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Comparative Study of ELSS of Public and Private Sector of Mutual Fund Industry in India

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Abstract:

Indian economy in general and the mutual fund industry in particular continue to take turn around from early 1990s. Growth and development of various mutual fund products in Indian financial market has proved to be one of the catalytic instruments in generating momentous investment growth in the financial market. One common theme to alternative investments is that they are often hoped to have modest correlations with traditional investments and so to increase the diversification of investor's portfolios. The change in investment management, therefore, lies in choosing the appropriate investments and designing a unit that will meet the investment objectives of the investor subject to his constraints. Therefore the present study evaluates the performance of ten tax planning schemes (ELSS) in India over the period 2006 to 2012. This paper studies the return and risk situation in ten funds during the six years in order to judge the performance of the professional investments experts in India. Hence to examine the performance of ELSS scheme various measures like sharpe, sortino, treynor, beta, alpha and r^2 were used to achieve a superior risk-return tradeoff. The results indicate that the fund managers under study have been successful in reaping excess returns and there is no significant difference in performance of public and private sector but there is significant difference in performance of different years.

Keywords: ELSS, Beta, Treynor, Alpha

1. Introduction

Tax Saving Mutual Fund is one of the financial instruments in capital market, here the study is based upon the ELSS of public sector and private sector Mutual Funds, main purpose of the study is to identify the elss scheme of company yielding the highest return and minimising the risk. Research need because of the capital market is unexpected volatility and some time reaction was positive and negative. Good and bad news affects price movement, that needs to identify how much market or bench mark provided return.

The years 2008 started with large IPO offering of Reliance Power, which sucked the liquidity from the market and more companies have lined up plans to raise money from the markets. Investors need to identify trade – off return and risk. The year 2009 had unprecedented global liquidity crisis that led to a share slowdown in the growth as there was no ipo. The industrial growth index was zero. Time valuations are attractive for investment decision and strategies for active diversification of portfolio. March 2009 sensex and Nifty down by 37% & 36 % respectively. Mutual fund industry has been affected by stock market movements. Mutual fund increased their stock/ scrip fund holding from 4.1% to 21.2% of the total market capitalization. It had opportunity to research in this field, with focus on competitive structure of the mutual fund industry. Equity diversified fund directly affect the stock movements while index, income, tax planning and balance fund are less affects.

Indian capital market is extremely unanticipated due to political risk, liquidity risk and others factors affecting it. The Indian equity markets rallied smartly ever-increasing on December 2009, it gains by the end of the December month. The Sensex and Nifty fell 2.31 % and 2.85% respectively while mid cap index was down sharply by 10%. February 2009 Global equity markets also fared poorly aimed rising recession, the Dow Jones closing the month down 8.83% and NASDAQ down 6.38%. Domestic mutual funds were also net sellers of Rs. 864 crs this month. 2009 shows equity market had been high fluctuation during year and Budget 2009 shows high debt fund fiscal policy.

2. Significance of Topic

“Comparative study of ELSS of Public Sector and Private Sector Mutual Funds in India.”

As per the review of past researches, number of articles and research paper's which highlight the performance of mutual fund industry. The mentioned work has been done regarding Costs in mutual funds, Investor's behavior and Performance of Mutual Funds; but the research work on ELSS is untouched till now except Nalini's article regarding the market timing abilities of Indian fund managers of

thirty-one tax planning schemes in India over the period Dec 95 to Jan 2004 which indicates that the fund managers are not successful in reaping returns in excess in the market; which gives me the idea of conducting the research on topic chosen by me.

Here various tools are used for analysis of performance of tax saving scheme of mutual fund. Its' included Price Earnings Ratio, Book Price Ratio, Return and Net Asset value and Assets Under Management. Further, take to considering the performance index model. Sharpe performance evaluation model, model represents return on security with risk free return on investment and then take into considering the variance on security. Jensen model represents same liked sharpe's model difference is that under these model beta considering for portfolio measurement. Treynors performance model indicates alpha from market return. Pricing earnings ratio, price book ratio researcher follow the model of F – test, T- test, test of one way classification of rows and columns. The model indicates rows variance from the average and columns variance from the average of the averages.

2.1. Research Design

The research design is the conceptual framework within which researcher study is conducted and it construct the blue print for collection of data, measurement of data, statistical tools for analysis and analysis of variance. Research design included an outline of what the researcher will do from writing the hypothesis and its operational implication to the final analysis of data.

