

**Evaluation of Investment Performance and  
Perception of Investors in Bengaluru and its Sub-Urban Area  
with respect to Equity Linked Savings Scheme Plans of  
Indian Mutual Funds**

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In partial fulfillment of the requirements for the award of the degree of

**DOCTOR OF PHILOSOPHY**

**IN**

**MANAGEMENT**

by

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# DECLARATION OF AUTHORSHIP

I, **K.Krishna Kumar**, do hereby declare that this thesis entitled “**Evaluation of Investment Performance and Perception of Investors in Bengaluru and its Sub-Urban Area with respect to Equity Linked Savings Scheme Plans of Indian Mutual Funds**” submitted by me in partial fulfillment of the requirements for the award of the Degree of Doctor of Philosophy in Management by the ICAI University Jharkhand, Ranchi is my own work. It contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgement has been made in the text. I further state that I have complied with the Plagiarism Guidelines of the University, while preparing the thesis.

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**Place:**

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I also bow my head before my greatest teacher the almighty god, for giving me the mental and physical strength to persist and complete this work.

# **THESIS COMPLETION CERTIFICATE**

This is to certify that the thesis on **“Evaluation of Investment Performance and Perception of Investors in Bengaluru and its Sub-Urban Area with respect to Equity Linked Savings Scheme Plans of Indian Mutual Funds”** by **K.Krishna Kumar**, in partial fulfillment of the requirement for the award of the Degree of Doctor of Philosophy in Management is an original work carried out by him under our joint guidance. It is certified that the work has not been submitted anywhere else for the award of any other Diploma or Degree of this or any other University. We also certify that he has complied with the Plagiarism Guidelines of the University.

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# LIST OF ABBREVIATIONS

AMC	Asset Management Company
AMFI	Association of Mutual Funds of India
AUM	Assets under Management
BSE	Mumbai (Bombay) Stock Exchange
CAGR	Compounded Annual Growth Rate
CAPM	Capital Asset Pricing Model
GDP	Gross Domestic Product
GIC	General Insurance Corporation
HNI	High Net worth Investor
EEE	Exempt – Exempt - Exempt
ELSS	Equity Linked Savings Scheme
EPF	Employees Provident Fund
ETF	Exchange Traded Fund
FD	Fixed Deposit
FI	Financial Institution
FII	Foreign Institutional Investor
HNI	High Net-worth Individual
ICI	Investment Company Institute
IFA	Independent Financial Advisor
LIC	Life Insurance Corporation of India
NAV	Net Asset Value
NFO	New Fund Offer

NSC	National Savings Certificate
NSE	National Stock Exchange
NPS	National Pension Scheme
PPF	Public Provided Fund
RBI	Reserve Bank of India
SBI	State Bank of India
SEBI	Securities and Exchange Board of India
SIP	Systematic Investment Plan
SRO	Self-Regulatory Organization
STP	Systematic Transfer Plan
SWP	Systematic Withdrawal Plan
US64	Unit Scheme 64
UTI	Unit Trust of India



# **Chapter 1**

## **INTRODUCTION**

## 1.1 Introduction

The economic development of a nation largely depends upon its effective and efficient utilization of scarce resources. One such scarce resource is capital. Capital creation is made possible through accumulation of savings. The surplus entities in the economy save and invest their surplus in various financial assets which in turn is utilized by the deficit entities for investing in various real assets leading to value creation. The financial system of the nation facilitates capital creation by linking the surplus and the deficit entities through capital markets, financial services and financial instruments.

The most important among the surplus entities or savers is the Individuals of the nation. Individuals save and invest a part of their earnings with the hope of earning a positive return on their investment, which in turn enhances their future consumption possibilities. The financial system provides the investors a number of investment alternatives with varying amounts of risk and return. Investors make a choice out of the available alternatives based on their investment objectives which include their return aspiration and risk tolerance. An efficient financial system should provide its investors a range of investment alternatives to suit their investment objectives. This includes alternatives with varying maturities and varying risk – return characteristics. In other words the financial system should enable creation of risk capital on one end and risk less capital on the other. In this regard, Mutual Funds are a good fit into the financial system, as they enable capital creation across the entire spectrum of risk.

Mutual Funds are collective investment vehicles which represent an indirect method of investing. A mutual fund is an entity which provides the services of creating and managing public investment portfolios. A mutual fund collects small amounts of money from a large number of likeminded investors having similar investment objectives. The money is pooled and invested into a portfolio of assets depending on the investment objective to be achieved. The returns earned from the invested pool of assets after deducting the investment management charges is divided among the investors based on their invested amount.

Mutual Funds provide a number of advantages to its investors as compared to other direct investments. One of the advantages of investing in mutual funds is the advantage of selecting a readymade portfolio of assets to suit the investment objectives of the investor. Similarly another distinct advantage is the advantage of instant diversification. As mutual funds pool a large amount of money, they have the ability to create and hold a large portfolio of assets, thereby providing the investor the benefit of instant diversification from un-systemic risks which include business risk, credit risk and liquidity risk.

Mutual Funds are classified into various types based on a number of criteria's. One such classification criteria is the investment pattern of the fund. If the fund invests a larger portion of its assets into equity and related securities, then it is classified as Equity Mutual Funds. The investment objective of such a fund is normally to provide the investor with capital appreciation over a longer period of time. On the other hand if a larger portion of the assets is invested into debt and related securities, then the fund is classified as a Debt Mutual Fund. The investment objective of a debt mutual fund is to generate regular and consistent income to the investor. Equity Mutual Funds are one of the important sources of pooling large amounts of risk capital from large number of small investors. Equity mutual funds could be classified as either diversified funds or undiversified funds. Diversified Equity Mutual Funds are a type of equity mutual funds which invests the fund corpus, in equity shares and related instruments of companies across industry sectors and thereby providing significant diversification in terms of business risk or company specific risk to the overall portfolio. Undiversified funds also known as Sector funds, invests the entire fund corpus into equity shares and related instruments of a particular industry or sector or related sectors. As sector funds do not provide diversification from business risk, they are considered to be undiversified funds.

One of the means adopted by Government of India, to encourage investments into particular types of assets, is by providing individual investors with Income Tax incentives. Income Tax incentives provided for investments in general can take different forms like deduction, exemption and rebate. Deduction benefit allows the investor to deduct the amount of eligible investment made during the year, from his gross total income, thereby reducing the taxable income and the tax payable thereon. Exemption benefit, on the other

hand is provided on the returns earned out of an eligible investment. Investment incomes, to the extent they are exempt, do not form a part of taxable income thereby leading to a lesser taxable income. This means that exempted investment income does not attract any income tax. Rebate is another form of tax incentive, which reduces the total income tax payable, by a certain amount, which normally is calculated as a percentage of the eligible investment made during the year.

In order to encourage individual investors to develop equity investment culture, the then finance minister Shri. S.B.Chavan, in his budget speech on 28<sup>th</sup> February 1989, introduced a new mutual fund scheme called the 'Equity Linked Savings Scheme' (ELSS). The ELSS funds incentivized the small investors with a lower income tax obligation, depending on the amount invested in ELSS funds, during the year. ELSS mutual funds therefore are conceived to be one of the means of reducing the income tax burden of the investor and so appropriately, referred to as Tax Saving Mutual Funds. For an initial period till 31<sup>st</sup> March 1991, ELSS investments were eligible for deduction benefit of ₹ 10,000. From the financial year 1991-92 onwards, the tax incentive was modified to a tax rebate benefit, under Section 88 of the Income Tax Act, with ₹ 10,000, remaining the eligible investment amount. From the financial year 2005-06, the tax incentive reverted back to deduction benefit, under Section 80C of the Income Tax Act, with an eligible investment amount going up to ₹ 1,00,000. The eligible investment for deduction benefit from the financial year 2014-15 was further increased to ₹ 1,50,000.

ELSS funds are basically diversified equity mutual fund schemes. However there are two distinct differences between the ELSS Schemes and Diversified Equity Mutual Fund Schemes. The differences are solely due to the qualifications placed by the statute in terms of funds investment pattern and investor's investment lock in period. As Equity mutual funds provide distinct Income Tax exemption benefit under the Income Tax Act, to differentiate such equity mutual fund schemes with other fund schemes, the Income Tax Act Sec 115 T(b) ii, defined an equity mutual fund scheme as one which invests 65 percentage ( 50 percentage till 31<sup>st</sup> May 2006 ) of investable funds of the scheme in equity shares and related instruments. This implies that to qualify as equity mutual funds and derive the tax benefits assigned, the equity allocation of such fund should be a

minimum of 65 percentage of the investible assets. On the other hand, ELSS funds are defined by Notified Scheme Regulations, as one that remains invested in equity shares and related instruments, to the extent of 80 percentage of its investible assets. Higher equity allocation is one of the marked differences between ELSS funds and Equity funds.

Tax saving investments, normally, is those that supply long term capital into the financial system, which in turn can ignite economic development. Tax benefit is an inducement given by the Government, to the investors to lure investors into such long term investments. As the objective is obtaining long term capital, the Government, as quid pro quo for the tax deduction or rebate benefit provided to investors, places certain restrictions on the investor's withdrawal of the invested amount from such investments. This means that all tax saving investments that provide a deduction or rebate benefit, necessarily have a lock in period. Lock in period implies that the investor is not allowed to redeem or sell or withdraw the amount or pledge such investment for a particular period of time. ELSS funds being tax saving investments providing tax deduction benefit (rebate benefit till 31<sup>st</sup> March 2005), has a lock in period of 3 years from the date of investment. So investors into ELSS fund schemes, have to remain invested in the scheme for a minimum period of 3 years from the date of investment. Equity mutual funds on the other hand do not have any lock in period. Lock in period of the invested amount therefore is another major difference between ELSS funds and Equity Funds.

ELSS mutual funds, except for the two differences mentioned above, are similar to Diversified Equity Mutual funds in terms of tax exemption benefit on the returns earned from the investment and the investment universe into which the fund corpus is invested. Therefore Diversified Equity Mutual Funds are a good benchmark to compare the investment performance of ELSS Fund schemes.

Investors have a large universe of investments into which they could invest. The investment choice thereon depends on the benefits that they would derive from it, of which the most important being its return potential. Investors naturally look at the historical or ex post return performance to gauge the return that the investment provided in the past, and use this as the base for their future expectation of returns. As investments undertake a

number of risks in order to generate returns, investment performance evaluation necessarily has to consider both the aspects of both risk undertaken and return generated. So investment performance evaluation has utmost importance in the investment selection process.

Investment selection process involves identifying a number of investments with certain defined benefit characteristics and choosing among them the one that fits the investment objective of the investors return aspiration and risk tolerance. Investors fall back on historical investment performance evaluation to base their return aspiration. Risk tolerance on the other hand is more complex as it includes aspects of risk taking ability and willingness. An investor's ability to undertake risk is dependent on various extraneous factors like age, income, number of dependents, liquidity requirements etc. However an investor's willingness to undertake risk is more psychological wherein the investor's perception about the investment will determine his investment preference. Factors such as investment knowledge and experience could influence the investors perception about the investment and thereby his willingness to undertake risk.

ELSS mutual fund is one among a number of investments that provide tax deduction benefit under Sec 80 C of the Income Tax Act. The investment universe in this category is diverse with a number of investments providing fixed returns with least amount of risk like 5 Year Tax Saving Bank Fixed Deposits, National Savings Certificate, Public Provident Fund etc. on one end and ELSS funds with market based returns and high element of risk on the other. Investor's choice of ELSS funds from this eligible investment universe is therefore dependent upon their perceived return expectation and their perception towards the inherent risk. These two aspects could determine their preference for the investment.

## 1.2 Statement of the Problem

ELSS mutual fund, when proposed in the financial budget for the year 1989-90, was envisaged by the Government as the means of inducing small individual investors to invest into equity markets. The then finance minister in his budget speech clearly acknowledged that the flow of savings of small investors into the capital market was mainly into fixed interest bearing instruments. As industrial development also required risk capital in the form of equity, ELSS funds were introduced to stimulate the flow of personal savings into equity. It was also the considered opinion of the Government, as reflected in the budget speech of 1991-92, that for small individual investor's mutual funds are more suitable investment vehicles rather than direct ownership of shares.

ELSS funds were floated by Asset Management Companies in the year 1990-91 and from then on have been in existence with a history of 23 years. Although there have been several changes over these years with regard to the nature and extent of tax benefit, it becomes very pertinent to make an appraisal of the investment, in terms of its achieving the objective for which it was introduced.

ELSS mutual fund basically is a tax saving investment. ELSS fund scheme provides the investor currently, with a tax deduction u/s 80 C of the Income tax Act to the extent of ₹ 1,00,000 per year (to be read as ₹ 1,50,000 from the year 2014-15), towards investment made during the financial year. In this regard, it is important to consider the fact that there are a number of other investments, which provide similar tax deduction benefit to the investor as ELSS funds. So the question arises as to the preference of the investor for ELSS funds vis-à-vis other tax saving investments.

ELSS funds are a type of Diversified Equity Funds except for the differences in percentage allocation to equity and investment lock in period. ELSS funds by regulation are required to invest 80 percentage of its investible corpus in equity shares and related investments, as against 65 percentage (50 percentage till May 2006) in Equity funds. Similarly, investments into ELSS funds get locked in for a period of 3 years, as against no lock in

period for Equity funds. Higher equity allocation implies higher risk – reward expectation. Similarly a lock in period of 3 years also enhances the risk of the investor and thereby enhances the risk premium expectation from the investment. Simply said, a higher equity allocation and a 3 year lock in period, make the ELSS investments apparently more risky when compared to Diversified Equity funds and thereby lead to a higher investor return expectation. So the question that arises from the investment performance point of view is whether ELSS funds provide a better risk adjusted return performance as compared to Diversified Equity Mutual funds.

Mutual funds in general are considered to be relative return providers. Relative return implies that the performance is benchmarked against a defined market index. All mutual fund schemes have a specified benchmark market index against which its investment performance ought to be compared. The fund manager's constantly strive to outperform the specified benchmark market index. In an up market, the effort is to provide returns greater than the market index and in down market, the effort is to lose lesser than the market index. ELSS funds are no exception to this relative return category. All ELSS fund schemes too have specified market index benchmarks and therefore a comparison of investment performance with benchmark market indexes is essential for performance evaluation.

Empirical research literature reviewed deals with the portfolio performance of Diversified Equity Funds considering ELSS funds as a part of Diversified Equity Funds. Existing empirical research literature does not make any distinction between ELSS funds and other Diversified Equity Funds. There a number of studies available on the performance of ELSS funds with the performance evaluation benchmarked only against a single market index. So a gap exists with regard to the empirical investment performance evaluation and benchmarking the performance of ELSS funds as against other Diversified Equity funds and other Market Indexes. This comparison of investment performance is relevant from the investor perspective to understand the efficiency with which the funds are managed by ELSS funds and also the additional risks if any that are being undertaking.



Empirical research is also available on the perception of investors towards mutual fund investments in general. However a gap exists in particular on the perception of investors towards ELSS funds as compared to other Diversified Equity funds and more importantly the preference of investors towards ELSS funds in comparison with other Tax saving investments.

### **1.3 Significance of the Study**

Equity Mutual funds are considered to be a good means for a small individual investor, investing into equity markets, as it provides instant diversification from business risk. Equity Mutual funds also enable efficient allocation of individual savings into productive assets by providing the financial system with a pool of risk capital. In order to encourage such investments, the Government in the year 1989-90 introduced ELSS Mutual Funds.

ELSS mutual funds are in fact a type of Diversified Equity Mutual Funds, which provide income tax incentive to individuals, for investments made into the fund during the financial year. ELSS funds invest a minimum of 80 percentage of the investible assets into equity shares and other related assets. As the investment provides a tax deduction, the invested amount gets locked in for a period of 3 years from the date of investment. ELSS mutual funds as a retail investor tax saving investment have been in existence for over 23 years. So it is appropriate to study the investor's awareness and perception towards ELSS plans to know if the purpose for which it was floated by the Government is being fulfilled.

Individual investors, in order to avail Tax Benefits under Section 80C of the Income Tax Act, have to make a choice between a number of investments including ELSS funds. Investor's preference for ELSS funds naturally depends on the investors understanding of its risk – reward attributes. For an investor to choose ELSS plan, he needs to be certain that the higher element of risk undertaken by the fund would lead to a higher amount of return over a long time horizon. Ignoring the tax deduction, one of the means to evaluate the above is by analyzing whether ELSS funds provide a higher risk adjusted return as compared to Diversified Equity funds and Benchmark Market Indexes for a given time

horizon of investment. This awareness regarding the investment performance with convincing empirical evidence can make ELSS plan a preferred investment of retail individual investors.

This study tries to find answers to a number of questions that concern all the stakeholders of ELSS investments which include the Investor, Asset Management Company and the Government.

The study's significance lies in finding answers to the following questions from an investor perspective, as this could significantly influence their perception and preference towards ELSS investment:

- 1) Do ELSS funds provide returns commensurate with the risk that is undertaken?
- 2) Is the investment performance of ELSS Funds superior to Diversified Equity Mutual Funds?
- 3) Is the investment performance of ELSS Funds superior to benchmark Market Indexes?
- 4) Are there any additional risks in investing in ELSS funds as compared to Diversified Equity Funds?

The study also tries to analyse from the Asset Management Company perspective, the following, so that it could help the AMC to position and market the ELSS funds:

- 1) Is there enough awareness among investors regarding ELSS as a Tax saving scheme?
- 2) What is the perception of the investor towards ELSS funds?
- 3) What is the preference assigned by the investor to ELSS funds as against other Tax saving investments?
- 4) Do investors perceive a higher risk investing in ELSS funds as compared to Diversified Equity Funds?
- 5) Are existing investors satisfied with the performance of ELSS funds?
- 6) What are the factors that influence the investment decision of the ELSS investor?

The significance of the study also lies in providing answers to some of the questions that the Government has, to make necessary changes, in the ELSS regulations, so as to make it more attractive to the investor and at the same time serve the purpose for which it was launched:

- 1) Is a 3 Year lock in period appropriate?
- 2) Is a dedicated deduction for ELSS funds under Sec 80C help in attracting more investments?
- 3) Is the differentiation between Diversified Equity Mutual Funds and ELSS mutual funds justified?
- 4) What other changes to ELSS Regulations can make them more attractive?

## **1.4 Scope of the Study**

The study tries to evaluate ELSS fund investment performance and ELSS fund investor perception. Investment performance is evaluated for a period of 13 years from Years 2000-01 to 2012-13. In order to evaluate the investment performance, the entire universe of ELSS funds, consisting of 43 funds (with a minimum track record of 3 years) is considered. As the study deals with the investment performance of the fund, only Growth option plans are considered. For comparing the ELSS fund performance, 12 top diversified equity schemes across 9 fund houses are considered. Performance is also benchmarked against 7 market indexes, which are being used by individual ELSS funds as their benchmarks.

In order to study the investor perception, a survey of Investors from Bengaluru and its suburban area is conducted. Investors for this study are classified into two groups. One, those who have investment experience in ELSS funds and two, those who have not invested in ELSS funds but have been investing in other tax saving investments.

## 1.5 Objectives of the Study

There are two facets in an investment's evaluation. The first is the investment's performance appraisal with regard to the risk undertaken and return provided. The other is about the perception and preference of the investor towards the investment. The objectives of this study are based on both these facets of ELSS funds which are Investment Performance and Investor Perception.

The main objectives of this study are:

- 1) To compare and evaluate the investment performance of Equity Linked Savings Scheme mutual funds (Growth) plans with other Diversified Equity mutual funds (Growth) plans.
- 2) To compare and evaluate the investment performance of Equity Linked Savings Scheme mutual funds (Growth) plans with relevant Benchmark Market Indexes.
- 3) To identify the additional risks if any, involved in investing in Equity Linked Savings Scheme (Growth) plans as compared to Diversified Equity Funds (Growth) plans.
- 4) To analyse the risk-reward perception of individual retail investors towards Equity Linked Savings Scheme mutual funds as compared to other Diversified Equity mutual funds.
- 5) To analyse the investor's perception and preference towards Equity Linked Savings Scheme mutual funds as compared to other Tax Saving Investments.

## 1.6 Hypotheses of the Study

The Hypotheses for the study is as follows:

$H_{01}$  = There is no significant difference in the average Sharpe Ratio of ELSS (Growth) funds and Diversified Equity (Growth) funds.

$H_1$  = There is a significant difference in the average Sharpe Ratio of ELSS (Growth) funds and Diversified Equity (Growth) funds.

$H_{02}$  = There is no significant difference in the average Sortino Ratio of ELSS (Growth) funds and Diversified Equity (Growth) funds.

$H_2$  = There is a significant difference in the average Sortino Ratio of ELSS (Growth) funds and Diversified Equity (Growth) funds.

$H_{03a}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE Sensex.

$H_{3a}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE Sensex.

$H_{03b}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 100 Index.

$H_{3b}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 100 Index .

- $H_{03c}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 200 Index.
- $H_{3c}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 200 Index.
- $H_{03d}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 500 Index.
- $H_{3d}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 500 Index.
- $H_{03e}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE Nifty.
- $H_{3e}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE Nifty.
- $H_{03f}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE 100 Index.
- $H_{3f}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE 100 Index.
- $H_{03g}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE 500 Index.
- $H_{3g}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE 500 Index.

$H_{04a}$  = There is no significant difference in the Investors perception of risk in case of ELSS funds as compared to Diversified Equity funds.

$H_{4a}$  = There is a significant difference in the Investors perception of risk in case of ELSS funds as compared to Diversified Equity funds.

$H_{04b}$  = There is no significant difference in the Investors perception of expected return in case of ELSS funds as compared to Diversified Equity funds.

$H_{4b}$  = There is a significant difference in the Investors perception of expected return in case of ELSS funds as compared to Diversified Equity funds.

$H_{05}$  = There is no significant difference in the Investors preference towards ELSS funds as compared to other Tax saving investments.

$H_5$  = There is a significant difference in the Investors preference towards ELSS funds as compared to other Tax saving investments.

## **1.7 Research Design**

### **1.7.1 Data Base**

The study has been done using data collected from both Primary and Secondary sources. For objectives 1 to 3, secondary data is used and for objective 4-5 primary data is used.

Primary data has been collected from a sample of 532 individual investors consisting of two groups, one set of respondents having investment experience (hereinafter called 'Investor' category) in ELSS mutual funds as well as other tax saving investments and another set of respondents investing only in other tax saving investments but not in ELSS funds (hereinafter called 'Non-Investor' category).

Secondary data consisting of Net Asset Values (NAV) of mutual fund schemes is obtained from a private mutual fund database provider called ACE MF. The market index values have been obtained from the official websites of National Stock Exchange of India (NSE) and Mumbai Stock Exchange (BSE). Other secondary data is collected from publications of SEBI, AMFI, RBI, other websites, journal publications and periodicals.

### **1.7.2 Methods of collection of Primary Data**

An important component of this study is the Investor's perception towards ELSS funds. For achieving this objective, the survey technique was adopted, with two structured questionnaire's one for Investor category and another for Non- Investor category (Appendix 1 and 2). The total sample size considered is of 532 investors of tax savings schemes u/s 80C of the Income Tax Act. This sample consists of two types of investors, those who had an investment experience in ELSS funds and those who invested in other tax saving investments but not ELSS funds. The number of respondents is 382 for the former (Investor category) and 150 for the later ( Non Investor category ). The sampling method used is purposive sampling. Purposive sampling is considered to be a non- probability sampling used for obtaining qualitative information, by selecting respondents ( investors in ELSS funds and investors in other tax saving funds ), for answering the research questions. All the respondents are residents of Bengaluru and its sub urban area. The data is collected through a survey using structured questionnaire from individual investors during the period 1<sup>st</sup> March 2014 to 31<sup>st</sup> March 2015. Investors were met in person for the purpose of the survey, by visiting office complexes, mutual fund offices and investor seminars. Investor references were also received from fund distributors and personal contacts.

### **1.7.3 Pilot Study**

A pilot study with a sample size of 50 was conducted to test whether the questions in the survey were appropriate and whether the respondents are able to follow the directions given in the questionnaire. Based on the pilot study results, the questionnaire was modified and the main study was conducted.



#### **1.7.4 Determination of Sample Size**

The primary data for the study is collected through survey method using a structured questionnaire from respondents residing in Bengaluru and its sub urban area. The population of Bengaluru Urban district as per Government of India 2011 census was 85.20 lacs. As per (Krejcie and Morgan, 1970), for a population of 10 lacs and beyond, the representative sample size recommended is 384. However this study has considered a sample size of 532 respondents. As the focus of the study is on the investor's perception towards ELSS funds in comparison to Diversified Equity funds and other tax saving investments, the number of respondents with investment experience in ELSS funds is considered more important and therefore this category has 382 respondents as against 150 for non ELSS investor category.

#### **1.7.5 Sampling Design**

For achieving objectives 1 to 3, the study has considered a sample set of ELSS funds, Diversified Equity funds and Market Indexes. The sample set of ELSS funds consists of 43 funds which is the entire population of ELSS funds that were operational as on 31.03.2013, with a track record of 3 years from their respective dates of inception.

The Diversified funds sample set has 12 funds that have been selected based on AUM as on 31.03.2013. Mutual fund houses with highest equity AUM as on 31.03.2013 were listed. From the list, the top three fund houses with highest AUM were selected and in them the top two diversified equity funds were considered. From the next six fund houses, one diversified equity fund from each fund house, with highest AUM is selected. So the total number of Diversified Equity Funds in the sample set is 12, from 9 different fund houses, all having a track record of a minimum of 3 years. The Market Indexes sample set consists of all the market indexes that were considered by ELSS funds as their respective benchmarks as on 31.03.2013. This set consists of 7 market indexes of which 4 pertain to Mumbai Stock Exchange and 3 pertain to National Stock Exchange of India. Table 1.1 below, lists the sample ELSS funds, Diversified Equity funds and Market indexes considered for the study.

Table1.1

## List of Sample ELSS, Diversified Equity Funds and Market Indexes

List of Sample ELSS, Diversified Equity Funds and Market Indexes						
Sl.No.	Funds	Type	Inception Date	Total Number of Stocks in Portfolio as at 31.03.2013	Benchmark	Fund Manager
<b>ELSS Funds</b>						
1	Axis Long Term Equity	Open Ended	29.12.2009	37	BSE 200	Jinesh Gopani
2	Birla Sunlife Tax Plan	Open Ended	03.10.2006	46	BSE Sensex	Ajay Garg
3	Birls Sunlife Tax Relief 96	Open Ended	10.03.2008	46	BSE 200	Ajay Garg
4	BNP Paribas Tax Advantage	Open Ended	05.01.2006	46	CNX	Sreyash Devalkar
5	BOI AXA Eco	Open Ended	21.10.2008	36	CNX Nifty	David Pezarkar
6	BOI AXA Tax Advantage	Open Ended	25.02.2009	36	CNX Nifty	Saurabh Kataria
7	Canara Robeco Equity Tax Saver	Open Ended	02.02.2009	56	BSE 100	Krishna Sanghavi
8	DSP Black Rock Tax Saver	Open Ended	18.01.2007	79	CNX 500	Apporva Shah
9	DWS Tax Saving	Open Ended	20.03.2006	63	BSE 200	Akash Singhanian
10	Edelweiss ELSS	Open Ended	30.12.2008	64	CNX 500	Paul Parampreet / Bhavesh Jain
11	Escorts Tax Plan	Open Ended	31.03.2000	23	CNX Nifty	Archit Singhal
12	Franklin India Tax Shield	Open Ended	10.04.1999	51	CNX 500	Anand Radhakrishnan / Anil Prabhudas
13	HDFC Long Term Advantage	Open Ended	02.01.2001	34	BSE Sensex	Chirag Setalvad / Rakesh Vyas
14	HDFC Tax Saver	Open Ended	31.03.1996	55	CNX 500	Vinay R Kulkarni / Rakesh Vyas
15	HSBC Tax Saver	Open Ended	05.01.2007	36	BSE 200	Aditya Khemani
16	ICI Pru Prudential Right	Close Ended	26.09.2009	31	CNX Nifty	Manish Gunwani / Rajat Chandak
17	ICI Pru Prudential Tax Plan	Open Ended	19.08.1999	58	CNX 500	Chintan Haria / Shalya Shah
18	IDFC Tax Advantage	Open Ended	26.12.2008	36	BSE 200	Aniruddha Naha
19	IDFC Tax Saver	Close Ended	15.03.2007	26	BSE 200	Aniruddha Naha
20	ING Retire Invest	Close Ended	26.03.2007	33	CNX Nifty	Shavan Kumar Sreenivasula
21	ING Tax Savings	Open Ended	28.03.2004	51	BSE 100	Ajay Garg
22	JM Tax Gain	Open Ended	31.03.2008	29	BSE 500	Sanjay Kumar Chabbria / Chaitanya Choksi
23	JP Morgan Tax Advantage	Open Ended	27.01.2009	52	BSE 200	Harshad Patwardhan / Karan Sikka
24	Kotak Tax Saver	Open Ended	23.11.2005	50	CNX 500	Deepak Gupta
25	LIC Nomura Tax Plan	Open Ended	31.03.1998	36	BSE Sensex	Nobutaka Kitajima
26	LNT Long Term Advantage	Close Ended	27.03.2009	46	BSE 200	Rajesh Pherwani
27	LNT Tax Advantage	Open Ended	27.02.2006	59	BSE 200	Soumendra Nath Lahiri
28	LNT Tax Saver	Open Ended	18.11.2005	48	CNX Nifty	Rajesh Pherwani
29	Quantum Tax Savings	Open Ended	23.12.2008	28	BSE Sensex	Atul Kumar
30	Reliance Equity Linked Savings	Close Ended	31.03.2008	28	BSE 100	Sailesh Raj Bhan
31	Reliance Tax Saver	Open Ended	21.09.2005	48	BSE 100	Ashwani Kumar
32	Religare Agile Tax Fund	Close Ended	15.02.2008	11	CNX Nifty	Pranav Gokhale
33	Religare Tax Plan	Open Ended	29.12.2006	49	BSE 100	Vetri Subramaniam / Vinay Paharia
34	Sahara Tax Gain	Open Ended	01.04.1997	36	BSE 200	A N Sridhar
35	SBI Magnum Tax Gain	Open Ended	31.03.1993	48	BSE 100	Jayesh Shroff
36	SBI Tax Advantage I	Close Ended	03.03.2008	31	BSE 500	Richard Dsouza
37	Sundaram Tax Saver	Open Ended	02.05.2005	56	BSE 200	J Venkatesan
38	Tata Infra Tax Savings	Close Ended	30.03.2009	34	CNX 500	Rupesh Patel
39	Tata Tax Advantage Fund I	Close Ended	16.03.2006	40	BSE Sensex	Pradeep Gokhale
40	Taurus Tax Shield	Open Ended	31.03.1996	44	BSE 200	Sadanand Shetty
41	UTI ETSP	Open Ended	01.08.2005	44	BSE 100	Lalit Nambiar
42	UTI LTA I	Close Ended	28.03.2007	50	BSE 100	Lalit Nambiar
43	UTI LTA II	Close Ended	31.03.2008	50	BSE 100	Lalit Nambiar
<b>Diversified Equity Funds</b>						
1	Birla Sunlife Frontline Equity	Open Ended	30.08.2002	66	BSE 200	Mahesh Patil
2	DSP Black Rock Top 100	Open Ended	10.03.2003	36	BSE 100	Apoorva Shah
3	Franklin India Bluechip	Open Ended	01.12.1993	40	BSE Sensex	Anand Radhakrishnan / Anand Vasudevan
4	HDFC Equity Fund	Open Ended	01.01.1995	58	CNX 500	Prashant Jain / Rakesh Vyas
5	HDFC Top 200	Open Ended	03.09.1996	60	BSE 200	Prashant Jain / Rakesh Vyas
6	ICI Pru Dynamic	Open Ended	31.10.2002	62	CNX Nifty	Sankaran Naren / Mittul Kalawadia
7	ICI Pru Discovery Fund	Open Ended	16.10.2004	68	CNX Midcap	Mrinal Singh / Ashwin Jain
8	IDFC Premier Equity	Open Ended	28.09.2005	43	BSE 500	Kenneth Andrade
9	Reliance Growth	Open Ended	08.10.1995	51	BSE 100	Sunil Singhanian
10	Reliance Equity Opportunities	Open Ended	28.03.2005	57	BSE 100	Sailesh Raj Bhan
11	SBI Magnum Contra	Open Ended	14.07.1999	38	BSE 100	R Srinivasan
12	UTI Opportunities Fund	Open Ended	20.07.2005	43	BSE 100	Anoop Bhaskar
<b>Market Indexes</b>						
1	BSE 30 (Sensex)	Free Float Market Cap	1986	30		
2	BSE 100	Free Float Market Cap	1989	100		
3	BSE 200	Free Float Market Cap	1994	200		
4	BSE 500	Free Float Market Cap	1999	500		
5	NSE CNX Nifty	Free Float Market Cap	1995	50		
6	NSE CNX 100	Free Float Market Cap	2003	100		
7	NSE CNX 500	Free Float Market Cap	1995	500		

Source: ACE MF Database

### **1.7.6 Period of Reference**

An important part of this study is the evaluation of investment performance of ELSS funds. Investment Performance of ELSS funds and its evaluation as against Diversified Equity funds and benchmark Market index's is carried out for a period of 13 financial years starting from the first financial year of the 20<sup>th</sup> century which is from 01.04.2000 till 31.03.2013. ELSS funds from the year 1991 till 1998, by regulation were close ended funds with a maximum tenure of 10 years. Fund houses used to launch new ELSS schemes every year to enable investors to invest into them and avail tax benefits. Due to the close ended nature, there was no continuity with regard to schemes and also the asset size of ELSS schemes were quite small. However in the year 1998, ELSS funds were allowed to be formed as open ended funds. Subsequently, in the year 1999 onwards, some funds which hitherto were close ended funds, converted themselves into open ended funds. Considering this fact, this study has considered 01.04.2000 onwards as the period of reference for evaluating the investment performance.

