

PERFORMANCE OF TAX PLANNING MUTUAL FUNDS: AN ANALYSIS**Dr. Ashok Khurana**

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Abstract

Mutual funds are financial intermediaries which collect the savings of investors and invest them in a large and well diversified portfolio of securities such as money market instruments, corporate and Government bonds and equity shares of joint stock companies. The present study evaluates tax planning mutual funds most commonly known as Equity Linked Saving Schemes. The study has compared the performance of tax planning mutual funds in comparison to its benchmark i.e. BSE 100, and its industry average. Further, it has examined the volatility and risk return profile of the funds using standard deviation, Beta, Sharpe ratio, and Treynor ratio in an attempt to spot the best performing fund with low risk profile.

Keywords:

Tax planning, Benchmark, Industry average, Beta, Sharpe.

Introduction

With the increase in domestic saving and improvement in deployment of investment through markets, the need and scope for mutual fund operation has increased tremendously. Mutual funds are not only best suited for the purpose but also are capable of meeting this challenge effectively. Professionals who manage mutual funds are considered to have a better knowledge of market behaviour. Within a short span of time mutual fund operation has become an integral part of the Indian financial scene and is poised for rapid growth in the near future. A mutual fund is an investment company or trust that pools the resources from thousands of its shareholder or unit holder, who share common investment goal, and then diversifies its investment into different types of securities in order to realize potential returns with reasonable safety. In the era of globalization, first, rapid price fluctuations are occurring for assets like equity shares, bonds, real estate, derivatives etc. Second, an individual also finds it difficult to keep track of ownership of his assets, investments, brokerage dues and bank transactions, etc. In this context, mutual funds are the solution to all these situations. Mutual funds help the small and medium size investors to participate in today's complex and modern financial scenario. Investors can participate in mutual funds by buying the units. Mutual funds play a vital role in mobilization of resources and their effective allocation. These funds play a significant role in development of capital markets and growth of the financial sectors as a whole. Million investors are reposing their confidence in the ability of the fund managers in successfully managing their wealth.

Review of literature

Historical performance of mutual funds one of the major indicator of its likely performance in future. The study enables us to get insights into the various aspects of portfolio management affecting the performance of a common fund. However one of the risk factors mandatory to be included in the offer document in Indian context is the statement "the past performance may or may not be an indicator of future performance." Following studies support the hypothesis that historical performance is one of the major indicators of likely future performance.

Nancy (1985) has stated that study of the past performance is helpful in forecasting. Study of the past performance unveils some or all factors that influence the level of financial returns. The study of these factors may help in improving the ability and accuracy of forecasting future returns. This study is likely to be useful for investors and portfolio managers

Arnaud (1985) has suggested that there are three basic measurements of the performance of investment trust company at three basic levels in terms of capital changes. As per the first approach, market value of investments is to be monitored duly adjusted for liabilities. In the second approach NAV per unit is measured and it is considered as more acceptable measure of mutual fund performance. Third level of measurement is to follow share price movements.

Stopp (1988) had evaluated mutual fund schemes (UK) in terms of rate of return generated for the investors for the period ended December 31, 1986. He also examined inter-group performance by re-grouping the sample into four broad categories. He suggested that choosing funds based on outstanding performance might be a recipe for disaster as the sectors, which tend to produce the most outstanding performance may also carry the greatest risk.

Grinblatt and Sheridan (1989) evaluated performance in terms of gross returns of mutual funds. They constructed eight portfolio benchmark based on firm size, dividend yield and past returns. One month T-Bills were used as risk-free return. The period of study was December 31, 1974 to December 31, 1984. The findings revealed that abnormal performance of the funds based on gross returns is inversely related to the size. They pointed out that superior performance may exist for funds with smallest size of net assets value. But due to high expenses, the investors are unable to take advantage of their superior performance.

According to Fredman (1996) the combined effect of capital charges and income received contribute to the total return or overall rate of return generated by the fund. Total return considering both these factors is the most appropriate absolute measure of performance evaluation.

Hudson (1997) 'Wherever performance evaluation is implemented, there will always be two key ingredients (a) a measure of return and (b) a measure of risk, over a given time horizon. Proper evaluation and comparison is possible only if the reporting standard is of high quality and there are well based standards for calculating NAVs.

Fredman (1996) suggested that the risk is measured in terms of the variation or volatility of the fund's net Asset value. The more extreme are the fluctuations in aggregate value of the assets of the fund over a period, the greater is the volatility or risk. The author has described standard deviation as the most insightful and dependable barometer of measuring volatility or risk.

Daniel (1997) has concluded that the 'persistence in mutual funds performance' is due to the use of simple momentum strategies by the fund managers rather than due to certain fund managers having 'hot hand' that allow them to pick winning stocks. Results show that particularly aggressive growth funds exhibit some "selectivity" ability but no "timing ability."