Fund managers of the assets management company also do the researcher to identify the market and would find period to buy, to hold and to sell the scrip. Fund managers having good researcher team who continuous analysis of economic market, fundamental analysis, efficient market and technical analysis of the particular index. Today researcher team should identify the international financial market and how international financial instruments value could identified. Financial crisis affect market total risk and total return, its indicate how to diversified the portfolio, how to totally remove the unsystematic risk.

3. Title of the Problem

“Comparative study of ELSS of Public Sector and Private Sector Mutual Funds in India.”

(Here the tax saving schemes of the mutual funds are included having nature of tax saver, long term fund and index fund)

SAMPLING DESIGN:

3.1. Universe

The universe of the study consists of the all the assets management companies (AMC) for performance criteria and all the investors for questionnaire

3.2. Sampling Unit

Mutual Fund Company and Individual Investor from Service Class for Survey

3.3. Data Sources

Primary and secondary sources. It's included the investor response through filled questionnaire and secondary sources are websites of companies, journals, magazines, articles, books and the publisher and unpublished documents of the mutual funds have been consider in the research.

3.4. Research Design

Diagnostic and Exploratory

3.5. Sampling Technique

Deliberate Sampling and Quota Sampling

3.6. Data Collection

Non-disguised & Structured Questionnaire

3.7. Contact Method

Personal interview

3.8. Statistical Tools

Co-relation, Chi Square test, f-test, Anova, standard deviation, beta,r square, Sharpe's ratio, Price earnings ratio, NAV , Treynor's Performance Index

3.9. Data Analysis

Ratios, Percentages, Graphs, Charts and spss

3.10. Sample Period

Sample study should take from period April 2006 to March 2012.

3.11. Sample Size

100 individuals and 10 companies of mutual fund industry (5 companies of public sector and five companies of private sector)

SBI Magnum Tax Gain Fund

UTI Equity Tax Saving Fund

LIC Nomura Tax Plan Fund

Baroda Pioneer ELSS fund

Canara Robeco Equity Eax Saver fund

HDFC Tax Saver Fund and HDFC Long Term Advantage Fund

ICICI prudential Tax Plan fund

Birla Sun Life Tax Relief and Birla Sun Life Tax Plan Fund

Franklin India Tax Shield Fund

Reliance Tax Saver fund fund

4. Hypothesis

The broader hypothesis for the study would be as under.

- Ho: There would be no significant difference in the performance of Public sector and private sector Mutual Fund in ELSS.
- H1: There would be significant difference in the performance of Public sector and private sector Fund in ELSS Mutual.

4.1. Performance of ELSS

Baroda Pioneer ELSS 96								
Volatility Measures				MPT Statistics				
	S.D.	Return	Sharpe ratio	Sortino ratio	r square	beta	alpha	Treyner ratio
3 year basis	15.5	21.37	0.86		88.86	1.05	4.47	
3 yr ELSS category	15.04	23.44	1	1.94	87.86	0.95	5.15	16.26
5 year basis	18.23	10.48						
5 year ELSS category	16.7	14.09	0.48	0.78	90.25	0.91	3.95	7.92
10 year basis	26.05	16.51						
10 year ELSS category	25.22	16.51	0.49	0.75	90.27	0.92	1.92	11.14
price/earning		price/cash flow		price/book	total expense ratio		management fee	
16.68		2.6		2.7	3.16%		1.25%	

Table 1

The performance of Baroda Pioneer fund is somewhat less as compared to all the ELSS category performance. The three year return of the company is 21.37% while the ELSS industry return is 23.44% for the three year period. The return of five years of Baroda Pioneer ELSS is 10.48% while that of ELSS industry is 14.09%. in the 10 year category the performance of ELSS category and that of Baroda Pioneer ELSS 96 is equal i.e.16.51%.the Sharpe ratio of the scheme is also less than one which is of ELSS category, meaning by the company is not performing well as compared to overall ELSS category of all the fund houses taken together .the beta value of 3 years is also more than one which tells about the more risk involved in the scheme as compared to ELSS Category .