Another part of the study is regarding the perception of investors towards ELSS funds. Primary data was collected from investor survey conducted during the period 01<sup>st</sup> April 2014 to 31<sup>st</sup> March 2015.

### **1.7.7 Methods and Tools used for Analysis**

The two important dimensions of this study are ELSS Investment Performance and Investor Perception.

For evaluating investment performance, the Net Asset Values of ELSS funds and Diversified Equity funds along with values of Market Indexes for the period 01<sup>st</sup> April 2000 to 31<sup>st</sup> March 2013 were downloaded from ACE MF data base and Stock Exchange websites. The data was then sorted and variables calculated using Microsoft Excel. The study has used the following measures for investment performance evaluation:

- **Investment Returns of Fund** : It reflects the percentage of increase in wealth over a period of time.

$$r = \frac{(V_E - V_B)}{V_B} \times 100$$

$r$  = Rate of Return

$V_E$  = Value at the End of the Period

$V_B$  = Value at the Beginning of the Period

- **Average Returns of Fund** : It is used to represent returns earned over a period of time in a single number from a set of periodic returns.

$$\bar{r} = \frac{(\sum_{i=1}^n r_i)}{n}$$

$\bar{r}$  = Average Return

$r_i$  = Return for the period

$n$  = number of periods

- **CAGR of Fund** : It is the compounded returns earned for the period. It is the compounded rate at which the investment has grown by over time.

$$CAGR = \sqrt[n]{\sum_{i=1}^n (1 + r_i)} - 1$$

- **Standard Deviation of Returns of Fund** : It is a measure of Total Risk undertaken by the investment consisting of systemic and un systemic risks. Higher the standard deviation, higher is the total risk undertaken.

$$\sigma_F = \sqrt{\frac{\sum_{i=1}^n (r_i - \bar{r})^2}{(n - 1)}}$$

$\sigma_F$  = Sample Standard Deviation of Fund Returns

- **Coefficient of Variation (CV) of Fund** : It relates risk to the return earned. It states the amount of risk undertaken by the investment for earning a unit of return. Lower the CV, better is the performance.

$$CV = \frac{\sigma_F}{\bar{r}}$$

$CV$  = Coefficient of Variation

$\sigma_F$  = Standard Deviation of the Fund

$\bar{r}$  = Average Returns of the Fund

- **Beta of the Fund** : It represents the systemic risk of the investment.

$$\beta_F = \frac{\left( \sum_{i=1}^n (r_i - \bar{r}) \times (m_i - \bar{m}) \right)}{\sum_{i=1}^n (m_i - \bar{m})^2}$$

$\beta_F$  = Beta of a Fund

$r_i$  = Fund returns for the period  $i$

$m_i$  = Market returns for the period  $i$

- **Semi Deviation of the Fund**: It is a measure of downside risk undertaken by the investment. Higher the semi deviation, higher is the downside risk.

$$\sigma_{down} = \sqrt{\frac{\sum (r - \bar{r}) \text{ where } (r < \bar{r})}{(n - 1)}}$$

- **R<sup>2</sup> (Coefficient of Determination):** It indicates the extent to which the returns of the fund are determined by the market. It ranges between +1 to 0. +1 indicates that 100 percentage of the returns are determined by the market. Higher the R<sup>2</sup> higher is the diversification of the fund in relation to the market index.

$$R^2 = \left( \frac{Cov_{pm}}{\sigma_p \times \sigma_m} \right)^2$$

$R^2 = \text{Coefficient of Determination}$

$Cov_{pm} = \text{Covariance of Returns of Portfolio and Market}$

$\sigma_p = \text{Standard Deviation of Portfolio Returns ;}$

$\sigma_m = \text{Standard Deviation of Market Returns}$

- **Sharpe's Return to Variability Ratio ( Sharpe, 1966 ) :** It is a very widely used measure of risk adjusted performance. It provides the risk premium earned by a fund for having undertaken a unit of total risk. Higher the Sharpe ratio better the risk adjusted performance of the fund.

$$S_p = \frac{R_p - R_F}{\sigma_p}$$

$S_p = \text{Sharpe Ratio}$

$R_p = \text{Return of the Portfolio}$

$R_f = \text{Risk Free Rate of Return}$

$\sigma_p = \text{Standard Deviation of the Portfolio}$

- **Treynor's Return to Volatility Ratio ( Treynor, 1965 ) :** It provides us the risk premium earned by the fund for having undertaken a unit of market risk. Higher the Treynor's Ratio, better the risk adjusted performance of the fund. It is suitable for evaluation of funds which have a high element of diversification.

$$T_p = \frac{R_p - R_F}{\beta_p}$$

$T_p$  = Treynor's Ratio

$R_p$  = Return of the Portfolio

$R_f$  = Risk Free Rate of Return

$B_p$  = Beta of the Portfolio

- **Jensen's Alpha ( Jensen, 1968 )** : It is the excess returns earned by the fund over and above the return earned for having undertaken the market risk. It is considered to be a measure of fund manager performance. Higher the alpha, better is the fund manager performance.

$$\alpha_p = R_p - ( R_f + \beta_p(R_m - R_f) )$$

$\alpha_p$  = Alpha of the Portfolio

$R_p$  = Return of the Portfolio

$R_f$  = Risk Free Rate of Return

$\beta_p$  = Beta of the Portfolio

$R_m$  = Return of Market Portfolio

- **Sortino's Ratio (Sortino, 1994)** : It is one of the prominent downside risk adjusted return measures. It provides us the risk premium earned for undertaking a unit of downside risk. Higher the Sortino Ratio, better the downside risk adjusted performance of the fund.

$$SR_{down} = \frac{(R_p - R_f)}{\sigma_{down}}$$

$SR_{down}$  = Sortino Ratio

$R_p$  = Return of the Portfolio

$R_f$  = Risk Free Rate of Return

$\sigma_{down}$  = Semideviation

The Statistical Package for Social Sciences (SPSS) software was used to analyse primary data and perform the statistical tests. The Hypotheses testing and its validation is done using the following tests :

The data sets of ELSS funds, Diversified Equity funds and Market Indexes are tested for normality using Kolmogorov-Smirnov Test for Normality and Shapiro-Wilk Test for Normality.

- **Welch's t - Test**

The Hypotheses framed around the secondary data is tested using the Welch's two sample t-Test. This test is used to determine whether two independent samples have equal means. In this test, there is no assumption that the variances of the two distributions are equal. This test can be used with unequal sample sizes. If the test results are significant, then it leads to the conclusion that the means of the two samples are not equal.

- **Independent –Samples Mann-Whitney U Test**

This test is used in case of ordinal (rank/order) data for hypothesis testing which involves two independent samples. If the test results are significant, it means that there is a significant difference between the two sample medians. This leads to a conclusion that the two samples represent population with different median values.

- **Independent –Samples Kruskal-Wallis Test**

This test is used in case of ordinal (rank/order) data for hypothesis testing which involves two or more independent samples. If the test results are significant, it means that there is a significant difference between the medians of the samples. This leads to a conclusion that the samples represent population with different median values.



- **Independent –Samples Kolmogorov-Smirnov Test**

This test is used in case of ordinal data for hypothesis testing which consist of two independent samples. It compares the cumulative frequency distribution of the two samples. If the test results are significant, it means that there is a significant difference the cumulative frequency distributions of the samples. This leads to a conclusion that the samples do not represent the same population.

- **Related Samples Friedman's Two -Way Analysis of Variance by Ranks**

This test is used in case of ordinal data for hypothesis testing which involves two or more dependent samples. If the test results are significant, it means that there is a significant difference between the sample medians. This leads to a conclusion that the samples represent populations with different median values.

- **One Sample Chi-Square Test**

This test is used in case of categorical / nominal data for hypothesis testing which involves one dependent sample. If the test results are significant, it means that the categorical variables do not follow the hypothesized population distribution. This leads to a conclusion that the observed frequency is not equal to the expected frequency.

- **Wilcoxon Matched-Pairs Signed Ranks Test**

This non parametric test is used in case of interval / ratio data, to test the hypothesis whether the median of the difference of the two dependent sample scores equals zero.

## **1.8 Limitations of the Study**

This study is subject to a number of limitations, which are as follows:

- 1) Although ELSS funds were available as an investment product from the financial year 1990-91, for the purpose of study, only a period of 13 years starting from 2000-01 till 2012-13 is considered.
- 2) The sample ELSS funds considered for the study consist of only those funds which were active as on 31<sup>st</sup> March 2013. Funds which were wound up and were not in existence as on 31<sup>st</sup> March 2013 are not considered.
- 3) As this study is focussed on the investment performance of ELSS funds in terms of their ability to produce long term returns, it has considered only ELSS (Growth) plans and has not considered ELSS (Dividend) plans for performance evaluation.
- 4) The investment performance evaluation made in this study is based on the NAV declared by the respective funds, which are net of fund costs.
- 5) The primary data required for the study is collected through structured questionnaire from investors residing in Bengaluru and its sub urban area only.

## **1.9 Scheme of Presentation**

This research study is divided into six chapters, which are as follows:

**Chapter 1** : Introduction – This chapter contains statement of the problem, scope, significance, objectives of the study, hypotheses of the study, research design and limitations of the study.

**Chapter 2** : Mutual Funds in India – An Overview – This chapter provides an overview of mutual funds in India along with ELSS funds.

**Chapter 3** : Review of Literature - This chapter reviews some of the works in the areas of investment performance of mutual funds and investor perception of mutual fund investors.

**Chapter 4** : Results, Interpretation and Discussion– Investment Performance – This chapter analyses the results of the study with regard to investment performance of ELSS funds as against Diversified Equity funds and Market indexes.

**Chapter 5** : Results, Interpretation and Discussion – Investor Perception – This chapter analyses the demographic attributes of investors along with their perception and preference towards ELSS mutual funds as against Diversified Equity funds and other tax saving investments.

**Chapter 6** : Findings, Conclusions and Recommendations – The final chapter lists down the main findings of the study and its conclusions. It also provides recommendations to the stake holders and also scope for future research in the field.

## **Chapter 2**

# **Mutual Funds in India – An Overview**

## 2.1 Introduction

Mutual Funds existence in India can be traced with the formation of Unit Trust of India in the year 1963. Unit Trust of India was formed with the passing of UTI Act, 1963 on 1<sup>st</sup> February 1964. The objective of creating UTI as a public sector organization by the Government of India, was to enable pooling of small amounts of savings from a large section of people and deploying it in the capital markets, so as to boost industrial initiatives on the one hand and on the other hand, to provide the investors an opportunity of earning an enhanced return. The first scheme launched by UTI was the Unit Scheme 64. US- 64 was an open ended scheme which promised to provide income , liquidity, and tax benefit to its investors. Subsequently it launched a Unit Linked Insurance Plan in 1971. Till 1987, UTI was in a monopoly situation by which time, the AUM rose to ₹6700 Crs.

In the year 1987, the Government of India allowed public sector banks and public sector insurance companies to form mutual fund subsidiaries. SBI Mutual Fund was the first non UTI mutual fund company to start operations. Subsequently others followed up, and this included Canbank Mutual Fund, GIC Mutual Fund, LIC Mutual Fund, Indian Bank Mutual Fund and Bank of India Mutual Fund. The AUM of the industry by the year 1993, grew up to ₹47000 Crs of which 80 percentage was managed by UTI.

In the Year 1993, the Government of India, in its stride of economic reforms, opened up the mutual fund industry to private sector, both domestic and foreign. Kothari Pioneer Mutual Fund was the first private sector mutual fund formed in the year 1993. In the year 1993, Mutual Fund Regulations, were promulgated by SEBI to regulate the mutual fund industry except UTI. Subsequently in the year 1996, SEBI modified the mutual fund regulations to make it more comprehensive. As on date, all mutual funds are governed by SEBI Mutual Fund Regulations 1996.

In the Year 2003, the failure of US64 scheme, culminated in the Government of India, repealing the UTI Act, thereby bifurcating Unit Trust of India into two. One, into a specified undertaking to take over and wind up the US64 scheme. Two, a new entity named, UTI Mutual Fund, to take over all the NAV based schemes of erstwhile UTI. With

the repealing of the UTI Act, UTI Mutual Fund too, has come under the purview of SEBI regulations.

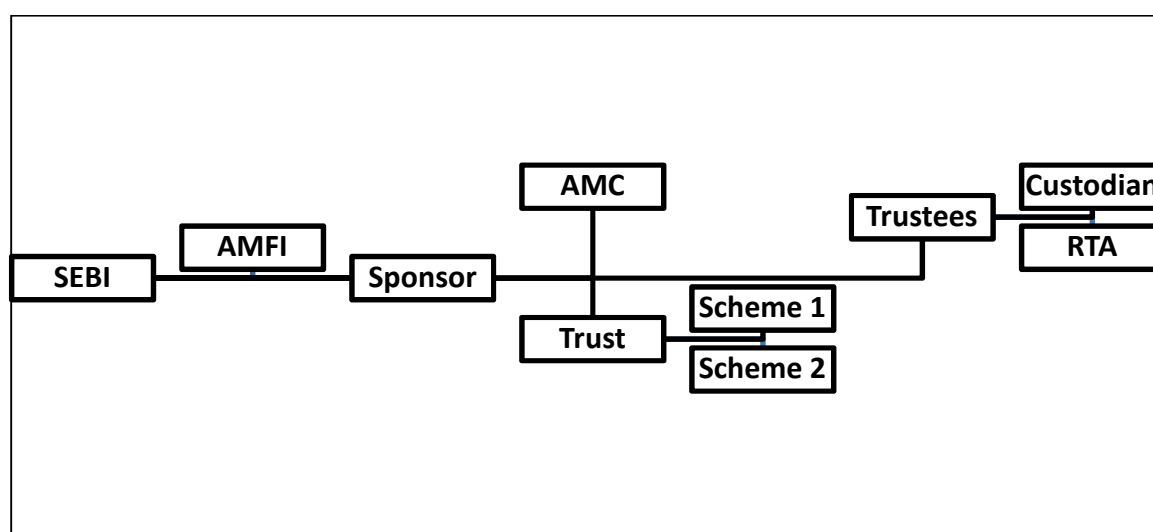
As of 31<sup>st</sup> March 2013, there were 40 mutual fund houses with ₹ 7.1 lac crores of assets under management with 6290 active mutual fund schemes, serving 4.28 crore investor folios.

### Structure of Indian Mutual Funds

The operational structure of a Mutual Fund in India is determined by SEBI mutual fund regulations. Chart 2.01 below, shows the structure of a mutual fund:

**Chart 2.01**

**Operational Structure of Indian Mutual Funds**



Source: Compiled based on SEBI Regulatory Structure

Securities and Exchange Board of India (SEBI) is the sole regulator of Mutual Fund Industry and all its intermediaries. SEBI came into existence with the passing of SEBI Act in the year 1992. The preamble of this Act states the objectives for which SEBI was formed. The three main objectives are:

- 1) to protect the interests of investors in securities
- 2) to promote the development of securities market
- 3) to regulate the securities market

In its endeavour to protect the interests of mutual fund investors and for smooth conduct of mutual fund business, SEBI regulates the industry and its intermediaries through formulation of policies and implementation of regulations.

Association of Mutual Funds in India (AMFI) although not a Self-Regulatory Organization (SRO), functions on the lines of an SRO. It is an organization, working towards developing the mutual fund industry and helps maintain standards to protect and promote the interest of mutual funds and also its investors.

A mutual fund is established in the form of a trust by a sponsor. A sponsor's role lies in the creation and registration of the mutual fund with SEBI. Sponsors appoint trustees to oversee the functioning of the mutual fund to ensure it is run in accordance with SEBI regulations and in the interest of the unit holders.

Trustees appointed by the sponsors, in turn appoint the Asset Management Company, to float and manage the investment schemes for the trust. Trustees appoint a Custodian, who play a key role in the safe keeping of the securities owned by the trust. Trustees also appoint Registrar & Transfer Agent to handle the responsibility of investor accounting.

### **Distribution of Mutual Funds**

Mutual funds are financial products. As with any product, marketing plays an important role in its successfully reaching the consumers. Financial products are no different. Mutual funds are promoted or made available to the investors, through various distribution channels. The channels through which mutual funds are distributed to investors are as follows:

- 1) Individual Mutual Fund Advisors
- 2) Corporate Distributors
- 3) Directly by the Fund Houses

As per SEBI guidelines, mutual fund distributors have to get themselves registered with AMFI, after clearing a certification exam. AMFI registration is mandatory for distributors. As on 31<sup>st</sup> March 2013, there were 52194 AMFI registered distributors consisting of 48276 IFA's and 3918 Corporate distributors.

## 2.2 Types of Mutual Funds

Mutual funds are ready made portfolios. Investors depending upon their investment objectives and constraints choose a portfolio that best suits them and invest in it. Keeping the investor objectives and their appetite for investment, AMC's float new schemes to attract new investors.

Mutual funds can be classified into various types, based on certain criteria, some of which are as follows:

- a) Maturity
- b) Investment Portfolio
- c) Demography of Investment
- d) Load
- e) Trading Facility

Based on maturity of investment, mutual funds are classified as:

- 1) Open Ended Funds
- 2) Close Ended Funds

Open ended funds are those funds which are open for continuous subscription and redemption. Investors can enter and exit the fund any time. Such funds do not have any pre-set redemption date.

Close ended funds on the other hand are those funds, which are not open for continuous subscription and redemption. There are restrictions for entry into and exit from the funds. These funds have a definite pre-set redemption date, on which the fund is dissolved and amounts paid out to investors. In order to provide exit opportunity to the investors of such funds, SEBI regulations mandate close ended funds to either provide repurchase facility or be listed on a stock exchange.

Based on Investment Portfolio, mutual funds can be classified as follows:

- 1) Growth Funds
- 2) Income Funds
- 3) Balanced Funds
- 4) Liquid Funds



Growth funds are those funds which have long term capital appreciation as the investment objective. These funds invest a major portion of their assets in equity and related securities to achieve the objective of capital appreciation. These funds are also called Equity funds.

Income funds have an investment objective of earning a regular income for the investor. In order to achieve this objective, such funds invest a large portion of their assets in debt securities. These funds are also called Debt funds.

Balanced funds invest one portion of their assets in equity shares and related securities and another portion of the assets in debt securities. The objective of the fund is to provide a moderate amount of capital appreciation and also a moderate amount of current income to investors. Balanced funds could either be classified as Equity Oriented Funds or Debt Oriented Funds

This classification as either equity or debt, gains importance as it is the basis on which the taxation of the fund returns are dependent. Section 10 ( 38) of the Income Tax Act, defines equity oriented funds as one which invests 65 percentage ( 50 percentage till 31.05.2006), of its total proceeds in equity shares of domestic companies. So any fund which invests 65 percentage or greater of its assets in domestic equity is classified as equity oriented fund and is entitled for claiming appropriate income tax benefits. Therefore equity oriented balance funds are funds in which 65 percentage or more, of the corpus is invested in domestic equity. On the other hand if the investment in equity is less than 65 percentage, then such fund is considered to be a debt oriented balanced fund. The tax benefits for a debt oriented balance fund are the same as provided for non-equity funds.

Liquid funds are those funds which have the investment objective of providing liquidity to the investor on notice. It therefore invests its entire investible corpus, in money market securities with a maturity of less than 365 days. These funds are also called Money market funds.

Equity funds can be further classified based on the following:

- 1) Diversification
- 2) Market Capitalization
- 3) Tax Saving
- 4) Portfolio Management Style

Diversified Equity funds are those funds which hold a diversified equity portfolio. The purpose of holding a diversified portfolio is to reduce the effect of business or sector risk on the overall portfolio. Sector funds on the other hand are un- diversified equity funds which hold a portfolio skewed towards one particular sector or related sectors.

Equity funds are also classified based on the market capitalization of the stocks that it invests. Market capitalization of a company is computed by multiplying its market price per share with the outstanding shares issued by the company.

Certain equity funds provide tax benefits to investors based on the investment made into the fund during the financial year. Such funds are called tax saving funds. Equity linked savings scheme (ELSS) is a type of equity mutual fund, which provides the investor with an income tax deduction benefit u/s 80C of the Income Tax Act, for the investment made into the fund, during the financial year, with a maximum deduction benefit of ₹ 1,00,000 ( ₹ 1,50,000 from Financial Year 2014-15 ).

Mutual funds can also be classified based on the extent of portfolio manager intervention in the management of the portfolio. Based on this characteristic, funds are classified as :

- 1) Active Funds / Dynamic Funds
- 2) Passive Funds / Index Funds

Active funds are those funds in which there is a frequent churning of the portfolio by the fund manager, with the intention of outperforming the market. The objective of such funds is to earn a superior return as compared to the market. Passive funds are buy and hold funds, in which the portfolio turnover of the fund is small. The objective of such funds is to earn returns on par with the market, with a small amount of tracking error.

Based on the demography of investment, funds may be classified as :

- 1) Domestic Funds
- 2) Off Shore Funds; and
- 3) Global Funds

Domestic funds invest only in the domestic market, in securities issued by domestic companies. Off shore funds invest in overseas markets in securities issued by foreign companies. Global funds are hybrid funds which invest in domestic markets as well as foreign markets thereby providing international diversification.

Mutual funds can also be classified based on loads. 'Load' refers to the charges levied by a fund either at the time of entering into a scheme ( entry load ) or at the time of exiting the scheme ( exit load ). Based on loads, funds are classified as :

- 1) Load Funds
- 2) No Load Funds

Load funds are those funds which levy a charge on the investor at the time of entering or exiting a fund and in some cases at both points. SEBI in the year 2009, in order to empower the investor, banned the system of mutual funds charging entry load. Prior to this ban, mutual funds, charged the investors an amount ranging up to 2.25 percentage of the investment value as entry load. Entry load was meant to cover the distribution expenses. Mutual funds currently are allowed to charge only exit loads. On the other hand, 'No load funds' are a category of mutual funds that do not charge any loads including exit.

Mutual funds normally are traded at the end of the day Net Asset Values ( NAV's ). As per SEBI guidelines, depending on the type of fund, a cut off time is fixed for login of application to avail the NAV of the day. Applications for purchase or repurchase, time stamped after the cut off time would be processed with the NAV of the next business day. These transactions are processed by the transfer agents on behalf of the fund houses. This also means that normally with mutual funds, there is no scope for intra -day trading. However there are certain mutual funds that trade only on a stock exchange platform with intra-day price movements similar to that of stocks. Such funds are known as Exchange Traded Funds ( ETF's). Index and Gold ETF's are popular forms of Exchange Traded Funds. As the value of index changes during the day, the index ETF's price also changes. Similarly, as the cash price of Gold changes during the day, the Gold ETF's price also

changes. So this creates intraday trading opportunities in ETF's. However they can be bought and sold only through a stock exchange, post the New Fund Offer (NFO).

## **2.3 Advantages of Mutual Funds**

Mutual funds are a type of collective investment schemes. A large number of small investors pool their savings and invest into the fund scheme which suits their investment objective. The AMC invests the money received from investors into securities / assets based on the investment policy. The returns earned by the fund from the investments, are distributed among the investors. Mutual funds as an investment alternative, offer a number of distinct advantages to its investors. The advantages an investor derives from a mutual fund investment can be listed as follows:

1. Instant Diversification
2. Readymade Portfolio
3. Professional Management
4. Investment Convenience
5. Tax Benefits

Instant diversification is one of the biggest advantages offered by a mutual fund investment. An investor, irrespective of the value of the investment ( for investment as low as ₹500) can derive instant diversification from un systemic risks, be it business risk or credit risk. Similar diversification to be gained from direct investments requires a much larger amount of investment.

Mutual funds offer the investor, the advantage of a readymade portfolio, which an investor simply choose based on his investment objective and constraint. Moreover certain investments /assets, require a higher investment value ( like Gold, Real Estate etc. ) due to which small investors are denied the benefit of investing in such assets. However, small investors through a mutual fund can access such assets even with a small amount of investment. Similarly, some markets ( like Call Money Market ) do not allow retail investor participation. Yet, retail investors can still access such markets through a mutual fund.

Another advantage of a mutual fund is the professional management of the portfolio. Professional management comes with a cost, which generally, is beyond the reach of a small investor. In case of mutual funds, the small investor derives the benefit of professional management of his investment for a very small cost. SEBI regulates the expenses that a mutual fund can charge its investors. The expense ratio allowed for equity funds is capped at 2.5 percentage, and 2.25 percentage for debt funds. This expense ratio includes investment management and advisory fees.

Mutual funds also offer advantage in the form of operational conveniences to its investors, like Systematic Investment Plan ( SIP), Systematic Withdrawal Plan( SWP) and Systematic Transfer Plan ( STP ). SIP helps investors to automate the investments into the fund at predefined intervals /dates. SIP is one of the tools for accumulating savings over a long time horizon and helps in wealth creation. SWP automates the withdrawal from a fund based on pre-defined instructions and pre- defined intervals / dates. STP also helps the investor in transferring funds from one scheme to another within a fund house, without manual intervention.

Tax savings is yet another advantage offered by mutual funds. The Government of India in order to promote equity culture among small investors has been promoting mutual funds, especially equity mutual funds, by providing a number of tax benefits. Table 2.01 below lists out the rates of tax on mutual funds returns earned by an individual investor. The following are the notable tax advantages of mutual funds :

- 1) Dividends received from Equity oriented mutual funds are fully exempt from tax. They are not subject to Dividend Distribution Tax either.
- 2) Mutual Fund investment turns long term when held for a period exceeding 12 months (36 months for non-equity funds after 10<sup>th</sup> July 2014). Long Term Assets as per Income Tax Act are those that are held for a period exceeding 36 months.
- 3) Long Term Capital Gains earned from Equity oriented mutual funds are fully exempt from tax. Long term capital gains tax rate on other assets ( excluding equity ) as per Income Tax Act is 20 percentage with indexation benefit and in case of specified

assets, 10 percentage without indexation benefit ( 10 percentage without indexation benefit has been removed for non – equity funds after 10<sup>th</sup> July 2014 ).

- 4) Short Term Capital Gains earned from Equity oriented mutual funds are subject to a lower tax rate of 15.45 percentage. Short Term Capital Gains on other assets are charged to tax at the marginal rate of the investor, which could be 10 percentage or 20 percentage or 30 percentage depending on the level of taxable income of the investor.

**Table 2.01**

<b>Income Tax Rates on Mutual Fund Returns for the Financial Year 2012-13 ( Resident Individual Investor )</b>			
<b>Type of Returns</b>	<b>Equity Funds</b>	<b>Debt Funds</b>	<b>Liquid Funds</b>
Dividend Income#	0%	13.519%	27.038%
Long Term Capital Gain##	0%	10.30%* / 20.60%**	10.30%* / 20.60%**
Short Term Capital Gain###	15.45%	30.90%	30.90%

Rates are inclusive of Surcharge + Cess

# Dividend Income is subjected to Distribution Tax which is deducted by the fund house, before payment is made to the investor. As Dividend has already suffered distribution tax, it is tax free in the hands of the investor.

## Long Term Capital Gains arise from the sale of units held for a period exceeding 12 months.

### Short Term Capital Gains arise from sale of units held for a period of 12 months or lesser.

\*Without Indexation Benefit

\*\* With Indexation Benefit

Source : Income Tax Act, Assessment Year 2013-14

As investment objectives vary with investors, mutual Fund investments offer its investors the choice of choosing the following investment options :

- 1) Growth Option
- 2) Dividend Option
- 3) Dividend Reinvestment Option

Growth option enables the investment to grow over time such that the investors reap a capital appreciation only while redeeming the funds. No payouts are declared or paid by the fund under this option. Investors with long term wealth creation objective or investors having the objective of receiving lump sum payments at a particular time choose this option. The taxation of returns under this option is always a capital gain.

Dividend option enables the investor to receive payouts from the fund as and when dividends are declared and paid by the fund. Investors looking for regular income or cash flows choose this option. Investors under this option can also earn a modest capital appreciation when units are redeemed. The NAV of Dividend option is always lesser than the Growth option due to dividend payouts. Taxation of returns under this option can be of both dividend income and capital gain.

Dividend reinvestment option enables the conversion of dividend amount paid by the fund into additional units. Under this option, the investor, in lieu of receiving the dividend cash flow, receives additional units of the fund. Over time, the fund units increase with payment of successive dividends. Taxation of returns under this option is similar to dividend option. Investors with wealth creation objective can choose this option.

## **2.4 Equity Linked Savings Schemes**

Equity Linked Savings Scheme (ELSS) is a type of diversified equity mutual fund which provides its investor with a tax benefit based on the amount of investment made into the fund during the financial year subject to a maximum amount. ELSS funds are also known as Tax Saving Funds.

ELSS was conceived by the Government of India in the year 1991, to bring about equity investment culture among the small investors, thereby providing risk capital to industries which in turn can lead the nation to economic prosperity. Accordingly, ELSS regulations were issued vide Notification No. S.O.928(E) dated 28<sup>th</sup> December 1992. Subsequently the regulations were amended vide Equity Linked Savings (Amendment) Scheme 1998 vide Notification S.O.No. 1092 (E) dated 22<sup>nd</sup> December 1998. In the year 2005, there was a

further amendment vide S.O.1563 (E) dated 03.11.2005. In the initial years, Tax Saving funds were floated as close ended funds. New set of funds were floated each financial year, such that investors could invest into it and derive a tax benefit out of the same. When launched, ELSS provided the investor a tax rebate u/s 88 of the Income Tax Act. The maximum amount of investment in ELSS that was eligible for tax rebate in a financial year was ₹10000. The tax rebate provided was a maximum of 30 percentage. This implies that with an ELSS investment of ₹10000, an investor could save a maximum income tax to the extent of ₹ 3000. From the financial year 2005-06, the tax concession benefit provided was changed to that of a deduction benefit u/s 80C of the Income Tax Act and the eligible investment limit for a financial year was increased to ₹100000. The implication of this was that the investor's taxable income reduces by a maximum amount of ₹100000 and thereby his tax payable also goes down accordingly. Table 2.02 provides the tax benefits of ELSS funds.

**Table 2.02**

<b>Income Tax Benefit on ELSS Investment</b>			
<b>Year</b>	<b>Type of Benefit</b>	<b>Eligible Investment ₹</b>	<b>Maximum Benefit</b>
Till 31.03.2005	Rebate u/s 88	10000	30%
From 01.04.2005	Deduction u/s 80 C	100000	30%

Eligible Investment limit raised to ₹ 150000 from 01.04.2015

Source : Finance Act 2005 and 2015

The investment in ELSS is subject to a lock in period of 3 years from the date of allotment of units. This means that the units allotted under ELSS cannot be redeemed, or transferred, or assigned or pledged for a period of 3 years. However in case of death of the investor, the nominee can withdraw the investment out of ELSS, provided, one year has elapsed from the original date of allotment.

ELSS regulations also stipulate the investment pattern of the fund. ELSS funds are mandated to invest a minimum of 80 percentage of its corpus in equity shares and related securities. New funds need to ensure that the limit of 80 percentage is reached within 6 months from the closure of subscription. The regulations provide for a relaxation of



investment pattern as mentioned above, only in exceptional circumstances so as to protect the interests of the investors.

As ELSS funds are a type of equity funds, the returns from ELSS funds are subject to the same tax treatment as applicable to equity funds. Dividends earned from ELSS funds are exempt from tax in the hands of the investor. Dividend Distribution Tax is not applicable for such dividend payments. As ELSS funds have to be compulsorily held for a period of 36 months, due to its mandatory lock in feature, the capital gains arising from sale of ELSS units are always long term capital gains. Such long term capital gains are also exempt from tax. As it stands, ELSS investments enjoy EEE status (Exempt – Exempt – Exempt) at all the three stages. The stages being investment stage, accumulation stage and withdrawal stage. Investor's income does not get taxed to the extent of investment made into ELSS during the financial year. Notional capital gains or dividends paid out over time do not get taxed during the accumulation phase. At the time withdrawal, the redemption proceeds are also exempt from tax. The tax treatment of ELSS fund returns as on 31<sup>st</sup> March 2013 is summed up in Table 2.03.

