

PERFORMANCE ANALYSIS OF MUTUAL FUND SCHEMES IN INDIA: A CASE STUDY

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ABSTRACT

Aim: The aim of the study is to measure the performance of mutual fund (MF) schemes in India with special reference to public and private collective fund debt schemes.

Results: An aggregate of 24 schemes were selected from the six asset management companies. The evaluation was achieved by using various financial tools like including rate of return, Sharpe ratio, Jenson ratio and Treynor ratio. The data was collected from the various authorized websites and agencies.

Conclusion: The private mutual fund companies were found much more beneficial in long run when compared with public mutual funds in India. Public mutual fund companies were found beneficial in mid-term and both public & private mutual fund companies are beneficial in short run for the investors to invest in mutual funds.

Keywords: Mutual Fund, Debt Schemes, Securities, Investors, Treynor Ratio, Sharpe Ratio.

HIGHLIGHTS:

- 1. The private mutual fund companies are much more beneficial in long run when compared with public mutual funds in India.
- 2. Public mutual fund companies are found to be beneficial in mid-term.
- 3. Public and private mutual fund companies are both beneficial in short run for the investors

INTRODUCTION

The need of present study of mutual funds cater to reduce the past research gap and similarly to modernize the performance of mutual funds in the prevalent scenario. In this study, an attempt has been made to estimate the performance of open concluded debt schemes of public sector, private sector, banks and distinct financial institutions.

Objectives

- 1. To estimate the performance of selected debt mutual fund schemes in India.
- 2. To assess the performance of selected schemes employing risk adjusted performance measures namely Standard deviation, Beta, Sharpe, Treynor and Jenson's Alpha ratios.
- 3. To understand which schemes gives upmost return within one-year.
- 4. To examine the risk and return element among these mutual funds.

Sampling Methodology

To investigate the performance of mutual funds in India total 24 schemes listed in Table 1. The performances of 24 schemes is studied over a period of 3 years from 2019 to 2022. Monthly NAV data on each sample scheme is collected from <u>https://www.mutualfundsindia.com</u> and <u>https://www.moneycontrol.com</u>. CRISIL 10 year GILT index has been taken as a benchmark for analysis of the results and monthly BSE Sensex data are collected from <u>https://www.bseindia.com</u>.

Statistical tools:

Simple statistical tools like arithmetic mean, percentages, standard deviation are applied to understand the performance of mutual fund schemes. The financial tools including portfolio beta, Sharpe ratio, Treynor ratio and Jensen ratio has been selected for this study [1].



Financial years 2020 have given positive returns as compared to the returns in the years of 2021 and 2022 due to COVID 19 pandamic situation.

Long term debt funds

Long term debt mutual fund schemes average return of the last three year is volatile in nature although NAV of each fund raised from 2020 to 2022 (Table 2). Nippon India corporate bond fund (G) carries low variance and risk compared to other schemes (Table 6) and has lowest standard deviation of 1.54, beta value of the fund is 0.72, Sharpe's Ratio of the fund is 2.04, treynor ratio is 0.04, Jenson's Alpha of fund is 0.41 and expense ratio 0.62. In long run Nippon India income fund (G) is performing better when compared to other long term debt funds.

Short term debt funds

Nippon India short term fund (G) has lowest standard deviation of 1.65 (Table 3 and Table 7), IDFC Bond fund beta value is 0.01, Nippon India short term fund (G) has greater Sharpe ratio of 2.1 and offers better risk adjusted performance In 3 years. IDFC Bond fund short term (G) has greater Treynor ratio of 2.93 indicating that its performance is better than distinct funds, IDFC bond short term (G) scheme Jenson ratio is 3.02. It confirms IDFC best performance. HDFC short term debt fund (G) have lowest expense ratio of 0.74 compared to other mid term debt funds. It is found that in short term both private and public companies mutual fund schemes are better for investment.