Birla Sun Life Tax Relief 96								
Volatility Measures				MPT Statistics				
	S.D.	return	Sharpe ratio	Sortino ratio	r square	beta	alpha	Treyner ratio
3 year basis	15.24	28.06	1.25	2.49	88	0.95	9.66	21.11
3 yr ELSS category	15.04	23.44	1	1.94	87.86	0.95	5.15	16.26
5 year basis	17.9	13.34	0.42	0.66	90.08	0.97	4.15	6.54
5 year ELSS category	16.7	14.09	0.48	0.78	90.25	0.91	3.95	7.92
10 year basis	27.99	18.46	0.53	.82	92.94	1.04	2.77	11.68
10 year ELSS category	25.22	16.51	0.49	0.75	90.27	0.92	1.92	11.14
price/earning		price/cash flow		price/book	total expense ratio%		management fee%	
22.37		5.66		3.32	2.39		1.25	

Table 2

The performance of Birla Sun Life tax relief 96 was above the performance of ELSS category of mutual fund industry the three yearly return of the company scheme was 28.06% while that of overall ELSS category return was just 23.44%. The return of five year of the Birla Sun Life tax relief 96 was 13.34% while the industry return of ELSS was 14.09%.the return of ten year was 18.46% while the return of the ELSS scheme was just 16.51%. it can be inferred that the performance of the ELSS scheme was always better than the ELSS category. The Sharpe ratio of the Birla Sun Life tax relief ELSS '96 was 1.25 which is good as the Sharpe index of ELSS

category was 1 in short term. Again the Sortino ratio is also 2.49 which is again a measure of measuring performance showing better return as the return of ELSS category was 1.94 for Sortino.

Canara Robeco Equity Tax Saver								
	volatility measures		Sharpe ratio	Sortino ratio	MPT statistics			Treyner ratio
	S.D.	return			r square	beta	alpha	
3 year basis	15.1	20.42	0.82	1.5	95.21	0.99	3.03	12.56
3 yr ELSS category	15.04	23.44	1	1.94	87.86	0.95	5.15	16.26
5 year basis	14.88	13.09	0.46	0.73	91.2	0.81	3.97	7.51
5 year ELSS category	16.7	14.09	0.48	0.78	90.25	0.91	3.95	7.92
10 year basis	25.77	21.41	0.65	1.08	87.85	0.93	5.87	16.24
10 year ELSS category	25.22	16.51	0.49	0.75	90.27	0.92	1.92	11.14
price/earning	price/cash flow		price/book	total expense ratio%		management fee%		
18.79	2.8		2.63	2.67		1.25		

Table 3

The return of Canara Robeco Equity Tax Saver for three year was 20.42% while the return of ELSS category was 23.44%. The return of five years was 13.09% while that of ELSS category of mutual fund industry was 14.09%. The short term performance of the company scheme is not favorable but it's favorable in the long term as the return of ten year was 21.41% while that of industry ELSS category was just 16.51%. The Sharpe index of the Canara Robeco Equity Tax Saver was .82 less as compared to index of ELSS category which was one. The Sortino ration of Canara Robeco Equity Tax Saver is also less than the ELSS category ratio which shows the underperformance of the scheme as compared to industry ELSS.

The Sharpe ratio on basis of ten yearly performance is better than the ratio of industry ELSS category ratio as well as Sortino ratio for the same period.

Franklin India Tax Shield								
	volatility measures		Sharpe ratio	Sortino ratio	MPT statistics			Treyner ratio
	S.D.	return			r square	beta	alpha	
3 year basis	13.68	25	1.19	2.35	89.92	0.86	7.82	19.8
3 yr ELSS category	15.04	23.44	1	1.94	87.86	0.95	5.15	16.26
5 year basis	14.92	16.71	0.67	1.13	32.46	0.82	7.14	11.86
5 year ELSS category	16.7	14.09	0.48	0.78	90.25	0.91	3.95	7.92
10 year basis	22.5	20.15	0.66	1.02	94.76	0.84	5.11	16.39
10 year ELSS category	25.22	16.51	0.49	0.75	90.27	0.92	1.92	11.14
price/earning	price/cash flow		price/book	total expense ratio%		management fee%		
18.04	2.76		3.07	2.54		1		

Table 4

The return of Franklin India Tax Shield was always high as compared to return of ELSS category. In three yearly performances the return of the Franklin ELSS was 25% while that of ELSS category was 23.44%. On the basis of five year performance the return of company's scheme was 16.71% while that of ELSS category was 14.09%. On the basis of ten year performance also it can be said that the Franklin India Tax Shield fund performed better than the ELSS category as the return was 20.15% while that of ELSS category was 16.51%. The Sharpe ration of the Franklin India Tax Shield fund as well as Sortino ratio, both explain about the good performance of the fund as it was more than one in both cases.