**Table 2.03**

<b>Income Tax Treatment of Returns earned on ELSS Mutual Funds as at 31st March 2013</b>		
<b>Form of Return</b>	<b>Rate of Tax</b>	<b>Remarks</b>
Dividend Income	0%	Dividend Distribution Tax not applicable
Long Term Capital Gains	0%	
Short Term Capital Gains	NA	Not applicable as investment is locked in for a period of 3 years

Source: Income Tax Act AY 2013-14

There are a number of other investments that provide a similar tax deduction benefit u/s 80C of the Income Tax Act, towards investment made during the financial year. Table 2.04 provides a list of such investments with their key features.

**Table 2.04**

<b>List of Tax Saving Investments under Section 80C of Income Tax Act</b>			
<b>Eligible Investment</b>	<b>Returns* Percentage</b>	<b>Lock in Period</b>	<b>Returns Taxation</b>
Life Insurance Premiums	Variable	5 Years for ULIP / 2 Years for Traditional Plans	Exempt – Exempt – Exempt (EEE)#
Employees Provident Fund Contributions	8.50%	5 Years	EEE#
Tax Saving Bank Fixed Deposits	8.75%	5 Years	Interest Taxable at Marginal Rates
Tax Saving Post Office Fixed Deposits	8.50%	5 Years	Interest Taxable at Marginal Rates
National Savings Certificate VIII Issue	8.60%	5 Years	Interest Taxable but eligible for Reinvestment Deduction
National Savings Certificate IX Issue	8.90%	10 Years	Interest Taxable but eligible for Sec 80C Reinvestment Deduction
Public Provident Fund	8.80%	6 Years	EEE

\*Returns as on 31.03.2013

#Subject to conditions

Source : Compiled from Post Office, SBI, EPF and LIC Websites

## 2.5 Industry Trends

Householder's savings and investment plays a very important role in capital formation and industrial development of an economy. India, over the years, has been an economy with above average householder's savings. As can be seen from Table 2.05, the average Indian householder gross savings as a percentage of GDP over the years 2000 to 2013 has been 29 percentage as compared to the world average of 23 percentage.

**Table 2.05**

Gross Domestic Savings as a % of GDP														
Country Name / Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Australia	24	24	24	24	24	25	26	26	27	28	27	28	28	27
Brazil	17	17	18	19	21	21	21	21	21	18	21	21	20	19
China	37	38	40	43	45	46	49	49	50	51	50	49	50	50
Germany	24	24	24	23	24	24	25	27	27	23	25	26	25	25
France	23	23	23	22	22	22	22	23	22	20	20	21	20	20
United Kingdom	18	17	16	16	16	16	16	17	15	13	14	15	14	15
<b>India</b>	<b>23</b>	<b>25</b>	<b>24</b>	<b>25</b>	<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>30</b>	<b>31</b>	<b>32</b>	<b>32</b>	<b>30</b>	<b>29</b>
Japan	27	25	24	24	24	24	24	25	23	20	21	19	19	18
Korea, Rep.	35	33	32	34	36	35	33	34	33	33	35	34	34	34
Russian Federation	39	35	31	32	33	34	34	33	35	26	31	34	32	29
United States	20	19	18	17	17	18	18	17	16	15	15	15	16	16
World Average	24	23	23	23	24	24	24	25	24	22	22	22	23	23

Source : World Bank Data

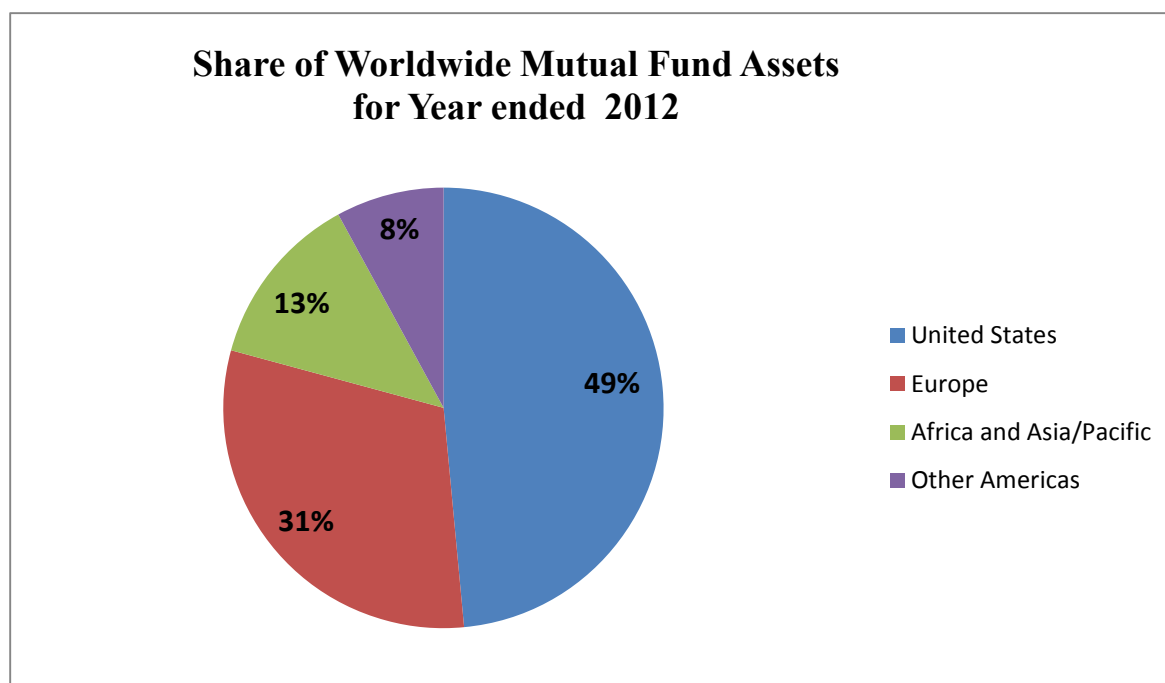
The composition of the financial savings of Indian household sector has always been skewed towards bank deposits, followed by life insurance and provident funds. The preference towards Government small savings deposits (mostly post office deposit schemes) has been on the decline. The share of equity shares and debentures as also mutual funds, in the financial savings has been quite low and has not shown any kind of trend. As can be seen from Table 2.06, mutual funds had a share of 1 percentage of financial savings in the year 2000-01, which moved up to 8 percentage in the year 2007-08 and 3 percentage in the year 2012-13.

**Table 2.06**

% Gross Financial Savings of Household Sector									
Items / Year	2000-01	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Currency	6	9	10	11	13	10	13	11	10
Deposits	41	47	49	52	59	47	51	58	56
Shares & Dedentures	3	1	4	4	4	1	1	1	1
Mutual Funds	1	4	5	8	-1	3	-1	-1	3
Govt. Sec & Small Savings	16	15	3	-4	-3	4	3	-3	-1
Life Insurance	14	14	17	18	20	23	20	20	16
Provident & Pension Funds	19	11	11	10	10	12	13	14	15

Source : RBI

As per the Investment Company Institute data, the world's mutual fund market size is \$26.8 trillion as at the end of year 2012, of which, 49 percentage is managed by US mutual funds ( Chart 2.02 ). In comparison the share of Indian mutual funds of the World mutual fund market is 0.43 percentage (Table 2.07).

**Chart 2.02**

Source : ICI Fact Book 2012

**Table2.07**

Worldwide Total Net Assets of Mutual Funds in \$ Millions								
		2006	2007	2008	2009	2010	2011	2012
World		21808884	26131496	18920057	22945623	24710398	23796672	26837407
Americas		11470489	13423089	10581988	12578593	13598071	13530122	15139998
	United States	10397935	12001463	9603649	11112970	11831878	11627357	13045221
Europe		78,03,877	89,34,861	62,31,116	75,45,535	79,03,389	72,20,298	82,30,061
	Austria	1,28,236	1,38,709	93,269	99,628	94,670	81,038	89,125
	Belgium	1,37,291	1,49,842	1,05,057	1,06,721	96,288	81,505	81,651
	Bulgaria	N/A	N/A	226	256	302	291	324
	Czech Republic	6,488	7,595	5,260	5,436	5,508	4,445	5,001
	Denmark	95,601	1,04,083	65,182	83,024	89,800	84,891	1,03,506
	Finland	67,804	81,136	48,750	66,131	71,210	62,193	73,985
	France	17,69,258	19,89,690	15,91,082	18,05,641	16,17,176	13,82,068	14,73,085
	Germany	3,40,325	3,72,072	2,37,986	3,17,543	3,33,713	2,93,011	3,27,640
	Greece	27,604	29,807	12,189	12,434	8,627	5,213	6,011
	Hungary	8,472	12,573	9,188	11,052	11,532	7,193	8,570
	Ireland	8,55,011	9,51,371	7,20,486	8,60,515	10,14,104	10,61,051	12,76,601
	Italy	4,52,798	4,19,687	2,63,588	2,79,474	2,34,313	1,80,754	1,81,720
	Liechtenstein	17,315	25,103	20,489	30,329	35,387	32,606	31,951
	Luxembourg	21,88,278	26,85,065	18,60,763	22,93,973	25,12,874	22,77,465	26,41,964
	Malta	N/A	N/A	N/A	N/A	N/A	2,132	3,033
	Netherlands	1,08,560	1,13,759	77,379	95,512	85,924	69,156	76,145
	Norway	54,075	74,709	41,157	71,170	84,505	79,999	98,723
	Poland	28,959	45,542	17,782	23,025	25,595	18,463	25,883
	Portugal	31,214	29,732	13,572	15,808	11,004	7,321	7,509
	Romania	247	390	326	1,134	1,713	2,388	2,613
	Russia	5,659	7,175	2,026	3,182	3,917	3,072	N/A
	Slovakia	3,168	4,762	3,841	4,222	4,349	3,191	2,952
	Slovenia	2,486	4,219	2,067	2,610	2,663	2,279	2,370
	Spain	3,67,918	3,96,534	2,70,983	2,69,611	2,16,915	1,95,220	1,91,284
	Sweden	1,76,968	1,94,955	1,13,331	1,70,277	2,05,449	1,79,707	2,05,733
	Switzerland	1,59,517	1,76,282	1,35,052	1,68,260	2,61,893	2,73,061	3,10,686
	Turkey	15,462	22,609	15,404	19,426	19,545	14,048	16,478
	United Kingdom	7,55,163	8,97,460	5,04,681	7,29,141	8,54,413	8,16,537	9,85,517
Asia and Pacific		24,56,492	36,78,325	20,37,536	27,15,234	30,67,323	29,21,276	33,22,198
	Australia	8,64,234	11,92,988	8,41,133	11,98,838	14,55,850	14,40,128	16,67,128
	China	N/A	4,34,063	2,76,303	3,81,207	3,64,985	3,39,037	4,37,449
	Hong Kong	6,31,055	8,18,421	N/A	N/A	N/A	N/A	N/A
	India	58,219	1,08,582	62,805	1,30,284	1,11,421	87,519	1,14,489
	Japan	5,78,883	7,13,998	5,75,327	6,60,666	7,85,504	7,45,383	7,38,488
	Korea, Rep. of	2,51,930	3,29,979	2,21,992	2,64,573	2,66,495	2,26,716	2,67,582
	New Zealand	12,892	14,925	10,612	17,657	19,562	23,709	31,145
	Pakistan	2,164	4,956	1,985	2,224	2,290	2,984	3,159
	Philippines	1,544	2,090	1,263	1,488	2,184	2,363	3,566
	Taiwan	55,571	58,323	46,116	58,297	59,032	53,437	59,192
Africa		78,026	95,221	69,417	1,06,261	1,41,615	1,24,976	1,45,150
	South Africa	78,026	95,221	69,417	1,06,261	1,41,615	1,24,976	1,45,150

Source : ICI Fact Book 2012

Mutual Funds as a full-fledged industry has been in existence in India for over 20 years, considering that the industry was opened up for private participation in the year 1992. The industry has been growing at a good pace along with the growth in the economy. The industry has been witnessing regulatory changes consistently over the years, for the betterment of investor interest.

As on 31<sup>st</sup> March 2013, there were 40 Mutual Fund houses with active operations. The total AUM of the industry as on that date was ₹ 7.11 lac crores, from 5874 schemes of which 5458 were open ended schemes and 416 were close ended schemes. Equity AUM with ₹ 1.80 lac crores, constituted 25.3 percentage of the total AUM. Debt funds including liquid funds accounted for an AUM of ₹4.64 lac crores which constitutes 65.3 percentage of the total AUM. As can be seen from Table 2.08, debt funds have a sizeable AUM when compared to equity funds. The industries total AUM has grown at a CAGR of 17.24 percentage per annum from the year 2000-01 till 2012-13.

**Table 2.08**

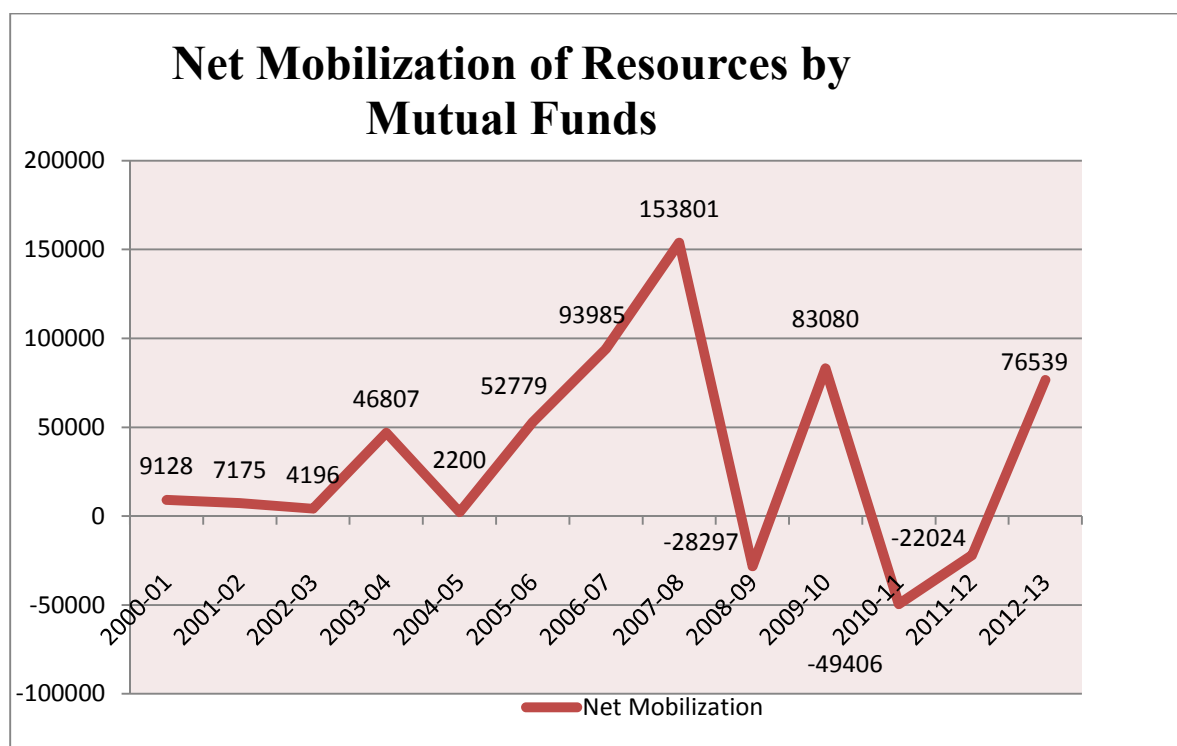
Mutual Fund Industry Summary Statistics as on 31.03.2013													
		Inception Date	Total AUM ₹ (Cr.)	% of Total	Equity AUM ₹ (Cr.)	% of Total	Debt AUM ₹ (Cr.)	% of Total	Other AUM ₹ (Cr.)	% of Total	Total No. of Schemes	Open Ended	Close Ended
Sl. No.	AMC Name												
1	Axis Asset Management Company Ltd.	13-Jan-2009	9328.10	1.3%	1587.79	0.9%	5518.85	1.2%	2221.46	1.3%	115	105	10
2	Baroda Pioneer Asset Management Company Limited	05-Nov-1992	3990.86	0.6%	304.76	0.2%	3351.04	0.7%	335.06	0.5%	77	77	0
3	Birla Sunlife Asset Management Company Limited	05-Sep-1994	67770.60	9.5%	10238.03	5.7%	51939.03	11.2%	5593.54	8.4%	383	348	35
4	BNP Paribas Asset Management India Pvt. Ltd.	04-Nov-2003	3430.82	0.5%	280.26	0.2%	2859.78	0.6%	290.78	0.4%	90	90	0
5	BOI AXA Investment Managers Private Limited	13-Aug-2007	430.47	0.1%	93.95	0.1%	337.32	0.1%	-0.80	0.0%	55	55	0
6	Canara Robeco Asset Management Company Limited	02-Mar-1993	6321.21	0.9%	1632.32	0.9%	3265.89	0.7%	1422.99	2.1%	116	116	0
7	Deutsche Asset Management (India) Private Limited	21-Mar-2002	15367.11	2.2%	179.16	0.1%	12895.16	2.8%	2292.80	3.4%	255	214	41
8	DSP BlackRock Investment Managers Private Limited	13-May-1996	31635.07	4.4%	9608.70	5.3%	18384.31	4.0%	3642.06	5.5%	188	162	26
9	Edelweiss Asset Management Limited	23-Aug-2007	224.40	0.0%	48.79	0.0%	133.27	0.0%	42.35	0.1%	68	68	0
10	Escorts Asset Management Limited	01-Dec-1995	247.17	0.0%	11.44	0.0%	194.17	0.0%	41.57	0.1%	60	60	0
11	Franklin Templeton Asset Management (India) Private Limited	06-Oct-1995	38863.78	5.5%	12849.96	7.1%	23221.60	5.0%	2792.23	4.2%	211	205	6
12	Goldman Sachs Asset Management (India) Private Limited	10-Mar-2008	4605.28	0.6%	754.90	0.4%	0.00	0.0%	3850.38	5.8%	23	23	0
13	HDFC Asset Management Company Limited	10-Dec-1999	97295.60	13.7%	37699.26	20.9%	52313.54	11.3%	7282.79	10.9%	285	253	32
14	HSBC Global Asset Management (India) Private Limited	12-Dec-2001	5111.17	0.7%	1406.03	0.8%	3329.93	0.7%	375.21	0.6%	115	115	0
15	ICICI Prudential Asset Management Company Limited	22-Jun-1993	77628.53	10.9%	15284.51	8.5%	56153.40	12.1%	6190.62	9.3%	604	529	75
16	IDBI Asset Management Ltd.	25-Jan-2010	3914.21	0.6%	240.72	0.1%	3876.50	0.8%	-203.01	-0.3%	65	61	4
17	IDFC Asset Management Company Limited	20-Nov-1999	32505.25	4.6%	4961.29	2.8%	25559.62	5.5%	1984.35	3.0%	284	265	19
18	India Infoline Asset Management Co. Ltd.	22-Mar-2010	204.94	0.0%	44.50	0.0%	158.49	0.0%	1.95	0.0%	9	6	3
19	Indiabulls Asset Management Company Limited	10-Apr-2008	958.68	0.1%	5.21	0.0%	1225.78	0.3%	-272.31	-0.4%	30	30	0
20	JM Financial Asset Management Private Limited	09-Jun-1994	3053.38	0.4%	439.92	0.2%	2163.49	0.5%	449.97	0.7%	138	138	0
21	JPMorgan Asset Management India Private Limited	20-Sep-2006	12509.58	1.8%	316.47	0.2%	11306.94	2.4%	886.17	1.3%	92	74	18
22	Kotak Mahindra Asset Management Company Limited	05-Aug-1994	29322.14	4.1%	2697.94	1.5%	24469.30	5.3%	2154.89	3.2%	187	185	2
23	L&T Investment Management Limited	25-Apr-1996	11391.03	1.6%	4432.43	2.5%	6026.66	1.3%	931.94	1.4%	171	156	15
24	LIC Nomura Mutual Fund Asset Management Company Limited	20-Apr-1994	6112.16	0.9%	685.49	0.4%	4588.30	1.0%	838.36	1.3%	105	97	8
25	Mirae Asset Global Investment Management (India) Private Limited	20-Nov-2006	523.61	0.1%	432.78	0.2%	32.18	0.0%	58.65	0.1%	48	48	0
26	Motilal Oswal Asset Management Company Limited	14-Nov-2008	464.96	0.1%	219.17	0.1%	169.61	0.0%	76.18	0.1%	8	8	0
27	Peerless Funds Management Co. Ltd.	09-Apr-2009	2447.53	0.3%	46.56	0.0%	2253.42	0.5%	147.54	0.2%	56	56	0
28	PineBridge Investments Asset Management Company (India) Private Limited	30-Oct-2006	1011.10	0.1%	175.72	0.1%	674.24	0.1%	161.14	0.2%	62	62	0
29	Pramerica Asset Managers Private Limited	24-Sep-2008	1604.45	0.2%	93.28	0.1%	1569.82	0.3%	-58.66	-0.1%	75	75	0
30	Principal Pnb Asset Management Company Private Limited	20-Nov-1991	3661.01	0.5%	1553.24	0.9%	1538.54	0.3%	569.23	0.9%	130	128	2
31	Quantum Asset Management Company Private Limited	19-Sep-2005	293.58	0.0%	144.78	0.1%	34.51	0.0%	114.28	0.2%	13	13	0
32	Reliance Capital Asset Management Limited	24-Feb-1995	83690.82	11.8%	24946.22	13.9%	48665.86	10.5%	10078.74	15.1%	358	310	48
33	Religare Invesco Asset Management Company Pvt. Ltd.	20-May-2005	10881.97	1.5%	537.26	0.3%	8949.13	1.9%	1395.58	2.1%	183	178	5
34	Sahara Asset Management Company Private Limited	31-Aug-1995	231.91	0.0%	59.90	0.0%	148.04	0.0%	23.97	0.0%	88	88	0
35	SBI Funds Management Private Limited	07-Feb-1992	53841.59	7.6%	13378.49	7.4%	33317.23	7.2%	7145.88	10.7%	239	219	20
36	Sundaram Asset Management Company Limited	26-Feb-1996	12884.18	1.8%	5609.57	3.1%	6224.28	1.3%	1050.33	1.6%	230	216	14
37	Tata Asset Management Limited	15-Mar-1994	15713.98	2.2%	4184.27	2.3%	10931.53	2.4%	598.19	0.9%	244	235	9
38	Taurus Asset Management Company Limited	27-Jul-1993	1954.03	0.3%	345.47	0.2%	1618.36	0.3%	-9.80	0.0%	66	66	0
39	Union KBC Asset Management Company Pvt. Ltd.	30-Dec-2009	1665.85	0.2%	190.39	0.1%	1345.29	0.3%	130.16	0.2%	42	37	5
40	UTI Asset Management Company Private Limited	14-Nov-2002	58045.88	8.2%	22393.63	12.4%	33459.00	7.2%	2193.26	3.3%	306	287	19
	Total		711137.98		180114.57	25.3%	464203.42	65.3%	66820.00	9.4%	5874	5458	416

.Source : ACE MF Database

**Table 2.09**

Resource Mobilization by Mutual Funds for the period 2000-01 to 2012-13			
( in ₹Crore )			
Year	Gross Mobilization	Repurchase / Redemption	Net Mobilization
2000-01	92957	83829	9128
2001-02	164523	157348	7175
2002-03	314706	310510	4196
2003-04	590189	543382	46807
2004-05	839708	837508	2200
2005-06	1098149	1045370	52779
2006-07	1938493	1844508	93985
2007-08	4464376	4310575	153801
2008-09	5426353	5454650	-28297
2009-10	10019022	9935942	83080
2010-11	8859515	8908921	-49406
2011-12	6819678	6841702	-22024
2012-13	7267885	7191346	76539

Source : SEBI Annual Reports

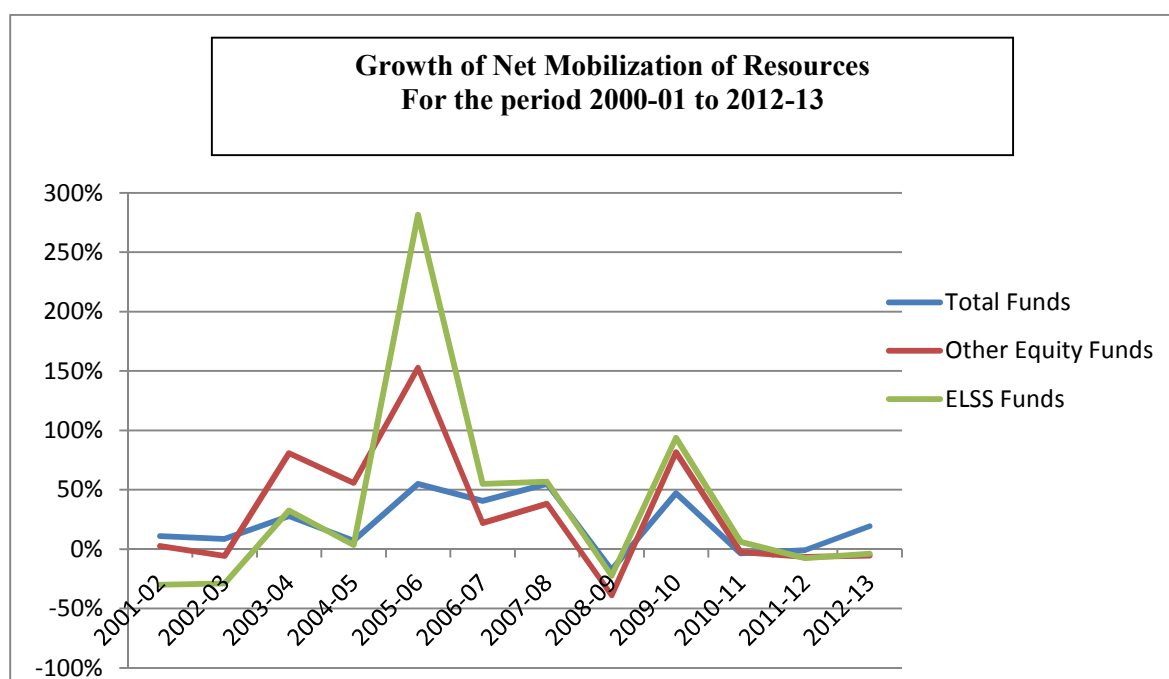
**Chart 2.03**

Source: Based on Table 2.09



The resource mobilization of the mutual fund industry for the years 2000-01 to 2012-13 can be seen in Table 2.09. The net mobilization of the industry has grown from ₹ 9128 crores in the year 2000-01 to ₹ 76539 crores in the year 2012-13. Over this 13 year period, there have been three instances of net mobilization of the industry being negative. In the years 2008-09, 2010-11 and 2011-12, the redemptions exceeded the gross mobilization (Chart 2.03). The percentage growth of net mobilization of resources is shown in Chart 2.04. Scheme wise gross mobilization, redemption and net flow of resources are shown in Table 2.11, Table 2.12 and Table 2.13 respectively

**Chart 2.04**



Source: Based on Table 2.09

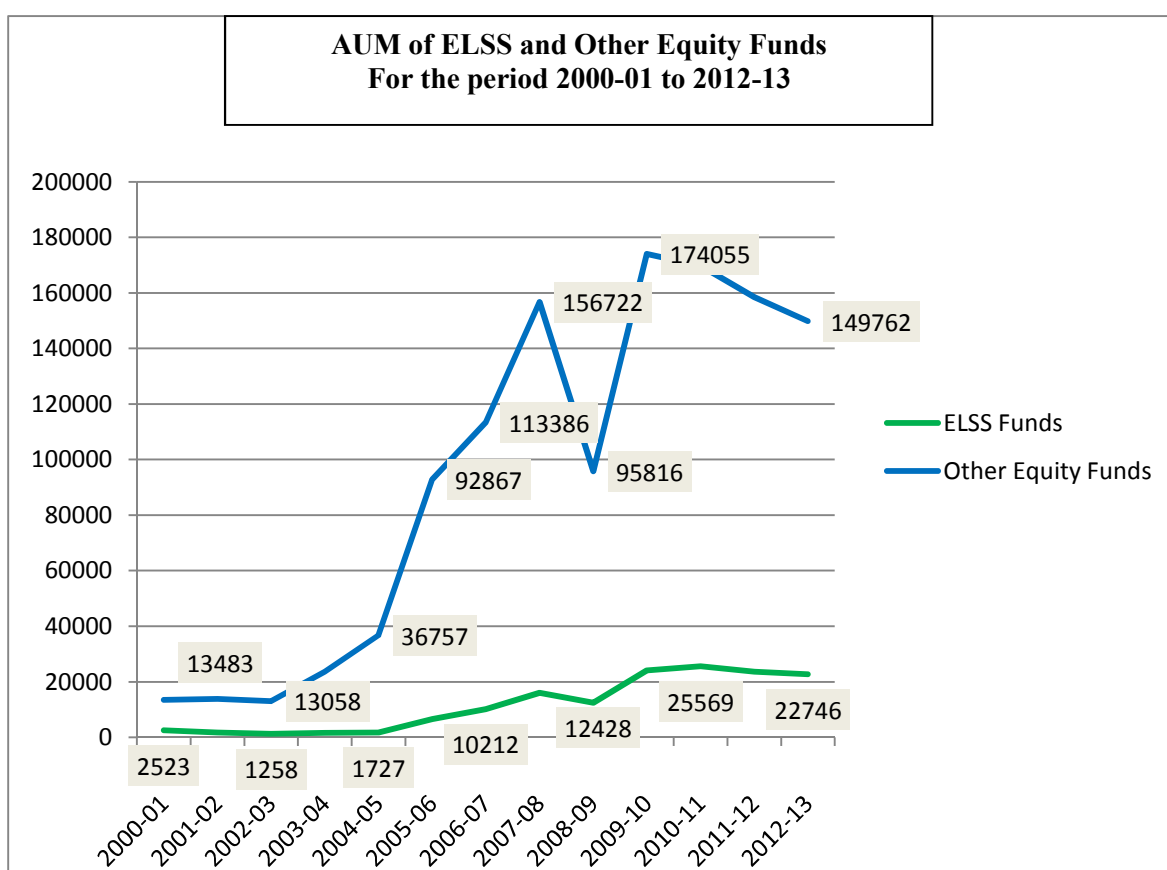
The AUM of equity schemes excluding ELSS schemes, grew from ₹13483 crores in the year 2000-01 to ₹149762 crores in the year 2012-13. Similarly ELSS fund AUM grew from ₹2523 crores to ₹22746 crores in the same period (Table 2.10). Equity fund AUM (excluding ELSS funds) has witnessed a CAGR of 21.26 percentage per annum, over the period 2000-01 to 2012-13. ELSS funds on the other hand had a CAGR of 18.94 percentage per annum over the same period (Chart 2.05).