Gupta and Sehgal (1997) evaluated mutual fund performance over a four year period, 1992-96. The sample consisted of 80 mutual fund schemes. They concluded that mutual fund industry performed well during the period of study. The performance was evaluated in terms of benchmark comparison, performance from one period to the next and their risk return characteristics.

Mishra (2001) evaluated performance over a period, April 1992 to December 1996. The sample size was 24 public sector sponsored mutual funds. The performance was evaluated in terms of rate of return, Treynor, Sharpe and Jensen's measure of performance. The study also addressed beta's instability issues. The study concluded dismal performance of PSU mutual funds in India, in general, during the period 1992-96.

Sadhak (2003) in his book suggested several improvements in the strategic and operational practices of mutual funds are suggested keeping in mind the mechanisms used by fund managers in developed economies.

Sondhi (2004) studied the financial performance evaluation of equity oriented mutual funds on the basis of type size and ownership of mutual funds using the measure of absolute rate of return, comparison with benchmark (BSE 100) and the return on 364 days T-Bills and risk adjusted performance measure (Sharpe, Treynor, Jensen's Alpha and Fama).

Muthappan and Damodharan (2006) provided empirical evidence of "Risk adjusted performance evaluation of Indian Mutual fund schemes".

V. Selvaraj and K Marammal Devi (2007) studied the performance of retail mutual funds. Moreover, funds that performed well in the past are not able to beat the market again in the future.

B. Phaniswara Raju (2008) evaluates the performance of selected mutual fund schemes in the framework of risk and return during the period April, 2000 to March 2005.

NEED OF THE STUDY

The literature review revealed that performance measures of mutual funds include rate of return, benchmark comparison risk adjusted returns (Treynor and Sharpe's indices) 'Stock Selectivity' abilities and market timing skills of the fund managers. The past studies on performance of Indian Mutual funds analysed the effect of factors such as type (open-ended or close ended) size, (small, medium and large) and the ownership pattern (private or public mutual funds) on their financial performance, except study of Gupta and Sehgal (1997) who have analyzed the performance of open-ended and closed funds. Though many empirical studies linking investment styles and performance of mutual funds were conducted in USA

and other developed countries, but till date such an empirical study in the context of tax planning mutual funds are yet to be undertaken. Hence, the study is an attempt in this direction to unearth performance of tax planning mutual funds.

Objectives of the study

The objective of the present study to evaluate the performance of selected equity linked saving schemes in comparison to their benchmark, the volatility, return per unit, the fund sensitivity to the market function in terms of beta.

Research Methodology

Data Collection

This study is based on primary as well as secondary data. The relevant sources of Secondary Data are books, journals, magazines, newspapers, brochures and websites of selected mutual funds. All the relevant data is being collected from mutualfundindia.com as on 31st March, 2010. The present study compares 15 open ended selected equity linked saving schemes launched by public sector, private sector, and foreign mutual fund players in India. The schemes have been selected using deliberate sampling method. The scheme selection criteria are as under :-

- a) Corpus size >250 crores
- b) Returns of 5 years
- c) Top 15 schemes ranked on the basis of 5 years compounded annualized returns.

Tools and techniques For the purpose of analysis, appropriate statistical and financial tools, i.e., arithmetic mean, standard deviation, correlation, Beta, Treynor ratio, Sharpe ratio, Fama, Alpha have been applied.

RESULTS & FINDINGS

PERFORMANCE OF THE SELECTED TAX PLANNING MUTUAL FUNDS IN COMPARISON TO INDUSTRY AVERAGE:

This part analyses the performance of the selected Equity linked saving schemes in comparison to the Industry average performance of selected similar category Funds.

Table 1 depicts the performance of selected Equity linked saving schemes for the period for the last 6 month, 1 year, 3 years, 5 years and since inception. It also depicts the average Industry return and average performance of similar category Funds. The analysis of table 1 clearly reveals that compounded annualized percentage return since inception range between 30.74 percent and 11.72 percent. The highest since inception return of 30.74 is depicted by HDFC long term advantage Fund-Growth. It is followed by Franklin India Index Tax Fund, Sahara Tax Gain - Growth, ICICI Prudential tax plan-Growth with 30.47 percentages, 28.74 percent and 27.15 percent return respectively. Baroda pioneer ELSS 96 has given the minimum compounded annualized percentage return of 11.72 percent.

