

GILT FUND: AN OPTION FOR INVESTORS IN LOW INTEREST REGIME

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ABSTRACT

As in the past couple of years, equity markets showing range-bound movement, gilt funds that invest in government bonds (G-secs) could be a good investment. The credit risk is next to nil as the government has zero risk of defaulting, but the interest rate risk rises as the market price of debt security varies with fluctuating interest rates. Gilt funds are a very important part of asset allocation with their inverse correlation to stocks and they could contribute significantly to the yield enhancement of a portfolio. In this study, I have analyzed top 10 performing gilt funds selected (on the basis of their three years return) out of the 63 gilt funds available in the Indian mutual fund industry at present. My analysis is concentrated on six months to three years return of the funds and risk, risk- return, market sensitivity of this funds to find out that which gilt fund will offer best return to the investor considering the risk factor of investment.

KEYWORDS: Gilt, government bonds, interest rate risk.

INTRODUCTION

Mutual funds generally collect saving of the investors to purchase investable assets like shares, bonds, government securities, gold etc. There are different types of mutual funds schemes like open ended scheme, closed ended scheme, equity Funds scheme, balanced Funds scheme, debt Fund scheme, bond Fund scheme, gilt Fund scheme, real estate Fund scheme, commodity Fund scheme, sectoral equity Fund scheme, diversified equity Fund scheme, large cap Fund scheme, mixed cap Fund scheme, small cap Fund scheme, midcap Fund scheme, Fund of Funds scheme. Generally, investors with different objectives like different types of mutual fund schemes. Like high risk taking investors like equity fund, commodity fund, medium risk takers like balanced fund and risk averse investor like liquid fund, gilt fund, bond fund etc. Among risk averse short term investors like liquid fund and money market fund and long term investors (3 years to 5 years) like gilt fund. Gilt fund invest in government securities (G-Secs), issued by the Reserve Bank of India on behalf of the government.

The government securities run price risk like any other fixed income security. Generally when interest rates rise, prices of fixed income securities fall and when interest rates drop the prices increase. The extent of fall or rise in the prices is a function of the prevailing interest rates, days to maturity band the increase or decrease in the level of interest rates. The price risk is not unique to government securities. It exists for all fixed income securities.

Fixed income instruments usually carry three kinds of risk-default risk, interest rate risk and liquidity. Interest rate risk arises on account of changes in interest rate. For e.g. the market value of the fixed income instrument will go down in value if interest rates rise and vice versa. This would be a notional loss if such an instrument is held up to maturity. However, if the holder sells the instruments before maturity then there could be a loss on such investment on account of rise in interest rate.

Default risk is one wherein the issuer of the debt defaults or fails to meet its obligation on the payment of interest or principal or both. However, government securities are unique in the sense that their credit risk always remains zero. Gilts are also very liquid and can be traded with ease. Therefore gilt prices are influenced only by the movement in interest rates in the financial system.

The gilt funds have major portion of their investment in GOI securities and hence on an average have a maturity period of one year or more. However to maintain liquidity funds also invest in the money market. Funds with high maturity period and low money market exposure have high liquidity risk. In case of a fall in the interest rates, the NAVs of gilt funds gain sharply but also fall sharply when the interest rates rise. The longer the maturity period of gilt funds, the higher the loss or gain.

The minimum investment amount in gilt funds is Rs 5,000-10,000. Since gilt funds are open ended, the investor can exit or withdraw anytime subject to an exit load. Typically gilt funds offer investors two options, the growth option and dividend option. Under the dividend plan, the fund would declare dividends from the net income earned by way of interest and capital gains (appreciation in the prices of the government security when the interest rate falls). Under the growth plan, these payouts would be reinvested.