**Table 2.10**

Scheme wise Assets Under Management for the Years 2000-01 to 2012-13																
Year	Liquid		Debt		Equity		ELSS		Balanced		Gold / Other ETF's		Overseas FOF		Total	
	No. of Schemes	Net Assets ₹ Crs.	No. of Schemes	Net Assets ₹ Crs.	No. of Schemes	Net Assets ₹ Crs.	No. of Schemes	Net Assets ₹ Crs.	No. of Schemes	Net Assets ₹ Crs.	No. of Schemes	Net Assets ₹ Crs.	No. of Schemes	Net Assets ₹ Crs.	No. of Schemes	Net Assets ₹ Crs.
2000-01	27	4128	148	51179	110	13483	77	2523	32	19274	0	0	0	0	394	90587
2001-02	30	8069	175	59951	115	13853	63	1767	34	16954	0	0	0	0	417	100594
2002-03	32	13734	170	67177	121	13058	47	1258	36	14072	0	0	0	0	406	109299
2003-04	36	41704	161	68550	126	23613	43	1668	37	4080	0	0	0	0	403	139615
2004-05	39	54068	188	52182	151	36757	37	1727	35	4867	0	0	0	0	450	149601
2005-06	45	61500	280	63413	194	92867	37	6589	36	7493	0	0	0	0	592	231862
2006-07	55	72006	395	121579	227	113386	40	10212	38	9110	0	0	0	0	755	326293
2007-08	58	89402	535	223595	270	156722	43	16020	37	16283	13	3130	0	0	956	505152
2008-09	56	90594	543	203756	293	95816	47	12428	35	10629	17	1396	10	2681	1001	417300
2009-10	56	78094	402	315110	307	174055	48	24066	33	17246	21	2547	15	2862	882	613980
2010-11	51	73666	628	295384	328	169753	48	25569	32	18445	28	6917	16	2516	1131	592250
2011-12	55	80354	817	294503	303	158432	49	23644	30	16261	35	11493	20	2530	1309	587217
2012-13	55	93392	802	404059	297	149762	50	22746	32	16307	37	13124	21	2053	1294	701443

Source: SEBI Reports

**Chart 2.05**



Source: Based on Table 2.10

**Table 2.11**

Scheme wise Mobilization of Gross Resources for the Years 2000-01 to 2012-2013																
Year	Liquid		Debt		Equity		ELSS		Balanced		Gold / Other ETF's		Overseas FOF		Total	
	No. of Schemes	Mobilization ₹ Crs.	No. of Schemes	Mobilization ₹ Crs.	No. of Schemes	Mobilization ₹ Crs.	No. of Schemes	Mobilization ₹ Crs.	No. of Schemes	Mobilization ₹ Crs.	No. of Schemes	Mobilization ₹ Crs.	No. of Schemes	Mobilization ₹ Crs.	No. of Schemes	Mobilization ₹ Crs.
2000-01	27	36212	148	30835	110	17997	77	214	32	7701	0	0	0	0	394	92957
2001-02	30	104546	175	57460	115	2007	63	33	34	477	0	0	0	0	417	164523
2002-03	32	195047	170	114625	121	4618	47	22	36	394	0	0	0	0	406	314706
2003-04	36	375646	161	185327	126	26642	43	53	37	2523	0	0	0	0	403	590191
2004-05	39	638594	188	160080	151	37126	37	155	35	3755	0	0	0	0	450	839710
2005-06	45	836859	280	171270	194	82079	37	3935	36	4006	0	0	0	0	592	1098149
2006-07	55	1626790	395	212878	227	89683	40	4669	38	4473	0	0	0	0	755	1938493
2007-08	58	3432737	535	884526	270	119839	43	6448	37	11488	13	9339	0	0	956	4464377
2008-09	56	4187977	543	1195390	293	29481	47	3324	35	2695	17	5719	10	1767	1001	5426353
2009-10	56	7044818	402	2899875	307	61114	48	3600	33	4693	21	3535	15	1387	882	10019022
2010-11	51	6599724	628	2177310	328	63142	48	3450	32	7490	28	7709	16	689	1131	8859514
2011-12	55	5946498	817	807615	303	47921	49	2698	30	5027	35	8563	20	1356	1309	6819678
2012-13	55	6365420	802	848159	297	40723	50	2641	32	5205	37	5052	21	686	1294	7267886

Source : SEBI Reports

**Table 2.12**

Scheme wise Repurchase / Redemption for the Years 2000-01 to 2012-13																
Year	Liquid		Debt		Equity		ELSS		Balanced		Gold / Other ETF's		Overseas FOF		Total	
	No. of Schemes	Redemption ₹ Crs.	No. of Schemes	Redemption ₹ Crs.	No. of Schemes	Redemption ₹ Crs.	No. of Schemes	Redemption ₹ Crs.	No. of Schemes	Redemption ₹ Crs.	No. of Schemes	Redemption ₹ Crs.	No. of Schemes	Redemption ₹ Crs.	No. of Schemes	Redemption ₹ Crs.
2000-01	27	33648	148	26307	110	18299	77	656	32	4919	0	0	0	0	394	83829
2001-02	30	101255	175	47687	115	2260	63	314	34	5831	0	0	0	0	417	157348
2002-03	32	190042	170	113849	121	3917	47	679	36	2022	0	0	0	0	406	310510
2003-04	36	351069	161	170299	126	18957	43	519	37	2536	0	0	0	0	403	543380
2004-05	39	628246	188	175672	151	29832	37	349	35	3410	0	0	0	0	450	837509
2005-06	45	832654	280	158854	194	50440	37	343	36	3079	0	0	0	0	592	1045370
2006-07	55	1621805	395	153796	227	65929	40	216	38	2762	0	0	0	0	755	1844508
2007-08	58	3417761	535	795635	270	79056	43	297	37	5720	13	12106	0	0	956	4310575
2008-09	56	4191576	543	1223952	293	28425	47	356	35	2634	17	6718	10	989	1001	5454650
2009-10	56	7056891	402	2806594	307	60519	48	2047	33	5386	21	2752	15	1754	882	9935943
2010-11	51	6603244	628	2214133	328	76547	48	3184	32	6145	28	4072	16	1596	1131	8908921
2011-12	55	5953603	817	826164	303	47657	49	2841	30	4645	35	5540	20	1254	1309	6841704
2012-13	55	6362194	802	761202	297	53669	50	4282	32	4989	37	3850	21	1160	1294	7191346

Source: SEBI Reports

**Table 2.13**

Scheme wise Net Flows of Resources for the period 2000-01 to 2012-13												
Year	Liquid		Debt		Equity		ELSS		Balanced		Total	
	Schemes	Net Flow	Schemes	Net Flow	Schemes	Net Flow	Schemes	Net Flow	Schemes	Net Flow	No. of Schemes	Net Flow
2000-01	27	2564	148	4527	110	-303	77	-442	32	2782	394	9128
2001-02	30	3291	175	9773	115	-253	63	-282	34	-5354	417	7175
2002-03	32	5005	170	776	121	701	47	-657	36	-1628	406	4196
2003-04	36	24577	161	15028	126	7685	43	-466	37	-13	403	46811
2004-05	39	10348	188	-15592	151	7294	37	-194	35	345	450	2201
2005-06	45	4205	280	12416	194	31639	37	3592	36	927	592	52779
2006-07	55	4985	395	59082	227	23753	40	4453	38	1711	755	93984
2007-08	58	14976	535	88891	270	40782	43	6151	37	5768	956	153801
2008-09	56	-3599	543	-28562	293	1055	47	2969	35	61	1001	-28296
2009-10	56	-12074	402	93281	307	595	48	1554	33	-693	882	83079
2010-11	51	-3520	628	-36823	328	-13405	48	266	32	1345	1131	-49407
2011-12	55	-7104	817	-18549	303	264	49	-143	30	382	1309	-22024
2012-13	55	3226	802	86956	297	-12946	50	-1641	32	216	1294	76539

Source: SEBI Reports

As on 31<sup>st</sup> March 2013, HDFC Mutual Fund ranked first with 13.68 percentage share of the industry total AUM, followed by Reliance Mutual Fund with 11.77 percentage. ICICI Prudential Mutual Fund ranked third with 10.92 percentage share. As is seen from Table 2.14, the top five fund houses constitute 54 percentage and the top ten constitute 80 percentage of the industry total AUM.

**Table 2.14**

Ranking of Asset Management Companies ( AMC ) based on Total Assets Under Management as on 31.03.2013			
Rank	AMC	Total AUM ₹ Crs .	% Share
1	HDFC Asset Management Company Limited	97295.60	13.68%
2	Reliance Capital Asset Management Limited	83690.82	11.77%
3	ICICI Prudential Asset Management Company Limited	77628.53	10.92%
4	Birla Sunlife Asset Management Company Limited	67770.60	9.53%
5	UTI Asset Management Company Private Limited	58045.88	8.16%
6	SBI Funds Management Private Limited	53841.59	7.57%
7	Franklin Templeton Asset Management (India) Private Limited	38863.78	5.47%
8	IDFC Asset Management Company Limited	32505.25	4.57%
9	DSP BlackRock Investment Managers Private Limited	31635.07	4.45%
10	Kotak Mahindra Asset Management Company Limited	29322.14	4.12%
11	Tata Asset Management Limited	15713.98	2.21%
12	Deutsche Asset Management (India) Private Limited	15367.11	2.16%
13	Sundaram Asset Management Company Limited	12884.18	1.81%
14	JPMorgan Asset Management India Private Limited	12509.58	1.76%
15	L&T Investment Management Limited	11391.03	1.60%
16	Religare Invesco Asset Management Company Pvt. Ltd.	10881.97	1.53%
17	Axis Asset Management Company Ltd.	9328.10	1.31%
18	Canara Robeco Asset Management Company Limited	6321.21	0.89%
19	LIC Nomura Mutual Fund Asset Management Company Limited	6112.16	0.86%
20	HSBC Global Asset Management (India) Private Limited	5111.17	0.72%
21	Goldman Sachs Asset Management (India) Private Limited	4605.28	0.65%
22	Baroda Pioneer Asset Management Company Limited	3990.86	0.56%
23	IDBI Asset Management Ltd.	3914.21	0.55%
24	Principal Pnb Asset Management Company Private Limited	3661.01	0.51%
25	BNP Paribas Asset Management India Pvt. Ltd.	3430.82	0.48%
26	JM Financial Asset Management Private Limited	3053.38	0.43%
27	Peerless Funds Management Co. Ltd.	2447.53	0.34%
28	Taurus Asset Management Company Limited	1954.03	0.27%
29	Union KBC Asset Management Company Pvt. Ltd.	1665.85	0.23%
30	Pramerica Asset Managers Private Limited	1604.45	0.23%
31	PineBridge Investments Asset Management Company Limited	1011.10	0.14%
32	Indiabulls Asset Management Company Limited	958.68	0.13%
33	Mirae Asset Global Investment Management (India) Private Limited	523.61	0.07%
34	Motilal Oswal Asset Management Company Limited	464.96	0.07%
35	BOI AXA Investment Managers Private Limited	430.47	0.06%
36	Quantum Asset Management Company Private Limited	293.58	0.04%
37	Escorts Asset Management Limited	247.17	0.03%
38	Sahara Asset Management Company Private Limited	231.91	0.03%
39	Edelweiss Asset Management Limited	224.40	0.03%
40	India Infoline Asset Management Co. Ltd.	204.94	0.03%

Source: Compiled from ACE MF Database

HDFC Mutual Fund also ranked first with 20.93 percentage of Equity AUM followed by Reliance Mutual Fund with 13.85 percentage and UTI Mutual Fund with 12.43 percentage share. As evident from Table 2.15, the top five fund houses manage 63 percentage and top ten funds put together manage 87 percentage of the Equity AUM.

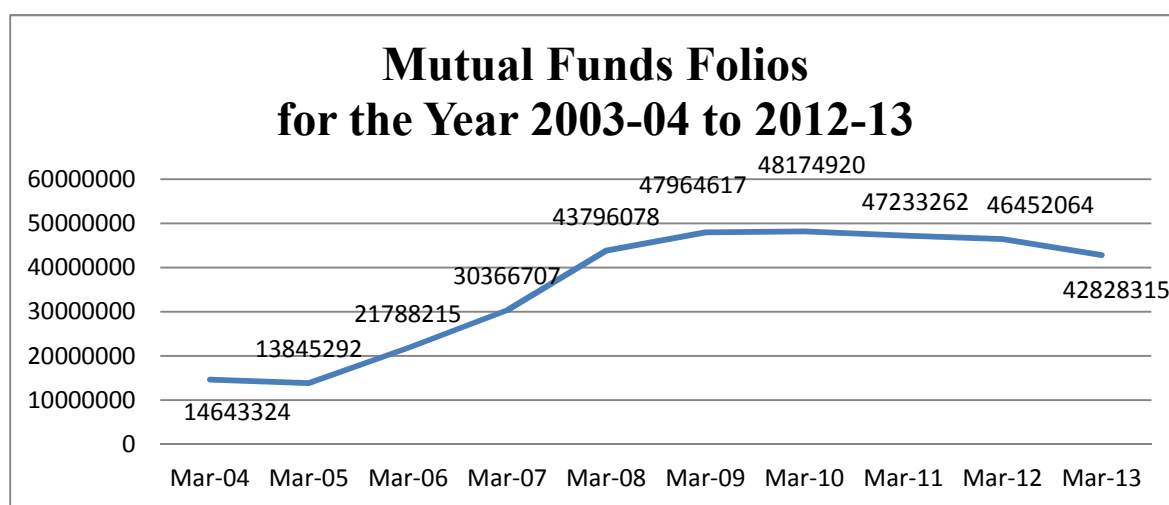
**Table 2.15**

<b>Ranking of Asset Management Companies ( AMC ) based on Equity Assets Under Management as on 31.03.2013</b>			
<b>Rank</b>	<b>AMC</b>	<b>Total AUM ₹ Crs.</b>	<b>% Share</b>
1	HDFC Asset Management Company Limited	37699.26	20.93%
2	Reliance Capital Asset Management Limited	24946.22	13.85%
3	UTI Asset Management Company Private Limited	22393.63	12.43%
4	ICICI Prudential Asset Management Company Limited	15284.51	8.49%
5	SBI Funds Management Private Limited	13378.49	7.43%
6	Franklin Templeton Asset Management (India) Private Limited	12849.96	7.13%
7	Birla Sunlife Asset Management Company Limited	10238.03	5.68%
8	DSP BlackRock Investment Managers Private Limited	9608.70	5.33%
9	Sundaram Asset Management Company Limited	5609.57	3.11%
10	IDFC Asset Management Company Limited	4961.29	2.75%
11	L&T Investment Management Limited	4432.43	2.46%
12	Tata Asset Management Limited	4184.27	2.32%
13	Kotak Mahindra Asset Management Company Limited	2697.94	1.50%
14	Canara Robeco Asset Management Company Limited	1632.32	0.91%
15	Axis Asset Management Company Ltd.	1587.79	0.88%
16	Principal Pnb Asset Management Company Private Limited	1553.24	0.86%
17	HSBC Global Asset Management (India) Private Limited	1406.03	0.78%
18	Goldman Sachs Asset Management (India) Private Limited	754.90	0.42%
19	LIC Nomura Mutual Fund Asset Management Company Limited	685.49	0.38%
20	Religare Invesco Asset Management Company Pvt Ltd.	537.26	0.30%
21	JM Financial Asset Management Private Limited	439.92	0.24%
22	Mirae Asset Global Investment Management (India) Private Limited	432.78	0.24%
23	Taurus Asset Management Company Limited	345.47	0.19%
24	JPMorgan Asset Management India Private Limited	316.47	0.18%
25	Baroda Pioneer Asset Management Company Limited	304.76	0.17%
26	BNP Paribas Asset Management India Pvt. Ltd.	280.26	0.16%
27	IDBI Asset Management Ltd.	240.72	0.13%
28	Motilal Oswal Asset Management Company Limited	219.17	0.12%
29	Union KBC Asset Management Company Pvt. Ltd.	190.39	0.11%
30	Deutsche Asset Management (India) Private Limited	179.16	0.10%
31	PineBridge Investments Asset Management Company (India) Private Limi	175.72	0.10%
32	Quantum Asset Management Company Private Limited	144.78	0.08%
33	BOI AXA Investment Managers Private Limited	93.95	0.05%
34	Pramerica Asset Managers Private Limited	93.28	0.05%
35	Sahara Asset Management Company Private Limited	59.90	0.03%
36	Edelweiss Asset Management Limited	48.79	0.03%
37	Peerless Funds Management Co. Ltd.	46.56	0.03%
38	India Infoline Asset Management Co. Ltd.	44.50	0.02%
39	Escorts Asset Management Limited	11.44	0.01%
40	Indiabulls Asset Management Company Limited	5.21	0.00%

Source: Compiled from ACE MF Database

The total number of investor folios managed by the industry as on 31<sup>st</sup> March 2004 was 1.46 crores. This increased to 4.28 crores as on 31<sup>st</sup> March 2013 (Chart 2.06). Investor folios in ELSS funds grew from 13.03 lacs as on 31<sup>st</sup> March 2004 to 71.63 lacs as on 31<sup>st</sup> March 2013. In case of other equity funds, the folios grew from 67.3 lacs to 2.6 crores during the same period (Table 2.16). The CAGR of investor folios for period 31<sup>st</sup> March 2004 to 31<sup>st</sup> March 2013 was 7.5 percentage for the industry as compared to 12.40 percentage for other Equity funds and 18.18 percentage for ELSS funds.

**Chart 2.06**



Source: AMFI Data

Retail Investors assets constitute 68.75 percentage of AUM of Equity funds (excluding balanced) along with 19.54 percentage of High Net worth Investors assets (Table 2.17 & Chart 2.07). Retail investor's folios constitute 98 percentage and HNI folios another 1percentage of the total equity folios (Chart 2.08). This clearly shows that the individual investor participation in equity funds is higher. However in case of Liquid, Gilt and Debt funds, 80.48 percentage, 61.52 percentage and 55.5 percentage respectively of the AUM, are held by corporates.

**Table 2.16**

Number of Investors / Investor Folio Data for the year ended 31st March 2004 to 31st March 2013								
Year Ended	Number of Investors / Investor Folios							
	ELSS Funds				Other Equity Funds			
	Open Ended	Close Ended	Interval Funds	Total	Open Ended	Close Ended	Interval Funds	Total
Mar-04	338427	964885		1303312	5903361	826895		6730256
Mar-05	408637	655985		1064622	7236776	739677		7976453
Mar-06	2005504	611202		2616706	13590016	1032054		14622070
Mar-07	3743736	745270		4489006	17357697	3529644		20887341
Mar-08	5968178	1205800		7173978	23030947	7561334		30592281
Mar-09	6986692	1198137		8184829	26027982	6916267	2545	32946794
Mar-10	7420739	1183342		8604081	27585831	4926855	2018	32514704
Mar-11	7369747	1081706		8451453	30424254	414257	325	30838836
Mar-12	7052948	938101		7991049	29652938	3479		29656417
Mar-13	6366243	797235		7163478	25977421	33289		26010710

Source: AMFI Data

In debt funds (excluding gilt and balanced), retail investor folios constitute 88 percentage of the total folios and their assets constitute 7 percentage of the AUM. In gilt funds, retail investor folios constitute 82 percentage and their holding is 5 percentage of the AUM. In balanced funds 98 percentage of folios belong to the retail investor and their share of AUM is 52 percentage. In liquid funds 78 percentage of the folios are held by retail investors and they just hold 1 percentage of the AUM. The holding pattern in debt, gilt and liquid funds indicate that corporate investments in these categories are significant as compared to individual investors.

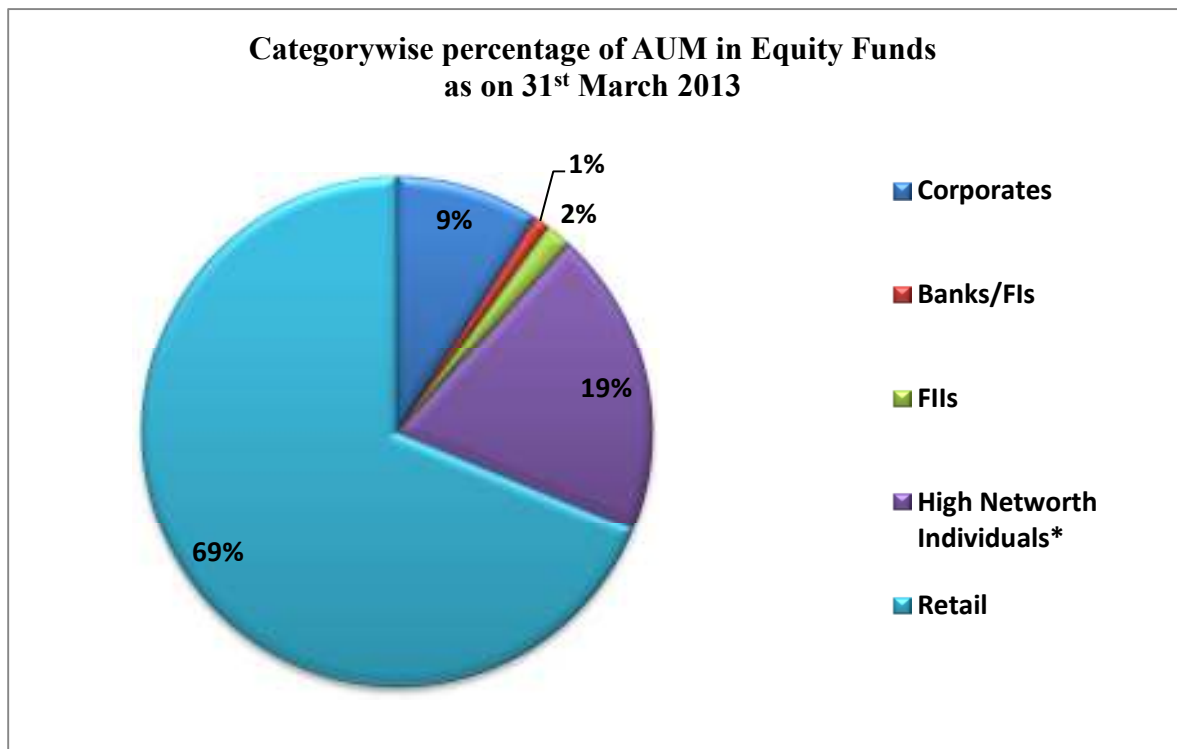


Table 2.17

% of AUM Composition for various Investor Categories as on 31.03.2013			
Types of Schemes	Investor Classification	% to Total AUM	% to Total Folios
Liquid/Money Market	Corporates	80.48	11.49
	Banks/FIs	11.3	0.13
	FIs	0.69	0.02
	High Networth Individuals*	6.17	10.8
	Retail	1.36	77.55
Gilt	Corporates	61.52	6.33
	Banks/FIs	0.42	0.06
	FIs	0.39	0.01
	High Networth Individuals*	32.32	11.47
	Retail	5.36	82.13
Debt Oriented	Corporates	55.5	3.72
	Banks/FIs	1.12	0.01
	FIs	0.4	0
	High Networth Individuals*	35.73	8.44
	Retail	7.25	87.82
Equity Oriented	Corporates	9.07	0.58
	Banks/FIs	1.01	0
	FIs	1.63	0
	High Networth Individuals*	19.54	1.02
	Retail	68.75	98.39
Balanced	Corporates	11.75	0.59
	Banks/FIs	0.26	0
	FIs	0.06	0
	High Networth Individuals*	36.19	1.98
	Retail	51.73	97.43
Gold ETF	Corporates	54.47	0.88
	Banks/FIs	0.08	0
	FIs	0.04	0
	High Networth Individuals*	18.59	2.05
	Retail	26.82	97.06
ETFs(other than Gold)	Corporates	27.66	13.45
	Banks/FIs	4.87	0.01
	FIs	6.95	0.01
	High Networth Individuals*	37.95	1.68
	Retail	22.56	84.85
Fund of Funds investing Overseas	Corporates	14.19	1.24
	Banks/FIs	0.05	0
	FIs	0	0
	High Networth Individuals*	49.55	4.21
	Retail	36.21	94.56
* Defined as individuals investing Rs 5 lakhs and above			

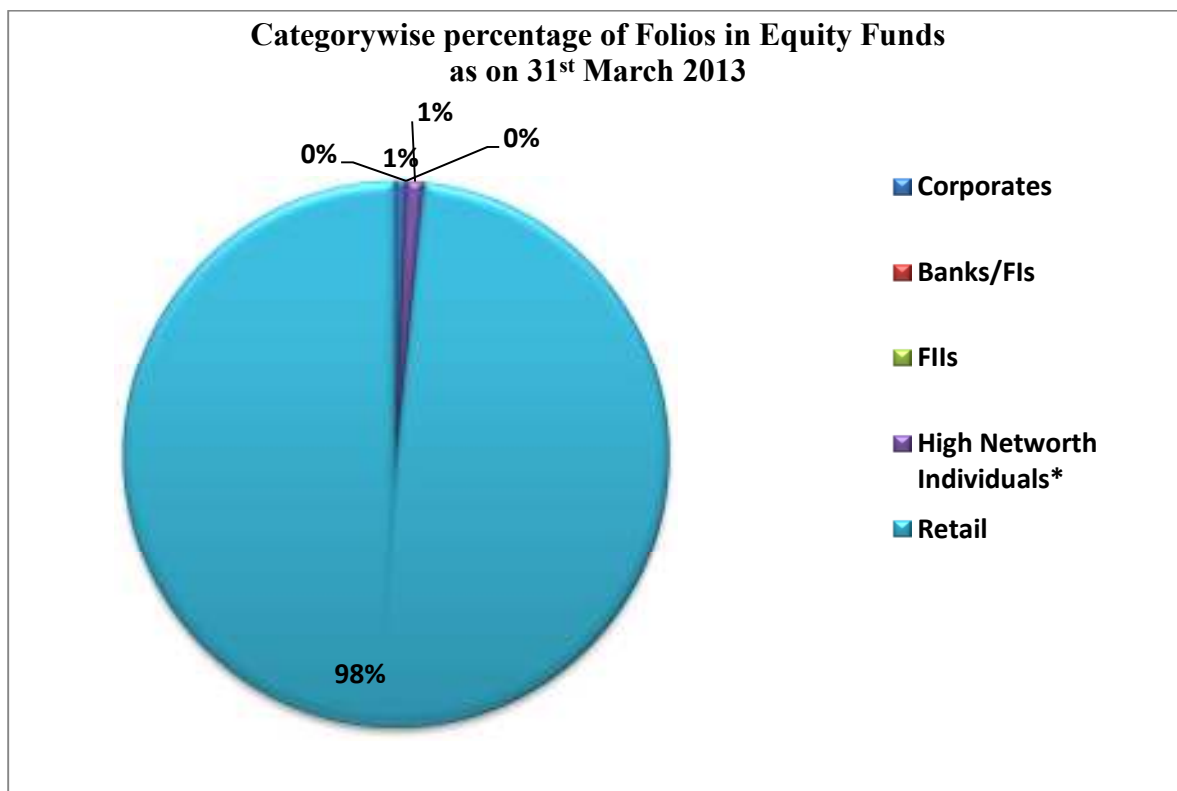
Source: AMFI Data

**Chart 2.07**



Source: AMFI Data

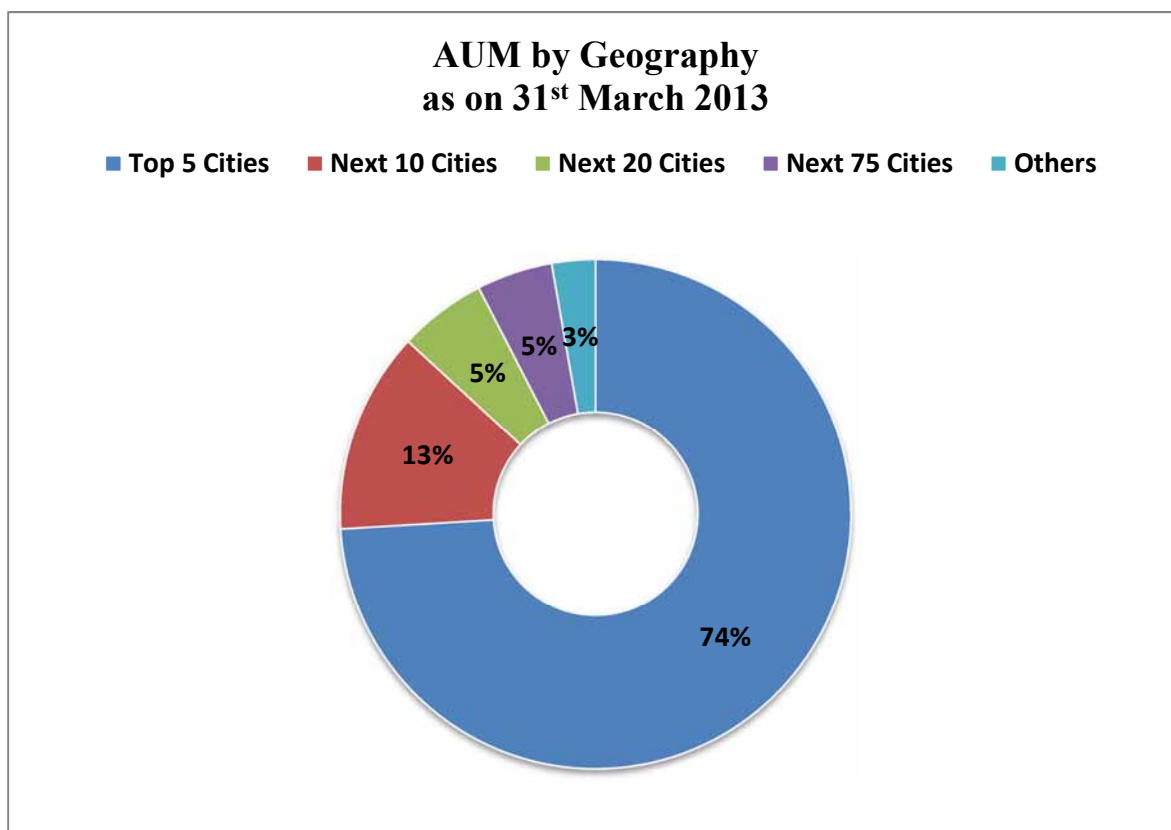
**Chart 2.08**



Source: AMFI Data

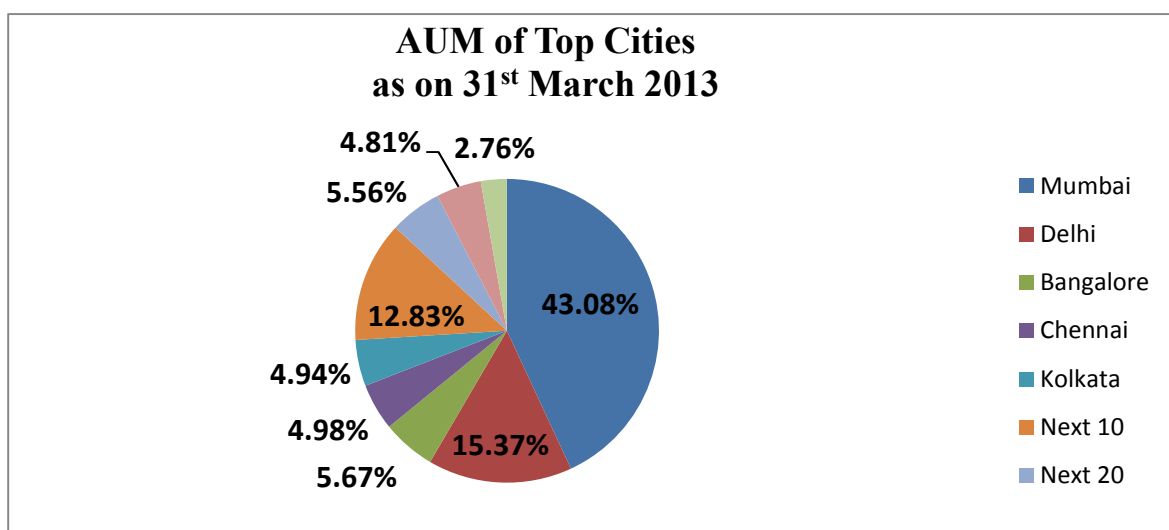
The demographic penetration of mutual funds is reflected in Chart 2.10 and Chart 2.11. Accordingly as on 31<sup>st</sup> March 2013, 74 percentage of the industry AUM is contributed by top 5 cities. Of the top 5 cities, Mumbai, Delhi, Bangalore, Chennai and Kolkata contributed 43.08 percentage, 15.37 percentage, 5.67 percentage, 4.98 percentage and 4.94 percentage respectively. The next top 10 cities contributed 13percentage. This means that the top 15 cities contributed 87 percentage of the industry AUM. The next 20 cities contributed 5 percentage, subsequent 75 cities contributed 5 percentage and others 3 percentage.