Table 1
PERFORMANCE OF SELECTED TAX PLANNING FUNDS IN COMPARISON TO
THE INDUSTRY
AVERAGE / AVERAGE PERFORMANCE OF SELECTED SIMILAR CATEGORY
FUND

(as on 31.03.2010)

Sr.	Scheme Name	6mth	1yrs	3yrs	5yrs	SI
1	Sundaram BNP Paribas TaxSaver - (Open Ended Fund) - Growth	9.63	61.66	15.56	26.19	17.21
2	Sahara Tax gain - Growth	13.65	78.2	17.99	26.08	28.74
3	SBI Magnum Tax Gain Scheme 93 - Growth	12.8	64.66	9.14	24.96	14.82
4	HDFC TaxSaver - Growth	17.98	86.38	13.16	24.94	25.78
5	Franklin India Index Tax Fund	11.01	49.51	8.07	23.66	30.47
6	ICICI Prudential Tax plan - Growth	23.1	100.97	14.23	22.54	27.15
7	Franklin India Tax shield - Growth	18.06	68.66	14.2	22.11	16.40
8	Taurus Tax shield - Growth	14.87	73.48	23.54	20.83	14.18
9	Principal Personal TaxSaver	12.2	66.83	8.62	20.73	24.68
10	HDFC Long Term Advantage Fund - Growth	15.82	78.12	9.96	19.80	30.74
11	Principal Tax Savings Fund	11.92	58.56	1.51	18.13	17.09
12	Tata Tax Saving Fund	13.81	68.01	8.13	17.36	20.29
13	Escorts Tax Plan - Growth	18.98	77.97	3.63	17.07	17.19
14	ING Tax Saving Fund - Growth	19.84	85.13	1.06	16.54	17.70
15	Baroda Pioneer ELSS 96	9.74	66.3	7.89	16.10	11.72
	BSE 100	12.25	61.39	10.06	17.10	
	Average performance of similar category funds	14.89	72.29	10.44	21.13	

Source : *Compiled from mutualfundindia.com*

It is observed that compounded annualized percentage return over the period of last 5 years range between 26.19 percent and 16.10 percent. The Highest return of 26.19 is registered by Sundaram BNP Paribas Tax Saver- (Open Ended fund) Growth. It is followed by Sahara tax gain-Growth, SBI Magnum Tax Gain Scheme 93 - Growth, HDFC Tax Saver - Growth with 26.08 percent, 24.96 percent, 24.94 percent return respectively. Baroda Pioneer ELSS 96 has given minimum compounded annualized percentage returns of 16.10 percent. The compounded annualized returns over the period of last three years range between 23.54 percent and 1.06 percent. The Highest return of 23.54 percent is shown by Taurus tax Shield-Growth. It is followed by Sahara tax gain-Growth, Sundaram BNP Paribas tax-saver (Open Ended fund) – Growth, ICICI Prudential Tax Plan - Growth with 17.99 percent, 15.56 percent

and 14.23 percent return respectively. ING tax saving fund-Growth has given the minimum compound annualized percentage return of 1.06 percent.

The table 1 also depicts that the compound annualized percentage return over the period of last one year's ranges between 100.97 percent and 58.56 percent. The highest return of 100.97 percent is given by ICICI Prudential Tax Plan - Growth. It is followed by HDFC Tax Saver - Growth, ING Tax Saving Fund - Growth, Sahara Tax Gain - Growth with 86.38 percent, 85.13 percent, 78.2 percent. Principal Tax Saving Fund has given the minimum percentage return of 58.56 percent.

Analysis of 6 months return in the tax planning funds ranges between ranges 23.1 percent and 9.63 percent. The highest return of 23.1 percent is given by ICICI Prudential Tax Plan - Growth. It is followed by ING Tax Saving Fund - Growth. Escorts Tax Plan - Growth, Franklin India Tax Shield-Growth with 19.84 percent, 18.98 percent and 18.06 percent, respectively. Sundaram BNP Paribas tax saver (Open Ended fund growth) has given the minimum return of 9.63 percent. All the selected schemes under performed the Industry Index over the period of 5 years only seven schemes is Sundaram BNP Paribas Tax saver-Growth, Sahara Tax Gain - Growth, SBI Magnum Tax Gain Schemes-93 - Growth, HDFC Tax Saver - Growth, Franklin India Index Tax Fund, ICICI Prudential tax plan-Growth, Franklin India tax Shield – Growth have out performed the Industry Index over the last 5 years rest other schemes have under performed the Industry Index over the last five year. Out of 15 schemes 6 schemes is Sundaram BNP Paribas tax saver-Growth, Sahara tax gain-Growth, HDFC tax saver -Growth, ICICI Prudential tax plan -Growth, Franklin India Tax Shield - Growth, Taurus Tax Shield-Growth have out performed the Industry Index over the last three years out of 15 schemes 7 schemes i.e. Taurus Tax Shield - Growth, Franklin India Tax Shield - Growth, ICICI Prudential Tax Plan - Growth, HDFC Tax Saver - growth, Sahara tax gain-growth, Sundaram BNP Paribas Tax saver-Growth have over performed the Industry index over the last 1 years. Out of 15 schemes only 5 schemes HDFC Tax Saver - Growth, ICICI Prudential Tax plan-Growth, Taurus Tax-Shield- Growth, HDFC Long term advantage fund-Growth, ING tax saving fund-Growth, Escorts tax plan-Growth, ICICI Prudential tax plan Growth, Franklin India Tax Shield - Growth have out performed the Industry index over the last 6 months

PERFORMANCE OF TAX PLANNING MUTUAL FUNDS IN COMPARISON TO ITS BENCHMARK

Benchmark comparison is important performance measure as it indicates to what extent the fund managers were able to produce better performance of managed portfolio compound to the market or Index portfolios. This part analysis the performance of the selected tax planning mutual fund growth schemes in comparison to the Industry average performance of selected similar category funds and in comparison the benchmark and analysis of volatility and return per unit.

