



THE SELECTIVITY AND DIVERSIFICATION SKILLS OF PRIVATE BANKS SPONSORED MUTUAL FUND MANAGERS

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ABSTRACT

In this paper provides the selectivity and diversification skills of private banks sponsored mutual fund managers of selected private banks sponsored mutual fund schemes over the period April 2009 to March 2020. This study focused on Risk and Return, Risk-return relationship of mutual fund schemes in relation to the benchmark portfolio is computed. The study also analyses the return and systematic risk associated with the selected open-ended equity mutual fund schemes with using Jensen's alpha, Sharpe's Differential Return, Fama's decomposition technique, and Z Test. The purpose of this paper is to provide a summary of the results that are relevant for investors. The findings of the study would help policy makers, administrators, investors, customers and other officials in formulating better policies and their implementation.

Keywords: *Mutual Funds, NAV, Risk and Return, stock selection and diversification skills*

INTRODUCTION

The backbone of any economy is its financial system. Stronger the financial system stronger is the economy. The financial system consists of financial markets, financial intermediaries, financial instruments, etc. Mutual fund is one of the emerging financial instruments that mobilize the savings of millions of small and retail investors by creating a gigantic capital formation for the economy. A mutual fund is one of the convenient financial instruments for investment for small and retail investor. In a country like India if small investment forms major part of capital, it would be beneficial for the country. A mutual fund is a pool of money collected from many small investors, which is professionally managed by the portfolio managers. It is a type of collective investment scheme that reinvests the collected money in various securities such as in stocks, bonds and short-term money market instruments etc. The performance of the fund depends upon the economic conditions of the country and the world as a whole. The Indian financial sector in general and the mutual fund industry in particular continue to take turnaround from early 1990s, when the government has opened the economy for private and foreign players. The reform process has sent signals to the waves of changes in saving and investment behaviour, adding a new dimension to the growth of the financial sector. Mutual funds are a good investment option to medium and small investors who do not excel in the stock market due to lack of professional knowledge, limited resources and failure to diversify. Performance Evaluation of mutual funds is important for investors. It enables an investor to access as to how much return has been generated by the portfolio manager and what risk level has been assumed in generating such returns. Further, an investor can also appraise the comparative performance of different fund managers.

REVIEW OF LITERATURE

Sachin Kumar Rohatgi, P.C. et al. (2020), the study evident that the ranking given by Sharpe ratio and Treynor ratio are not justified in the monthly returns. Maheswari, Y., (2020), in her study the performance of mutual fund are estimated by various performance evaluation technique like Ranking, Average Return, Standard Deviation, Sharpe Ratio and outcome from an evaluation will let the investor to contribute access to the correct categories of mutual fund. Anil Vashisht (2019), attempted to study the phenomenal growth of mutual fund industry in India and reasons for its increasing penetration among common people. Alka Solanki (2016), "A Study of performance evaluation of Mutual Funds" in the study concluded that all the mutual fund schemes considered for the study have outperformed the benchmark return, except one fund i.e. Reliance Focused Large cap fund. RupeeetKaur (2013) observed that the Oryx mutual fund has performed almost equal to the benchmark indicators. However, the average return of the schemes is less than the market index but the difference is insignificant for the study period. Tarak Paul and Ekta Garodia (2012), assessed the gap between expectations and experiences of Mutual Fund of around 260 investors in Guwahati city and found that there is a significant gap between the mutual fund investors' expectations and experiences. Santhiyavalli., et al. (2012), conducted a study on saving pattern of investors, investment avenues, awareness about various investments and preference towards mutual funds and their different types. Jagannathan et al (2010) considered hedge fund returns from 1996 until 2005, and found significant performance persistence among superior funds but little evidence of persistence among inferior funds. Tripathy (1996) examined the importance and growth of mutual fund and evaluated the operations of mutual funds and suggested some measures to make it a successful scheme in India.

OBJECTIVES OF THE STUDY

- To find out the stock selection and diversification skills of the private banks sponsored mutual fund managers

RESEARCH METHODOLOGY

Research Methodology adapted to study "stock selection and diversification skills of the private banks sponsored mutual fund managers" has been described hereunder.