Most of the gilt plans offer two plans to the investor, short-term plan or the treasury plan and long term plan also called as investment plans. Treasury plan usually invests in gilts with a short maturity of 6 months to 2 years or in call money. They have a highly liquid portfolio, carry lower risk and at the same time deliver lower returns. These plans are suitable for investors with a short to medium term time horizon of 6 months to one year. In contrast, investment plans invest in gilts of maturity more than 2 years. Long-term gilt funds invest in papers with a maturity period as high as 25 years. Investment plans generate higher returns and are more susceptible to volatility arising due to interest rates. Such plans are suitable for investors with a longer investment horizon of more than 2 years.

Gilt funds are chargeable to tax from Financial Year 2002 unlike in the past when they were absolutely tax-free in the hands of the investor. The investor will have to pay tax on the dividend income received at the individual rates in case of dividend option. Tax @10% would be deducted at source only if the amount received from the company or the mutual fund exceeds Rs 1,000. An investor can also claim a deduction in respect of this income under section 80 L within the overall ceiling of Rs 9,000. In the case of growth option, the investor will pay long term capital gains tax of 20% if he stays invested in the scheme for more than a year.

Objective:-

The study “GILT FUND: AN OPTION FOR INVESTORS IN LOW INTEREST REGIME” is undertaken by me to evaluate the performance of different Gilt Fund selected on the basis of their three years compounded annual growth return by measuring their mean return, standard deviation, beta and alpha and select the funds that will be good for investors to invest in lower interest regime may be started from first quarter of 2013.

Need of the study:- From the table shown below, we have witnessed a rise in the rate of interest from 19th Mar,2010 to 25th Oct, 2011, then the rate of interest remained flat upto 10th Mar,2012 and there is a cut of interest rate of 50 basis point in 17th April, 2012 and it’s after the rate of interest remained same till 18th Dec, 2012 and there is a possibility that the rate of interest will be cooling off from Jan,2013 . If it is happened then the investors of gilt fund will gain profitability as the Net asset value will increase due to the increase in the prices of govt securities where the gilt fund invest their money. So, some good gilt fund should selected on the basis of risk and return analysis for investment purposes in the lower interest regime.

Date	Repo Rate
19-03-2010	5.00
20-04-2010	5.25
02-11-2010	6.25
25-01-2011	6.50
18-03-2011	6.75
03-05-2011	7.25
16-06-2011	7.50
26-07-2011	8.00
16-09-2011	8.25
25-10-2011	8.50
28-01-2012	8.50
10-03-2012	8.50
17-04-2012	8.00
11-08-2012	8.00
22-09-2012	8.00
30-10-2012	8.00
18-12-2012	8.00

Literature review:

In “A Comparative Study of Mutual Fund Performance during Recession in India”(International Journal of Financial Management. Vol 2. Issue2.) Subrata Roy and Shantanu Kumar Ghosh have sought to examine the comparative performance of the open-ended gilt schemes of three types of companies which have been separated according to their ownership styles (Public sector, Indian private sector & foreign private sector). This study is related with financial recession that had been occurred in the year of 2008-2009 (January 2008 to February 2009). In this study the month end net asset values of the open-ended gilt mutual fund schemes have been taken into

account and the data have been obtained from the website of Association of Mutual Funds in India (AMFI). This paper has examined the risk-adjusted performance, selectivity performance, diversification performance and market-timing performance of the open-ended gilt mutual fund schemes in the period of recession. In this study, Sharpe and Treynor measures have been applied to measure the risk-adjusted performance and along with these, different coefficients have been estimated to examine the selectivity, market-timing and diversification performances of the open-ended gilt schemes offered by Indian public & private sector mutual fund companies as well as the firms belonging to foreign private sector. It has been observed that the performance of the open-ended gilt schemes of different types of companies is not satisfactory during the recession period. However, the returns of all but one of the selected open-ended gilt schemes are seen to have been positive. However, the observed positive performances of the selected schemes are not statistically significant.