Table 2
PERFORMANCE OF SELECTED EQUITY LINKED SAVING SCHEMES
IN COMPARISON TO BENCHMARK

(as on 31.03.2010)

Sr.	Scheme Name	6mth	1yrs	3yrs	5yrs	SI
1	Sundaram BNP Paribas TaxSaver - (Open Ended Fund) - Growth	9.63	61.66	15.56	26.19	17.21
2	Sahara Tax gain - Growth	13.65	78.2	17.99	26.08	28.74
3	SBI Magnum Tax Gain Scheme 93 - Growth	12.8	64.66	9.14	24.96	14.82
4	HDFC TaxSaver - Growth	17.98	86.38	13.16	24.94	25.78
5	Franklin India Index Tax Fund	11.01	49.51	8.07	23.66	30.47
6	ICICI Prudential Tax plan - Growth	23.1	100.97	14.23	22.54	27.15
7	Franklin India Tax shield - Growth	18.06	68.66	14.2	22.11	16.40
8	Taurus Tax shield - Growth	14.87	73.48	23.54	20.83	14.18
9	Principal Personal TaxSaver	12.2	66.83	8.62	20.73	24.68
10	HDFC Long Term Advantage Fund - Growth	15.82	78.12	9.96	19.80	30.74
11	Principal Tax Savings Fund	11.92	58.56	1.51	18.13	17.09
12	Tata Tax Saving Fund	13.81	68.01	8.13	17.36	20.29
13	Escorts Tax Plan - Growth	18.98	77.97	3.63	17.07	17.19
14	ING Tax Saving Fund - Growth	19.84	85.13	1.06	16.54	17.70
15	Baroda Pioneer ELSS 96	9.74	66.3	7.89	16.10	11.72
	BSE 100	12.25	61.39	10.06	17.10	

Source : *Compiled from mutualfundindia.com*

Table 2 Depicts the performance of selected Diversified Fund schemes for the period for the last 6 month, 1 year, 3 years, 5 years and since inception. It also depicts the average Industry return and average performance of similar category Funds and in comparison the benchmark and analysis of volatility and return per unit. The analysis of table clearly reveals that compounded annualized percentage return since inception range between 30.74 percent and 11.72 percent. The highest since inception return of 30.74 is depicted by HDFC long term advantage Fund-Growth. It is followed by Franklin India Index Tax fund, Sahara Tax gain -Growth, ICICI Prudential Tax Plan - Growth with 30.47 percentages, 28.74 percent and 27.15 percent return respectively. Baroda pioneer ELSS 96 has given the minimum compounded annualized percentage return of 11.72 percent.

It is observed that compounded annualized percentage return over the period of last 5 years range between 26.19 percent and 16.10 percent. The Highest return of 26.19 is registered by Sundaram BNP Paribas Tax Saver- (Open Ended fund) Growth. It is followed by Sahara tax gain-Growth, SBI Magnum Tax Gain Scheme 93 - Growth, HDFC Tax Saver - Growth with 26.08 percent, 24.96 percent, 24.94 percent return respectively. Baroda Pioneer

ELSS 96 has given minimum compounded annualized percentage returns of 16.10 percent. The compounded annualized returns over the period of last three years range between 23.54 percent and 1.06 percent. The Highest return of 23.54 percent is shown by Taurus tax Shield-Growth. It is followed by Sahara tax gain-Growth, Sundaram BNP Paribas tax-saver (Open Ended fund) – Growth, ICICI Prudential Tax Plan - Growth with 17.99 percent, 15.56 percent and 14.23 percent return respectively. ING tax saving fund-Growth has given the minimum compound annualized percentage return of 1.06 percent.

The table 2 also depicts that the compound annualized percentage return over the period of last one year's ranges between 100.97 percent and 58.56 percent. The highest return of 100.97 percent is given by ICICI Prudential Tax Plan - Growth. It is followed by HDFC Tax Saver - Growth, ING Tax Saving Fund - Growth, Sahara Tax Gain - Growth with 86.38 percent, 85.13 percent, 78.2 percent. Principal Tax Saving Fund has given the minimum percentage return of 58.56 percent. Analysis of 6 months return in the tax planning funds ranges between ranges 23.1 percent and 9.63 percent. The highest return of 23.1 percent is given by ICICI Prudential Tax Plan - Growth. It is followed by ING tax saving fund – Growth, Escorts Tax Plan - Growth, Franklin India Tax Shield - Growth with 19.84 percent, 18.98 percent and 18.06 percent respectively. Sundaram BNP Paribas tax saver (Open Ended fund growth) has given the minimum return of 9.63 percent.