The variation in performance is also less as compared to ELSS category as the standard deviation was 13.68 instead of 15.04 in three years and 14.92 as compared to ELSS category which was 16.7 and also low on ten yearly basis.

ICICI Pru tax plan regular								
	volatility measures		Sharpe ratio	Sortino ratio	MPT statistics			Treyner ratio
	S.D.	return			r square	beta	alpha	
3 year basis	15.01	25.26	1.1	2.25	84.13	0.92	7.66	18.81
3 yr ELSS category	15.04	23.44	1	1.94	87.86	0.95	5.15	16.26
5 year basis	17.17	14.99	0.51	0.84	91.32	0.94	5.58	8.5
5 year ELSS category	16.7	14.09	0.48	0.78	90.25	0.91	3.95	7.92
10 year basis	26.48	18.72	0.55	0.84	87.28	0.95	3.58	12.98
10 year ELSS category	25.22	16.51	0.49	0.75	90.27	0.92	1.92	11.14
price/earning	price/cash flow		price/book	total expense ratio%		management fee%		
13.49	1.88		1.76	2.54		1.25		

Table 5

The performance of ICICI Prudential tax plan was high as compared to the performance of overall ELSS category. The return of three years was 25.26% as compared to 23.44% of ELSS category. The return of five year basis is 14.99% as compared to return of ELSS category which was 14.09%. On ten year basis the performance of the ICICI Prudential tax plan regular was 18.72% while the return of ELSS category was 16.51%. The variation in performance is comparatively less as compared to the variation in performance of ELSS category.

The Sharpe ratio of the company scheme is 1.1 while the Sharpe of the industry ELSS is 1. The Sortino ratio of the ICICI Prudential tax plan was 2.25 while that of industry ELSS was 1.94 which explains about the good performance of the company ELSS.

LIC Nomura Tax Plan								
	volatility measures		Sharpe ratio	Sortino ratio	MPT statistics			Treyner ratio
	S.D.	return			r square	beta	alpha	
3 year basis	13.85	22.12	0.99	1.85	89.17	0.88	5.29	16.08
3 yr ELSS category	15.04	23.44	1	1.94	87.86	0.95	5.15	16.26
5 year basis	16.49	12.21	0.38	0.59	94.84	0.92	3.06	5.65
5 year ELSS category	16.7	14.09	0.48	0.78	90.25	0.91	3.95	7.92
10 year basis	25.19	12	0.33	0.48	95.23	0.94	-2.52	5.97
10 year ELSS category	25.22	16.51	0.49	0.75	90.27	0.92	1.92	11.14
price/earning		price/cash flow		price/book	total expense ratio%		management fee%	
18.9		3.45		3.29	2.7		1.25	

Table 6

The return of LIC Nomura Tax Plan was comparative low to the return of ELSS Category. The performance of three year of the LIC Nomura Tax Plan was 22.12% while that of ELSS industry was 23.44%. The return of five year of the ELSS scheme of LIC Nomura was 12.21% while that of ELSS category of mutual fund industry was 14.09%. The return of ten year performance of LIC Nomura Tax Plan was 12% while the return of ELSS category was 16.51%. It was observed that it is low performer. The Sharpe of the LIC Nomura Tax Plan was .99 as compared to 1 of ELSS category. The Sortino ratio of the LIC Nomura Tax Plan was also 1.85 while that of ELSS category was 1.94.

The standard deviation of the scheme was comparatively less as compared to the standard deviation of the ELSS category of overall mutual fund industry.