In “ A study of selected dividend mutual fund schemes with Jensen’s alpha model” (International Journal of Research in Economics & Social Sciences, vol 2 , issue 6) Dr. Sandeep Bansal , Sanjeev Kumar and Dr. Surender Kumar Gupta (2012) tried to apply a risk-adjusted measure known as Jensen's Alpha Model on ten randomly selected dividend mutual fund schemes that estimates how much a manager's forecasting ability contributes to the fund's returns. They use a sample of 10 mutual fund schemes (dividend) for the period of 4 years from May 2005 to April 2009 on monthly basis and calculated their NAV. Jensen's Model measure involves a comparison of the returns that the fund had generated with the returns expected from the fund with the given level of its systematic risk (Beta). The difference between two returns is called alpha . They find that 70% of selected mutual fund schemes have been performed negatively because having negative Alpha, and only three out of ten selected dividend mutual fund schemes got the positive value of Alpha.

In “Performance evaluation of Indian and Foreign Mutual funds : A comparative study.”(International Journal of Marketing, Financial services & Management Research vol.1 no,4 2012) Mr. Lenin Kumar Nooney and Dr. V. Rama Devi studied performance of a period from 2003- 2007 of a sample of 340 mutual funds belonging to the four categories money market funds, debt funds, equity funds and balanced funds . The performance of the selected funds being evaluated by average rate of return of the fund , standerd deviation, risk/ return, Sharpe ratio, Treynor ratio and Jensen ratio. Benchmark comparison is also made as it indicates to what extent the fund managers are able to produce better performance of managed portfolio than the market or indexed portfolio.

IV. RESEARCH METHODOLOGY

i) DATA COLLECTION

This study is based on primary as well as secondary data. The relevant sources of secondary data are books, journals, magazines, newspapers , brouchers and websites of selected mutual funds. All the relevant data is being collected from mutualfundindia.com , valueresearchonline.com as on 26th Dec,2012. The present study evaluates the performance of top 10 gilt funds selected from the 63 gilt fund schemes available in the Indian Mutual Fund Industry.

ii) TOOLS AND TECHNIQUE

Some mathematical and some statistical tools have been taken into consideration for analysis. Here arithmetic mean, percentage, standard deviation, beta, alpha have applied.

iii) Analysis:-

At present Indian Mutual Fund Industry has 63 schemes of Gilt funds offered by various fund houses, the schemes can be tabulated in the following way :-

TABLE-1

Sl.No.	Scheme name
1	DWS Gilt Fund - Regular - Growth
2	ICICI Prudential Gilt Fund Investment Plan - PF Option - Growth
3	UTI Gilt Advantage Fund - Long term - Provident Fund Plan- Growth
4	UTI Gilt Advantage Fund - Long Term - Provident Fund Plan - Prescribed Date Auto
5	UTI Gilt Advantage Fund - Long Term Plan - Growth
6	Birla Sun Life Govt Securities Fund - Long Term - Growth
7	Reliance Gilt Securities Fund - Growth
8	Birla Sun Life Gilt Plus Regular Plan - Growth
9	Kotak Gilt - Savings Plan - Growth
10	HDFC Gilt Fund Long Term Plan - Growth
11	Motilal Oswal MOST 10 Year Gilt Fund Long Term Plan - Growth
12	ICICI Prudential Gilt Fund Investment Plan - Growth
13	ICICI Prudential Gilt Fund Investment Plan - Growth
14	L&T Gilt Investment - Growth
15	SBI Magnum Gilt Long Term Plan - PF - Regular - Growth
16	SBI Magnum Gilt Long Term Plan - Growth
17	Tata Gilt Mid Term Fund - Growth
18	DSP Black Rock Government Securities Fund - Growth
19	HDFC Gilt Fund Short Term Plan - Growth
20	Baroda Pioneer Gilt Fund - Growth
21	IDFC Government Securities Fund - Investment Plan - Plan A - Growth
22	Birla Sun Life Gilt Plus P F Plan - Growth
23	Templeton India Government Securities - Long Term Plan - Growth
24	SBI Magnum Gilt Long Term Plan - PF - Fixed Period - 1 year - Growth
25	SBI Magnum Gilt Long Term Plan - PF - Fixed Period - 2 year - Growth
26	HSBC Gilt Fund - Growth
27	SBI Magnum Gilt Long Term Plan - PF - Fixed Period - 3 year - Growth
28	IDFC Government Securities Fund - PF Plan - Plan A - Growth
29	Axis Constant Maturity 10 Year Fund - Growth