DATA COLLECTION

Daily Net Asset Value (NAV) of selected open ended equity Mutual Fund schemes are used to evaluate the performance of Public Banks sponsored Mutual Fund schemes in terms of return and risk, necessary data are collected from secondary sources like the mutual fund companies fact sheets, brochures and the respective websites of mutual fund companies like amfiindia.com and mutualfundindia.com.

SAMPLE SELECTION OF FUND HOUSES

All seven (07) private Banks Sponsored fund houses are have been selected for the sample based on Average Asset Under Management (AAUM) as on 31st March 2020.

List of Public Banks Fund Houses

| Sl. No. | Mutual Fund House Name | AAUM (Lakhs) |
|---------|-----------------------------------|--------------|
| 1 | HDFC Mutual Fund | 37353660.81 |
| 2 | ICICI Prudential Mutual Fund | 15151252.87 |
| 3 | Aditya Birla Sun Life Mutual Fund | 1794244.57 |

| | | |
|-------------------|----------------------------|------------|
| 4 | Kotak Mahindra Mutual Fund | 1180853.1 |
| 5 | Axis Mutual Fund | 503092.93 |
| 6 | IDFC Mutual Fund | 407548.64 |
| 7 | DSP Mutual Fund | 227075.83 |
| Total AAUM | | Total AAUM |

Source:www.amfiindia.com / Date: 31/03/2020.

SELECTION OF SAMPLE SCHEMES

The schemes selected from different fund houses based on the reasonable data availability and based on judgement like feasible. For this study total 21 open ended growth oriented Mutual Fund schemes are selected as a sample. The selection of mutual fund schemes is as follows:

List of Sample Selected Schemes from Public Banks sponsored Fund Houses

| Sl. No. | Fund / Scheme Name | Type | Study Period |
|---------|--|--------------|----------------------------------|
| 1 | HDFC - Capital Builder Value Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 2 | HDFC – Equity Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 3 | HDFC - Focused 30 Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 4 | ICICI Prudential Banking & Financial Services Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 5 | ICICI Prudential Bluechip Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 6 | ICICI Prudential Technology Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 7 | Aditya -Focused Equity Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 8 | Aditya - Frontline Equity Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 9 | Aditya - Pure Value Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 10 | Kotak Emerging Equity Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 11 | Kotak Equity Opportunities Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 12 | Kotak India EQ Contra Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 13 | AXIS - Blue chip Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 14 | AXIS - Focused 25 Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 15 | AXIS - Long Term Equity | Open - ended | 1st April 2009 – 31st March |

| | | | |
|----|---------------------------------|--------------|----------------------------------|
| | Fund | | 2020 |
| 16 | IDFC - Core Equity Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 17 | IDFC - Focused Equity Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 18 | IDFC – Laege Cap Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 19 | DSP - Equity Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 20 | DSP - Equity Opportunities Fund | Open - ended | 1st April 2009 – 31st March 2020 |
| 21 | DSP - Top 100 Equity Fund | Open - ended | 1st April 2009 – 31st March 2020 |

RISK FREE RETURN

For this study 91 Days Treasury Bills (T-Bills) have been used as an alternate for risk free rate of return. This rate has been used by most of the researchers across the globe. The T-Bills information is obtained from RBI Report on currency and finance.

BENCHMARK PORTFOLIO

For evaluation of the performance of sample schemes one has to compare their performance with those of selected benchmarks. In this study BSE Sensex is chosen as benchmark for comparison and evaluation of the performance of selected schemes of sample mutual fund houses.

DATA ANALYSIS

The following Statistical tools and Risk adjusted performance Measures are used to stock selection and diversification skills of the private banks sponsored mutual fund managers for this study.

- (1) Measures for the selectivity and diversification skills of fund managers.
 - 1.1 Jensen’s alpha.
 - 1.2 Sharpe’s Differential Return.
 - 1.3 Fama’s decomposition technique.
- (2) Other Measures
 - 2.1 Z Test

PERIOD OF THE STUDY

The period covered by this study is 11 years, i.e., 2009 to 2020. This period is most significant in the history of Indian stock market due to the high and unpredictable fluctuations in the stock markets during this period. However, the period of analysis varies depending on the availability of data and the nature of the variable under scrutiny.