Mid term dept funds

Mid term debt mutual fund schemes (Table 4) average returns of the last three year is volatile in nature although NAV of each fund raised from 2020 to 2022. CANARA Robeco corporate bond fund (G) has lowest standard deviation (Table 8) of 1.73, SBI Magnum medium duration fund (G) beta value is 0.33, SBI magnum medium duration fund (G) has greater Sharpe ratio 1.99 suggesting that it will give better risk adjusted performance In 3 years. SBI Magnum medium duration fund (G) has greater Treynor ratio of 0.14 indicating that its performance is better than other funds, Canara robeco corporate bond fund (G) have lowest expense ratio of 1.03 when compared to other mid term debt funds. It can be confirmed that Mid term public companies' mutual fund schemes have found to be the better for the investors when compared to the private companies.

GILT long-term dept funds

HDFC GILT fund has lowest standard deviation of 1.54 (Table 5 and Table 9), beta value 0.49, ICICI Pru constant maturity GILT fund (G) has greater Sharpe rate 1.27 suggesting that the fund gave better risk adjusted performance in 3 years. ICICI Pru constant maturity GILT fund (g) has greater Jenson rate of 2.85 confirming its highest performance. HDFC GILT showed only 0.23 with low performance. It can be confirmed that in long run the private companies' mutual fund schemes have found to be the better investment for the investors as compared to the public companies mutual fund schemes.

CONCLUSION

The above performance ratios are veritably much helpful for the evaluator to assess the fund's performance. from this study we can observe that the rational investors are more interested in debt funds rather than to invest in any other schemes available in India. When public and private mutual funds were compared, the private mutual fund companies were found much more beneficial in long run, public mutual fund companies were found beneficial in mid-term and both public & private mutual fund companies are beneficial in short term for the investors to invest in mutual funds.

REFERENCES:

1. http://dx.doi.org/10.2139/ssrn.433100



TABLES:

Table 1: The below mutual fund schemes which are benchmarked with CRISIL 10 Year GILT Index are considered for this study.

Sl No	Name Of The Scheme	Scheme Launch Date	Nature Of Sponser
1.	ICICI Pru Long Term Bond Fund(G)	9-Jul-1998	Private
2	HDFC Dynamic Debt Fund(G)	28-Apr-1997	Private
3	Nippon India Corporate Bond Fund (G)	25-Sep-2000	Private
4	SBI Dynamic Bond Fund (G)	09-Feb-2004	Public
5	Canara Robeco Dynamic Bond Fund (G)	29-May-2009	Public
6	IDFC Bond Fund- Income Plan (G)	14-Jul-2000	Public
7	ICICI Pru Short Term Fund (G)	25-Oct-2001	Private
8	HDFC Short Term Debt Fund (G)	25-Jul-2010	Private
9	Nippon India Short Term Fund (G)	23-Dec-2002	Private
10	SBI Magnum Short Term Debt Fund (G)	27-Jul-2007	Public
11	Canara Robeco Short Duration fund (G)	25-Apr-2011	Public
12	IDFC Bond Fund – Short Term (G)	14-Dec-2000	Public
13	ICICI Pru Medium Term Bond Fund (G)	15-Sep-2004	Private
14	HDFC Medium Term Debt Fund (G)	6-Feb-2002	Private
15	Nippon India Income Fund (G)	01-Jan-1998	Private
16	SBI Magnum Medium Duration Fund (G)	12-Nov-2003	Public
17	Canara Robeco Corporate Bond Fund (G)	07-Feb-2014	Public
18	IDFC Bond Fund - Medium Term Plan (G)	08-July-2003	Public
19	ICICI Pru Constant Maturity Gilt Fund (G)	12-Sep-2014	Private
20	HDFC Gilt Fund (G)	25-July-2001	Private
21	Nippon India Gilt Securities Fund (G)	22-Aug-2008	Private
22	SBI Magnum Constant Maturity Fund (G)	23-Dec-2000	Public
23	Canara Robeco Gilt Fund (G)	06-Jan-2000	Public
24	IDFC G Sec Fund- Constant Maturity Plan (G)	02-Jan-2013	Public

Table 2: Long-term dept monitored for three years (2020, 2021 and 2022).