**Chart 2.09**



Source : AMFI Data

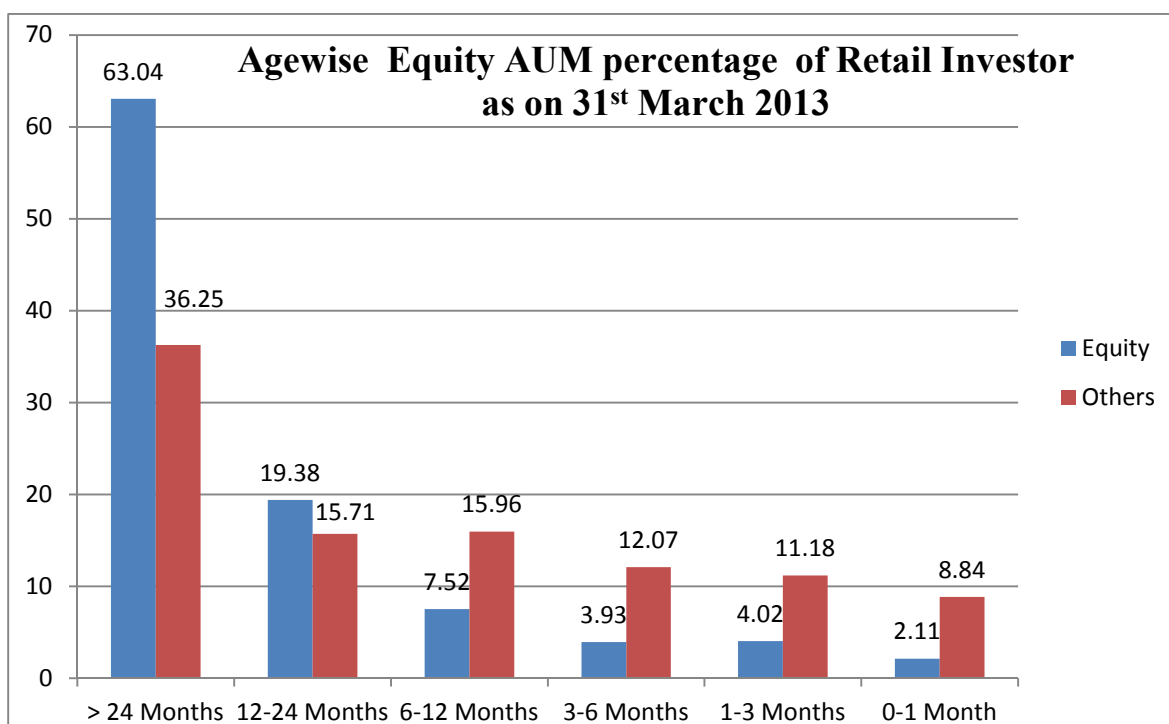
**Chart 2.10**



Source: AMFI Data

The age wise holding of equity mutual funds as on 31<sup>st</sup> March 2013, shows that 63 percentage of the AUM has remained invested for a period greater than 24 months. In case of other funds, the AUM that remained invested for a period exceeding 24 months was only 36 percentage (Chart 2.11).

**Chart 2.11**



Source: AMFI Data

## **New initiatives in Mutual Fund Industry**

Empowering the investor is the buzz word in the mutual fund industry. A number of initiatives have been proposed by SEBI to propel the mutual industry into the growth orbit. The initiatives range from proposals seeking to enhance the penetration of funds geographically, to launch of retirement fund schemes to attract fresh investments, to make mutual funds available for purchase through E-commerce websites. Some of the important initiatives are as follows:

### **Product Labelling**

Mis-selling is one of the common grievance in mutual fund distribution. As the investor awareness about different types of funds and its characteristics is low, investors are forced to rely on the fund distributors in decision making, including selection and redemption of funds.

In order to curb mis-selling and in its endeavour to empower the investor, on 18<sup>th</sup> March 2013, SEBI has issued a circular on product labelling in mutual funds to be made applicable from 1<sup>st</sup> July 2013. All funds offer advertisements and documents including application forms need to carry the label of the fund. It is to enable the investor to understand the type of fund they are investing into and its suitability with regard to their objectives. Labels are expected to be made to include the following:

- 1) Nature of Scheme as to its suitability for wealth creation or income generation
- 2) Fund objective and investment universe
- 3) Risk Level depicted by colour code boxes
  - a) Blue – Principal at low risk
  - b) Yellow – Principal at medium risk
  - c) Brown – Principal at high risk

## **Direct Plans**

Mutual funds hitherto were distributed by fund distributors. Fund distributors were incentivized by the AMC in the form of initial commission and trail commission. The extent of commissions paid depended upon the type of fund being equity, debt or liquid fund.

In order to empower the investor and re-energise the industry, SEBI issued a circular on 13<sup>th</sup> September 2012, mandating all fund houses, to provide a separate plan for direct investments for all schemes existing and new from 1<sup>st</sup> January 2013. Direct plans are those in which, the distribution is not through any distributor but by the investor directly. In direct plans, the investment is made by the investor directly through the fund house. As the distributor is dispensed with in such plans, the distributor commissions too is dispensed and therefore, the fund expenses for such plans are lesser as compared to regular plans. This benefit is passed on to the direct investor through declaration of separate NAV's for direct plans.

## **Listing of Mutual Funds on Stock Exchanges**

SEBI in order to increase the penetration of mutual funds across the country, issued a circular on 13<sup>th</sup> November 2009, enabling placing of buy and sell orders for mutual funds on stock exchange platforms. Both Mumbai Stock Exchange and National Stock Exchange of India, have mutual funds listed on their platforms and enable client to place orders in these funds. To enable trading through exchange platform, mutual fund units are offered in dematerialized mode. Clients could place orders, by opening accounts with the members of stock exchanges. As per the Budget proposal made in 2013-14, SEBI recently has allowed the AMFI registered Independent Financial Advisors (IFA's) getting a limited membership of these exchanges for enabling placing of mutual fund orders of their clients. This allows the IFA's to place orders on behalf of their clients directly without having to route it through a stock broker. This initiative is supposed to improve the geographical penetration of fund distribution.

## **New Cadre of Distributors**

A new cadre of mutual fund distributors like Retired Bank Officers, Retired Government Officials and Retired Teachers with a service of 10 years and Postal Agents are allowed to sell certain types of mutual fund schemes. This initiative is to expand the geographical reach of mutual funds to small towns and villages.

## **Investor Education and Awareness**

SEBI has mandated all AMCs to utilize .02 percentage on daily net assets within the maximum specified total expense ratio, to meet expenses towards investor education and awareness initiatives. Mutual funds are required to make disclosures to SEBI of such initiatives undertaken on a half yearly basis.

## **2.6 Conclusion**

With over 50 years of existence of the concept of mutual funds and over 20 years of a full-fledged industry in place, the Indian mutual fund industry, is still in its infancy. As per RBI's revised estimates for the year 2012-13, only 2.5 percentage of the gross financial savings of the Indian household sector is invested into mutual funds. The lower savings allocation to mutual funds coupled with the retail investor composition in fund schemes and geographical penetration of funds clearly reflect that mutual funds have a large market ahead of them, which needs to be penetrated in the interests of the investor, industry and the economy.

# **Chapter 3**

## **REVIEW OF LITERATURE**



### **3.1 Introduction**

Mutual funds are investments meant for small investors to accumulate savings over time and enhance their wealth. Mutual funds enable investors choose their investments depending upon the financial goals they intend to achieve. Mutual funds offer readymade portfolios to investors across the investment spectrum of risk and asset classes.

Mutual funds are looked at by the Government as a means of pooling risk capital and also as a means for small investors to invest into capital markets. To induce small investors to invest and to popularize the concept of mutual funds, tax benefits are provided by the Government on fund investment and returns. SEBI on its part, as a regulator, to protect the interest of small investors, and to promote the industry, has been continuously bringing changes in the industry regulations thereby empowering the small investor.

Indian mutual fund industry was opened up for private players in the year 1993 and from thereon has been a full-fledged industry for over 20 years. Although the industry AUM has been growing at a CAGR of 15 percentage over the last 13 years from 2000-01 to 2012-13, investor and geographical penetration leaves much to be desired. Mutual funds are still an emerging investment alternative in India and therefore is a subject of intense academic and industry research.

Academic research in mutual funds is seen consistently from the decade of 1960. Multi various studies have been conducted globally on mutual funds, across a number of areas like performance analysis, performance persistence , investment style analysis, return attribution , market timing, impact of fund expenses, fund flows, investor perception and behaviour etc.

The previous studies in mutual funds reviewed, has been classified into two sections:

- a) Studies relating to mutual funds and Investment Performance; and
- b) Studies relating to mutual fund Investor Perception

### **3.2 Studies related to Mutual Funds and Investment Performance**

A study by **Close (1952)** discussed the distinction between close ended and open ended funds and also the trends in their AUM's till 1950. It stated the reasons for the growth of open ended funds. The study also analysed the investment performance of 37 open ended funds and 11 close ended funds for the period 1937 to 1946. The study showed that the mean returns of close ended funds was in excess of the sample open ended funds. The author also indicated that fund expenses are an important aspect which needs to be considered by an investor before investing into the fund.

In another study, **Brown and Vickers (1963)** made a comparison among types of funds and also among individual funds within the type. The study pointed out the presence of relationship although varied, between changes in market index and net inflow into the funds. The study also stated that certain features of funds like portfolio turnover, portfolio structure, timing of security transactions affected performance of funds. The study noted that small size funds had the highest turnover rates and large size funds had lower turnover rates. The study observed that turnover rates rose when market prices rose. The study with regard to performance analysis stated that on an average fund's performance was on par with the market for the period of study. The study did not find persistent relationship between annual portfolio turnover rates and return performance of the fund for both the current as well as the succeeding year. The study concluded that active portfolio management did not provide better results as compared to a static market portfolio.

In a path breaking work on mutual fund investment performance evaluation, **Sharpe (1966)** provided one of the most widely used measures of mutual fund portfolio performance evaluation criteria called 'reward to variability ratio' more popularly known as the 'Sharpe Ratio'. This study applied the reward to variability measure and examined the performance of 34 open ended funds for the period 1954 to 1963. It found considerable variation in performance between funds. The reward to variability ratio varied from 0.78 to

0.43 for the sample funds. The study opined that the differences in performance could be due to the ability of the fund managers to find incorrectly priced stocks or due to differences in fund expense ratios.

The market timing abilities of mutual fund managers were studied in **Treynor and Mazury (1966)**. The study tested the market timing ability of fund managers considering 57 open ended funds for the period 1953 to 1962. The study noted that the only way a fund manager can translate his timing ability into returns is to vary the fund volatility systematically. The study concluded that the investment managers on an averaged have no ability to successfully outguess the market and suggested that it is futile to attempt the same.

Yet another authoritative work in the area of mutual fund investment performance was **Jensen (1968)**. The study provided an absolute measure of performance considering the risk undertaken by the portfolio. Hitherto, the measures available for fund evaluation were relative measures. The model adopted by the author for measuring absolute portfolio performance was a direct application of the well-known Capital Asset Pricing Model. The absolute measure of performance provided by this study termed as  $\alpha$  (alpha ) is considered to be a measure of portfolio managers ability to forecast future prices. If the portfolio manager has the ability, then  $\alpha$  would be positive. If not the portfolio would have a negative  $\alpha$ . The study applied and tested this model on 115 open ended mutual funds for a period between 1955 to 1964. It concluded that on an average the sample fund's managers were not able to predict the security prices so as to out-perform the market.

In his study **Bauman (1968)** tried to evaluate the factors which affect future performance and the methods that might be used to forecast performance. The factors that were considered are portfolio objectives, economic environment, security market conditions and investment management operations. The study compared the portfolio returns of 28 mutual fund returns with return of stock market for the period 1952 to 1966. It concluded that environmental conditions had a major effect on portfolio performance.

The interrelations between the composite portfolio performance measures of Sharpe, Treynor and Jensen which were used to evaluate and rank ex post performance of funds was done by **Smith and Tito (1969)**. The study found that Treynor measure and Sharpe measure are equal for funds with no unsystematic risk. The ranking through Jensen alpha will be consistent with Treynor measure. The study also stated that the above measure assumed the risk free rate to be constant which however is not the case in the long run. So this study used a variable risk free rate for its analysis. The study also suggested a new measure in the form of  $\alpha/\beta$  and called it modified Jensen measure. Using the above models, the study evaluated the performance of 38 funds for the period 1958-1967 using continuously compounded return. The study found that all the four measures were highly correlated.

The objectives as well as risk and return of 123 mutual funds using monthly returns for the period 1960-69 was done by **McDonald (1974)**. The study found that funds with aggressive objectives produced better performance with regard to ratios of mean return to beta as well as mean returns to variability. Average returns were found to be increasing with risk. 67 of the 123 sample funds had a Treynor ratio greater than the market. Similarly 50 percentage of the sample funds had a positive Jensen's alpha. 84 of the 123 funds had a Sharpe ratio less than the market. Overall the study concluded that the performance of the sample funds were neither superior nor inferior for the decade.

A study to know if the fund managers provided a differential performance by altering the risk composition of the portfolio anticipating market price movements was done by **Chang and Lewellen (1984)**. The study tried to provide evidence of how market timing ability impacted the portfolio returns. The study considered 67 funds with different investment objectives for the period 1971 to 1977. The study applied parametric statistical procedure to test superior market timing and selection skills. The study concluded that fund managers did not possess market timing or security selection abilities in abundance and that the funds collectively could not outperform the passive market portfolio.

A study primarily intending to ascertain whether fund rankings of performance are sensitive to the benchmark chosen by done by **Lehman and Modest (1987)**. The goal was to examine the efficacy of Security Market Line in evaluation of mutual fund performance. The study considered 130 funds over 15 years from 1968 to 1982. The study considered

alternative APT and CAPM benchmarks. The study concluded that choice of what constitutes normal performance is very important for evaluating the performance of funds.

The extent to which different performance measures provide different evaluations of performance when different benchmarks are used was studied by **Grinblatt and Titman (1991)**. It examined the sensitivity of performance measures to the choice of benchmark. The study considered 109 passively constructed portfolios and a sample of 279 mutual funds. The study suggested that forming factor portfolios is better rather than return covariances in implementing multi factor risk adjustment models.

**Sharpe (1992)** used factor models for performance measurement. The study stressed on the importance of fund classification based on asset classes invested into, as fund manager performance and his value addition can only be traced when compared against the variation in returns of major asset classes. The study used factor model on open ended funds for the period 1985 to 1989. The study stated that style analysis as a method can be used for constructing benchmarks for evaluation.

A study to prove that active selection of managed fund could be profitable was done by **Hendricks et al. (1993)**. The study considered quarterly returns of 165 growth funds over the period of 1974 to 1988. The study stated that the strategy of selecting the top performers based on the last four quarters can significantly outperform average mutual fund. However this strategy is found to be marginally better than benchmark market indices. The study also found that funds that performed badly in most recent year, continued to be inferior performers in the near term. The study concluded that although superior performance is not sustained, underperformance is seen to be sustained.

**Malkiel (1995)** considered all the diversified equity mutual funds issued between 1971 to 1991 to understand the survivorship bias, fund performance, fund return performance persistence and fund expense ratios. The study documented performance persistence. However it noted that persistence that existed in 1970's did not exist in 1980's. The study also did not find evidence of high beta funds providing higher returns. The study found that the dollar weighted average return for all funds including liquidated funds for the period was 15.69 percentage which was 150 basis points less than the average surviving funds.

The study concluded that funds underperformed the market and that the markets were remarkably efficient. The study suggested investment in passive funds as against active funds.

The aspect as to whether past performance can predict future performance was studied in **Kahn and Rudd (1995)**. The study considered equity and fixed income funds. The study period consisted of 10 years starting from 1983. The study found evidence of persistence in fixed income fund performance and no evidence in equity fund performance. The study suggests that in the absence of basis for choosing future winners, investors should choose index funds as they have average performance, low selection risk, low fees, low turnover and low costs. This places the index funds above median of all funds of similar styles.

Another study on persistence in performance of equity mutual funds was done by **Brown and Goetzmann (1995)**. The study considered data for the period 1977 to 1989. The study reported that persistence phenomenon is dependent upon the time period of study. A poor track record is a strong predictor for attrition. The study concluded that chasing positive alpha strategy is prone to high total risk.

A study to test the impact of mutual fund manager's characteristics on fund performance, risk and fees was performed by **Golec (1996)**. The study considered a sample of 530 funds for the period 1988 to 1990. The study stated that fund managers with MBA degree, outperform those without it. The study concluded that investors can expect better risk adjusted performance from fund managers who are less than 46 years old and have managed funds for a period of more than 7 years. The study also suggested investors to avoid funds with large operating expenses (excluding management fees). It stated that a fund's beta, turnover, team size, age, asset size and managers years of education can significantly affect a funds risk adjusted return performance.

**Gruber (1996)** studied the aspect as to why mutual funds have been growing fast in the American economy in spite of the average performance being inferior to index funds. One of the reasons cited for the popularity is the fact that the management's ability is not factored in the NAV. The study considered the measure of return relative to market, excess return from a single index model and excess return from four index model as measures of performance. The sample consisted of 270 funds for the period 1985 to 1994. The study

found that mutual funds underperformed market by 1.94 percentage per year. The single index model had a risk adjusted return of -1.56 percentage and as per the four index model, funds underperformed by 65 basis points per year.

A study to evaluate two growth oriented funds Master Gain and Magnum Express on the basis of monthly returns and to compare their performance with the benchmark was done by **Jayadev (1996)**. Risk adjusted performance measures of Sharpe, Treynor and Jensen were used. The study period consisted of 21 months from June 1992 to March 1994. The study analysed that the funds underperformed the benchmark. The study stated that Magnum Express was highly diversified whereas Master Gain had low diversification. Both funds are found to have poor ability of market timing and selectivity.

**Elton et al. (1996)** studied fund predictability for equity funds using a sample with no survivorship bias and measured performance using risk adjusted returns. The sample consisted of all equity funds which had \$15million and more in net assets at the end of 1976. About 188 funds were followed from 1977 till 1993. The funds risk adjusted performance was evaluated based on  $\alpha$  using a four factor index model. The study concluded that the past carries information about the future and that there is longer persistence in performance.

The short term persistence in mutual fund returns were studied in **Carhart (1997)**. The study considered diversified equity funds for the period 1962 to 1993. The sample included 1892 diversified equity funds. The study employed the CAPM and Carhart four factor model. The study observed that by buying the last year's top decile and selling the last year's bottom decile funds, yielded a return of 8 percentage per year. The study found that expense ratio, portfolio turnover and load fees are negatively related to performance. The study found that funds with high returns last year have higher than average returns next year but not subsequently. The study also evidenced that costs including transaction and load have a direct and negative impact on performance.

Another study on persistence of fund performance was by **White and Miles (1999)**. The study was to understand if average investors can adopt the trading rule of picking winners and generate excess returns. The study considered the winner fund's annual return for the succeeding year in which the fund was top performer. The study was carried out for the

period 1963 to 1994. The study found that the previous year's winner would out -perform the market the following year. The study concluded that “winners follow winners” 65 percentage of the times. The trading rule of picking previous year's winner per se as a strategy could be adopted but cautiously.

A study to decompose the portfolio performance of funds into different components to evaluate the style of active fund management was done in **Wermers (2000)**. The study considered 1788 funds for the period 1975 to 1994. The result was that, fund held gross return basis and of this, 70 basis points is attributed to the characteristics of the stock held and 60 basis points for talent in picking stocks. However the net performance of the funds was lower by 230 basis points. Of this 160 basis points were attributed to expense ratio and transaction costs of the fund. The study noted that the holdings of cash by the fund for the purposes of liquidity was a drag on the net returns of the fund. The study also pointed that higher turnover funds hold stocks that provide higher average returns.

**Chan et al. ( 2002)** studied the investment approaches of equity fund managers. As funds were generally classified based on market capitalization and value-growth orientation, the study wanted to evaluate whether this provided a meaningful description of the fund managers behaviour. The study also intended to expand the style classification. The study considered 3336 funds as at the end of year 1997. The study found that funds overall were consistent in following their fund styles. Style shifts were seen in case of poorly performing funds. It summed up that styles generally do not deviate notably from widely followed benchmark. When funds deviated from the index, they favour growth over value and choose high past return stocks over low past return stocks. The study considered that size and book-to-market are good descriptors of fund styles.

A study to evaluate the returns provided by mutual funds and the understand the risk undertaken by them as against market index and risk free instruments was performed by **Sapar and Madava ( 2003)**. The aim of the study was also to identify the outperformer funds by using measures relative performance index, Sharpe ratio, Jensen measure, Fama's measure, Treynor ratio. The study was performed on 269 open ended funds for the period September 1998 to April 2002. The study observed that medium term debt funds are the best performers. Out of 269 funds, 118 funds were out performers, 49 under performed and 102 funds had performance on par. Of the 58 sample schemes considered for further



evaluation, 32 had positive Treynor. Of them only 30 had positive Sharpe. Of the 58 schemes 35 had positive Jensen measure. The study also found that the unsystematic risk of the funds is high as the beta values were low and the correlation with the index was poor.

The effect of scale of operation on fund performance was examined in **Chen et al. (2004)**. The study was intended to know how economies of scale worked in active money management industry and whether investment performance depended upon the size of the fund. The study was conducted considering the data pertaining to the period 1962 to 1999 of only diversified equity mutual funds. The study adopted cross sectional variation to study how performance varied with fund size. The study claimed that there was a strong evidence that fund size erodes performance. This is more pronounced in small cap funds. The study found liquidity as an important factor why size erodes performance. The study found that organizational diseconomies affected relationship between fund size and performance.

A study to evaluate selectivity skills, market timing abilities of fund managers of different schemes, taking a sample of 12 funds over April 1997 to March 2003 was done by **Dhar (2004)**. The study also tried to study the correlation between market timing and selectivity skills. Selectivity skill is studied using Jensen and Fama criteria. Market timing is studied using Treynor and Mazuy measure. The study concluded that majority of fund managers possess superior selectivity skills based on Fama criterion. However this was not the case when Jensen criteria was used. The study also found that open end schemes are superior performers than close end schemes. Regarding market timing, the study stated that most of the managers are good market timers.

**Tripathy (2005)** evaluated the return risk situation of tax planning schemes to examine the market timing abilities of fund managers. The study considered 31 tax planning schemes for a period en 1994-95 to 2002-03. The study adopted Treynor and Mazuy and Henriksson and Merton models for evaluating the market timing ability. The study found that based on Treynor and Mazuy, only two of the schemes were able to time the market. The study also found that the fund managers timed the market in the wrong direction. Based on Henriksson and Merton model only one scheme was showed market timing ability. The paper concluded that Indian fund managers were unable to time the market.

A study to examine the components of investment performance so as to attribute the same to specific activities of the fund manager was performed by **Anand and Murugaiah (2006)**. The study was for a period starting from April 1999 to March 2003 considering 113 select schemes pertaining to 25 fund houses. The components of performance included overall performance, selectivity, net selectivity and diversification and risk. The study reported that majority of funds underperformed risk free return. Diversification undertaken by the fund manager had not provided any additional return. It also stated that the forecasting and stock selectivity skills were lacking for the period. It observed that market risk and market return factors have closer correlation with fund returns.

**Bhattacharjee and Roy (2006)** replicated the study of Grinblatt and Titman for 50 Indian mutual funds over a period of 26 months by using the Performance Change Measure. The study observed that there were positive signals of information asymmetry with fund managers having superior information. The PCM model indicated that on an average fund provided above average returns but with a longer time period.

In their study **Dabbeeru (2006)** tried to classify open ended fund schemes into different investment styles and study their performance and ascertain whether the differences in performance is statistically significant. The study covered open ended equity schemes for the period April 2005 to March 2006. The study found that approximately 80 percentage of the growth plans are better than dividend plans in terms of superior return and 70 percentage had lesser risk too. Only 5 out of the 42 plans studied outperformed the market. The study concluded that growth plans are more likely to reward the investors than dividend plans.

The differences in fund characteristics, portfolio diversification and investment performance of public sector and private sector sponsored funds were studied in **Panwar and Madhumathi (2006)**. The study sample consisted of 6 public sector sponsored funds and 12 random private sector sponsored funds. The term selected for the study was May 2002 to May 2005. The study concluded that there is no statistical difference between public sector and private sector sponsored mutual funds in terms of mean percentage return. However there is a difference in average standard deviation. The study did not find differences in portfolio characteristics.

**Sehgal and Jhanwar (2007)** studied the persistence in fund performance in the short run considering 59 open ended fund schemes for the period 2000 to 2004. The study used one factor CAPM model, three factor Fama-French model and four factor Carhart model to find abnormal returns. The study found that the persistence results on monthly data were weaker as compared to daily data. The winners provide significant positive return using the three factor criteria and using one factor benchmark. Persistence was not visible on the basis of four factor benchmark. The study also stated that better performing schemes charge a higher entry load and this is not the case with management fees.

A study to classify Indian mutual funds based on investment styles and market capitalization was done by **Sidana and Acahrya (2007)**. Ten criteria are used to perform a cluster analysis which included mean return, alpha, beta, R square, Sharpe ratio etc. The data used pertained to the period 2002-2006. The study found some inconsistency between style and objective classification and actual performance across sectors, styles and objectives.

**Debashish (2009)** studied the performance of 23 schemes offered by 6 private sector funds and three public sector funds over the period April 1996 to March 2009. The analysis was made based on mean return, beta, coefficient of determination, Sharpe ratio, Treynor ratio and Jensen alpha. The study stated that UTI and Franklin Templeton schemes were best performers. Birla Sun Life, HDFC and LIC mutual funds showed below average performance.

A study to evaluate the performance of growth mutual funds floated by private and public sector fund houses was performed by **Bawa and Brar (2011)**. The period of study was from the year 2000 to 2010 with two schemes of public sector and three private sector funds. The tools used included Sharpe, Treynor and Risk adjusted CAGR. The study observed that private sector funds outperformed the public sector funds with regard to growth of AUM, total return, beta and risk adjusted CAGR. However public sector funds performed in terms of lesser standard deviation, Sharpe, Treynor and expense ratio.

**Bhuvaneshwari and Selvam ( 2011)** was a study to evaluate the performance of equity funds based on risk and return relationship and compare it with the benchmark. The study considered 12 fund houses for the period 2002 to 2007. The study concluded that 50 percentage of the sample dividend option funds outperformed the benchmark.

The funds sensitivity to market fluctuations in terms of beta was examined by **Kumar (2011)**. The study also appraised the performance of funds with regard to Sharpe, Treynor and Jensen measures. The study considered 20 open ended schemes of 5 mutual fund houses. The period of study was from 2000 to 2009. The study found that of the 20 sample funds 25 percentage showed average returns higher than the benchmark BSE 100 index. The risk involved in those 25 percentage of the schemes was lesser than the market. These schemes also performed better in terms of Sharpe, Treynor and Jensen measures.

A study to judge the performance of select schemes on the basis of risk and return was done by **Bahl and Rani ( 2012)**. The study also made a comparison of performance with benchmark index to test under and out performance. The study considered 29 schemes for the period April 2005 to March 2011. The results of the study showed that of the 29 schemes, 14 had outperformed the benchmark returns. Based on Treynor, 19 schemes had outperformed the benchmark. The Sharpe ratio was positive for all schemes. Jensen measure too showed that 19 funds had a positive alpha.

A study to examine the risk return performance of select open ended schemes in relation to BSE 30 and also its ability to provide superior reward to variability and reward to volatility was made by **Dhanda et al. (2012)**. The study considered 10 open ended growth schemes for period between April 2009 to March 2010. The study found that all select schemes failed to provide a superior reward to variability as compared to benchmark. Only four schemes of the sample provided higher reward to volatility than the benchmark.

**Kaur ( 2012)** examined the comparative performance of open ended tax oriented growth and dividend schemes of mutual funds. The study considered 18 schemes bases on monthly returns and compared the same with the benchmark for the period 2005 to 2010. The study considered average, standard deviation, beta, co-efficient of determination, systemic and un systemic risk and risk adjusted measures of Treynor, Sharpe, Jensen and Fama. The study found that the performance of growth schemes is better compared to dividend schemes

with later being more volatile than the former. However both the schemes were found to be more volatile than the market. Four growth schemes was stated to have performed based on Sharpe, Treynor and Jensen. Based on Fama's model, the fund managers were poor in terms of stock selectivity. The study concluded that except for four schemes, others had underperformed the market.

The performance of open ended Equity Linked Savings Schemes was studied by **Kaur and Gupta(2012)**. The study considered 20 schemes on the basis of monthly returns. Evaluation was made based on average, standard deviation, beta, coefficient of determination, systemic and un-systemic risk and performance measures of Treynor, Sharpe, Jensen and Fama. The study found that most of the schemes underperformed the benchmark. The standard deviation of fund returns was seen to be more than the market. Only 20 percentage of the funds fared better based on Sharpe, Treynor and Jensen models. The study concluded that the funds were poor in selecting under priced securities.

A study to evaluate and compare the performance of equity diversified schemes pertaining to select fund houses, relative to the market was done by **Prajapati and Patel (2012)**. Top 5 fund houses were selected of which five funds schemes were considered. The study pertained to the period 2007 to 2011. The fund evaluation was based on mean returns, standard deviation, beta, Sharpe ratio, Treynor ratio, Jensens alpha and Fama value. The study concluded that HDFC and Reliance mutual funds have outperformed the benchmark. ICICI and UTI funds had lower level of risk compared to HDFC and Reliance funds. HDFC funds had the highest Sharpe ratio. Treynor ratio of HDFC and Reliance were better compared to ICICI, UTI and Birla Sun Life mutual funds.

**Poornima and Theivanayaki (2012)** studied the correlation between performance of fund and the market indexes. The study considered top 5 growth funds and 10 index funds for the years 2007-08 to 2011-12. The study showed that the correlations of the funds were almost perfect positive in most cases. The study observed that funds yielded higher returns and grown at a faster rate as compared to market.

A study to evaluate the performance of growth oriented open ended ELSS funds was carried out by **Santhi and Gurunathan (2012)**. The study considered 32 schemes for the period 2006-07 to 2011-12. The benchmark considered was NSE Nifty. Performance evaluation was carried out using Sharpe, Treynor and Jensen models.

Another study to evaluate the performance of equity growth schemes and to rank them based on Sharpe, Treynor and Jensen models was done by **Zafar et al. (2012)**. The data considered were of 13 funds for a period of 2007-08. The study reported that a linear relationship between risk and return does not hold good as they reported less return for a higher element of risk undertaken.

**Muruganandan and Padmasani (2013)** in their study tried to assess the performance of Fund of Fund ( FOFs) managers performance by adopting the Treynor and Mazuy model. The sample consisted of 25 domestic and 15 overseas FOFs for the period of April 2004 to March 2011. The study concluded that fund managers do not possess market timing ability and their selection abilities were negative.

### **3.3 Studies related to Mutual Fund Investor Perception**

The factors influencing mutual fund selection were studied by **Rajeshwari and Moorthy (2001)**. The sample considered 350 investors. The study revealed that the most preferred investment avenue for investors was bank deposits and mutual funds ranked 4<sup>th</sup> among eight investment alternatives. Investors preferred open ended growth schemes. Investors looked at safety, returns and tax benefits as three important factors that influence investment. Most of the respondents selected the fund to invest on their own. The study stated that investors are more influenced by intrinsic qualities of the scheme, efficient fund management and image of fund house while selecting mutual fund investments.

A study was done to understand the perception of investors towards mutual funds by **Singh and Chander (2004)**. The study also analysed the reasons for withdrawal or non-investment. The study covered 400 investors from Punjab, Delhi and Mumbai. The study found that salaried investors, professionals and those in the age group of 25 to 35 preferred

day to day disclosure of NAV. As per the study investors perceive better returns from mutual funds and also preferred listing of funds on stock exchanges. Low return's is cited as one of the reasons for salaried class pulling out of mutual fund investments. Poor regulations, underperformance and inefficient management of funds are cited as the reasons for withdrawal.

**Walia and Kiran (2009)** was a study to evaluate the perception of the investor towards the risk and return of mutual funds, in comparison to other financial avenues and also to identify the gaps. The sample size consisted of 100 respondents from different regions of Punjab. The study found that age is a determinant in setting investment objectives. Investors considered mutual funds as relatively risky. As per the study, understanding investor's expectation is necessary for the mutual fund industry to grow at a faster rate. Mutual funds can be a preferred investment provided it is put forth in front of the investor with suitable products and at the same time also enhance the quality of existing service.

The quality of financial institutions providing investment expertise and its impact on mutual fund investments and on investors perception and satisfaction was studied by **Meena (2011)**. The sample size was of 144 respondents from western Rajasthan. The study opined that financial institutions need continuous improvement. The mutual fund industry needs to innovate investment products so that investors have more choices. The study states that awareness needs to be built among investors. Advisors need to focus on investment objectives and risk tolerance of investors.

A study to understand the knowledge levels of mutual fund investors was done by **Nihar (2011)**. The study and also tried to examine the relationship between risk and knowledge. The study consisted of 436 investors form the city of Visakhapatnam. The study showed that there was average to poor awareness levels among investors. Preferred savings avenue of the respondents was post office savings and safest investment avenue cited was post office savings and bank savings accounts. The study concluded that lack of knowledge brings about resistance to the investment and therefore low level of awareness need to be tackled by the industry.

**Saini et al. ( 2011)** analysed mutual fund investor behaviour, opinion and perception towards issues including type of fund, objective of investment, role of financial advisors, factors that attract them to mutual fund investing, sources of information, deficiency in services etc. The study considered 200 respondents from the city of Chandigarh. The study opined that tax benefits, high returns and safety are the main motives behind investment into funds. Investors focus on past performance including past dividend record. Newspapers are considered by majority as their main source of information followed by advisors and internet. The study states that demographic variables have no significant relationship with criteria for evaluating funds. The study concludes that new and innovative schemes need to be launched by funds to win back investor's confidence.