Reliance Tax Saver								
	volatility measures		Sharpe ratio	Sortino ratio	MPT statistics			Treyner ratio
	S.D.	return			r square	beta	alpha	
3 year basis	21.99	29.41	0.96	2	76.5	1.28	8.8	16.63
3 yr ELSS category	15.04	23.44	1	1.94	87.86	0.95	5.15	16.26
5 year basis	21.9	19.16	0.61	1.08	81.2	1.13	9.44	10.8
5 year ELSS category	16.7	14.09	0.48	0.78	90.25	0.91	3.95	7.92
10 year basis								
10 year ELSS category	25.22	16.51	0.49	0.75	90.27	0.92	1.92	11.14
price/earning		price/cash flow		price/book	total expense ratio%		management fee%	
20.21		7.13		2.29	2.33		1	

Table 7

The return of Reliance Tax Saver was high as compared to the return of overall ELSS category. The return of the three year was 29.41% while that of ELSS category was 23.44%. The return of five years of Reliance Tax Saver fund was 19.16% as compared to the return of ELSS category which was 14.09%. The performance was good along with the variation in return in different year also. The standard deviation of the Reliance Tax Saver was 21.99 while the standard deviation of the overall ELSS category was just 15.04 in three years. In five year performance, the standard deviation is 21.9 as compared to the standard deviation of the overall ELSS category which was 16.7. It shows the high variation in return of the company.

The Sharpe ratio of the Reliance Tax Saver was .96 as compared to the return of overall ELSS category which was 1. The Sortino ratio of the company ELSS scheme was 2 as compared to the Sortino of ELSS category which was 1.94 showing better performance.

SBI Magnum Tax Gain'93								
	volatility measures		Sharpe ratio	Sortino ratio	MPT statistics		alpha	Treyner ratio
	S.D.	return			r square	beta		
3 year basis	14.71	19.71	0.8	1.46	70.92	0.82	3.86	14.17
3 yr ELSS category	15.04	23.44	1	1.94	87.86	0.95	5.15	16.26
5 year basis	16.13	11.29	0.33	0.51	84.15	0.85	2.43	5.09
5 year ELSS category	16.7	14.09	0.48	0.78	90.25	0.91	3.95	7.92
10 year basis	24.08	17.94	0.56	0.85	92.35	0.89	3.04	13.02
10 year ELSS category	25.22	16.51	0.49	0.75	90.27	0.92	1.92	11.14
price/earning		price/cash flow		price/book	total expense ratio%		management fee%	
18.71		3.04		2.85	2.01		1	

Table 8

The performance of the SBI Magnum tax saver was below normal in short run but more than at par in long run. The return of the SBI Magnum Tax Gain scheme for three years was 19.71% as compared to the return of ELSS category which was 23.44%. The return of five years of SBI Magnum Tax Gain was 11.29% while that of ELSS category was 14.09%. The performance in short run is not good but in the long run, ten yearly performance of the SBI Magnum Tax Gain scheme was more than the return of ELSS category as it was 17.94% as compared to 16.51%. the Sharpe ratio of the scheme is also low .8 as compared to ELSS category which was 1 showing low performance in short run but more in long run of ten year. The Sortino ratio of the scheme was also low in short run and high in long run.

The standard deviation of the SBI Magnum Tax Gain was 14.71 as compared to ELSS category 15.04, which was good showing low variation in performance.

UTI Equity Tax Saving Plan fund								
	volatility measures		Sharpe ratio	Sortino ratio	MPT statistics		alpha	Treyner ratio
	S.D.	return			r square	beta		
3 year basis	14.1	19.42	0.81	1.46	94.49	0.91	2.72	12.48
3 yr ELSS category	15.04	23.44	1	1.94	87.86	0.95	5.15	16.26
5 year basis	15.84	10.9	0.31	0.47	95.34	0.89	1.9	4.42
5 year ELSS category	16.7	14.09	0.48	0.78	90.25	0.91	3.95	7.92
10 year basis	22.68	13.4	0.4	0.58	95.58	0.85	-0.83	8.25
10 year ELSS category	25.22	16.51	0.49	0.75	90.27	0.92	1.92	11.14
price/earning		price/cash flow		price/book	total expense ratio%		management fee%	
18.28		2.97		2.67	2.68		1.25	

Table 9

The performance of uti tax saving fund was somewhat low as compare to the industry ELSS return. The return of three years of UTI Equity Tax Saving Plan fund was only 19.42% as compared to the return of overall ELSS category which was 23.44%. The return of five years was also low as compared to the overall ELSS category as it was 10.9% in comparison to 14.09%. The performance of ten year is also low as it was only 13.4% as compared to 16.51% of the ELSS Category. The Sharpe ratio of the UTI Equity Tax Saving Plan fund was also low .81 as compared to of overall ELSS category having 1 in three years. The performance of the uti fund was always low as compared to ELSS category in long run as well as in short run. The Sortino ratio also proves it as it was 1.46 as compared to of overall ELSS Sortino of 1.94 in short run.