Composite Jensen Alpha & Sharpe’s Differential Return of the Private Banks sponsored mutual funds.

| | | | | |
|-----------|--------------|------|------------------------------|------|
| Fund name | Jensen Alpha | Rank | Sharpe’s Differential Return | Rank |
|-----------|--------------|------|------------------------------|------|

| | | | | |
|--|---------|----|---------|----|
| HDFC - Capital Builder Value Fund | 0.0214 | 6 | 0.0118 | 7 |
| HDFC – Equity Fund | 0.0157 | 8 | 0.0028 | 15 |
| HDFC - Focused 30 Fund | 0.0078 | 17 | -0.0067 | 19 |
| ICICI Prudential Banking & Financial Services Fund | 0.0236 | 5 | 0.0169 | 5 |
| ICICI Prudential Bluechip Fund | 0.0151 | 9 | 0.0134 | 6 |
| ICICI Prudential Technology Fund | 0.0622 | 1 | 0.0343 | 1 |
| Aditya -Focused Equity Fund | 0.012 | 14 | 0.0094 | 9 |
| Aditya - Frontline Equity Fund | 0.011 | 15 | 0.0089 | 11 |
| Aditya - Pure Value Fund | 0.0149 | 10 | 0.0012 | 16 |
| Kotak Emerging Equity Fund | 0.0308 | 3 | 0.0218 | 3 |
| Kotak Equity Opportunities Fund | 0.0131 | 11 | 0.0093 | 10 |
| Kotak India EQ Contra Fund | 0.0087 | 16 | 0.0061 | 14 |
| AXIS - Blue chip Fund | 0.0045 | 19 | 0.0109 | 8 |
| AXIS - Focused 25 Fund | 0.0245 | 4 | 0.0176 | 4 |
| AXIS - Long Term Equity Fund | 0.0353 | 2 | 0.0332 | 2 |
| IDFC - Core Equity Fund | 0.0056 | 18 | -0.0078 | 20 |
| IDFC - Focused Equity Fund | 0.0022 | 20 | -0.0084 | 21 |
| IDFC – Large Cap Fund | 0.0198 | 7 | -0.0028 | 17 |
| DSP - Equity Fund | 0.0127 | 12 | 0.0067 | 13 |
| DSP - Equity Opportunities Fund | 0.0121 | 13 | 0.0078 | 12 |
| DSP - Top 100 Equity Fund | -0.0023 | 21 | -0.0065 | 18 |

Source: Computed the NAV data.

The overall findings with respect to the selected mutual fund schemes based on Jensen Alpha and Sharpe’s Differential Return values are presented in Table considering the benchmarks of BSE Sensex for the study period.

It is observed from the analysis that 20 mutual fund (95 percentage) schemes are having positive Jensen Alpha for the period of the study. This indicates that the 20 schemes (95 percentage) are performing and generating good returns than the investor’s expectations. Among the schemes under study, ICICI Prudential Technology Fund has generated the maximum average Jensen Alpha return. Among the selected mutual fund schemes, only 1 scheme (5 percentage) is having Negative Jensen Alpha. The negative value specifies that the scheme is not generating good returns as per the expectations. Mainly it is noted that DSP - Top 100 Equity Fund is having negative value. Among all the schemes under study, 16 schemes (76 percentage) have a positive average Sharpe’s Differential Return. It means that the schemes are generating excess returns than expected by the investors. It is also observed from the analysis that the ICICI Prudential Technology Fund generated highest excess returns. It is clear from the analysis that 5 schemes (24 percentage) are having negative Sharpe’s Differential Returns. This shows that 24 percentage of the schemes generates returns below the expectations. That to IDFC - Focused Equity Fund has highest negative value. From the Overall findings presented in Table 5.46 it is clear that, the total 16 schemes (76 percentage) Jensen Alpha and Sharpe’s Differential Return both values are positive. Out of all only one (5 percentage) scheme having Sharpe’s Differential Return is more than

Jensen Alpha, it is clear that the Stock selection and diversification skills of the AXIS - Blue chip fund schemes’ manager is excellent. 20 schemes (95 percentage) are having Jensen Alpha more than Sharpe’s Differential Return. This shows poor Stock selection and diversification skills of the fund managers. Among the 20 schemes ICICI Prudential Technology funds’ performance is the poorest.