A study undertaken by **Saha and Dey (2011)** to gauge the factors that are considered by a mutual fund investor before investing and also know the level of awareness among investors about mutual fund investments. The study considered a sample of 100 investors of mutual funds from Kolkata. As per the study, bank deposits were given the first preference by investors followed by insurance and then mutual funds with regard to saving instruments. Mutual funds were ranked one in the category of financial instruments in comparison with shares, debentures and bonds. 56 percentage of the respondents had an inclination to invest in future through mutual funds. Investors favoured growth schemes and open ended schemes. Investors preferred safety, good return and liquidity in that order as three factors that induce them towards mutual funds. With regard to information sources, investors had high priority for reference groups followed by print media. 67 percentage of the respondents preferred mutual funds to direct equity investing. 72 percentage of the sample had awareness about mutual funds. The study stated that awareness of investors with regard to mutual funds is independent of age. The study concluded that investor's behaviour needs to be identified and products designed to meet their expectations of risk and return.

A study to understand the investor perception of Tax Saving funds in the state of Tamil Nadu was done by **Santhi and Gurunathan ( 2011)** . The study opined that investor's income and age is a determinant in investment for tax savings. The study states that 78 percentage of the respondents made regular investments into ELSS funds through systematic investment plans. The study concludes that there is an association between age



and satisfaction of investors in ELSS which does not exist with marital status and educational qualification.

**Das (2012)** was a study aimed at finding the attitude of small investors towards investment in mutual funds in the state of Assam. 250 respondents from different towns in the state were chosen. The study stated that there is significant relationship between satisfaction level of male and female respondents with investment in mutual funds. The same does not exist for different age groups, educational status and occupation. The study also states that tax benefits, high returns and safety are the main motives behind mutual fund investing.

A study to know the preferences of mutual fund investors and to understand the role of demographics in mutual fund investments was done by **D'Silva et al. (2012)**. The study also tried to find the factors that could help increase the mutual fund interest. The study was conducted with a sample size of 101 respondents from Mumbai. The study opined that investors choose equity funds for risk diversification and to avail tax benefits. Educational background of investor's do not significantly influence the purpose of investment. The study concludes that funds need to be customer centric that not only satisfies investors but also increases their loyalty towards the fund.

**Jain and Rawal (2012)** was a study aimed at identifying the preference pattern in mutual funds and to analyse the factors influencing the selection. The study was based on a sample size of 123 respondents of Delhi and Gurgaon. The study states that there is relation between age, savings and preference towards financial instruments. However there is no significant relation between gender and preference for mutual fund schemes. The study observed that most investors choose tax saving schemes and growth schemes. It also brought to light the fact that there is financial illiteracy among educated respondents and that there is an increasing shift towards investment in gold.

The impact of demographic factors on investment decisions were examined in **Jain and Mandot (2012)**. The study considered a sample of 200 investors from different cities of Rajasthan. The results of the study showed that there is a relation between marital status, age, income, education and occupation and the level of risk undertaken. There was no relation between investor's gender and risk undertaken.

**Murugan (2012)** studied the impact of different demographic variables on the attitude of mutual fund investors. The study considered 300 respondents from Chittoor region. The results of the study show that there is significant association between age, gender, income, occupation and their attitude towards mutual funds. Return potential and liquidity were ranked one and two as factors responsible for investment .

A study to identify the needs of fund investors and their preferences was done by **Mehta and Shah (2012)**. For this purpose they carried out a survey with 100 educated investors of Ahmedabad and Vadodara cities. The investors ranked mutual funds as their second preferred investment choice .The study showed that investors under age 30 are attracted to high returns followed by low risk, liquidity and company reputation. Investors aged above 50 preferred low risk more than other factors. The study stated that annual income and annual investment into mutual funds are independent of each other. The academic qualifications and knowledge about mutual funds are dependent on each other. More than 50 percentage of the sample preferred growth in NAV rather than dividend pay-out or dividend reinvestment option.

The level of gap that existed between equity investor's expectation and experience were studied in **Paul and Garodia (2012)** . The study was conducted in the city of Guwahati. The study was based on 4C's consisting of customer solution, customer cost, customer convenience and customer communication. A sample size of 164 investors were considered. The study found that there existed a gap between equity investor expectation and experience. The study points out that factors like lack of knowledge, complexity and fear of losing money are some of the reasons for investor indifference towards markets. The study also stresses on the need to popularize equity investment through marketing campaigns.

**Pawar and Kumar (2012)** in their study tried to identify investor's perception towards risk and return. The study considered a sample of 1200 investors across Warangal district. As per the study investors rated shares as most risky investment followed by mutual funds. Majority of investors considered mutual funds as highly risky on a relative scale. The study opined that mutual funds can become a preferred financial avenue if it is placed in front of the investors in their desired form for which mutual funds need to be innovative and also increase their quality of service.

A study to understand the influence of demographic variables on investments in mutual funds was done by **Purohit and Sharma (2012)**. The sample of the study was 524 investors. The study revealed that age is a factor in risk taking decision. The study opined that gender does play a vital role in investment decisions and more so with regard to risk orientation.

**Vipparthi and Margam (2012)** studied the investor perception towards mutual funds and also whether any relation existed between demographic profile of investor and selection of mutual fund from public and private sector fund houses. The sample size was 400 investors from different regions of Warangal. The study revealed that mutual funds are more prevalent with men and that there is no significant difference of opinion of gender on investments in public and private sector. Majority of fund investors belonged to age 20-30 and 51-60 in both public and private funds. Investors in the age group of 41-50 had investments in public sector and not in private sector funds.

A study to know the investment preference, knowledge of risk and the holding period of investment of mutual fund investors was carried out by **Vyas (2012)**. The sample considered were 363 respondents from the city of Indore. As per the study, mutual funds were ranked 6<sup>th</sup> by investors out of the nine investment options. Gold and Fixed deposits were the preferred investments. Investors mainly chose lump sum mode of investment into funds as compared to SIP mode. 73 percentage of the investors knew the risk factors in mutual funds. Most investors preferred mutual funds as compared to direct investment into equity. The study showed that investors took advice from brokers followed by friends and relatives. 69 percentage of the investors preferred to hold mutual funds for a period of 1 to 3 years.

An attempt to study the investment preference of investor's pertaining to Mathura, in particular about mutual fund investments was made by **Agarwal and Jain (2013)**. The sample size was 300 investors. The study found that 96 percentage of the investors are aware about mutual funds. The investors ranked returns and tax benefits as the most important factors influencing investments. 23 percentage of the investors showed investment preference for mutual funds. The study concluded that mutual funds as a concept is yet to reach the small investor and therefore is not a preferred avenue of investment.

**Bhuvaneshwari (2013)** studied the investor perception towards equity tax saving mutual funds. The study considered a sample size of 120 respondents. The study showed that there is no significant relationship between age and opinion towards facilities provided by mutual funds. Also that grievance handling mechanism adopted by funds is independent of the age of the respondent. The study found significant difference between opinions of respondents towards service facilities provided by the funds and investors experience. With regard to rate of return, the opinion of respondents was seen to be independent of the experience.

The impact of different demographic variables on the attitude of investors towards mutual funds were analysed in **Kothari and Mindargi (2013)**. The study had a sample of 200 respondents of Solapur city. As per the study, 42 percentage of the respondents invested for tax benefits followed by 33 percentage for higher returns. Of the sample, 50 percentage of the investors were not interested in investing in mutual funds. 33 percentage stated that they have an imperfect knowledge of funds. 80 percentage of the investors had a short term duration for investment. The source of information was mainly through print media. The study opined that there is need to create awareness among customers about mutual funds.

A study undertaken by **Khan and Kotishwar (2013)** to test whether the choice of public and private sector mutual funds is independent of demographic profile and also the identity factors that affect the investors perception and selection of funds. The sample size of the study was 500 investors from Telangana region. The study stated that the factors influencing investments into funds in the order of importance are liquidity, flexibility, tax savings, service quality and transparency. There was no significant difference in perception of investors on these factors for both public and private sector funds. For factors like management fees, returns, security, there is significant difference in perceptions. The study also revealed that investor's perception is dependent upon demographic profiles like gender, age and education.

**Nandan and Thomas (2013)** was a study to understand the investment pattern of college teachers at Bangalore more particularly of mutual fund investments. The study considered a sample size of 100 teachers. The study showed that the most preferred investment option was fixed deposits. Growth of investment was an important factor for choosing the investment. 60 percentage of the sample did not invest in mutual funds. The study observed

that there is no significant relation between subjects taught by a teacher and the presence of mutual funds in his portfolio.

A study to understand the behavioural elements of investors, in order to identify their attitude towards mutual funds was carried out in **Rakesh and Srinivas (2013)**. The study considered a sample of 400 investors from three districts of Andhra Pradesh. The study stated that investors in the age group of less than 35 years prefer to take more risk and anticipate more returns.

A study to understand the investment pattern and preference of investors towards mutual funds was done by **Rathnamani (2013)**. For the purpose of the study 100 respondents were considered in the city of Trichy. The study states that investors prefer mutual funds in order to earn high returns at low level of risk and for liquidity. The investors risk taking ability is stated to be moderate to low. The study concludes that investor awareness programs can bring about the benefits of mutual fund investing.

A study to probe the attitude of investors towards mutual funds which could help marketing of funds by performed by **Subramanya and Murthy (2013)**. The research was carried out with a sample size of 150 investors from Chikkamagalore district in Karnataka state. The study observed that there is significant association between age, gender, education, income, occupation and attitude towards mutual funds. The study concluded that safety of invested amount is a prime concern of the investor. The researcher also opined that investor education could play a big role in increasing the fund flows into mutual funds.

**Zafar et al. (2013)** analysed the investor perception, buying behaviour, and awareness of mutual funds among investors and also the factor influencing their preference for a brand. The study was conducted on sample size of 125 respondents in the city of Lucknow. The study stated that majority of the respondents were aware of the benefits of mutual funds and that investor's purchase mutual funds for tax benefits and return potential. As per the study, the top preferred brands included ICICI, Reliance, SBI, UTI and HDFC mutual funds. The study states that variables considered by investors while investing included fund performance, fund size and age of the fund.

A study to understand the fund buying behaviour of individual investors was made by **Chawla (2014)**. The study also tried to identify the attributes that are considered important for investing. The study considered a sample size of 431 respondents through an online survey. As per the study, the most important factor for considering a scheme for investment is the performance record, followed by recommendation from friends and relatives. Most of the respondents of the study took their own investment decisions. The most preferred funds were growth funds and tax saving funds. The most important reason cited for investment into mutual funds was tax savings, followed by higher returns and capital appreciation.

A study to analyse investors perception towards mutual funds with regard to it being safe and secure was made by **Kumar (2014)**. The sample consisted of 160 respondents from Sirsa district. The study revealed that there is no significant difference in opinion of various income groups and gender regarding investment in mutual fund being safe and secure. The study concludes that most investors have negative perception regarding investment in mutual funds.

The factors considered by investors before making investment decisions, their sources of information, methods used to evaluate the performance and deficiencies in functioning of funds were studied by **Kumar and Goel (2014)**. The study was conducted with a sample of 200 investors within the state of Punjab. The study states that growth, regular income, liquidity were the important objectives for investment ranked in that order. Past performance of the fund is considered as the most important criteria for selection of a fund followed by the brand. Newsletters followed by broker recommendations are considered to be the main sources of investor information. Absolute return is the most important parameter for performance evaluation. Investors have service dissatisfaction as a major deficiency of mutual funds.

**Sehdev and Ranjan (2014)** studied the preference and perception of investors towards mutual funds including the factors responsible for the preference. The study was conducted in Delhi with a sample size of 160 respondents. The study stated that balanced debt funds are more preferred by investors. Savings, security for future, regular income and capital appreciation are the reasons cited for fund investments. The investors preferred bank

deposits as compared to mutual funds. The study states that internet and visual media are the preferred sources of investor information with magazines are least preferred.

Investor awareness and perception towards mutual funds were examined by **Kumar and Goel ( 2014)** . The study was done with a sample size of 200 investors belonging to the city of Delhi. The study observed that there is a strong relation between age, education and awareness of mutual funds. However there is no relation between occupation and awareness of mutual funds. The study found strong relation between gender, age and rationale for investing in mutual fund. The study also stated that investors ranked tax benefit and flexibility as two important benefits of mutual funds. Internet and newspapers are two widely used sources of information. Investors who did not invest in mutual funds stated lack of knowledge as the prime reason.

A study aimed at identifying behavioural dimension of investors in ELSS funds , to evaluate the components that influence investor preferences, to analyse customer satisfaction, its role in investment decision making and preparing a model defining customer satisfaction was undertaken by **Sharma (2015)** . The study observed that grievance redressal, after sales service and transparency affect customer satisfaction and increase perception towards ELSS funds.

### **3.4 Conclusion**

Mutual Funds have been a topic dear to researchers for quite some time. As can be seen from the review, researchers have touched all facets of mutual fund activity be it performance evaluation, persistence of performance, performance attribution, impact of size, fund expenses, manager characteristics etc. Abundant research is also available on investor perception and preferences towards mutual funds.

Indian researchers mostly focussed on performance appraisal of funds, individual as well as category wise and also have done a number of comparative studies. There have been numerous studies on region wise investor attitudes, preferences and perception towards mutual fund

investments in general. The studies pertaining to Equity Linked Savings Scheme mutual funds as an independent and distinct category of mutual funds are few, be it on investment performance or investor perception.

In order to make available a vehicle for small investors to invest their savings into equity markets, the Government introduced Equity Linked Savings Schemes in the year 1991 and provided it with tax benefits so as to incentivize the investors. With over two decades of existence, it is high time to make an assessment of the investment scheme, in terms of its performance as well as its popularity. This present study is an effort in this direction. This study endeavours to fill the research gap by evaluating the investment performance of ELSS funds as a category and also study the investor perception and preference for ELSS funds in comparison to other tax saving investment alternatives.



# **Chapter 4**

## **Data Analysis and Discussion – Investment Performance**

## 4.01 Introduction

Mutual funds are readymade portfolios created and made available to investors to suit their investment objectives. Investors derive a number of distinct advantages from mutual fund investments as compared to direct investments. One of the most important advantages derived from a mutual fund by an investor is the instant diversification of the portfolio from un-systemic risks irrespective of the investment amount. This benefit of diversification as offered by a mutual fund can be derived by an investor through direct investing only with a very large amount of investment. This means that mutual funds particularly benefit investors whose investment size is small. Householders therefore can invest their savings regularly through mutual funds and achieve their financial objectives with considerably lesser risk.

The savings rate of householders in India as a percentage of GDP has been around 25 percentage over the past two decades. However the amount of savings flowing to the capital markets in general and equity markets in particular has been dismally low at around 5 percentage. As risk capital is important to ignite the manufacturing and business sectors and in turn the economy, the Government of India, induced the small investors to invest into equity markets, by introducing a mutual fund scheme called Equity Linked Savings Scheme and offering tax benefit for investments into it. The objective of the Government in introducing ELSS was twofold with one being to induce small investors to invest into equity markets through mutual funds and two to attract risk capital for industrial development.

Although ELSS funds provide tax benefit for investments made during the year (subject to a ceiling), there are other investment avenues that provide similar tax benefit. Among the spectrum of tax saving investments, ELSS stand at one extreme, being the most risky, as its returns are fully variable. The investor's preference for ELSS funds in such a case among the tax saving investments, depends purely upon its superior risk adjusted investment performance. ELSS funds are basically Diversified Equity Funds with two differences:

- 1) the fund's investment in equity is set at a minimum of 80 percentage of AUM at all times as against 65 percentage for diversified equity funds; and
- 2) the invested amount getting locked in for a period of 3 years as against no lock in for diversified equity fund schemes.

Traditionally, investment performance evaluation has been on a composite basis which implies that evaluation does not consider returns earned in isolation but also considers the risk undertaken to earn those returns. This is often termed as risk adjusted performance evaluation. Performance evaluation for mutual funds has always been relative. This means that the performance is always evaluated against some benchmark such as a market index. As ELSS funds are a type of Diversified Equity funds, the investment performance of ELSS funds can be benchmarked against the performance of Diversified Equity funds as a category and also against performance of Market Indexes.

#### **4.02 Investment Performance – Data Analysis and Discussion**

The study has considered for evaluation the entire population of ELSS funds that were in existence with a track record of 3 years as at 31<sup>st</sup> March 2013. The number of ELSS funds so considered is 43 of which 33 are open ended and 10 close ended schemes. The sample set of Diversified Equity funds consists of 12 open ended funds and are selected based on highest AUM as at 31<sup>st</sup> March 2013. As the objective of the study is to evaluate the investment performance from the fund perspective, NAV of only the Growth plans of the above funds are considered for the study. The study also has a sample set of 7 benchmark indexes that are considered by individual ELSS funds as their respective benchmarks. The list of sample funds is given in Table 4.01 and the list of market indexes is given in Table 4.02. The performance evaluation in this study is basically of the ELSS funds as a category, relative to the performance of Diversified Equity Funds category and Market Indexes category. Unless specified, the terms ELSS funds, Diversified Equity funds and Market Indexes used in this chapter, refer to categories and not individual funds. The risk free rate of return for the purpose of this study has been considered as the average of the highest interest rate offered by top 5 banks for the period 2000-01 to 2012-13, on Time Deposits for term 3 to 5 years, which has been 8.00 percentage pa. The rate of interest offered by top 5 banks during the period of this study is given in Table 4.03.

Table 4.01

## List of sample ELSS Funds and Diversified Equity Funds

List of ELSS Funds and Diversified Funds considered for Study							
Sl.No.	Fund	Type	Inception Date	AUM as on 31.03.2013 ₹ Crs.	Total Number of Stocks in Portfolio	Benchmark	Fund Manager
<b>ELSS Funds</b>							
1	Axis Long Term Equity	Open Ended	29.12.2009	539	37	BSE 200	Jinesh Gopani
2	Birla Sunlife Tax Plan	Open Ended	03.10.2006	116	46	BSE Sensex	Ajay Garg
3	Birls Sunlife Tax Relief 96	Open Ended	10.03.2008	1379	46	BSE 200	Ajay Garg
4	BNP Paribas Tax Advantage	Open Ended	05.01.2006	120	46	CNX	Sreyash Devalkar
5	BOI AXA Eco	Open Ended	21.10.2008	120	36	CNX Nifty	David Pezarkar
6	BOI AXA Tax Advantage	Open Ended	25.02.2009	34	36	CNX Nifty	Saurabh Kataria
7	Canara Robeco Equity Tax Saver	Open Ended	02.02.2009	552	56	BSE 100	Krishna Sanghavi
8	DSP Black Rock Tax Saver	Open Ended	18.01.2007	707	79	CNX 500	Apporva Shah
9	DWS Tax Saving	Open Ended	20.03.2006	48	63	BSE 200	Akash Singhania
10	Edelweiss ELSS	Open Ended	30.12.2008	14	64	CNX 500	Paul Parampreet / Bhavesh Jain
11	Escorts Tax Plan	Open Ended	31.03.2000	3	23	CNX Nifty	Archit Singhal
12	Franklin India Tax Shield	Open Ended	10.04.1999	912	51	CNX 500	Anand Radhakrishnan / Anil Prabhudas
13	HDFC Long Term Advantage	Open Ended	02.01.2001	820	34	BSE Sensex	Chirag Setalvad / Rakesh Vyas
14	HDFC Tax Saver	Open Ended	31.03.1996	3280	55	CNX 500	Vinay R Kulkarni / Rakesh Vyas
15	HSBC Tax Saver	Open Ended	05.01.2007	184	36	BSE 200	Aditya Khemani
16	ICICI Prudential Right	Close Ended	26.09.2009	69	31	CNX Nifty	Manish Gunwani / Rajat Chandak
17	ICICI Prudential Tax Plan	Open Ended	19.08.1999	1394	58	CNX 500	Chintan Haria / Shalya Shah
18	IDFC Tax Advantage	Open Ended	26.12.2008	154	36	BSE 200	Aniruddha Naha
19	IDFC Tax Saver	Close Ended	15.03.2007	34	26	BSE 200	Aniruddha Naha
20	ING Retire Invest	Close Ended	26.03.2007	2	33	CNX Nifty	Shavan Kumar Sreenivasula
21	ING Tax Savings	Open Ended	28.03.2004	24	51	BSE 100	Ajay Garg
22	JM Tax Gain	Open Ended	31.03.2008	31	29	BSE 500	Sanjay Kumar Chabbria / Chaitanya Choksi
23	JP Morgan Tax Advantage	Open Ended	27.01.2009	5	52	BSE 200	Harshad Patwardhan / Karan Sikka
24	Kotak Tax Saver	Open Ended	23.11.2005	370	50	CNX 500	Deepak Gupta
25	LIC Nomura Tax Plan	Open Ended	31.03.1998	30	36	BSE Sensex	Nobutaka Kitajima
26	LNT Long Term Advantage	Close Ended	27.03.2009	2	46	BSE 200	Rajesh Pherwani
27	LNT Tax Advantage	Open Ended	27.02.2006	1090	59	BSE 200	Soumendra Nath Lahiri
28	LNT Tax Saver	Open Ended	18.11.2005	27	48	CNX Nifty	Rajesh Pherwani
29	Quantum Tax Savings	Open Ended	23.12.2008	11	28	BSE Sensex	Atul Kumar
30	Reliance Equity Linked Savings	Close Ended	31.03.2008	115	28	BSE 100	Sailesh Raj Bhan
31	Reliance Tax Saver	Open Ended	21.09.2005	1875	48	BSE 100	Ashwani Kumar
32	Religare Agile Tax Fund	Close Ended	15.02.2008	7	11	CNX Nifty	Pranav Gokhale
33	Religare Tax Plan	Open Ended	29.12.2006	134	49	BSE 100	Vetri Subramaniam / Vinay Paharia
34	Sahara Tax Gain	Open Ended	01.04.1997	10	36	BSE 200	A N Sridhar
35	SBI Magnum Tax Gain	Open Ended	31.03.1993	4058	48	BSE 100	Jayesh Shroff
36	SBI Tax Advantage I	Close Ended	03.03.2008	351	31	BSE 500	Richard Dsouza
37	Sundaram Tax Saver	Open Ended	02.05.2005	1284	56	BSE 200	J Venkatesan
38	Tata Infra Tax Savings	Close Ended	30.03.2009	7	34	CNX 500	Rupesh Patel
39	Tata Tax Advantage Fund I	Close Ended	16.03.2006	83	40	BSE Sensex	Pradeep Gokhale
40	Taurus Tax Shield	Open Ended	31.03.1996	91	44	BSE 200	Sadanand Shetty
41	UTI ETSP	Open Ended	01.08.2005	443	44	BSE 100	Lalit Nambiar
42	UTI LTA I	Close Ended	28.03.2007	206	50	BSE 100	Lalit Nambiar
43	UTI LTA II	Close Ended	31.03.2008	131	50	BSE 100	Lalit Nambiar
<b>Diversified Equity Funds</b>							
1	Birla Sunlife Frontline Equity	Open Ended	30.08.2002	3020	66	BSE 200	Mahesh Patil
2	DSP Black Rock Top 100	Open Ended	10.03.2003	3293	36	BSE 100	Apoorva Shah
3	Franklin India Bluechip	Open Ended	01.12.1993	4929	40	BSE Sensex	Anand Radhakrishnan / Anand Vasudevan
4	HDFC Equity Fund	Open Ended	01.01.1995	10668	58	CNX 500	Prashant Jain / Rakesh Vyas
5	HDFC Top 200	Open Ended	03.09.1996	11145	60	BSE 200	Prashant Jain / Rakesh Vyas
6	ICICI Pru Dynamic	Open Ended	31.10.2002	3653	62	CNX Nifty	Sankaran Naren / Mittul Kalawadia
7	ICICI Discovery Fund	Open Ended	16.10.2004	2571	68	CNX Midcap	Mrinal Singh / Ashwin Jain
8	IDFC Premier Equity	Open Ended	28.09.2005	3245	43	BSE 500	Kenneth Andrade
9	Reliance Growth	Open Ended	08.10.1995	4625	51	BSE 100	Sunil Singhania
10	Reliance Equity Opportunities	Open Ended	28.03.2005	4895	57	BSE 100	Sailesh Raj Bhan
11	SBI Magnum Contra	Open Ended	14.07.1999	2369	38	BSE 100	R Srinivasan
12	UTI Opportunities Fund	Open Ended	20.07.2005	3406	43	BSE 100	Anoop Bhaskar

Source: Compiled from ACE MF Database

**Table 4.02****List of sample Market Indexes**

List of Market Indexes considered for Study					
Sl.No.	Index Name	Exchange	Base Date / Year	Base Value	Index Type
1	BSE Sensex	Bombay Stock Exchange	1978-79	100	Free Float Market Cap
2	BSE 100	Bombay Stock Exchange	1983-84	100	Free Float Market Cap
3	BSE 200	Bombay Stock Exchange	1989-90	100	Free Float Market Cap
4	BSE 500	Bombay Stock Exchange	01.02.1999	1000	Free Float Market Cap
5	CNX Nifty	National Stock Exchange	03.11.1995	1000	Free Float Market Cap
6	CNX 100	National Stock Exchange	01.01.2003	1000	Free Float Market Cap
7	CNX 500	National Stock Exchange	01.01.1995	1000	Free Float Market Cap

Source: Compiled from BSE and NSE websites

**Table 4.03**

**Term Deposit Rates of Five Major Banks  
for the period 2000-01 to 2012-13**

Term Deposit Rates of Five Major Banks						
Year	Term 1 to 3 Years			Term 3 to 5 Years		
	Low	High	Average	Low	High	Average
2000-01	8.5	9.5	9.000	9.5	10	9.75
2001-02	7.5	8.5	8.000	8	8.5	8.25
2002-03	4.25	6	5.125	5.5	6.25	5.875
2003-04	4	5.25	4.625	5.25	5.5	5.375
2004-05	5.25	5.75	5.500	5.75	6.25	6
2005-06	6	6.75	6.375	6.25	7	6.625
2006-07	6.75	8.5	7.625	7.75	9.5	8.625
2007-08	8	8.75	8.375	8	8.75	8.375
2008-09	8	8.75	8.375	8	8.5	8.25
2009-10	6	7	6.500	6.5	7.5	7
2010-11	8.25	9	8.625	8.25	8.75	8.5
2011-12	9.25	9.25	9.250	9	9.25	9.125
2012-13	8.75	9	8.875	8.75	9	8.875
<b>Average</b>	<b>6.96</b>	<b>7.85</b>	<b>7.40</b>	<b>7.42</b>	<b>8.06</b>	<b>7.74</b>

Source: Compiled from RBI reports

Table 4.04

## Year wise Quarterly Average Returns

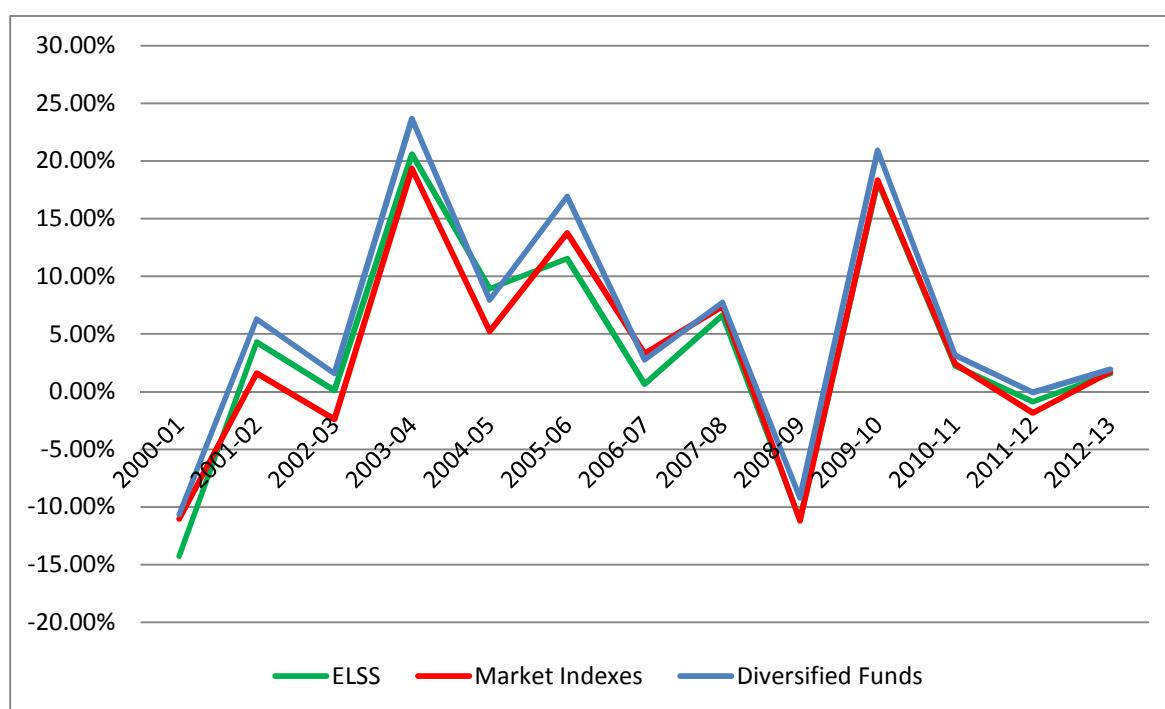
Yearwise Quarterly Average Returns															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	ELSS Funds														
1	Axis Long Term Equity											3.64%	0.53%	3.29%	2.48%
2	Birla Sunlife Tax Plan								6.19%	-11.33%	16.70%	2.32%	-1.23%	2.41%	2.51%
3	Birls Sunlife Tax Relief 96									-13.90%	22.36%	0.91%	-1.99%	2.47%	1.97%
4	BNP Paribas Tax Advantage							0.44%	7.13%	-13.59%	15.96%	1.74%	1.57%	2.38%	2.23%
5	BOI AXA Eco										23.26%	-0.16%	-1.49%	1.43%	5.76%
6	BOI AXA Tax Advantage										23.19%	-0.23%	-1.54%	1.34%	5.69%
7	Canara Robeco Equity Tax Saver										22.82%	2.81%	0.48%	1.93%	7.01%
8	DSP Black Rock Tax Saver								10.84%	-10.90%	19.97%	2.28%	-1.11%	2.76%	3.97%
9	DWS Tax Saving							-1.61%	10.13%	-12.11%	16.10%	0.28%	-2.58%	2.26%	1.78%
10	Edelweiss ELSS										14.23%	2.47%	0.45%	1.78%	4.73%
11	Escorts Tax Plan	-3.53%	2.63%	1.31%	19.33%	6.22%	14.23%	1.76%	9.50%	-16.43%	16.39%	0.33%	-3.12%	-3.73%	3.45%
12	Franklin India Tax Shield	-8.24%	4.72%	-1.00%	22.22%	7.72%	15.49%	0.58%	6.92%	-9.12%	18.66%	3.51%	0.41%	1.87%	4.90%
13	HDFC Long Term Advantage		6.09%	3.75%	24.16%	12.03%	16.09%	0.72%	4.41%	-11.37%	21.15%	4.26%	-0.36%	1.81%	6.89%
14	HDFC Tax Saver	-18.16%	6.68%	-1.27%	22.24%	14.89%	18.22%	1.19%	4.96%	-9.81%	21.99%	3.46%	-0.55%	0.44%	4.94%
15	HSBC Tax Saver								5.80%	-8.36%	17.94%	1.69%	-0.65%	3.15%	3.26%
16	ICICI Prudential Right											3.06%	2.06%	3.15%	2.76%
17	ICICI Prudential Tax Plan	-15.91%	6.94%	-2.67%	25.96%	17.14%	16.63%	-0.16%	5.42%	-11.01%	23.52%	2.79%	-0.28%	1.86%	5.40%
18	IDFC Tax Advantage										15.61%	2.83%	-1.17%	3.19%	5.11%
19	IDFC Tax Saver								7.66%	-11.58%	17.31%	2.22%	-1.20%	2.90%	2.88%
20	ING Retire Invest								5.49%	-11.22%	15.46%	1.22%	-2.94%	0.68%	1.45%
21	ING Tax Savings					6.98%	17.92%	2.26%	2.55%	-14.65%	21.17%	4.01%	-2.14%	1.22%	4.37%
22	JM Tax Gain									-19.37%	16.86%	0.15%	-2.07%	0.54%	-0.78%
23	JP Morgan Tax Advantage										13.64%	3.57%	-1.36%	1.29%	4.29%
24	Kotak Tax Saver							2.77%	7.00%	-13.21%	18.29%	2.17%	-0.92%	1.56%	2.52%
25	LIC Nomura Tax Plan	-17.37%	1.27%	-0.29%	21.39%	2.84%	11.42%	-0.23%	-5.33%	-10.64%	14.57%	2.66%	-2.20%	1.34%	1.49%
26	LNT Long Term Advantage										18.50%	1.74%	-0.86%	0.68%	5.01%
27	LNT Tax Advantage							3.78%	6.58%	-8.75%	18.50%	4.64%	-1.17%	1.27%	3.55%
28	LNT Tax Saver							1.96%	3.10%	-13.30%	21.97%	2.15%	-2.80%	0.25%	1.90%
29	Quantum Tax Savings										18.35%	4.42%	0.01%	2.28%	6.27%
30	Reliance Equity Linked Savings									-8.22%	17.16%	3.44%	0.38%	2.30%	3.01%
31	Reliance Tax Saver							1.15%	4.07%	-8.49%	18.87%	3.46%	1.22%	0.54%	2.97%
32	Religare Agile									-10.43%	8.03%	2.45%	-1.01%	1.97%	0.20%
33	Religare Tax Plan								10.22%	-9.97%	19.65%	2.88%	0.17%	2.22%	4.19%
34	Sahara Tax Gain	-22.35%	2.72%	-2.30%	20.00%	7.20%	-11.75%	-0.18%	9.23%	-9.07%	19.89%	3.37%	0.33%	0.13%	1.32%
35	SBI Magnum Tax Gain									-11.31%	18.26%	1.16%	-0.23%	1.94%	1.97%
36	SBI Tax Advantage I									-11.48%	20.21%	0.29%	-1.20%	1.82%	1.93%
37	Sundaram Tax Saver							2.01%	9.11%	-9.10%	17.60%	1.62%	-0.24%	1.86%	3.26%
38	Tata Infra Tax Savings										14.22%	-1.04%	-2.88%	-0.90%	2.35%
39	Tata Tax Advantage Fund I							-0.70%	7.17%	-8.95%	17.44%	3.13%	0.04%	1.44%	2.80%
40	Taurus Tax Shield	-14.22%	3.33%	3.33%	9.27%	5.27%	5.47%	-3.41%	15.83%	-8.64%	19.72%	3.42%	-1.89%	1.91%	3.03%
41	UTI ETSP							-0.63%	7.12%	-10.74%	15.97%	2.03%	-1.28%	1.76%	2.03%
42	UTI LTA I								4.32%	-11.55%	18.49%	1.32%	-1.71%	1.30%	2.03%
43	UTI LTA II									-6.88%	16.14%	2.18%	-0.89%	1.90%	2.49%
	Average of ELSS Funds	-14.25%	4.30%	0.11%	20.57%	8.92%	11.52%	0.65%	6.62%	-11.11%	18.20%	2.25%	-0.87%	1.58%	3.29%
	Market Indexes														
1	BSE 30	-8.09%	-0.10%	-2.78%	17.16%	4.70%	14.92%	4.24%	6.14%	-10.69%	17.45%	2.84%	-2.31%	2.07%	3.50%
2	BSE 100	-12.73%	1.43%	-2.86%	19.44%	5.02%	14.24%	3.35%	7.89%	-11.45%	18.81%	2.28%	-1.85%	1.79%	3.49%
3	BSE 200	-12.48%	2.97%	-1.93%	20.52%	5.32%	13.12%	3.09%	7.86%	-11.84%	19.61%	2.20%	-1.81%	1.61%	3.71%
4	BSE 500	-13.27%	3.07%	-1.67%	21.41%	6.14%	13.53%	3.01%	8.09%	-12.50%	20.18%	2.05%	-1.74%	1.34%	3.82%
5	CNX 500	-12.85%	1.85%	-2.08%	21.13%	6.10%	13.33%	2.60%	7.52%	-11.44%	18.66%	1.96%	-1.62%	1.42%	3.58%
6	CNX Nifty	-6.77%	0.38%	-3.08%	16.95%	4.49%	13.81%	3.38%	7.16%	-10.01%	15.94%	2.89%	-1.90%	1.87%	3.47%
7	CNX 100				18.64%	4.91%	13.37%	3.28%	7.14%	-10.51%	17.64%	2.64%	-1.75%	1.89%	5.73%
	Average of Market Indexes	-11.03%	1.60%	-2.40%	19.32%	5.24%	13.76%	3.28%	7.40%	-11.21%	18.33%	2.41%	-1.85%	1.71%	3.90%
	Diversified Equity Funds														
1	Birla Sunlife Frontline Equity				19.33%	5.67%	14.31%	5.61%	7.54%	-9.14%	19.62%	2.91%	-1.52%	3.48%	6.78%
2	DSP Black Rock Top 100				24.04%	5.86%	16.02%	4.10%	8.52%	-7.04%	16.07%	2.82%	-0.02%	0.85%	7.12%
3	Franklin India Bluechip	-7.14%	4.62%	-0.06%	24.54%	5.26%	15.80%	3.05%	6.28%	-8.21%	18.73%	3.26%	-0.31%	1.51%	5.18%
4	HDFC Equity Fund	-9.68%	8.94%	0.32%	24.26%	7.54%	17.58%	3.45%	5.73%	-9.47%	23.17%	4.96%	-1.17%	1.07%	5.90%
5	HDFC Top 200	-10.07%	5.14%	0.90%	25.61%	7.74%	16.57%	2.68%	7.56%	-7.87%	20.42%	4.30%	-1.01%	1.27%	5.63%
6	ICICI Pru Dynamic				18.38%	10.48%	19.17%	5.07%	4.83%	-8.73%	18.54%	3.56%	-0.07%	1.12%	7.23%
7	ICICI Discovery Fund						17.59%	-0.08%	4.64%	-10.57%	28.92%	3.00%	0.87%	2.91%	5.91%
8	IDFC Premier Equity							1.88%	15.01%	-10.13%	22.18%	3.80%	1.72%	2.92%	5.34%
9	Reliance Growth	-15.67%	6.48%	5.09%	29.48%	13.17%	18.03%	3.86%	9.49%	-10.94%	22.36%	1.38%	-0.73%	0.76%	6.37%
10	Reliance Equity Opportunties						17.09%	3.17%	4.48%	-11.05%	24.20%	3.93%	1.22%	3.35%	5.80%
11	SBI Magnum Contra							3.04%	8.80%	-9.76%	18.49%	0.18%	-1.17%	2.46%	3.15%
12	UTI Opportunties Fund							-2.52%	9.92%	-7.40%	18.32%	3.64%	1.42%	1.34%	3.53%
	Average of Diversified Funds	-10.64%	6.30%	1.56%	23.66%	7.96%	16.91%	2.78%	7.73%	-9.19%	20.92%	3.15%	-0.06%	1.92%	5.66%