The standard deviation of the UTI Equity Tax Saving Plan fund was low as compared to the overall ELSS category standard deviation showing low variation in performance of different years.

HDFC Tax Saver								
	volatility measures		Sharpe ratio	Sortino ratio	MPT statistics		alpha	Treyner ratio
	S.D.	return			r square	beta		
3 year basis	17.7	20.88	0.75		90.13	1.1	2.44	
3 yr ELSS category	15.04	23.44	1	1.94	87.86	0.95	5.15	16.26
5 year basis	17.47	13.18						
5 year ELSS category	16.7	14.09	0.48	0.78	90.25	0.91	3.95	7.92
10 year basis	24.71	18.93						
10 year ELSS category	25.22	16.51	0.49	0.75	90.27	0.92	1.92	11.14
price/earning		price/cash flow		price/book	total expense ratio%		management fee%	
13.68		4.01		1.79	2.27		1	

Table 10

The performance of HDFC Tax Saver was low in short run but high in long run basis. The return of the HDFC Tax Saver was 20.88% in comparison to the return of overall ELSS of 23.44% in three years. The return of five years is also low as it was 13.18% in comparison to 14.09% of the return of overall ELSS. The performance of the year was 18.93% in comparison of 16.51% of the overall ELSS category of mutual fund industry. The Sharpe ration of the HDFC Tax Saver is also low .75 as compared to 1 of overall ELSS category.

The variation in performance was 17.7, also more in HDFC Tax Saver as comparison to variation in overall ELSS category which was 15.04 in three years. The variation in five year is also more i.e.17.47 while of ELSS category was 16.7 in same period.

Fund	S.D.	Sharpe Ratio	Sortino Ratio	Beta	Alpha	R-Squared
Baroda Pioneer ELSS 96 Fund	15.31	0.95	1.97	1.01	4.35	0.91
Birla Sun Life Tax Relief 96	15.01	1.35	2.35	0.94	10.78	0.81
Canara Robeco Equity Tax Saver Fund - Regular Plan	14.28	1.02	2.07	0.95	4.97	0.92
Franklin India Tax Shield Fund	13.48	1.28	2.35	0.86	8.54	0.85
HDFC Tax saver Fund	17.62	0.8	1.75	1.1	3.05	0.82
ICICI Prudential Tax Plan - Regular Plan	14.87	1.18	2.21	0.91	8.38	0.77
LIC Nomura MF Tax Plan	13.66	1.11	2.02	0.89	6.27	0.88
Reliance Tax Saver Fund	21.68	1.08	2.14	1.23	10.97	0.67
SBI Magnum Tax Gain Scheme	14.11	1.19	2.1	0.92	7.53	0.89
UTI Equity Tax Saving Plans Fund	13.66	0.97	1.85	0.91	4.14	0.92

Table 11: (Comparative of Public and Private)

Source: Value Research Online

It can be seen at glance that variation of return was higher in case of HDFC Tax Saver and Reliance Tax Saver while it was having lowest in case of lic nomura and UTI Equity Tax Saving Plan fund. The Sharpe ratio of Birla Sun Life tax relief, Canara Robeco Equity Tax Saver, Franklin India Tax Shield fund, ICICI Prudential tax plan, LIC Nomura Tax Plan, Reliance Tax Saver and SBI Magnum Tax Gain was positive as it was more than one and of rest scheme like Baroda Pioneer ELSS '96, HDFC Tax Saver and UTI Equity Tax Saving Plan was less than one showing ineffective performance.

The Sortino ratio tells about the superiority of Birla Sun Life tax relief 96, Franklin India Tax Shield, ICICI Prudential tax plan, Canara Robeco Equity Tax Saver, LIC Nomura Tax Plan, Reliance Tax Saver and SBI Magnum Tax Gain 93 over UTI Equity Tax Saving Plan fund, HDFC Tax Saver fund and Baroda Pioneer ELSS '96 fund of ELSS.

The beta showing the presence of risk as compared to market return was high in case of Baroda Pioneer ELSS '96 Reliance Tax Saver and HDFC Tax Saver fund over others as it was more than one in these three schemes.

