

# Performance Persistence of Mutual Funds with Special Reference to MIP Funds

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## Key Words:

1. Mutual Funds,
2. Monthly Income Plan,
3. Performance Benchmark

## Abstract

Mutual Funds offer an opportunity to the common man to invest in a professionally managed and diversified set of securities. They are primarily categorized as equity funds, debt funds and monthly income funds. Monthly Income Plan (MIP) funds invest a major portion in debt securities and are therefore more suitable for investors looking for steady returns. There are around 50 mutual fund houses offering MIP funds and therefore it is difficult for the investor to take a decision. The objective of the study is to find out whether the performance of MIP funds is consistent and to evaluate whether MIP funds outperform their benchmark. The findings show that there exists positive persistence in returns of MIP Mutual Funds. Can Robeco MIP (G) and HDFC MIP LTP (G) are the two MIP funds which have been giving consistent returns to its investors. In this research, performance of MIP funds was compared with their benchmark and it was found that MIP funds have outperformed their benchmark for the last 3 years and 5 years. But they could not outperform their benchmark for the last 1 year.

## INTRODUCTION

A 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 appreciation realized is 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.

Monthly Income Plans or MIPs invest maximum of their total corpus in debt instruments while they take minimum exposure in equities. It gets benefit of both equity and debt market. These scheme ranks slightly high on the risk-return matrix when compared with other debt schemes.

There is considerable amount of research being done to measure the performance of mutual funds. However very little research has been done to test the performance persistence of mutual funds especially MIP funds. In this research paper, the performance of MIP funds is evaluated. Jensen's Alpha is used to test the returns of MIP funds with their benchmark.

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## LITERATURE REVIEW

The early studies on performance persistence of mutual funds gave many contradictory opinions.

Sharpe (1966) used the ratio developed by him called "Sharpe ratio" to measure the fund performance. He ranked mutual funds according to their Sharpe ratio over two periods 1944-53 and 1954-63 and found a significantly positive though not very perfect, relationship between the two ranking periods. Thus, he concluded that differences in performance can be predicted although imperfectly. However, the results did not indicate the sources of these differences.

Grinblatt and Titman (1989) studied equity funds for the period from 1974-84, with evaluation periods consisting of 5 years, found partial persistence explained by the expenses of the fund. The authors computed Jensen's measure using four sets of benchmark portfolios; the monthly rebalanced Equally Weighted (EW) portfolio of all CRSP (New York and American Stock Exchange) securities, the CRSP Value Weighted (VW), 10 Factor (F10) portfolios created with factor analytic procedures and the eight portfolio benchmark (P8) formed on the basis of firm size, dividend yield and past returns developed in their paper in 1988. They found that the eight portfolio benchmark appeared to be the most appropriate for benchmark evaluation.

During 1992, positive results were also obtained in studies carried out by Brown, Goetzmann, Ibbotson and Ross, wherein they analyzed the relationship between volatility





and returns in a sample which showed evidence of survivorship bias. Their study period ranged from 1976-87 with a three year evaluation period. They concluded that such a relationship created an appearance of predictability. They presented some numerical examples to show that the effect could be strong enough to account for the strength of the evidence favoring return predictability. They found persistence in two out of three 3 year periods. Most of the early studies like Sharpe (1966), Jensen (1968), Carlson (1970), did not take into account survivorship bias whereas Grinblatt and Titman (1992) etc. did show evidence of survivorship bias. Thus attempts were made to adjust for survivorship bias in later studies.

After taking care of the survivorship bias, performance persistence was still found by Hendricks, Patel and Zeckhauser (1993), where 'hot hands' was used to refer to funds that delivered sustained short-run superior performance. The authors studied portfolios of top performing no-load growth oriented mutual funds (165) from 1974-88 and measured performance in terms of Jensen's alpha. They found that mutual funds that perform well in one year evaluation period persist in their superior performance in the following year and that underperformers displayed short run persistence.

In another study Goetzmann and Ibbotson (1994) examined the performance of mutual funds covering 1976-1988. The methodology of this study was similar to their previous paper except that mutual funds' performances were examined on a one-year and two-year basis. The goal was to check if the persistence of performance lasted more than 1 year and thus requiring less rebalancing.

Brown and Goetzmann (1995) also report on the relative number of repeat winners and losers. Of the total 5144 funds examined by them close to 60% of the winners in year  $t$ , were also winners in year  $t+1$ . An important aspect of picking winners was they were far less likely to go out of business. Losers in time period  $t$  were twice as likely to go out of business in time period  $t+1$  as compared to winners in time period  $t$ .

In 1995 a study by Grinblatt, Mark, Sheridan Titman, and Russ Wermers provided further evidence of performance persistence. Their study analyzed the extent to which mutual funds purchased stocks based on their past returns as well as their tendency to exhibit "herding" behavior (i.e. buying and selling the same stock at the same time). They found that 77 % of the mutual funds studied by them were "momentum investors" who bought stocks that were past winners; however most of them did not systematically sell the past losers. On average the funds that invested in momentum realized significantly better performance than

other funds. They also found relatively weak evidence of herding in their sample.