30	SBI Magnum Gilt Short Term Plan - Growth
31	Tata Gilt Retirement Plan (28-02-13) - App
32	Tata Gilt Retirement Plan (28-02-25) - Appreciation
33	Tata Gilt Securities Fund Plan A - Growth
34	Tata Gilt High Investment Fund - Growth
35	Kotak Gilt - Investment Regular Plan - Growth
36	Kotak Gilt Investment PF & Trust Plan - Growth
37	Templeton India Government Securities Fund - Composite Plan - Growth
38	Templeton India Government Securities Fund- PF Plan - Growth
39	LIC Nomura G Sec Fund - Provident Fund Plan - Growth
40	LIC Nomura G Sec Fund - Growth
41	IDFC Government Securities Fund - Short Term Plan - Plan A - Growth
42	Principal Government Securities Fund - Growth
43	Tata Gilt Securities Short Maturity Fund - Growth
44	ING Gilt Provident Fund - Dynamic Plan - Growth
45	ING Gilt Provident Fund - Dynamic Plan - Growth - Auto Income Payout Option
46	JM G Sec Regular Plan - Growth
47	Edelweiss Gilt fund - Growth
48	Canara Robeco Gilt PGS- Growth
49	DSP BlackRock Treasury Bill Fund - Growth
50	UTI G-Sec Short Term Plan - Growth
51	Sundaram Gilt Fund - Regular - Growth
52	ICICI Prudential Gilt Fund Treasury Plan - PF Option - Growth
53	ICICI Prudential Gilt Fund Treasury Plan - PF Option - Quarterly Dividend
54	Religare Gilt Fund - Long Duration Plan - Regular - Growth
55	Sahara Gilt Fund - Growth
56	Birla Sun Life Govt Securities Fund - Short Term Debt - Growth
57	Escorts Gilt Plan - Growth
58	Canara Robeco Gilt Advantage Fund - Growth
59	Templeton India Government Securities Fund - Treasury Plan - Growth
60	Religare Gilt Fund - Short Duration Plan - Regular - Growth
61	Birla Sun Life Gilt Plus Liquid Plan - Growth
62	Daiwa Government Securities Fund - Short Term Plan - Growth
63	Taurus Gilt Fund - Growth

Out of 63 schemes of gilt fund 10 funds are selected on the basis of their last one year return and their performance in terms of one year return in percentage terms are given in the following table.

TABLE-2
MEASUREMENT OF PERFORMANCE IN TERMS OF SIX MONTH TO 3 YAERS
RETURN

Sl. No,	Name of the scheme	6 months return(%)	1 yr. return(%)	3 yr. return(%)
1	Baroda Pioneer Gilt Fund- Growth	4.24	10.71	13.437
2	Birla Sunlife Govt. Securities Fund- Long Term- Growth	4.20	10.73	8.867
3	Kotak Gilt Investment PF & Trust Plan- Growth	3.98	14.07	8.8017
4	Kotak Gilt Investment Regular Plan- Growth	3.98	14.07	8.7382
5	HSBC Gilt Fund- Growth	3.94	9.78	8.45
6	IDFC Govt. Securities Fund- PF Plan- Plan A - Growth	5.09	11.88	8.3736
7	IDFC Govt. Securities Fund- Investment Plan- Plan A -Growth	5.17	11.77	8.10
8	Religare Gilt Fund-Long Duration Plan-Regular- Growth	3.16	6.50	7.9156
9	Birla Sunlife Gilt Plus P F Plan- Growth	4.26	10.38	7.6322
10	SBI Magnum Gilt Short Term Plan - Growth	4.20	9.19	7.5514
Average		4.22	10.52	8.78864