Source: Computed from Secondary Data

The yearwise quarterly average returns earned by the funds and the indexes are shown in Table 4.04. The average quarterly returns earned by ELSS funds as a category over this 13 year period was 3.29 percentage as against 3.90 percentage earned by the Market Indexes category and 5.66 percentage earned by sample Diversified Equity funds category. As can be seen in Graph 4.01, ELSS funds returns have been lagging the Diversified Equity funds returns for all the 13 years, except for the year 2004-05. ELSS funds have however outperformed the Market indexes in 6 out of the 13 years.

**Chart 4.01**

**Year wise Quarterly Average Return Performance for the Years 2000-01 to 2012-13**



Source: Based on Table 4.04

The year- wise fund- wise average quarterly return outperformance is provided in Table 4.05 and Table 4.06. In Table 4.05, the average outperformance column shows that over the 13 year period, ELSS funds could only outperform 34 percentage of the Diversified Equity funds. On the other hand ELSS have outperformed on an average 55 percentage of the Market Indexes over this period (Table 4.06). If we consider individual fund performance, of the 8 funds that have a track record of complete 13 years, ICICI Prudential

Tax Plan has the best outperformance of 43 percentage and LIC Nomura Tax Plan the least performance of 9 percentage. With regard to Market Indexes, Franklin India Tax Shield had the best outperformance rate of 78 percentage and LIC Nomura Tax Plan the least with 29 percentage. The absolute return outperformance of individual ELSS funds as against the average of Diversified Equity fund category quarterly returns and Market Indexes category quarterly returns is provided in Table 4.07 and 4.08 respectively. ELSS funds have on absolute terms underperformed the Diversified Equity fund quarterly average returns by 1.31percentage.



**Table 4.05**

Outperformance of ELSS Funds over Diversified Equity Funds based on Quarterly Average Returns															
Sl.No	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12	
	ELSS Funds														
1	Axis Long Term Equity											58.33%	66.67%	83.33%	69%
2	Birla Sunlife Tax Plan								33.33%	0.00%	8.33%	16.7%	8.33%	58.33%	21%
3	Birls Sunlife Tax Relief 96									0.00%	75.00%	8.3%	0.00%	58.33%	28%
4	BNP Paribas Tax Adv							16.67%	41.67%	0.00%	0.00%	16.7%	91.67%	58.33%	32%
5	BOI AXA Eco										83.33%	0.0%	8.33%	50.00%	35%
6	BOI AXA Tax Adv										83.33%	0.0%	0.00%	41.67%	31%
7	Canara Robeco Equity Tax Saver										75.00%	16.7%	66.67%	58.33%	54%
8	DSP Black Rock Tax Saver								91.67%	16.67%	50.00%	16.7%	25.00%	66.67%	44%
9	DWS Tax Saving							16.67%	0.00%	100.00%	0.00%	0.0%	66.67%	0.00%	26%
10	Edelweiss ELSS										0.00%	16.7%	66.67%	58.33%	35%
11	Escorts Tax Plan	100.00%	0.00%	75.00%	14.29%	42.86%	0.00%	16.67%	83.33%	0.00%	91.67%	8.3%	0.00%	0.00%	33%
12	Franklin India Tax Sheild	75.00%	25.00%	0.00%	28.57%	42.86%	11.11%	16.67%	58.33%	41.67%	33.33%	50.0%	75.00%	58.33%	40%
13	HDFC Long Term Adv	0.00%	50.00%	75.00%	42.86%	85.71%	33.33%	16.67%	0.00%	0.00%	58.33%	83.33%	41.67%	58.33%	42%
14	HDFC Tax Saver	0.00%	75.00%	0.00%	28.57%	100.00%	88.89%	16.67%	25.00%	33.33%	58.33%	50.00%	41.67%	0.00%	40%
15	HSBC Tax Saver								33.33%	66.67%	8.33%	16.67%	41.67%	83.33%	42%
16	ICICI Pru Right											41.67%	100.00%	83.33%	75%
17	ICICI Pru Tax Plan	0.00%	75.00%	0.00%	85.71%	100.00%	44.44%	8.33%	25.00%	8.33%	83.33%	16.67%	50.00%	58.33%	43%
18	IDFC Tax Adv										0.00%	25.00%	16.67%	83.33%	31%
19	IDFC Tax Saver								58.33%	0.00%	8.33%	16.67%	8.33%	66.67%	26%
20	ING Retire Invest								25.00%	0.00%	0.00%	8.33%	0.00%	0.00%	6%
21	ING Tax Savings					42.86%	77.78%	25.00%	0.00%	0.00%	58.33%	83.33%	0.00%	33.33%	36%
22	JM Tax Gain									0.00%	8.33%	0.00%	0.00%	0.00%	2%
23	JP Morgan Tax Advantage										0.00%	58.33%	8.33%	41.67%	27%
24	Kotak Tax Saver							33.33%	41.67%	0.00%	8.33%	16.67%	33.33%	58.33%	27%
25	LIC Nomura Tax Plan	0.00%	0.00%	0.00%	28.57%	0.00%	0.00%	8.33%	0.00%	16.67%	0.00%	16.67%	0.00%	50.00%	9%
26	LNT Long Term Adv										25.00%	16.67%	33.33%	0.00%	19%
27	LNT Tax Advantage							66.67%	41.67%	58.33%	25.00%	91.67%	16.67%	33.33%	48%
28	LNT Tax Saver							25.00%	0.00%	0.00%	58.33%	16.67%	0.00%	0.00%	14%
29	Quantum Tax Savings										16.67%	91.67%	66.67%	58.33%	58%
30	Reliance Equity Linked Savings									66.67%	8.33%	50.00%	66.67%	58.33%	50%
31	Reliance Tax Saver							16.67%	0.00%	66.67%	41.67%	50.00%	83.33%	0.00%	37%
32	Religare Agile									25.00%	0.00%	16.67%	33.33%	58.33%	27%
33	Religare Tax Plan								91.67%	33.33%	50.00%	25.00%	66.67%	58.33%	54%
34	Sahara Tax Gain	0.00%	0.00%	0.00%	28.57%	42.86%	0.00%	8.33%	75.00%	58.33%	50.00%	50.00%	66.67%	0.00%	29%
35	SBI Magnum Tax Gain									57.14%	42.86%	0.00%	100.00%	85.71%	57%
36	SBI Tax Advantage I									0.00%	50.00%	8.33%	8.33%	58.33%	25%
37	Sundaram Tax Saver							25.00%	75.00%	58.33%	8.33%	16.67%	50.00%	58.33%	42%
38	Tata Infra Tax Savings										0.00%	0.00%	0.00%	0.00%	0%
39	Tata Tax Adv Fund I							8.33%	41.67%	58.33%	8.33%	41.67%	66.67%	50.00%	39%
40	Taurus Tax Shield	25.00%	0.00%	75.00%	0.00%	14.29%	0.00%	0.00%	100.00%	66.67%	50.00%	50.00%	0.00%	58.33%	34%
41	UTI ETSP							8.33%	41.67%	16.67%	0.00%	16.67%	8.33%	58.33%	21%
42	UTI LTA I								0.00%	28.57%	42.86%	0.00%	85.71%	0.00%	26%
43	UTI LTA II									100.00%	8.33%	16.67%	33.33%	58.33%	43%
	Average	25%	28%	28%	32%	52%	28%	19%	39%	31%	31%	28%	37%	44%	34%

Source: Computed from Table 4.04

**Table 4.06**

Outperformance of ELSS Funds with Market Indexes based on Quarterly Average Returns															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Diversified Funds	6	6	6	7	7	7	7	7	7	7	7	7	7	
	ELSS Funds														
1	Axis Long Term Equity											100.00%	100.00%	100.00%	100%
2	Birla Sunlife Tax Plan								14.29%	57.14%	14.29%	57.1%	100.00%	100.00%	57%
3	Birls Sunlife Tax Relief 96									0.00%	100.00%	0%	14%	100%	43%
4	BNP Paribas Tax Adv							0.00%	14.29%	0.00%	14.29%	0.0%	100.00%	100.00%	33%
5	BOI AXA Eco										100.00%	0.0%	100.00%	28.57%	57%
6	BOI AXA Tax Adv										100.00%	0.0%	100.00%	0.00%	50%
7	Canara Robeco Equity Tax Saver										100.00%	71.4%	100.00%	85.71%	89%
8	DSP Black Rock Tax Saver								100.00%	57.14%	85.71%	42.9%	100.00%	100.00%	81%
9	DWS Tax Saving							0.00%	0.00%	100.00%	0.00%	0.0%	100.00%	0.00%	29%
10	Edelweiss ELSS										0.00%	57.1%	100.00%	42.86%	50%
11	Escorts Tax Plan	100.00%	66.67%	100.00%	42.86%	100.00%	71.43%	0.00%	100.00%	0.00%	14.29%	0.0%	0.00%	0.00%	46%
12	Franklin India Tax Shield	66.67%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	14.29%	100.00%	57.14%	100.0%	100.00%	71.43%	78%
13	HDFC Long Term Adv	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	57.14%	100.00%	100.00%	100.00%	57.14%	70%
14	HDFC Tax Saver	0%	100%	100%	100%	100%	100%	0%	0%	100%	100%	100%	100%	0%	69%
15	HSBC Tax Saver								0.00%	100.00%	42.86%	0.00%	100.00%	100.00%	57%
16	ICICI Pru Right											100.00%	100.00%	100.00%	100%
17	ICICI Pru Tax Plan	0.00%	100.00%	50.00%	100.00%	100.00%	100.00%	0.00%	0.00%	57.14%	100.00%	71.43%	100.00%	57.14%	64%
18	IDFC Tax Adv										0.00%	71.43%	100.00%	100.00%	68%
19	IDFC Tax Saver								57.14%	28.57%	14.29%	42.86%	100.00%	100.00%	57%
20	ING Retire Invest								0.00%	57.14%	0.00%	0.00%	0.00%	0.00%	10%
21	ING Tax Savings					100.00%	100.00%	0.00%	0.00%	0.00%	100.00%	100.00%	14.29%	0.00%	46%
22	JM Tax Gain									0.00%	14.29%	0.00%	14.29%	0.00%	6%
23	JP Morgan Tax Advantage										0.00%	100.00%	100.00%	0.00%	50%
24	Kotak Tax Saver							14.29%	14.29%	0.00%	42.86%	28.57%	100.00%	28.57%	33%
25	LIC Nomura Tax Plan	0.00%	33.33%	100.00%	85.71%	0.00%	0.00%	0.00%	0.00%	71.43%	0.00%	71.43%	14.29%	0.00%	29%
26	LNT Long Term Adv							85.71%	14.29%	100.00%	42.86%	100.00%	100.00%	0.00%	63%
27	LNT Tax Advantage							0.00%	0.00%	0.00%	100.00%	28.57%	0.00%	0.00%	18%
28	LNT Tax Saver										42.86%	100.00%	100.00%	100.00%	86%
29	Quantum Tax Savings									100.00%	14.29%	100.00%	100.00%	100.00%	83%
30	Reliance Equity Linked Savings							0	0	100.00%	71.43%	100.00%	100.00%	0.00%	53%
31	Reliance Tax Saver									85.71%	0.00%	57.14%	100.00%	85.71%	66%
32	Religare Agile								100.00%	100.00%	85.71%	85.71%	100.00%	100.00%	95%
33	Religare Tax Plan								91.67%	33.33%	50.00%	25.00%	66.67%	58.33%	54%
34	Sahara Tax Gain	0.00%	66.67%	50.00%	57.14%	100.00%	0.00%	0.00%	100.00%	100.00%	85.71%	100.00%	100.00%	0.00%	58%
35	SBI Magnum Tax Gain									57.14%	42.86%	0.00%	100.00%	85.71%	57%
36	SBI Tax Advantage I									28.57%	100.00%	0.00%	100.00%	57.14%	57%
37	Sundaram Tax Saver							0.00%	100.00%	100.00%	28.57%	0.00%	100.00%	57.14%	55%
38	Tata Infra Tax Savings										0.00%	0.00%	0.00%	0.00%	0%
39	Tata Tax Adv Fund I							0.00%	42.86%	100.00%	14.29%	100.00%	100.00%	28.57%	55%
40	Taurus Tax Shield	0.00%	100.00%	100.00%	0.00%	57.14%	0.00%	0.00%	100.00%	100.00%	85.71%	100.00%	28.57%	85.71%	58%
41	UTI ETSP							0.00%	14.29%	57.14%	14.29%	14.29%	100.00%	42.86%	35%
42	UTI LTA I								0.00%	28.57%	42.86%	0.00%	85.71%	0.00%	26%
43	UTI LTA II									100.00%	14.29%	28.57%	100.00%	85.71%	66%
	Average	21%	83%	88%	73%	84%	63%	6%	34%	60%	47%	50%	80%	50%	55%

Source: Computed from Table 4.04

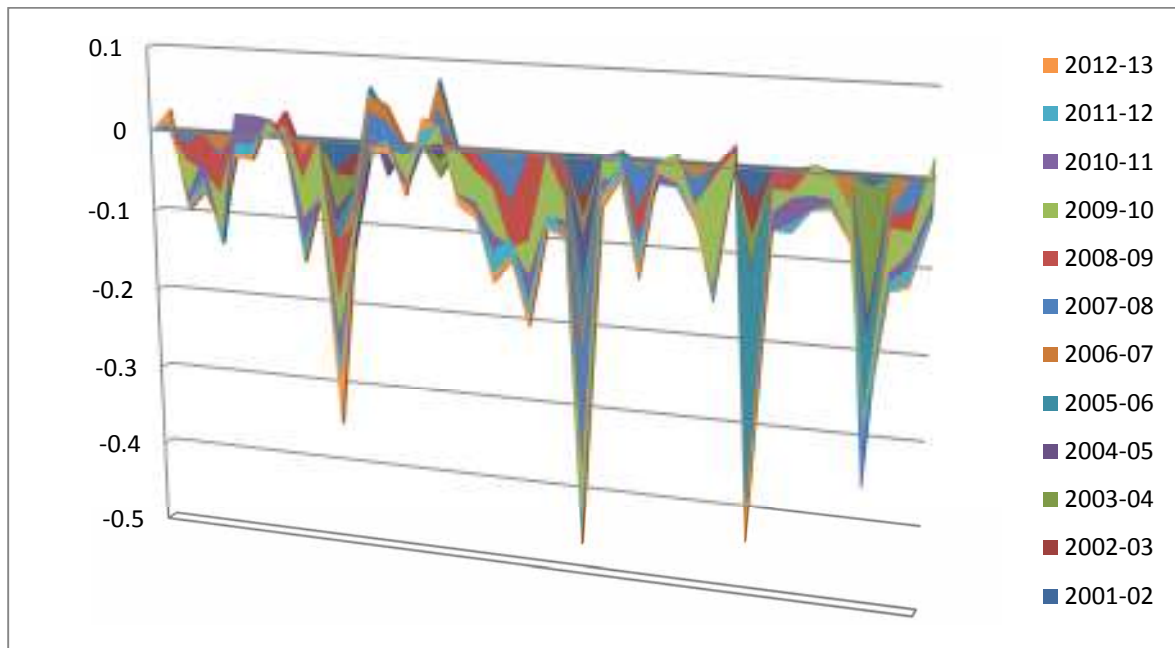
**Table 4.07**

Absolute Out Performance of ELSS Funds as against Average of Diversified Equity Fund Quarterly Returns															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12	
	ELSS Funds														
1	Axis Long Term Equity											0.49%	0.59%	1.37%	0.82%
2	Birla Sunlife Tax Plan								-1.54%	-2.13%	-4.22%	-0.83%	-1.16%	0.49%	-1.57%
3	Birls Sunlife Tax Relief 96									-4.70%	1.44%	-2.24%	-1.93%	0.55%	-1.38%
4	BNP Paribas Tax Adv							-2.33%	-0.60%	-4.40%	-4.96%	-1.40%	1.64%	0.46%	-1.66%
5	BOI AXA Eco										2.34%	-3.31%	-1.42%	-0.49%	-0.72%
6	BOI AXA Tax Adv										2.27%	-3.38%	-1.48%	-0.58%	-0.79%
7	Canara Robeco Equity Tax Saver										1.90%	-0.33%	0.54%	0.01%	0.53%
8	DSP Black Rock Tax Saver								3.10%	-1.71%	-0.95%	-0.87%	-1.04%	0.84%	-0.10%
9	DWS Tax Saving							-4.38%	2.40%	-2.91%	-4.82%	-2.87%	-2.52%	0.34%	-2.11%
10	Edelweiss ELSS										-6.92%	-0.63%	0.65%	-0.19%	-1.77%
11	Escorts Tax Plan	7.11%	-3.67%	-0.25%	-4.33%	-1.74%	-2.68%	-1.02%	1.77%	-7.24%	-4.53%	-2.82%	-3.05%	-5.65%	-2.16%
12	Franklin India Tax Sheild	2.40%	-1.58%	-2.56%	-1.45%	-0.24%	-1.42%	-2.19%	-0.82%	0.08%	-2.26%	0.36%	0.48%	-0.05%	-0.71%
13	HDFC Long Term Adv		-0.21%	2.19%	0.49%	4.07%	-0.82%	-2.06%	-3.32%	-2.18%	0.23%	1.11%	-0.30%	-0.11%	-0.08%
14	HDFC Tax Saver	-7.52%	0.38%	-2.83%	-1.43%	6.93%	1.31%	-1.59%	-2.77%	-0.61%	1.07%	0.31%	-0.49%	-1.48%	-0.67%
15	HSBC Tax Saver								-1.93%	0.83%	-2.98%	-1.46%	-0.59%	1.24%	-0.81%
16	ICICI Pru Right											-0.08%	2.13%	1.23%	1.09%
17	ICICI Pru Tax Plan	-5.27%	0.64%	-4.23%	2.29%	9.18%	-0.27%	-2.93%	-2.31%	-1.82%	2.60%	-0.36%	-0.21%	-0.06%	-0.21%
18	IDFC Tax Adv										-5.31%	-0.32%	-1.11%	1.27%	-1.37%
19	IDFC Tax Saver								-0.08%	-2.39%	-3.61%	-0.92%	-1.14%	0.98%	-1.19%
20	ING Retire Invest								-2.24%	-2.02%	-5.46%	-1.93%	-2.87%	-1.24%	-2.63%
21	ING Tax Savings					-0.98%	1.01%	-0.51%	-5.19%	-5.46%	0.25%	0.86%	-2.08%	-0.70%	-1.42%
22	JM Tax Gain									-10.17%	-4.06%	-3.00%	-2.00%	-1.38%	-4.12%
23	JP Morgan Tax Advantage										-7.28%	0.42%	-1.30%	-0.63%	-2.19%
24	Kotak Tax Saver							-0.01%	-0.73%	-4.02%	-2.63%	-0.97%	-0.86%	-0.35%	-1.37%
25	LIC Nomura Tax Plan	-6.73%	-5.02%	-1.85%	-2.28%	-5.12%	-5.49%	-3.00%	-13.07%	-1.44%	-6.35%	-0.49%	-2.14%	-0.58%	-4.12%
26	LNT Long Term Adv										-2.42%	-1.40%	-0.80%	-1.24%	-1.47%
27	LNT Tax Advantage							1.01%	-1.16%	0.44%	-2.42%	1.49%	-1.11%	-0.65%	-0.34%
28	LNT Tax Saver							-0.82%	-4.63%	-4.11%	1.05%	-0.99%	-2.73%	-1.67%	-1.99%
29	Quantum Tax Savings										-2.57%	1.28%	0.07%	0.37%	-0.21%
30	Reliance Equity Linked Savings									0.97%	-3.76%	0.29%	0.44%	0.39%	-0.33%
31	Reliance Tax Saver							-1.62%	-3.67%	0.70%	-2.05%	0.31%	1.29%	-1.38%	-0.92%
32	Religare Agile									-1.23%	-12.89%	-0.69%	-0.95%	0.05%	-3.14%
33	Religare Tax Plan								2.49%	-0.78%	-1.27%	-0.27%	0.23%	0.30%	0.12%
34	Sahara Tax Gain	-11.71%	-3.57%	-3.86%	-3.67%	-0.76%	-28.66%	-2.96%	1.50%	0.12%	-1.03%	0.22%	0.39%	-1.79%	-4.29%
35	SBI Magnum Tax Gain									-2.11%	-2.66%	-1.98%	-0.16%	0.03%	-1.38%
36	SBI Tax Advantage I									-2.29%	-0.71%	-2.86%	-1.14%	-0.10%	-1.42%
37	Sundaram Tax Saver							-0.77%	1.38%	0.09%	-3.32%	-1.53%	-0.18%	-0.06%	-0.63%
38	Tata Infra Tax Savings										-2.84%	-0.51%	-0.39%	-0.48%	-1.05%
39	Tata Tax Adv Fund I							-3.47%	-0.57%	0.24%	-3.48%	-0.02%	0.11%	-0.48%	-1.10%
40	Taurus Tax Shield	-3.58%	-2.97%	1.77%	-14.39%	-2.69%	-11.43%	-6.19%	8.10%	0.55%	-1.20%	0.28%	-1.83%	-0.01%	-2.58%
41	UTI ETSP							-3.40%	-0.62%	-1.55%	-4.95%	-1.12%	-1.21%	-0.16%	-1.86%
42	UTI LTA I								-3.41%	-2.36%	-2.43%	-1.83%	-1.65%	-0.62%	-2.05%
43	UTI LTA II									2.31%	-4.78%	-0.96%	-0.82%	-0.02%	-0.85%
	Average														-1.31%

Source: Computed from Table 4.04

**Chart 4.02**

**Return outperformance of ELSS Funds against Diversified Equity Fund category Average**

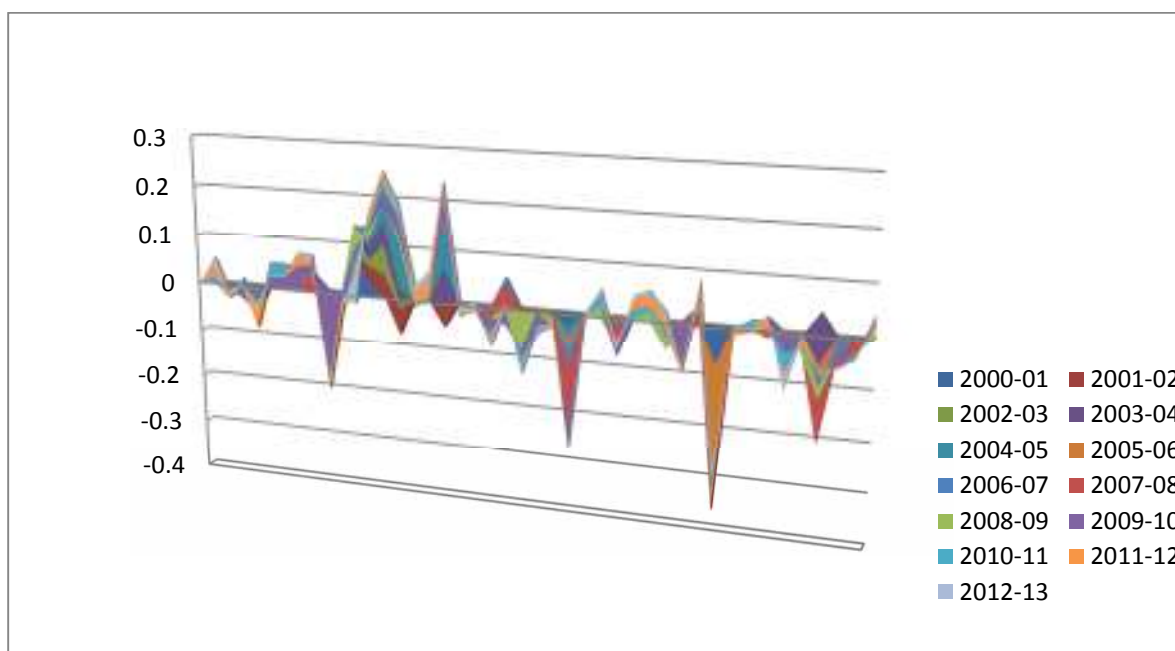


Source: Based on Table 4.07

The absolute outperformance of returns of individual ELSS funds as against the Diversified Equity funds and Market Indexes category averages are shown in Chart 4.02 and 4.03 respectively. Individual ELSS funds have rarely outperformed the sample Diversified Equity funds category average returns. Some ELSS fund schemes have consistently shown underperformance. However the outperformance of individual ELSS funds is better when compared with Market Indexes average.