NAME	R2	ALPHA	BETA	MEAN	S. D..	SHARPE	5 YR RETURN	CATEGORY REN	SENSEX RT	S&P CNX NIFTY
SBI MAGNUM TAX GAIN	0.94	0.81	0.83	8.15	16.81	0.16	0.39	0.54	-1.25	-0.8
LIC NOUMRA TAX PLAN	0.98	-1.8	0.92	5.76	18.25	0.02	-3.87	0.54	-1.25	-0.8
CANRA ROBECO EQ TX SAVER	0.86	0.69	0.7	12.73	14.86	0.49	6.6	0.54	-1.25	-0.8
BARODA PIONEER ELSS '96	0.98	-3.36	1.01	4.4	19.96	-0.05	-2.32	0.54	-1.25	-0.8
UTI EQ TX SAVING PLAN	0.95	0.37	0.85	7.77	17.09	0.14	-1.26	0.54	-1.25	-0.8
RELIANCE TAX SAVER	0.84	6.83	0.94	14.44	20.16	0.45	5.06	0.54	-1.25	-0.8
ICICI PRU TAX PLAN	0.91	5.24	0.88	12.71	18.16	0.4	6.48	0.54	-1.25	-0.8
HDFC TAX SAVER	0.9	2.51	0.8	9.77	16.48	0.27	3.02	0.54	-1.25	-0.8
FRANKLIN INDIA TAX SHIELD	0.94	5.36	0.77	12.56	15.52	0.46	4.26	0.54	-1.25	-0.8
BSL TAX RELIEF'96	0.92	-1.47	0.91	6.05	18.53	0.04	-3.17	0.54	-1.25	-0.8

Table 12: (Based Upon Calculations of November 2012)

If we see the performance of these tax saving on basis of November 2012 basis we can appraise their past performance and see their relationship with current performance to know whether they are consistent or not in their performance. As we know that 2008 and 2011 was exceptional; year having global impact of recession the performance of mutual fund was also affected by that. The performance of past five year can be a base for judgment and on comparing ,it can be inferred that Canara Robeco Equity Tax Saver, ICICI Prudential tax plan and Reliance Tax Saver gave the annualized return more than 5%.the return of SBI Magnum Tax Gain, HDFC Tax Saver and Franklin India Tax Shield was also positive while the return of LIC Nomura Tax Plan, Baroda Pioneer ELSS '96 UTI Equity Tax Saving Plan and of Birla Sun Life tax relief was negative .out of ten schemes, only five schemes perform better than the average return of ELSS category of mutual fund which were Canara Robeco Equity Tax Saver, Reliance Tax Saver, ICICI Pru tax plan HDFC Tax Saver and Franklin India Tax Shield..only one scheme of sample from public sector perform better as compared to ELSS category return while three schemes out of five performed better than the average return of ELSS category. It can be inferred that private sector was more performing as compared to public sector on basis of five year performance.

NAME	3YR	CATEGORY REN	SENSEX RT	S&P CNX NIFTY	2YR	CATEGORY REN	SENSEX RT	S&P CNX NIFTY
SBI MAGNUM TAX GAIN	7.37	7.7	5.65	6.51	-1.78	-3.85	-3.98	-3.5
LIC NOUMRA TAX PLAN	4.71	7.7	5.65	6.51	-5.38	-3.85	-3.98	-3.5
CANRA ROBECO EQ TX SAVER	12.72	7.7	5.65	6.51	0.98	-3.85	-3.98	-3.5
BARODA PIONEER ELSS '96	3.01	7.7	5.65	6.51	-7.52	-3.85	-3.98	-3.5
UTI EQ TX SAVING PLAN	8.38	7.7	5.65	6.51	-4.03	-3.85	-3.98	-3.5
RELIANCE TAX SAVER	13.62	7.7	5.65	6.51	-0.44	-3.85	-3.98	-3.5
ICICI PRU TAX PLAN	12.04	7.7	5.65	6.51	-0.67	-3.85	-3.98	-3.5
HDFC TAX SAVER	9.27	7.7	5.65	6.51	-4.9	-3.85	-3.98	-3.5
FRANKLIN INDIA TAX SHIELD	12.27	7.7	5.65	6.51	1.62	-3.85	-3.98	-3.5
BSL TAX RELIEF'96	4.91	7.7	5.65	6.51	-7.09	-3.85	-3.98	-3.5

Table 13: (Based Upon Calculations of November 2012)

On the basis of three year return from 2009 to 2012 it can be inferred that the Canara Robeco Equity Tax Saver and UTI Equity Tax Saving Plan of public sector performed better than the average return of ELSS category while in case of private sector four out five namely Reliance Tax Saver, ICICI Pru tax plan, HDFC Tax Saver and Franklin India Tax Shield performed better than the ELSS category.