In above table , the IDFC Govt. Securities Fund- Investment Plan- Plan A –Growth (5.17%) has given the highest return in six months and Religare Gilt Fund-Long Duration Plan-Regular-Growth has given lowest return (3.16%) in last six months. In last 1 year, Kotak Gilt Investment PF & Trust Plan- Growth & Kotak Gilt Investment Regular Plan- Growth have given highest return and Religare Gilt Fund-Long Duration Plan-Regular- Growth has given lowest return. In the 3 year , Baroda Pioneer Gilt Fund- Growth has given the highest return (13.437%) and SBI Magnum Gilt Short Term Plan - Growth has given lowest return (7.5514%).

TABLE-3
MEASUREMENT OF PERFORMANCE IN TERMS OF MEAN RETURN AND
VARIOUS RISK MEASUREMENTS(S.D, BETA & ALPHA)

SI No.	Name of scheme	Standard deviation (S.D)	Beta	alpha	Mean
1	Baroda Pioneer Gilt Fund- Growth	0.44	0.01	0.499	0.06
2	Birla Sunlife Govt. Securities Fund- Long Term-Growth	1.18	0.30	0.231	0.46
3	Kotak Gilt Investment PF & Trust Plan- Growth	1.84	1.28	0.48	0.44
4	Kotak Gilt Investment Regular Plan- Growth	1.84	1.28	0.48	0.43
5	HSBC Gilt Fund- Growth	1.20	0.92	0.23	-0.03
6	IDFC Govt. Securities Fund- PF Plan- Plan A -Growth	1.86	1.22	0.48	0.41
7	IDFC Govt. Securities Fund- Investment Plan- Plan A -Growth	1.86	1.22	0.48	0.41
8	Religare Gilt Fund-Long Duration Plan- Regular- Growth	1.68	0.94	-0.83	0.14
9	Birla Sunlife Gilt Plus P F Plan- Growth	1.82	1.20	0.373	0.23
10	SBI Magnum Gilt Short Term Plan - Growth	0.86	1.01	0.181	0.24

In the above table mean return of the gilt funds ranging from -0.03 (HSBC Gilt Fund- Growth) to 0.46 (Birla Sunlife Govt. Securities Fund- Long). The standard deviation ranging from 0.44

(Baroda Pioneer Gilt Fund- Growth) and 1.86 (IDFC Govt. Securities Fund- PF Plan- Plan A – Growth and IDFC Govt. Securities Fund- Investment Plan- Plan A –Growth). Market sensitivity or beta factor of gilt funds ranging from 0.01(Baroda Pioneer Gilt Fund- Growth) and 1.22 (IDFC Govt. Securities Fund- PF Plan- Plan A –Growth and IDFC Govt. Securities Fund- Investment Plan- Plan A –Growth). Alpha is the highest in case of Baroda Pioneer Gilt Fund- Growth fund (0.499) and lowest in the Religare Gilt Fund-Long Duration Plan-Regular- Growth (-.83).

Conclusion:- It is concluded from the above analysis that Baroda Pioneer Gilt Fund- Growth is the best gilt fund to invest money. As it derives highest return in the 3 years period of time. And it's standard deviation is the lowest it means that deviation actual return from expected return is very low in Baroda Pioneer Gilt Fund- Growth. Also the market sensitivity or volatility is very low in Baroda Pioneer Gilt Fund- Growth as it's beta is the lowest. And the highest and positive alpha of Baroda Pioneer Gilt Fund- Growth scheme indicates positive and favourable return-risk relationship.

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