FAMA'S BREAK-UP OF MUTUAL FUND SCHEME’S RETURNS

(Private Banks sponsored mutual funds)

| Fund Name | Scheme Return | Return for Systematic Risk | Return for Diversification | Net selectivity | Rank |
|--|---------------|----------------------------|---|--|------|
| | | $\beta_p (R_m - R_f)$ | $[(\sigma_p / \sigma_m) - \beta_p] * (R_m - R_f)$ | $(R_p - R_f) - (\sigma_p / \sigma_m)(R_m - R_f)$ | |
| HDFC - Capital Builder Value Fund | 0.0585 | 0.0367 | 0.0032 | 0.0156 | 4 |
| HDFC – Equity Fund | 0.0600 | 0.0430 | 0.0039 | 0.0100 | 13 |
| HDFC - Focused 30 Fund | 0.0509 | 0.0391 | 0.0057 | 0.0029 | 17 |
| ICICI Prudential Banking & Financial Services Fund | 0.0736 | 0.0484 | 0.0066 | 0.0155 | 5 |
| ICICI Prudential Bluechip Fund | 0.0586 | 0.0399 | 0.0012 | 0.0144 | 7 |
| ICICI Prudential Technology Fund | 0.0816 | 0.0252 | 0.0200 | 0.0332 | 1 |
| Aditya -Focused Equity Fund | 0.0563 | 0.0400 | 0.0016 | 0.0115 | 12 |
| Aditya - Frontline Equity Fund | 0.0566 | 0.0400 | 0.0015 | 0.0120 | 11 |
| Aditya - Pure Value Fund | 0.0611 | 0.0364 | 0.0083 | 0.0133 | 9 |
| Kotak Emerging Equity Fund | 0.0677 | 0.0319 | 0.0074 | 0.0252 | 2 |
| Kotak Equity Opportunities Fund | 0.0593 | 0.0388 | 0.0027 | 0.0148 | 6 |
| Kotak India EQ Contra Fund | 0.0531 | 0.0386 | 0.0020 | 0.0094 | 14 |
| AXIS - Blue chip Fund | 0.0444 | 0.0382 | -0.0012 | 0.0044 | 16 |
| AXIS - Focused 25 Fund | 0.0501 | 0.0389 | -0.0010 | 0.0091 | 15 |
| AXIS - Long Term Equity Fund | 0.0628 | 0.0335 | 0.0012 | 0.0250 | 3 |
| IDFC - Core Equity Fund | 0.0434 | 0.0343 | 0.0076 | -0.0016 | 19 |
| IDFC - Focused Equity Fund | 0.0416 | 0.0353 | 0.0066 | -0.0033 | 21 |
| IDFC – Large Cap Fund | 0.0442 | 0.0361 | 0.0074 | -0.0024 | 20 |
| DSP - Equity Fund | 0.0595 | 0.0396 | 0.0034 | 0.0134 | 8 |
| DSP - Equity Opportunities Fund | 0.0582 | 0.0396 | 0.0022 | 0.0133 | 10 |
| DSP - Top 100 Equity Fund | 0.0467 | 0.0422 | 0.0020 | -0.0006 | 18 |

Source: Computed the values.