SI No.	NAME OF THE SCHEME	NAV	RETURN	NAV	RETURN	NAV	RETURN
		2020	2020	2021	2021	2022	2022
1	ICICI PRU LONG TERM BOND FUND(G)	67.27	11.02	70.59	0.4	71.89	-1.93
2	HDFC DYNAMIC DEBT FUND(G)	63.66	8.95	67.73	7.43	73.03	-1.0
3	NIPPON INDIA CORPORATE BOND FUND (G)	42.17	9.52	45.38	4.71	47.76	1.0
4	SBI DYNAMIC BOND FUND (G)	26.03	10.37	27.60	1.95	28.39	0.02
5	CANARA ROBECO DYNAMIC BOND FUND (G)	22.58	9.62	23.88	1.2	24.38	-0.18
6	IDFC BOND FUND- INCOME PLAN (G)	49.81	11.78	52.84	1.24	54.83	-0.9

Table 3: Short-term dept monitored for three years (2020, 2021 and 2022).

SL	NAME OF THE SCHEME	NAV	RETURN	NAV	RETURN	NAV	RETURN
NO		2020	2020	2021	2021	2022	2022
1	ICICI PRU SHORT TERM FUND (G)	44.36	10.65	48.61	3.88	51.04	0.54
2	HDFC SHORT TERM DEBT FUND (G)	22.63	10.96	24.56	3.86	25.61	0.49
3	NIPPON INDIA SHORT TERM FUND (G)	37.77	9.48	40.79	4.42	42.79	0.74
4	SBI MAGNUM SHORT TERM DEBT FUND (G)	23.31	9.5	25.02	2.77	26.04	0.78
5	CANARA ROBECO SHORT DURATIONFUND (G)	18.92	8.95	20.28	2.82	20.96	0.5
6	IDFC BOND FUND – SHORT TERM (G)	10.38	9.68	10.53	3.37	10.50	0.34

Table 4: Mid-term dept monitored for three years (2020, 2021 and 2022).

Sl No.	NAME OF THE SCHEME	NAV	RETURN	NAV	RETURN	NAV	RETURN
		2020	2020	2021	2021	2022	2022
1	ICICI PRU MEDIUM TERM BOND FUND (G)	31.31	10.39	33.93	5.51	35.76	0.39
2	HDFC MEDIUM TERM DEBT FUND (G)	40.29	0.01	43.34	5.03	45.75	0.1
3	NIPPON INDIA INCOME FUND (G)	66.74	10.54	70.35	1.25	72.28	-0.16
4	SBI MAGNUM MEDIUM DURATION FUND (G)	36.03	12.27	39.27	3.85	41.18	0.24
5	CANARA ROBECO CORPORATE BOND FUND (G)	16.15	9.58	17.34	2.83	17.98	0.6
6	IDFC BOND FUND - MEDIUM TERM PLAN (G)	34.14	10.94	36.54	2.42	38.08	-0.37



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Table :	Table 5: GILT long term dept monitored for three years (2020, 2021 and 2022).										
SL NO	NAME OF THE SCHEME	NAV 2020	RETURN 2020	NAV 2021	RETURN 2021	NAV 2022	RETURN 2022				
1.	ICICI PRU CONSTANT MATURITY GILT FUND (G)	17.51	13.6	18.91	2.79	19.62	-1.95				
2	HDFC GILT FUND (G)	40.83	10.75	43.31	2.2	44.88	-1.06				
3	NIPPON INDIA GILT SECURITIES FUND (G)	28.31	-0.73	29.93	1.81	30.93	11.22				
4	SBI MAGNUM CONSTANT MATURITY FUND (G)	46.31	11.63	49.07	2.4	50.81	-2.17				
5	CANARA ROBECO GILT FUND (G)	56.51	10.33	59.93	1.83	61.71	-0.22				
6	IDFC G SEC FUND- CONSTANT MATURITY PLAN (G)	12.71	-2.62	12.66	1.79	13.02	13.23				

Table 6: Risk ratios (long term debt fund) for three years (2020, 2021 and 2022).