The performance of 2010 to 2012 was positive of only Canara Robeco Equity Tax Saver and Franklin India Tax Shield fund .two schemes of public sector and three schemes of private sector performed better than the average return of ELSS category out of sample. We can infer that private sector performed better than public sector.

NAME	1 YR	CATEGORY REN	SENSEX RT	S&P CNX NIFTY
SBI MAGNUM TAX GAIN	14.35	10.28	7.39	8.35
LIC NOUMRA TAX PLAN	7.02	10.28	7.39	8.35
CANRA ROBECO EQ TX SAVER	13.38	10.28	7.39	8.35
BARODA PIONEER ELSS '96	5.47	10.28	7.39	8.35
UTI EQ TX SAVING PLAN	8.38	10.28	7.39	8.35
RELIANCE TAX SAVER	19.3	10.28	7.39	8.35
ICICI PRU TAX PLAN	12.5	10.28	7.39	8.35
HDFC TAX SAVER	8.03	10.28	7.39	8.35
FRANKLIN INDIA TAX SHIELD	9.32	10.28	7.39	8.35
BSL TAX RELIEF'96	11.31	10.28	7.39	8.35

Table 14: (Based Upon Calculations of November 2012)

On basis of one year performance of 2012 only SBI Magnum Tax Gain, Canara Robeco Equity Tax Saver of public sector and Reliance Tax Saver, ICICI Pru tax plan and Birla Sun Life of private sector performed better than the average of ELSS category. Further in short run private sector performed better than the public sector.

On analyzing the performance of long run and short run on the basis of sample period of 2006 to 2012, it can be said that the performance of private sector was better than the performance of public sector.

SAMPLE ELSS		2006	2007	2008	2009	2010	2011	2012
SBI magnum tax gain	1	44.96	55.27	-54.86	86.41	12.98	-23.5	34.29
UTI equity tax saving	2	18.56	50.92	-54.67	72.88	17.57	-23.37	26.87
LIC noumra tax plan	3	28.25	48.76	-56.87	62.17	15.73	-26.2	26.33
Canara robeco eq tax saver	4	31.46	65.21	-46.85	89.4	24.93	-16.35	29.99
Baroda pioneer mf	5	21.04	56	-57.15	84.03	15.07	-28.65	26.17
	pubtot	28.854	55.232	-54.08	78.978	17.256	-23.614	28.73
Birla sun life tax relief'96	6	43.53	76.07	-62.67	102.77	13.46	-29.62	36.6
Franklin India tax shield	7	27.17	56.02	-49.22	78.81	23.47	-15.19	29.38
HDFC tax saver	8	34.12	39.44	-51.55	99.07	26.42	-22.62	26.59
ICICI pru tax plan	9	26.15	40.95	-56.03	112	24.11	-23.96	37.63
Reliance tax saver	10	34.49	42.4	-52.35	82.61	22.49	-24.23	46.05
	priv tot	33.092	50.976	-54.364	95.052	21.99	-23.124	35.25

Table 15

Now second hypothesis will be tested;

- H_0 = there is no significant difference in performance of public and private sector
- H_1 = there is significant difference in performance of public and private sector

ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Rows	26444.22	6	4407.37	206.4433	1.11E-06	4.283866
Columns	56.04001	1	56.04001	2.624941	0.156324	5.987378
Error	128.0943	6	21.34905			
Total	26628.35	13				

Table 16

5. Conclusion

Based upon anova test comparing the means of return of public sector and private sector it can be inferred that there is no significant difference in return of the public and private sector as computed value of f 2.62 is less than tabled value 5.98 but the difference between years showing performance of public and private sector, null hypothesis is rejected as the computed value of f i.e. 206.44 is more than tabled value i.e. 4.28.

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