The data analysis furnished in Table outlines the selected mutual fund scheme's fund returns, returns for systematic risk, returns for diversification and net selectivity. In this, all of the schemes are having positive returns for the study period, which means that all schemes have performed well in terms of risk bearing activities of fund managers. Among all of the schemes the highest returns are generated by ICICI Prudential Technology Fund, followed by ICICI Prudential Banking & Financial Services Fund, Kotak Emerging Equity Fund and AXIS - Long Term Equity Fund etc. It is evident from the analysis that the performance on systematic risk returns for all of the schemes is positive. It means, the fund managers are getting risk premium. The following three mutual fund schemes are getting highest reward for bearing risk namely, ICICI Prudential Banking & Financial Services Fund, HDFC – Equity Fund and DSP - Top 100 Equity Fund. The three mutual fund schemes getting lowest reward for bearing risk are ICICI Prudential Technology Fund, Kotak Emerging Equity Fund and AXIS - Long Term Equity Fund.

An analysis of the data furnished in Table 6.47 reveals that the diversification returns of the 19 schemes (90percentage) are positive. It indicates that the fund managers received compensation for bearing diversifiable risk. In this light, the top three schemes having highest diversification returns are ICICI Prudential Technology Fund, Aditya - Pure Value Fund and IDFC - Core Equity Fund. The two mutual fund schemes namely, AXIS - Blue chip Fund and AXIS - Focused 25 Fund managers are not receiving benefit from diversification risk due to negative returns among all. The residual Performance on Selectivity is attributed to Net Selectivity and it will be equal to that on Selectivity. A positive net selectivity will indicate superior performance. However, in case net selectivity is negative then it would mean that the diversifiable risk taken by the fund manager has not been compensated by extra return. From the analysis furnished in Table 6.47 it is clear that 17 Schemes (81percentage) are showing positive Net Selectivity. Among them the top three schemes are ICICI Prudential Technology Fund, followed by Kotak Emerging Equity Fund and AXIS - Long Term Equity Fund etc., While, the other 4 schemes (19percentage) are having negative net selectivity. The three schemes having the lowest negative net selectivity are IDFC - Focused Equity Fund, IDFC – Large Cap Fund and IDFC - Core Equity Fund.

**RESULTS OF STOCK SELECTION SKILLS OF FUND MANAGERS
(Private Banks sponsored mutual funds)**

| Sl.No | Fund Name | Alpha (α) | Z Test |
|-------|--|--------------------|--------|
| 1 | HDFC - Capital Builder Value Fund | 0.0273 | 0.5966 |
| 2 | HDFC Equity Fund | 0.021 | 0.5739 |
| 3 | HDFC - Focused 30 Fund | 0.0147 | 0.1735 |
| 4 | ICICI Prudential Banking & Financial Services Fund | 0.0232 | 1.0092 |
| 5 | ICICI Prudential Bluechip Fund | 0.0166 | 0.5829 |
| 6 | ICICI Prudential Technology Fund | 0.0623 | 1.5988 |
| 7 | Aditya - Focused Equity Fund | 0.014 | 0.4594 |
| 8 | Aditya - Frontline Equity Fund | 0.0137 | 0.4769 |
| 9 | Aditya - Pure Value Fund | 0.0224 | 0.6539 |
| 10 | Kotak Emerging Equity Fund | 0.0333 | 1.0950 |
| 11 | Kotak Equity Opportunities Fund | 0.016 | 0.6141 |

| | | | |
|----|---------------------------------|--------|---------|
| 12 | Kotak India EQ Contra Fund | 0.0133 | 0.3055 |
| 13 | AXIS - Blue chip Fund | 0.0228 | -0.1594 |
| 14 | AXIS - Focused 25 Fund | 0.0211 | 0.1610 |
| 15 | AXIS - Long Term Equity Fund | 0.0427 | 0.9449 |
| 16 | IDFC - Core Equity Fund | 0.0071 | -0.1906 |
| 17 | IDFC - Focused Equity Fund | 0.0054 | -0.2816 |
| 18 | IDFC – Large Cap Fund | 0.0159 | -0.1451 |
| 19 | DSP - Equity Fund | 0.0188 | 0.6011 |
| 20 | DSP - Equity Opportunities Fund | 0.0171 | 0.5540 |
| 21 | DSP - Top 100 Equity Fund | 0.0041 | -0.0238 |

Source: Computed the values.