Malkiel, Burton G. (1995), studied equity funds for the period from 1971-90 and using evaluation period of one year concluded the presence of partial persistence. The author found evidence of persistent performance in the 1970's but not in 1980's.

Elton, Edwin J., Martin J. Gruber, and Christopher R. Blake(1996), studied 188 equity funds for the period from 1977-93 and found evidence of persistence in one year and three year risk adjusted returns. In 1997 Carhart Mark M., studied equity funds for the period from 1962-93 and found evidence supporting performance persistence, which he explained by momentum of the stock in the portfolio and expenses of the fund. Contradictorily, Phelps, S. and L. Detzel (1997) studied funds for the period from 1975-95 and found no evidence of persistence once the returns were adjusted for size and style.

Blake and Morey (1999) used Morningstar data for 1993-1997 to see if the star system can predict future performance of mutual funds. The authors started with year 1993 database. They formed portfolios of mutual funds using the star system so that at the beginning of 1994 they had five portfolios with star rankings of 1 through 5. Then they examined the performance of each portfolio during the 1994. They repeated the same procedure for years 1994-1997.

More recently, Ibbotson and Patel (2002), in their working paper indicated that winning funds do repeat good performance. Their work was an extension of the study carried out by Goetzmann and Ibbotson (1994), which revealed that past mutual fund performances and relative rankings are useful in predicting their future performance. Ibbotson and Patel extended this work by adjusting the fund performance for the styles of the funds. They evaluated style adjusted alphas on both absolute and relative basis and found that highest persistence was exhibited by funds whose alphas were greater than 10% and also by funds whose alphas ranked in the top 5% of the sample.

## **OBJECTIVES OF THE STUDY**

- 1.To study the performance of MIP funds.
- 2.To find out whether the performance of MIP funds is consistent.
- 3.To evaluate whether MIP funds outperform their benchmark.





**DATA ANALYSIS**

Table 1 :Returns of MIP Funds in % as on 21 Dec 2011

Mutual Fund Scheme	AUM Rs Cr	6m	1yr	2yr	3yr	5yr
HDFC MIP - LTP (G)	9,136	-0.9	-0.1	5.3	13.1	9.5
Reliance MIP Growth	6,466	0.3	0.5	4.7	10.2	9.7
UTI MIS - Advantage Plan (G)	1022	-0.7	0.1	3.7	9.1	7.6
ICICI Prudential MIP 25 (G)	750	0.3	0.8	5.0	10.4	6.6
Birla SL Monthly Income (G)	614	1.9	3.8	5.9	9.7	8.4
UTI Monthly Income Scheme (G)	609	2.0	3.1	5.4	9.3	8.0
HSBC MIP - Savings Plan (G)	504	-	1.3	2.9	7.8	7.8
HDFC MIP STP (G)	392	0.7	2.2	4.3	8.5	6.3
Can Robeco MIP G	344	1.7	3.9	6.4	13.0	9.6
SBI Magnum MIP (G)	332	1.8	2.1	4.6	5.3	4.4

**RESEARCH METHODOLOGY**

Out of the total 50 MIP funds operating in the current market 10 MIP funds have been chosen for my study. The performance is evaluated for the periods ranging from 1 year to last 5 years.

The data analysis is done to find out the performance of MIP funds and to test whether the returns are persistent.

To evaluate whether the MIP funds have out performed their benchmark, I have taken the benchmark for each individual MIP fund and compared it with the returns of the MIP fund.

From the table 1, if we consider the one year returns then Can Robeco MIP (G) is at rank 1 followed by Birla SL Monthly Income (G) and UTI Monthly Income Scheme (G) at rank 2 and 3 respectively.

For 2<sup>nd</sup> year returns, Can Robeco MIP (G) is at rank 1 followed by Birla SL Monthly Income (G) and UTI Monthly Income Scheme (G) at rank 2 and 3 respectively.

For 3<sup>rd</sup> year returns, HDFC MIP - LTP (G) is at rank 1 followed by Can Robeco MIP (G) and ICICI Prudential MIP 25 (G) at rank 2 and 3 respectively.

For 5 year returns, Reliance MIP Growth is at rank 1 followed by Can Robeco MIP (G) and HDFC MIP - LTP (G) at rank 2 and 3 respectively.

From the above data analysis, we can conclude that the performance of only two MIP funds i.e. Can Robeco MIP (G) and HDFC MIP LTP (G) was persistent.

Comparison with benchmark

The top 3 MIP funds were compared with their benchmark to evaluate whether they have been consistently outperforming their benchmark.

**HDFC MIP-LTP**

The benchmark for this MIP is CRISIL MIP Blended Index.