S.No	FUND NAME	Standard deviation	Beta	Sharpe ratio	Treynor ratio	Jenson ratio	Expense ratio
1.	ICICI PRU LONG TERM BOND FUND(G)	4.57	1.38	0.69	0.02	-2.99	2.01
2	HDFC DYNAMIC DEBT FUND(G)	3.88	1.01	0.76	0.03	-0.92	1.72
3	NIPPON INDIA CORPORATE BOND FUND (G)	1.54	0.72	2.04	0.04	0.41	0.62
4	SBI DYNAMIC BOND FUND (G)	3.39	0.98	1.12	0.04	-0.55	1.65
5	CANARA ROBECO DYNAMIC BOND FUND (G)	2.87	0.84	0.76	0.03	-1.55	1.75
6	IDFC BOND FUND-INCOME PLAN (G)	3.67	1.07	0.95	0.03	-1.26	1.98

Table 7: Risk ratios (Short term debt) for three years (2020, 2021 and 2022).

S. No	FUND NAME	Standard deviation	Beta	Sharpe ratio	Treynor ratio	Jenson ratio	Expense ratio
1	ICICI PRU SHORT TERM FUND (G)	1.94	1.03	1.86	0.03	-0.34	1.13
2	HDFC SHORT TERM DEBT FUND (G)	2.04	1.1	1.87	0.03	-0.4	0.74
3	NIPPON INDIA SHORT TERM FUND (G)	1.65	0.89	2.1	0.04	0.08	1.15
4	SBI MAGNUM SHORT TERM DEBT FUND (G)	1.87	1	1.64	0.03	-0.77	0.83
5	CANARA ROBECO SHORT DURATIONFUND (G)	1.67	0.22	1.51	0.11	1.19	1.02
6	IDFC BOND FUND – SHORT TERM (G)	2.07	0.01	1.52	2.93	3.02	0.8

Table 8: Risk ratios (Mid term debt) for three years (2020, 2021 and 2022)

S.No	FUND NAME	Standard deviation	Beta	Sharpe ratio	Treynor ratio	Jenson ratio	Expense ratio
1	ICICI PRU MEDIUM TERM BOND FUND (G)	2.37	1.2	1.75	0.03	-0.44	1.39
2	HDFC MEDIUM TERM DEBT FUND (G)	2.31	1.13	1.62	0.03	-0.58	1.29
3	NIPPON INDIA INCOME FUND (G)	3.45	1.02	0.92	0.03	-1.36	1.61
4	SBI MAGNUM MEDIUM DURATION FUND	2.3	0.33	1.99	0.14	2.57	1.22
	(G)						
5	CANARA ROBECO CORPORATE BOND FUND (G)	1.73	0.49	1.66	0.06	0.67	1.03
6	IDFC BOND FUND - MEDIUM TERM PLAN (G)	2.48	0.7	1.27	0.05	-0.35	1.49

Table 9: Risk ratios (GILT long term debt) for three years (2020, 2021 and 2022)

S.No	FUND NAME	Standard	Beta	Sharpe	Treynor	Jenson ratio	Expense
		deviation		ratio	ratio		ratio
1	ICICI PRU CONSTANT MATURITY GILT FUND (G)	4.09	0.88	1.27	0.06	2.85	0.23
2	HDFC GILT FUND (G)	2.71	0.49	1.03	0.06	0.63	0.89
3	NIPPON INDIA GILT SECURITIES FUND (G)	3.64	0.65	1.07	0.06	1.03	1.56
4	SBI MAGNUM CONSTANT MATURITY FUND (G)	3.94	1.63	1.06	0.03	-0.58	0.34
5	CANARA ROBECO GILT FUND (G)	3.41	0.59	0.96	0.06	0.67	1.25
6	IDFC G SEC FUND- CONSTANT MATURITY PLAN (G)	4.09	1.68	1.16	0.03	-0.16	0.64