Alpha value positive and Z -value > 2 Superior Selectivity Skills and Alpha value negative and Z -value < 2 inferior Selectivity Skills

The Table presents the Alpha estimates of each of the sample equity Mutual Fund as well as corresponding Z-values. The data reveal that all sample Mutual fund schemes have posted positive alpha during the period and all the schemes Z-values are insignificant at 5 per cent level of significance. Still 17 schemes are having positive Z values and 4 schemes z-values were negative during the period. This indicates that fund managers have not exhibited superior Stock Selection abilities during the study period.

CONCLUSION

This paper outlines the performance of mutual funds in terms of selectivity and diversification skills of the Private Banks sponsored including Joint Ventures - Predominantly Indian mutual fund managers are analysed by using Jensen alpha, Sharpe’s differential return and the Fama’s decomposition techniques during the period from 01st April, 2009 to 31st March, 2020. The analysis reveals that in 20 schemes (95 percentage) are performing and generating good returns than the investor’s expectations. Among the schemes under study, ICICI Prudential Technology Fund has generated the maximum average Jensen Alpha return. But only 1 scheme (5 percentage) is not generating good returns as per the expectations. Mainly it is noted that DSP - Top 100 Equity Fund is having negative value. Out of the selected sample mutual fund schemes under study, 15 schemes (76 percentage) are generating excess returns than expected by the investors. It is also observed from the analysis that the ICICI Prudential Technology Fund generates highest excess returns and this shows that 6 (24 percentage) of the schemes generates returns below the expectations. In that IDFC - Focused Equity Fund has highest negative value. It has been found that the 16 schemes (76 percentage) Jensen Alpha and Sharpe’s Differential Return both values are positive. Out of all only one (5 percentage) scheme having Sharpe’s Differential Return is more than Jensen Alpha, it is clear that the Stock selection and diversification skills of the AXIS - Blue chip fund schemes’ manager is excellent and 20 schemes (95 percentage) are having poor Stock selection and diversification skills of the fund managers. Among the 20 schemes ICICI Prudential Technology funds’ performance is the poorest. It is observed that the selected private banks sponsored mutual funds, all selected schemes have performed well in terms of risk bearing activities of fund managers. Among all of the schemes the highest returns are generated by ICICI Prudential Technology Fund,

followed by ICICI Prudential Banking & Financial Services Fund, Kotak Emerging Equity Fund and AXIS - Long Term Equity Fund etc. The performance analysis of the Private Banks sponsored on systematic risk returns reveals that the fund managers of all selected mutual fund schemes got risk premium. The top three Private bank Mutual fund schemes are getting highest reward for bearing risk namely, ICICI Prudential Banking & Financial Services Fund, HDFC – Equity Fund and DSP - Top 100 Equity Fund. 19 (95 percentage) schemes are positive. It indicates that the managers received compensation for bearing diversifiable risk based on the diversification of the portfolio. In this top three diversification returns are received by the three private banks mutual fund schemes namely, ICICI Prudential Technology Fund, Aditya - Pure Value Fund and IDFC - Core Equity Fund. Only the two private banks sponsored mutual fund schemes namely, AXIS - Blue chip Fund and AXIS - Focused 25 Fund having negative returns. It shows that the fund managers are not received compensation for bearing diversifiable risk. The residual Performance on Selectivity is attributed to Net Selectivity and it will be equal to that on Selectivity. A positive net selectivity will indicate superior performance. However, in case net selectivity is negative then it would mean that, the fund manager has taken diversifiable risk has not been compensated by extra return. However, 17 Schemes (81 percentage) mutual fund schemes were showed superior performance based on positive Net Selectivity. The top three schemes are ICICI Prudential Technology Fund, followed by Kotak Emerging Equity Fund and AXIS - Long Term Equity Fund etc. only 4 schemes (19 percentage) mutual fund managers were taken diversifiable risk has not been compensated by extra return. In this regard top three mutual fund schemes having the highest negative net selectivity and the schemes are IDFC - Focused Equity Fund, IDFC – Large Cap Fund and IDFC - Core Equity Fund. From the data reveal that majority of the private banks sponsored mutual fund schemes the Z-values are insignificant it means the returns of the selected schemes are moving according to the market movements.

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