All the selected schemes have out performed the BSE 100 Index over the period of last 5 years only 3 schemes is Baroda Pioneer ELSS 96, ING Tax saving Fund-Growth, Escorts tax plan-Growth have under performed the benchmark indices over the last five years. Out of 15 schemes, 6 schemes i.e. Sundaram BNP Paribas tax saver-Growth, Sahara Tax gain-Growth, ICICI Prudential tax plan-Growth, Franklin India Tax Shield – Growth, Taurus Tax Shield Growth have over performed the benchmark indices over the last 3 years. Out of 15 schemes only 2 schemes i.e. Franklin India Index tax fund, Principal tax saving fund have under performed the benchmark indices over the last 1 years. Out of 15 schemes, 6 schemes i.e. Sundaram BNP Paribas tax saver, SBI Magnum tax gain scheme 93- Growth, Franklin India Index tax Fund, Principal tax saving fund, Baroda Pioneer ELSS 96 have under performed the benchmark indices over the last 6 months. Out of 15 schemes, only 7 schemes i.e. Sundaram BNP paribas Tax saver-Growth, SBI Magnum Tax gain scheme 93 - Growth, Taurus tax shield-Growth, Principal Personal tax saver, Principal tax saving fund, Tata tax saving fund, Baroda Pioneer ELSS 96 have under performed the benchmark indices over the last 3 months. Out of 15 schemes, Only 1 scheme i.e. Franklin India Index tax fund have under performed the bench mark indices over the last 1 month.

ANALYSIS OF VOLATILITY AND RETURN PER UNIT OF RISK

Portfolio performance without reckoning the risk exposure do not provide fair and true picture. Various studies in the past have not only Examined performance in terms of rate of return but also evaluated portfolio performance in terms of risk adjusted rate of return (Treynor and Sharpe's Indices). This segment of the chapter included to analyses the volatility and return per unit of risk for the purpose of analysis different tools like means

Standard Deviation, Sharpe, Beta, Treynor, Fama, Mean, Correlation and Alpha are used. A compact view of these tools is presented in the following table. A separate analysis of each factor is made in the present segment with this view to highlight a clear picture of volatility & returns in the schemes selected for the study.

Table 3
Analysis of Performance of Selected Equity Linked Saving Schemes
on the basis of volatility and return per unit of Risk

(as on 31.03.2010)

Sr.	Scheme Name	SD	Sharpe	Beta	Trey-nor	Fama	Mean	Corre-lation	Alpha
1	Sundaram BNP Paribas TaxSaver - (Open Ended Fund) - Growth	4.34	-0.12	0.71	-0.71	0.05	-0.40	0.70	6.10
2	Sahara Tax gain - Growth	4.46	-0.12	0.72	-0.76	0.01	-0.44	0.72	8.27
3	SBI Magnum Tax Gain Scheme 93 - Growth	5.13	-0.13	0.87	-0.75	-0.01	-0.55	0.86	0.27
4	HDFC TaxSaver - Growth	5.03	-0.10	0.83	-0.59	0.14	-0.39	0.82	4.04
5	Franklin India Index Tax Fund	4.95	-0.11	0.83	-0.64	0.10	-0.42	0.82	-0.79
6	ICICI Prudential Tax plan - Growth	5.13	-0.14	0.84	-0.88	-0.08	-0.62	0.83	5.60
7	Franklin India Tax shield - Growth	5.72	-0.09	0.98	-0.51	0.22	-0.39	0.98	4.81
8	Taurus Tax shield - Growth	4.57	-0.15	0.73	-0.91	-0.09	-0.56	0.72	14.01
9	Principal Personal TaxSaver	5.54	-0.15	0.93	-0.93	-0.16	-0.75	0.91	0.82
10	HDFC Long Term Advantage Fund - Growth	4.75	-0.14	0.79	-0.86	-0.08	-0.57	0.77	1.25
11	Principal Tax Savings Fund	5.40	-0.19	0.90	-1.15	-0.35	-0.92	0.88	-6.03
12	Tata Tax Saving Fund	4.65	-0.16	0.77	-0.95	-0.15	-0.63	0.76	-0.47
13	Escorts Tax Plan - Growth	3.89	-0.30	0.52	-2.28	-0.69	-1.08	0.52	-4.26
14	ING Tax Saving Fund - Growth	6.11	-0.15	0.98	-0.93	-0.14	-0.81	0.97	-6.17
15	Baroda Pioneer ELSS 96	5.35	-0.14	0.90	-0.88	-0.09	-0.66	0.89	-1.14

Source : Complied from mutualfundindia.com

ANALYSIS OF VOLATILITY AND RETURN PER UNIT OF RISK BASED ON STANDARD DEVIATION

Standard deviation of the selected Tax planning Mutual Funds - Growth is depicted in the table 4. Standard deviation is used to measure the variation in individual from the average expected return over a certain period.

