Fund Tracking Agencies – **Credence, Value Research & Lipper India**
- Newsletters from brokers
- Offer Document of the Fund
- Analytical Articles