Period	Returns%	Benchmark Returns%
Last 1 year	-0.1	1.90
Last 3 years	13.1	7.78
Last 5 years	9.5	6.71

This fund has outperformed the benchmark returns for the last 3 years and 5 years. However for the last one year, it has shown negative returns as compared to the benchmark

**Reliance MIP Growth**

The benchmark for this MIP is CRISIL MIP Blended Index.

Period	Returns%	Benchmark Returns%
Last 1 year	0.5	1.90
Last 3 years	10.2	7.78
Last 5 years	9.7	6.71

This fund has outperformed the benchmark returns for the last 3 years and 5 years.

### UTI MIS - Advantage Plan (G)

The benchmark for this MIP is CRISIL MIP Blended Index.

Period	Returns%	Benchmark Returns%
Last 1 year	3.1	1.90
Last 3 years	9.3	7.78
Last 5 years	8.0	6.71

This fund has consistently outperformed the benchmark for the last 5 year

Unconditional test: Jensen's Alpha

To carry out unconditional performance tests we regressed the monthly excess returns of the top 10 and bottom 10 funds, for each year in 2007 to 2011, against the monthly excess returns on respective benchmark i.e. CRISIL MIP Blended Index.

The monthly returns were adjusted for the risk free monthly rates to obtain monthly excess returns. Similarly the benchmark monthly returns were adjusted for the risk free return. The monthly excess returns of the funds were then regressed against the monthly excess returns of the benchmarks to obtain the Jensen's alpha; where Jensen's alpha is defined as:

$$\text{Alpha } \rho = (R_p - R_f) - \beta (R_m - R_f)$$

The results of this single regression are as charted in table 2 & 3. The alphas presented here are the average alpha for the style.

Table 2 :Jensen's Alpha for Top 10 funds

Type	2007	2008	2009	2010	2011
Aggressive	0.303	0.560	0.708	0.698	0.712
Conservative	(0.956)	(0.520)	0.264	0.372	0.538

Table 3 : Jensen's Alpha for Bottom 10 funds.

Type	2007	2008	2009	2010	2011
Aggressive	(1.12)	(0.174)	(0.672)	(0.593)	(0.541)
Conservative	(0.956)	(0.520)	0.264	0.372	0.538

The analysis of the above results show that portfolio managers of top 10 funds show more positive alphas indicating some value added as against those of managers of bottom 10 funds which show negative alphas.

The investors would benefit if they hold the top 10 funds. In case of bottom 10 funds, the investor would benefit if they

hold the benchmark instead of the bottom 10 funds.

### CONCLUSION

Monthly Income Plan funds are generally favoured by investors who would like to have steady income at regular intervals. It is therefore necessary to conduct research to evaluate whether there is persistence in returns of MIP funds.

From the research conducted, we can conclude that there exists positive persistence in returns of MIP Mutual Funds. Can Robeco MIP (G) and HDFC MIP LTP (G) are the two MIP funds which have been giving consistent returns to its investors.

In this research, performance of MIP funds was compared with their benchmark and it was found that MIP funds have outperformed their benchmark for the last 3 years and 5 years. But they could not outperform their benchmark for the last 1 year.

Thus we can conclude that there is persistence in performance of MIP funds.

### REFERENCES

- Blake, Christopher R. and Morey, Matthew R., Morningstar Ratings and Mutual Fund Performance (March 15, 1999).
- Brown, Stephen J. and Goetzmann, William N, Performance Persistence, Journal of Finance, Vol 50 No 2, June 1995
- Darryll Hendricks, Jayendu Patel and Richard J. Zeckhauser , Hot Hands in Mutual Funds: Short Run Persistence of Relative Performance, Journal of Finance, 1993, vol. 48, issue 1, pages 93-130.
- Fama, Eugene and James MacBeth. (1973) Risk, Return and Equilibrium: Empirical Tests, Journal of Political Economy.
- Grinblatt, Mark, Titman, Sheridan and Wermers, Russ R., Momentum Investment Strategies, Portfolio Performance and Herding: A Study of Mutual Fund Behavior (September 1994).
- Grinblatt, Mark and Titman. (1989). Mutual Fund Performance: An Analysis of quarterly portfolio holdings, Journal of Business.
- Hendricks, Darryll, Patel and Richard Zeckhauser( 1991) Hot hands in mutual funds: Short run persistence of performance, Working paper, Harvard University.
- Ibbotson, Roger G. and Patel, Amita K., Do Winners Repeat with Style? (February 2002). Yale ICF Working Paper No. 00-70
- Malkiel, Burton G. G., Returns from Investing in Equity Mutual Funds 1971-1991. Journal of Finance, Vol 50 No 2, June 1995
- Stephen Brown, Goetzmann, Performance Persistence, The Journal of Finance, Vol 50, No.2. (June 1995), pp 679-698