Table 4
Analysis of Volatility and Return per Unit of
Risk Based on Standard Deviation

(as on 31.03.2010)

Sr.	Scheme Name	Standard deviation
1	Sundaram BNP Paribas TaxSaver - (Open Ended Fund) - Growth	4.34
2	Sahara Tax gain - Growth	4.46
3	SBI Magnum Tax Gain Scheme 93 - Growth	5.13
4	HDFC TaxSaver - Growth	5.03
5	Franklin India Index Tax Fund	4.95
6	ICICI Prudential Tax plan - Growth	5.13
7	Franklin India Tax shield - Growth	5.72
8	Taurus Tax shield - Growth	4.57
9	Principal Personal TaxSaver	5.54
10	HDFC Long Term Advantage Fund - Growth	4.75
11	Principal Tax Savings Fund	5.40
12	Tata Tax Saving Fund	4.65
13	Escorts Tax Plan - Growth	3.89
14	ING Tax Saving Fund - Growth	6.11
15	Baroda Pioneer ELSS 96	5.35

Source : *Compiled from mutualfundindia.com*

Analysis of table 4 clearly reveals that Escort tax plan-Growth has under performed all the schemes with 3.89 standard deviation. It indicates the relatively low volatility of the scheme and low return per unit of risk. ING Tax saving Fund-Growth has out performed all the schemes with 6.11 standard deviation. It indicates the relatively high volatility of the scheme and high return per unit of risk.

ANALYSIS OF VOLATILITY AND RETURN PER UNIT OF RISK BASED ON SHARPE

The Sharpe ratio of the selected Tax planning Mutual Funds - Growth is depicted in the table 5 as follows:

Table 5
Analysis of Volatility and Return per Unit of Risk based on Sharpe
(as on 31.03.2010)

Sr.	Scheme Name	Sharpe
1	Sundaram BNP Paribas TaxSaver - (Open Ended Fund) - Growth	-0.12
2	Sahara Tax gain - Growth	-0.12
3	SBI Magnum Tax Gain Scheme 93 - Growth	-0.13
4	HDFC TaxSaver - Growth	-0.10
5	Franklin India Index Tax Fund	-0.11
6	ICICI Prudential Tax plan - Growth	-0.14
7	Franklin India Tax shield - Growth	-0.09
8	Taurus Tax shield - Growth	-0.15
9	Principal Personal TaxSaver	-0.15
10	HDFC Long Term Advantage Fund - Growth	-0.14
11	Principal Tax Savings Fund	-0.19
12	Tata Tax Saving Fund	-0.16
13	Escorts Tax Plan - Growth	-0.30
14	ING Tax Saving Fund - Growth	-0.15
15	Baroda Pioneer ELSS 96	-0.14

Source : *Compiled from mutualfundindia.com*

Sharpe index measures risk premium of a portfolio, relative to the total amount of risk in the portfolio. Analysis of table 5 clearly reveals that Escorts Tax plan-Growth has clearly under performed all the schemes with -0.30 Sharpe. It indicates the relatively low returns per unit risk are less efficiently and effectively managed schemes and Franklin India tax Shield –Growth has clearly out performed all the schemes with -0.09 Sharpe ratio. It indicates the relatively high return per unit risk is more efficiently and effectively managed schemes.

ANALYSIS OF VOLATILITY AND RETURN PER UNIT OF RISK BASED ON BETA

Beta is a measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole. It is used in the capital asset pricing model (CAPM) a model that calculates the expected return of an asset based on its beta and expected market returns. Table 6 reveals that Franklin India tax Shield -Growth has the highest Beta with 0.98. It indicates the sensitivity of a scheme return in relation to market return. Here the beta is less than 1. It is considered to be defensive. Escorts Tax Plan-Growth has the lowest beta with 0.52. It indicates the sensitivity of a schemes return in relation to market return. Here the beta is less than 1 it is also considered to be defensive

The beta of the selected Tax planning Mutual Fund - Growth are depicted in the Table 6 as follows

Table 6
Analysis of Volatility and Return per Unit of Risk based on Beta
(as on 31.03.2010)

Sr.	Scheme Name	Beta
1	Sundaram BNP Paribas Tax Saver - (Open Ended Fund) - Growth	0.71
2	Sahara Tax gain - Growth	0.72
3	SBI Magnum Tax Gain Scheme 93 - Growth	0.87
4	HDFC TaxSaver - Growth	0.83
5	Franklin India Index Tax Fund	0.83
6	ICICI Prudential Tax plan - Growth	0.84
7	Franklin India Tax shield - Growth	0.98
8	Taurus Tax shield - Growth	0.73
9	Principal Personal Tax Saver	0.93
10	HDFC Long Term Advantage Fund - Growth	0.79
11	Principal Tax Savings Fund	0.90
12	Tata Tax Saving Fund	0.77
13	Escorts Tax Plan - Growth	0.52
14	ING Tax Saving Fund - Growth	0.98
15	Baroda Pioneer ELSS 96	0.90

Source : *Compiled from mutualfundindia.com*

ANALYSIS OF VOLATILITY AND RETURN PER UNIT OF RISK BASED ON FAMA

The Fama of the selected Tax planning Mutual Fund - Growth are depicted in the Table 7. Fama, advocated yet another measure of portfolio performance. Fama suggested that overall portfolio performance due to stock selection ability (realized return minus expected portfolio return) of the fund manager and second the performance (Expected portfolio return risk free return) due to higher portfolio risk assumed by the fund manager.

Analysis of table 7 The Franklin India tax shield - Growth has given the highest fama ratio 0.22 it indicates higher risk with higher return and SBI Magnum tax Gain scheme 93-Growth has given the lowest fama ratio of- 0.01 it indicates the low risk with low return

Table 7
Analysis of Volatility and Return per Unit of Risk based on Fama

(as on 31.03.2010)

Sr.	Scheme Name	Fama
1	Sundaram BNP Paribas Tax Saver - (Open Ended Fund) - Growth	0.05
2	Sahara Tax gain - Growth	0.01
3	SBI Magnum Tax Gain Scheme 93 - Growth	-0.01
4	HDFC TaxSaver - Growth	0.14
5	Franklin India Index Tax Fund	0.10
6	ICICI Prudential Tax plan - Growth	-0.08
7	Franklin India Tax shield - Growth	0.22
8	Taurus Tax shield - Growth	-0.09
9	Principal Personal TaxSaver	-0.16
10	HDFC Long Term Advantage Fund - Growth	-0.08
11	Principal Tax Savings Fund	-0.35
12	Tata Tax Saving Fund	-0.15
13	Escorts Tax Plan - Growth	-0.69
14	ING Tax Saving Fund - Growth	-0.14
15	Baroda Pioneer ELSS 96	-0.09

Source : *Compiled from mutualfundindia.com*

ANALYSIS OF VOLATILITY AND RETURN PER UNIT OF RISK BASED ON TREYNOR

Treynor's model is on the concept of the characteristics straight line. The characteristics line has drawn a relationship between the market return and a specific portfolio without taking into consideration any direct adjustment for risk. It is also known as reward to volatility ratio. Analysis of table 8 clearly reveals that Franklin India tax shield-Growth has given highest treynor ratio of -0.51. it indicates that better performance of fund and escorts tax plan –Growth has given lower treynor ration of -2.28. it indicates the lower performance of fund

The Treynor of the selected Tax planning Mutual Fund - Growth are depicted in the Table 8 as follows :

Table 8
Analysis of Volatility and Return per Unit of Risk based on Treynor

(as on 31.03.2010)

Sr.	Scheme Name	Treynor
1	Sundaram BNP Paribas TaxSaver - (Open Ended Fund) - Growth	-0.71
2	Sahara Tax gain - Growth	-0.76
3	SBI Magnum Tax Gain Scheme 93 - Growth	-0.75
4	HDFC TaxSaver - Growth	-0.59
5	Franklin India Index Tax Fund	-0.64
6	ICICI Prudential Tax plan - Growth	-0.88
7	Franklin India Tax shield - Growth	-0.51
8	Taurus Tax shield - Growth	-0.91
9	Principal Personal TaxSaver	-0.93
10	HDFC Long Term Advantage Fund - Growth	-0.86
11	Principal Tax Savings Fund	-1.15
12	Tata Tax Saving Fund	-0.95
13	Escorts Tax Plan - Growth	-2.28
14	ING Tax Saving Fund - Growth	-0.93
15	Baroda Pioneer ELSS 96	-0.88

Source : *Compiled from mutualfundindia.com*

ANALYSIS OF VOLATILITY AND RETURN PER UNIT OF RISK BASED ON CORRELATION :

The Correlation of the selected Tax planning Mutual Fund - Growth are depicted in the Table 9 as follows :

Table 9
Analysis of Volatility and Return per Unit of Risk based on Correlation

(as on 31.03.2010)

Sr.	Scheme Name	Correlation
1	Sundaram BNP Paribas TaxSaver - (Open Ended Fund) - Growth	0.70
2	Sahara Tax gain - Growth	0.72
3	SBI Magnum Tax Gain Scheme 93 - Growth	0.86
4	HDFC TaxSaver - Growth	0.82
5	Franklin India Index Tax Fund	0.82
6	ICICI Prudential Tax plan - Growth	0.83
7	Franklin India Tax shield - Growth	0.98
8	Taurus Tax shield - Growth	0.72
9	Principal Personal TaxSaver	0.91
10	HDFC Long Term Advantage Fund - Growth	0.77
11	Principal Tax Savings Fund	0.88
12	Tata Tax Saving Fund	0.76
13	Escorts Tax Plan - Growth	0.52
14	ING Tax Saving Fund - Growth	0.97
15	Baroda Pioneer ELSS 96	0.89

Source : *Compiled from mutualfundindia.com*

Analysis of table 9 clearly reveals that Franklin India Index tax Shield-Growth is highest degree of correlation 0.98 and Escorts tax plan Growth is lowest degree of correlation 0.52

Analysis of Volatility and Return per Unit of Risk based on Mean:

The Mean of the selected Tax planning Mutual Fund - Growth are depicted in the Table 10. It depicts the value of mean return of schemes selected for the study. The result indicates that HDFC tax saver-Growth higher return as compared to other schemes and market compared to other schemes and market average return is -0.39 and Escorts tax plan-Growth lower return as compared to other schemes is -1.08.

Table 10
Analysis of Volatility and Return per Unit of Risk based on mean

(as on 31.03.2010)

Sr.	Scheme Name	Mean
1	Sundaram BNP Paribas Tax Saver - (Open Ended Fund) - Growth	-0.40
2	Sahara Tax gain - Growth	-0.44
3	SBI Magnum Tax Gain Scheme 93 - Growth	-0.55
4	HDFC TaxSaver - Growth	-0.39
5	Franklin India Index Tax Fund	-0.42
6	ICICI Prudential Tax plan - Growth	-0.62
7	Franklin India Tax shield - Growth	-0.39
8	Taurus Tax shield - Growth	-0.56
9	Principal Personal TaxSaver	-0.75
10	HDFC Long Term Advantage Fund - Growth	-0.57
11	Principal Tax Savings Fund	-0.92
12	Tata Tax Saving Fund	-0.63
13	Escorts Tax Plan - Growth	-1.08
14	ING Tax Saving Fund - Growth	-0.81
15	Baroda Pioneer ELSS 96	-0.66

Source : *Compiled from mutualfundindia.com*

ANALYSIS OF VOLATILITY AND RETURN PER UNIT OF RISK BASED ON ALPHA

The Alpha of the selected Tax planning Mutual Fund - Growth are depicted in the Table 11 as follows

Table 11
Analysis of Volatility and Return per Unit of Risk based on Alpha

(as on 31.03.2010)

Sr.	Scheme Name	Alpha
1	Sundaram BNP Paribas TaxSaver - (Open Ended Fund) - Growth	6.10
2	Sahara Tax gain - Growth	8.27
3	SBI Magnum Tax Gain Scheme 93 - Growth	0.27
4	HDFC TaxSaver - Growth	4.04
5	Franklin India Index Tax Fund	-0.79
6	ICICI Prudential Tax plan - Growth	5.60
7	Franklin India Tax shield - Growth	4.81
8	Taurus Tax shield - Growth	14.01
9	Principal Personal TaxSaver	0.82
10	HDFC Long Term Advantage Fund - Growth	1.25
11	Principal Tax Savings Fund	-6.03
12	Tata Tax Saving Fund	-0.47
13	Escorts Tax Plan - Growth	-4.26
14	ING Tax Saving Fund - Growth	-6.17
15	Baroda Pioneer ELSS 96	-1.14

Source : *Compiled from mutualfundindia.com*

The size of the alpha exhibits the stock's unsystematic returns and its average return independence of market return if the fund produces the expected return at the level of risk assumed, the fund would have an alpha equal to zero.

Analysis of table 11 clearly reveals that all the funds has outperformed its benchmark index by 1% only 8 schemes i.e. SBI Magnum Tax Gain Scheme 93 - Growth, Franklin India Index Tax Fund, Principal Personal Tax Saver, Principal Tax Saving Fund, Tata Tax Saving Fund, Escort Tax Plan - Growth, ING Tax Saving Fund - Growth, Baroda Pioneer ELSS 96 have clearly underperformed. A positive alpha indicates that the manager produced return greater than expected for the risk taken.

Conclusion

In the contemporary world, many fast mushrooming financial institutions are, offering new products and services to the investors. A proper evaluation measure will get rid of the confusion and help investors to decide the relatively better investment in various mutual fund schemes. It is observed that on the basis of Tax planning funds Sundram BNP Paribas Tax Saver - (Open Ended Fund - Growth, Sahara Tax gain - Growth, SBI Magnum Tax Gain Scheme 93 - Growth are the Top three funds on the basis of comparison to the industry average for the last five years. These funds have also outperformed on the basis of BSE 100 over the period of last 5 years. Escorts tax plan - Growth is relatively more volatile with highest standard deviation, Sharpe ratio. The study observed that Escort Tax Plan Growth is more aggressive mutual fund.

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