**Chart 4.03**

**Return outperformance of ELSS Funds against  
Market Indexes category Average**



Source: Based on Table 4.08

**Table 4.08**

Absolute Out Performance of ELSS Funds as against Average of Market Indexes Quarterly Average Returns															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Indexes	6	6	6	7	7	7	7	7	7	7	7	7	7	
	ELSS Funds														
1	Axis Long Term Equity											1.23%	2.38%	1.57%	1.73%
2	Birla Sunlife Tax Plan								-1.21%	-0.12%	-1.63%	-0.09%	0.63%	0.69%	-0.29%
3	Birls Sunlife Tax Relief 96									-2.69%	4.03%	-1.50%	-0.14%	0.75%	0.09%
4	BNP Paribas Tax Adv							-2.84%	-0.26%	-2.39%	-2.37%	-0.67%	3.42%	0.66%	-0.63%
5	BOI AXA Eco										4.93%	-2.57%	0.37%	-0.28%	0.61%
6	BOI AXA Tax Adv										4.86%	-2.64%	0.31%	-0.38%	0.54%
7	Canara Robeco Equity Tax Saver										4.49%	0.41%	2.33%	0.22%	1.86%
8	DSP Black Rock Tax Saver								3.44%	0.31%	1.64%	-0.13%	0.74%	1.05%	1.17%
9	DWS Tax Saving							-3.28%	-7.40%	11.21%	-18.33%	-2.41%	1.85%	-1.71%	-2.87%
10	Edelweiss ELSS										-4.09%	0.06%	2.30%	0.07%	-0.41%
11	Escorts Tax Plan	7.51%	1.03%	3.71%	0.01%	0.98%	0.47%	-1.52%	2.10%	-5.22%	-1.94%	-2.08%	-1.26%	-5.45%	-0.13%
12	Franklin India Tax Sheild	2.79%	3.12%	1.40%	2.90%	2.48%	1.73%	-2.70%	-0.48%	2.09%	0.33%	1.10%	2.27%	0.16%	1.32%
13	HDFC Long Term Adv		4.48%	6.15%	4.83%	6.79%	2.33%	-2.56%	-2.98%	-0.17%	2.82%	1.85%	1.49%	0.10%	2.09%
14	HDFC Tax Saver	-7.12%	5.08%	1.13%	2.92%	9.65%	4.46%	-2.09%	-2.43%	1.40%	3.67%	1.05%	1.30%	-1.27%	1.36%
15	HSBC Tax Saver								-1.60%	2.85%	-0.38%	-0.72%	1.20%	1.44%	0.46%
16	ICI Pru Right											0.65%	3.91%	1.43%	2.00%
17	ICI Pru Tax Plan	-4.88%	5.34%	-0.27%	6.63%	11.90%	2.87%	-3.44%	-1.98%	0.20%	5.19%	0.38%	1.57%	0.14%	1.82%
18	IDFC Tax Adv										-2.72%	0.42%	0.68%	1.48%	-0.03%
19	IDFC Tax Saver								0.26%	-0.38%	-1.02%	-0.18%	0.65%	1.18%	0.08%
20	ING Retire Invest								-1.91%	-0.01%	-2.86%	-1.19%	-1.08%	-1.03%	-1.35%
21	ING Tax Savings					1.74%	4.16%	-1.02%	-4.85%	-3.44%	2.84%	1.60%	-0.29%	-0.50%	0.03%
22	JM Tax Gain									-8.16%	-1.47%	-2.26%	-0.21%	-1.17%	-2.65%
23	JP Morgan Tax Advantage										-4.68%	1.16%	0.49%	-0.42%	-0.86%
24	Kotak Tax Saver							-0.51%	-0.40%	-2.00%	-0.04%	-0.24%	0.93%	-0.15%	-0.34%
25	LIC Nomura Tax Plan	-6.34%	-0.33%	2.11%	2.07%	-2.40%	-2.34%	-3.51%	-12.73%	0.57%	-3.76%	0.25%	-0.35%	-0.38%	-2.09%
26	LNT Long Term Adv										0.17%	-0.67%	0.99%	-1.03%	-0.13%
27	LNT Tax Advantage							0.50%	-0.82%	2.46%	0.17%	2.23%	0.68%	-0.44%	0.68%
28	LNT Tax Saver							-1.32%	-4.30%	-2.09%	3.64%	-0.26%	-0.94%	-1.47%	-0.96%
29	Quantum Tax Savings										0.02%	2.01%	1.86%	0.57%	1.12%
30	Reliance Equity Linked Savings									2.99%	-1.17%	1.03%	2.23%	0.59%	1.13%
31	Reliance Tax Saver							-2.13%	-3.33%	2.72%	0.54%	1.05%	3.08%	-1.17%	0.11%
32	Religare Agile									0.78%	-10.30%	0.04%	0.84%	0.25%	-1.68%
33	Religare Tax Plan								2.82%	1.23%	1.32%	0.47%	2.02%	0.51%	1.40%
34	Sahara Tax Gain	-11.32%	1.12%	0.10%	0.67%	1.96%	-25.51%	-3.46%	1.83%	2.13%	1.56%	0.96%	2.18%	-1.59%	-2.26%
35	SBI Magnum Tax Gain									-0.10%	-0.07%	-1.24%	1.63%	0.23%	0.09%
36	SBI Tax Advantage I									-0.28%	1.88%	-2.12%	0.65%	0.10%	0.05%
37	Sundaram Tax Saver							-1.27%	1.71%	2.11%	-0.73%	-0.79%	1.61%	0.15%	0.40%
38	Tata Infra Tax Savings										-4.11%	-3.45%	-1.03%	-2.62%	-2.80%
39	Tata Tax Adv Fund I							-3.98%	-0.23%	2.26%	-0.89%	0.72%	1.90%	-0.27%	-0.07%
40	Taurus Tax Shield	-3.18%	1.73%	5.73%	-10.05%	0.03%	-8.29%	-6.69%	8.43%	2.56%	1.39%	1.01%	-0.04%	0.20%	-0.55%
41	UTI ETSP							-3.91%	-0.28%	0.46%	-2.36%	-0.38%	0.58%	0.04%	-0.83%
42	UTI LTA I								-3.08%	-0.34%	0.16%	-1.09%	0.14%	-0.41%	-0.77%
43	UTI LTA II									4.33%	-2.18%	-0.23%	0.97%	0.18%	0.61%
	Average														-0.02%

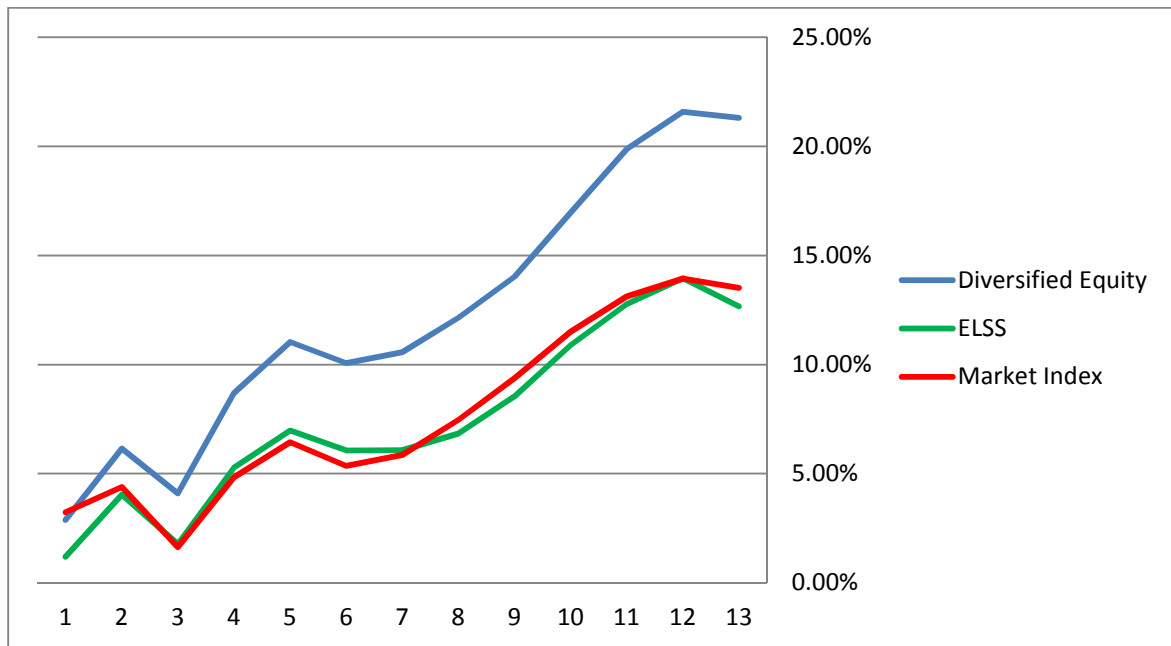
Source: Computed from Table 4.04

Systematic Investment plan option (SIP ) is one of the advantages of mutual fund investment. It allows the investor to invest on pre -set dates and intervals a pre-set amount without manual intervention. It also allows the investor to take advantage of market volatility by providing rupee cost averaging benefit. The returns earned through SIP investments over the 13 year period through ELSS funds, Diversified Equity Funds and Market Indexes is provided in Table 4.09.

SIP investment into ELSS funds at the beginning of every quarter for a 13 year period would have provided the investor with an average annualized return of 12.65 percentage as against 21.30 percentage for Diversified Equity funds and 13.51 percentage for market indexes. Table 4.09 also shows that longer the SIP made, higher is the average returns earned by the investor. The table clearly shows the benefit of long term investing. As can be seen from Chart 4.04, there is a significant difference in the returns earned through SIP investments from ELSS funds and Diversified Equity Funds consistently over every time horizon of investment. Only a select few individual funds among the ELSS funds, like Franklin India Tax Shield, HDFC Long Term Advantage, HDFC Tax Saver and ICICI Prudential Tax Plan could match up to the Diversified Equity plan returns.

**Chart 4.04**

**Annualized Returns of Systematic Investment Plan (SIP) made at the beginning of each Quarter for 1 Year to 13 Years**



Source: Based on Table 4.09



Table 4.09

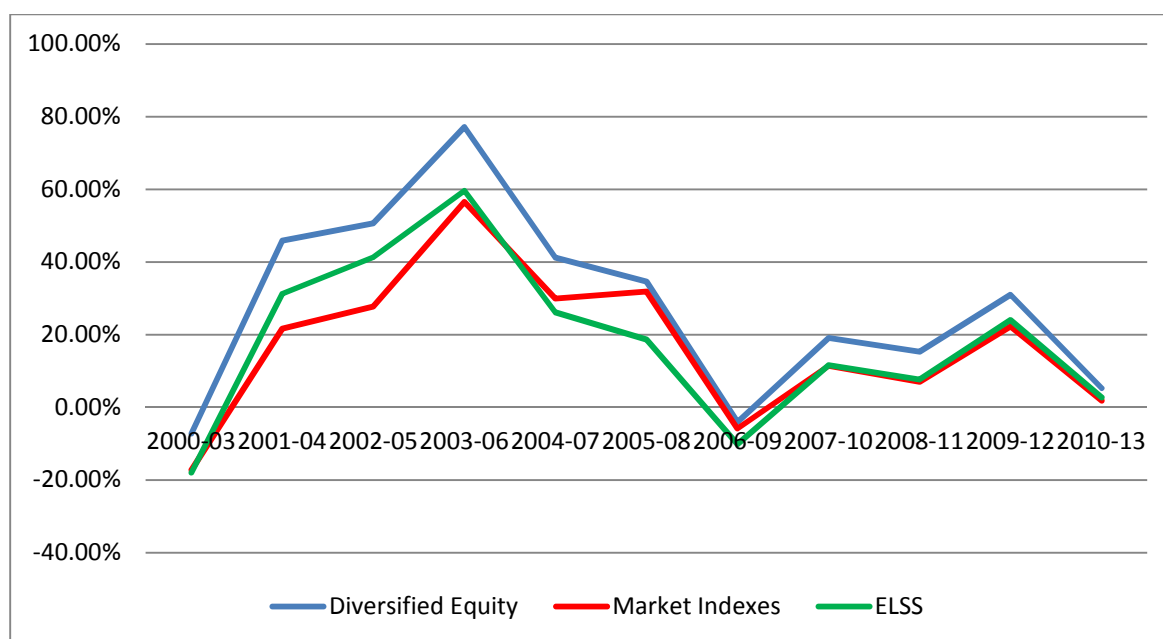
Annualized Return Performance of Systematic Investment Plan made at the Beginning of each Quarter													
Years of Investment	13	12	11	10	9	8	7	6	5	4	3	2	1
<b>ELSS Funds</b>													
Axis Long Term Equity											7.75%	9.29%	7.27%
Birla Sunlife Tax Plan								5.65%	7.38%	3.92%	3.5%	5.80%	3.97%
Birls Sunlife Tax Relief 96									6.60%	4.83%	1.1%	5.20%	4.26%
BNP Paribas Tax Adv							6.01%	6.77%	9.37%	9.02%	6.2%	8.36%	4.60%
BOI AXA Eco										3.93%	-0.1%	2.81%	0.61%
BOI AXA Tax Adv										3.62%	-0.4%	2.46%	0.18%
Canara Robeco Equity Tax Saver										9.75%	4.6%	6.21%	2.63%
DSP Black Rock Tax Saver								8.08%	9.18%	7.57%	3.5%	7.00%	4.85%
DWS Tax Saving							3.11%	2.81%	3.80%	2.93%	0.2%	4.48%	6.34%
Edelweiss ELSS										6.84%	4.2%	6.52%	4.86%
Escorts Tax Plan	7.12%	6.51%	4.51%	1.67%	-1.63%	-4.59%	-7.21%	-8.71%	-8.66%	-10.69%	-16.0%	-15.90%	-23.85%
Franklin India Tax Shield	18.40%	18.85%	17.77%	15.79%	13.21%	11.40%	10.25%	10.22%	11.47%	9.76%	5.6%	6.72%	4.34%
HDFC Long Term Adv		20.39%	18.30%	15.41%	11.88%	9.80%	8.89%	9.20%	10.82%	9.17%	4.43%	6.61%	5.92%
HDFC Tax Saver	20.31%	20.66%	19.26%	16.55%	12.88%	9.62%	8.11%	8.01%	9.08%	6.22%	0.29%	1.38%	-1.97%
HSBC Tax Saver								8.41%	9.77%	8.18%	5.19%	8.90%	6.49%
ICICI Pru Right											9.72%	11.81%	9.54%
ICICI Pru Tax Plan	20.00%	20.42%	18.92%	16.35%	12.98%	10.13%	9.34%	9.84%	11.28%	8.99%	3.29%	5.28%	1.37%
IDFC Tax Adv										8.50%	5.39%	8.54%	8.40%
IDFC Tax Saver								7.48%	9.00%	7.92%	4.58%	7.70%	8.28%
ING Retire Invest								1.82%	2.91%	1.31%	-2.30%	-0.69%	-4.03%
ING Tax Savings					7.61%	5.55%	4.61%	5.10%	7.37%	5.89%	0.48%	1.76%	1.90%
JM Tax Gain									-0.80%	-0.55%	-3.29%	0.05%	-3.41%
JP Morgan Tax Advantage										5.09%	1.23%	2.40%	0.03%
Kotak Tax Saver							5.10%	4.71%	6.30%	5.00%	1.08%	3.31%	-1.54%
LIC Nomura Tax Plan	8.74%	9.32%	8.24%	6.41%	4.58%	3.50%	2.72%	2.81%	4.18%	2.91%	0.50%	2.86%	1.58%
LNT Long Term Adv										4.18%	-0.75%	1.94%	-1.98%
LNT Tax Advantage							9.42%	8.73%	9.66%	7.15%	1.96%	3.05%	0.70%
LNT Tax Saver							2.44%	2.39%	3.67%	1.28%	-3.26%	-1.19%	-4.17%
Quantum Tax Savings										10.57%	6.10%	8.37%	6.13%
Reliance Equity Linked Savings									9.91%	8.24%	4.17%	6.46%	-1.03%
Reliance Tax Saver							7.92%	7.93%	9.33%	6.77%	1.62%	2.36%	-7.82%
Religare Agile									5.00%	5.33%	3.90%	5.69%	4.49%
Religare Tax Plan								10.37%	11.28%	9.20%	4.65%	6.72%	5.79%
Sahara Tax Gain	1.98%	2.80%	3.18%	3.80%	5.00%	7.26%	8.37%	7.70%	8.02%	4.88%	-0.36%	-0.02%	-8.11%
SBI Magnum Tax Gain									7.61%	6.12%	3.06%	5.98%	2.08%
SBI Tax Advantage I									5.27%	3.67%	0.64%	4.46%	2.13%
Sundaram Tax Saver							7.58%	6.74%	7.27%	5.71%	3.00%	6.24%	2.75%
Tata Infra Tax Savings										-4.92%	-8.32%	-5.33%	-11.43%
Tata Tax Adv Fund I							8.49%	8.41%	9.32%	7.59%	3.52%	4.74%	2.46%
Taurus Tax Shield	12.03%	12.69%	11.88%	11.11%	10.35%	8.91%	9.13%	8.07%	7.91%	5.24%	1.13%	2.75%	-0.16%
UTI ETSP							5.23%	5.21%	6.43%	5.18%	2.02%	4.42%	2.96%
UTI LTA I								4.00%	5.35%	3.62%	0.14%	2.96%	0.43%
UTI LTA II									8.22%	6.11%	2.76%	5.18%	3.46%
<b>Average</b>	<b>12.65%</b>	<b>13.96%</b>	<b>12.76%</b>	<b>10.89%</b>	<b>8.54%</b>	<b>6.84%</b>	<b>6.08%</b>	<b>6.07%</b>	<b>6.98%</b>	<b>5.27%</b>	<b>1.78%</b>	<b>4.04%</b>	<b>1.19%</b>
<b>Market Indexes</b>													
BSE 30	13.40%	13.86%	13.33%	11.87%	9.82%	7.78%	5.98%	5.56%	6.67%	5.18%	2.33%	5.05%	5.38%
BSE 100	13.68%	14.22%	13.46%	11.84%	9.62%	7.68%	5.98%	5.44%	6.51%	4.95%	1.81%	4.66%	3.58%
BSE 200	13.75%	14.14%	13.10%	11.35%	9.19%	7.36%	5.79%	5.28%	6.38%	4.68%	1.24%	4.12%	2.61%
BSE 500	13.96%	14.34%	13.17%	11.26%	8.90%	6.93%	5.33%	4.80%	5.94%	4.20%	0.46%	3.16%	1.04%
CNX 500	13.33%	13.75%	12.75%	10.89%	8.60%	6.71%	5.25%	4.77%	5.90%	4.12%	0.81%	3.55%	1.45%
CNX Nifty	12.95%	13.35%	12.86%	11.54%	9.67%	7.83%	6.18%	5.66%	6.64%	5.24%	2.45%	5.04%	4.28%
CNX 100				11.78%	9.79%	8.02%	6.49%	6.00%	7.10%	5.49%	2.37%	5.20%	4.25%
<b>Average</b>	<b>13.51%</b>	<b>13.94%</b>	<b>13.11%</b>	<b>11.50%</b>	<b>9.37%</b>	<b>7.47%</b>	<b>5.86%</b>	<b>5.36%</b>	<b>6.45%</b>	<b>4.84%</b>	<b>1.64%</b>	<b>4.40%</b>	<b>3.23%</b>
<b>Diversified Equity Funds</b>													
Birla Sunlife Frontline Equity				16.62%	14.50%	12.52%	10.65%	9.92%	10.94%	9.06%	5.84%	9.20%	9.69%
DSP Black Rock Top 100				16.22%	13.34%	11.04%	8.70%	7.54%	7.89%	5.66%	2.06%	3.15%	-1.45%
Franklin India Bluechip	19.06%	19.35%	18.08%	15.80%	13.12%	11.28%	9.57%	9.19%	10.21%	7.99%	3.94%	5.38%	3.65%
HDFC Equity Fund	21.38%	21.58%	19.95%	17.46%	14.57%	12.14%	10.25%	9.72%	10.59%	7.51%	1.50%	2.81%	-0.32%
HDFC Top 200	21.37%	21.64%	20.19%	17.53%	14.56%	12.17%	10.19%	9.43%	9.78%	6.91%	2.18%	3.66%	0.50%
ICICI Pru Dynamic				17.24%	14.81%	11.83%	9.61%	9.10%	10.08%	8.19%	3.72%	5.07%	1.45%
ICICI Discovery Fund						14.25%	13.61%	14.47%	16.37%	13.49%	7.19%	10.34%	6.18%
IDFC Premier Equity							15.32%	14.02%	14.78%	12.72%	7.12%	8.78%	4.53%
Reliance Growth	23.38%	23.75%	21.25%	17.78%	13.25%	9.66%	7.30%	6.08%	6.54%	4.02%	-0.96%	1.21%	-4.59%
Reliance Equity Opportunities						14.50%	13.37%	13.93%	16.22%	14.22%	8.28%	10.78%	6.22%
SBI Magnum Contra							6.67%	5.93%	6.82%	5.06%	2.77%	7.59%	8.37%
UTI Opportunities Fund							11.60%	11.45%	12.13%	9.43%	5.49%	5.80%	0.42%
<b>Average</b>	<b>21.30%</b>	<b>21.58%</b>	<b>19.87%</b>	<b>16.95%</b>	<b>14.02%</b>	<b>12.15%</b>	<b>10.57%</b>	<b>10.07%</b>	<b>11.03%</b>	<b>8.69%</b>	<b>4.09%</b>	<b>6.15%</b>	<b>2.89%</b>

Source: Computed from Secondary Data

ELSS funds have a lock in period of 3 years from the date of investment. However this is not the case with Diversified Equity Funds. In order to know the returns that could have been earned by an ELSS fund investor with a lump sum investment for the minimum mandatory period of 3 years, the rolling 3 year CAGR is computed for a period of 13 years. Table 4.10 and Chart 4.05 show the 3 year rolling returns from ELSS, Diversified Equity funds and Market Indexes. The rolling 3 year returns of average of ELSS funds has varied between a highest of 59.61 percentage for the period 2003-06 to a lowest of -17.99 percentage for the period 2000-03. The variability in returns for a 3 year investment time horizon is quite visible. It is also clear that the return earned on this pattern of investment is purely subject to timing. ELSS fund on an average lagged Diversified Equity funds consistently over this period of 13 years but nevertheless outperformed Market Indexes average for 7 cycles of rolling 3 year periods.

**Chart 4.05**

**3 Year Rolling CAGR Return Performance  
for the Period March 2000 to March 2013**



Source: Based on Table 4.10

Table 4.10

3 Year Rolling CAGR												
Sl.No.	Fund / Index	2000-03	2001-04	2002-05	2003-06	2004-07	2005-08	2006-09	2007-10	2008-11	2009-12	2010-13
	ELSS Funds											
1	Axis Long Term Equity											9.29%
2	Birla Sunlife Tax Plan								7.48%	5.54%	21.89%	3.41%
3	Birls Sunlife Tax Relief 96									4.67%	24.65%	0.27%
4	BNP Paribas Tax Advantage							-15.67%	2.47%	0.51%	24.90%	6.72%
5	BOI AXA Eco										25.61%	-1.35%
6	BOI AXA Tax Advantage										25.31%	-1.64%
7	Canara Robeco Equity Tax Saver										33.79%	6.13%
8	DSP Black Rock Tax Saver								17.72%	10.28%	26.21%	3.72%
9	DWS Tax Saving							-11.03%	10.93%	1.10%	16.13%	-1.22%
10	Edelweiss ELSS										21.60%	5.18%
11	Escorts Tax Plan	-1.15%	30.11%	36.22%	59.35%	29.29%	31.75%	-12.72%	3.45%	-5.62%	13.37%	-10.86%
12	Franklin India Tax Sheild	-8.71%	32.97%	39.59%	71.99%	32.58%	29.04%	-6.64%	15.85%	13.43%	29.77%	6.96%
13	HDFC Long Term Advantage		49.47%	60.39%	86.99%	40.71%	26.42%	-12.17%	11.31%	13.09%	31.92%	6.37%
14	HDFC Tax Saver	-23.45%	36.66%	50.40%	91.65%	49.43%	31.04%	-9.56%	15.39%	15.28%	31.95%	3.09%
15	HSBC Tax Saver								13.59%	11.44%	23.69%	4.35%
16	ICICI Prudential Right											10.22%
17	ICICI Prudential Tax Plan	-18.94%	36.06%	53.88%	96.49%	46.91%	25.10%	-13.14%	15.57%	14.97%	33.67%	4.41%
18	IDFC Tax Advantage										22.00%	5.27%
19	IDFC Tax Saver								10.22%	6.48%	23.42%	4.42%
20	ING Retire Invest								6.09%	3.66%	17.60%	-1.46%
21	ING Tax Savings					35.98%	25.79%	-19.07%	1.55%	6.90%	29.25%	3.27%
22	JM Tax Gain									-10.96%	16.19%	-3.76%
23	JP Morgan Tax Advantage										20.37%	3.63%
24	Kotak Tax Saver							-11.15%	7.29%	4.07%	23.82%	2.16%
25	LIC Nomura Tax Plan	-24.78%	29.02%	31.01%	52.45%	17.30%	17.44%	-12.75%	4.10%	4.14%	17.42%	1.23%
26	LNT Long Term Advantage										24.33%	0.53%
27	LNT Tax Advantage							-2.75%	15.87%	15.51%	28.58%	5.20%
28	LNT Tax Saver							-15.39%	6.02%	7.07%	24.43%	-1.90%
29	Quantum Tax Savings										30.22%	7.98%
30	Reliance Equity Linked Savings									12.96%	26.41%	6.23%
31	Reliance Tax Saver							-10.03%	12.10%	14.66%	29.91%	4.59%
32	Religare Agile									-2.45%	11.77%	3.63%
33	Religare Tax Plan								20.22%	12.54%	29.54%	6.01%
34	Sahara Tax Gain	-29.66%	23.61%	31.33%	-16.27%	-34.04%	-33.91%	-5.78%	19.30%	14.10%	29.59%	3.51%
35	SBI Magnum Tax Gain									5.56%	23.59%	2.69%
36	SBI Tax Advantage I									5.46%	21.96%	-0.55%
37	Sundaram Tax Saver							-3.36%	16.28%	9.09%	22.82%	2.88%
38	Tata Infra Tax Savings										10.66%	-8.23%
39	Tata Tax Advantage Fund I							-7.53%	15.24%	11.87%	26.79%	5.33%
40	Taurus Tax Shield	-19.24%	12.00%	27.53%	34.21%	17.46%	15.42%	-3.94%	26.05%	14.07%	25.56%	3.40%
41	UTI ETSP							-10.61%	9.90%	5.48%	20.74%	2.32%
42	UTI LTA I								7.06%	5.74%	21.64%	-0.05%
43	UTI LTA II									12.69%	21.93%	3.20%
	Average	-17.99%	31.24%	41.29%	59.61%	26.18%	18.68%	-10.18%	11.64%	7.60%	24.02%	2.71%
	Market Indexes											
1	BSE 30	-15.60%	15.76%	23.23%	54.67%	32.73%	34.06%	-4.88%	10.27%	7.52%	21.48%	2.43%
2	BSE 100	-20.15%	20.59%	26.59%	57.87%	30.47%	33.22%	-5.75%	12.18%	7.04%	22.85%	1.73%
3	BSE 200	-17.17%	26.00%	30.11%	57.86%	28.51%	30.60%	-6.89%	12.21%	7.17%	23.69%	1.32%
4	BSE 500	-17.84%	27.59%	32.91%	61.54%	30.23%	31.07%	-7.94%	11.77%	6.50%	24.26%	0.79%
5	CNX 500	-19.07%	24.56%	31.73%	60.70%	29.23%	29.23%	-7.61%	11.10%	6.54%	22.53%	0.96%
6	CNX Nifty	-13.83%	15.56%	21.69%	51.52%	29.20%	32.49%	-3.89%	11.16%	7.21%	20.57%	2.68%
7	CNX 100				51.52%	29.20%	32.49%	-3.89%	11.16%	7.21%	20.57%	2.68%
	Average	-17.27%	21.68%	27.71%	56.52%	29.94%	31.88%	-5.84%	11.41%	7.03%	22.28%	1.80%
	Diversified Equity Funds											
1	Birla Sunlife Frontline Equity				59.60%	35.53%	37.06%	0.71%	17.79%	13.42%	26.13%	5.44%
2	DSP Black Rock Top 100									14.31%	27.52%	2.48%
3	Franklin India Bluechip	-6.55%	37.39%	40.08%	70.89%	32.77%	32.82%	-3.08%	16.48%	14.20%	27.93%	5.06%
4	HDFC Equity Fund	-3.65%	46.41%	44.16%	78.76%	40.33%	35.37%	-5.05%	18.33%	19.55%	33.96%	4.69%
5	HDFC Top 200	-8.31%	42.68%	47.62%	79.62%	37.80%	35.99%	-1.30%	20.69%	17.84%	29.58%	4.64%
6	ICICI Pru Dynamic				73.14%	49.84%	39.04%	-2.43%	14.77%	14.78%	28.90%	5.09%
7	ICICI Discovery Fund						25.42%	-12.97%	21.06%	22.30%	42.55%	7.52%
8	IDFC Premier Equity							0.12%	28.26%	16.03%	36.76%	9.90%
9	Reliance Growth	-10.44%	57.12%	70.49%	101.03%	50.98%	40.83%	-3.40%	19.17%	11.24%	27.95%	0.07%
10	Reliance Equity Opportunties						30.06%	-9.88%	15.18%	17.78%	39.11%	9.82%
11	SBI Magnum Contra							-2.75%	16.17%	6.81%	20.29%	0.52%
12	UTI Opportunties Fund							-5.20%	21.83%	15.59%	30.78%	7.87%
	Average	-7.24%	45.90%	50.59%	77.17%	41.21%	34.57%	-4.11%	19.07%	15.32%	30.95%	5.26%

Source: Computed from Secondary Data

**Table 4.11**

**Annual Returns of Investments, GDP Growth and Inflation Rates  
for the period 2000-01 to 2012-13**

Year	ELSS Fund Returns	PPF Returns	EPF Returns	NSC Returns	Bank FD Returns	Gold Returns	Real GDP Growth Rate	Inflation Rate
2000-01	-57.02%	11.00%	11.25%	10.88%	9.75%	2.85%	4.40%	3.80%
2001-02	17.18%	9.50%	9.50%	9.46%	8.25%	6.30%	5.80%	4.30%
2002-03	0.43%	9.00%	9.50%	8.92%	5.88%	18.82%	3.80%	4.00%
2003-04	82.28%	8.00%	9.50%	8.00%	5.38%	10.10%	8.50%	3.90%
2004-05	35.68%	8.00%	9.50%	8.00%	6.00%	7.22%	7.50%	3.80%
2005-06	46.09%	8.00%	8.50%	8.00%	6.63%	13.62%	9.50%	4.40%
2006-07	2.60%	8.00%	8.50%	8.00%	8.63%	34.57%	9.70%	6.70%
2007-08	26.47%	8.00%	8.50%	8.00%	8.38%	8.31%	9.00%	6.20%
2008-09	-44.43%	8.00%	8.50%	8.00%	8.25%	29.50%	6.70%	9.10%
2009-10	72.79%	8.00%	8.50%	8.00%	7.00%	21.48%	8.60%	12.20%
2010-11	8.99%	8.00%	9.50%	8.10%	8.50%	21.63%	10.31%	10.50%
2011-12	-3.48%	8.60%	8.25%	8.60%	9.13%	34.09%	6.60%	8.40%
2012-13	6.32%	8.80%	8.50%	8.60%	8.88%	13.88%	5.10%	10.40%
<b>Average</b>	<b>14.92%</b>	<b>8.53%</b>	<b>9.08%</b>	<b>8.50%</b>	<b>7.74%</b>	<b>17.11%</b>	<b>7.35%</b>	<b>6.75%</b>
Standard Deviation	39.72%	0.89%	0.83%	0.85%	1.40%	10.63%		
Correlation with ELSS Returns		-0.57	-0.31	-0.58	-0.70	-0.18	0.52	0.00
Taxation of Returns	Tax Free	Tax Free	Tax Free <sup>#</sup>	Taxable	Taxable	Taxable		

Compiled from RBI Reports, EPF Reports and other secondary sources

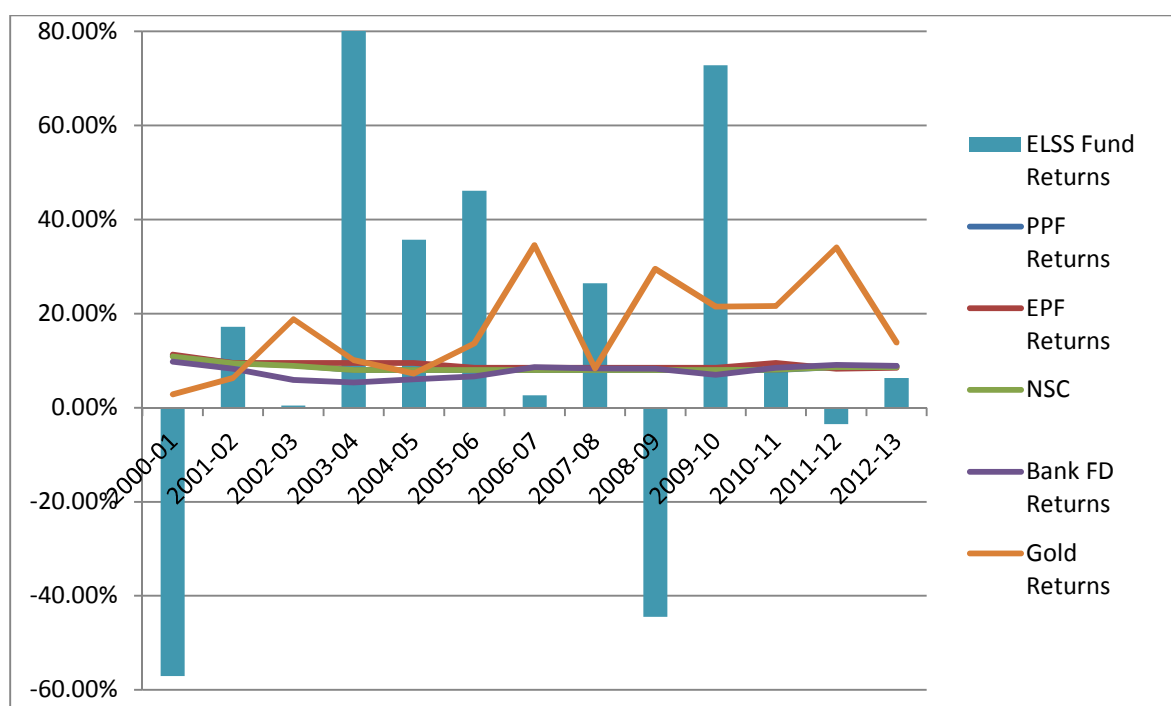
Returns considered are Nominal before tax returns

Inflation Rate is CPI (IW)

Table 4.11 shows the nominal before tax returns of select investments for the period 2000-01 till 2012-13 along with the economic performance and consumer inflation growth rate. It is evident from the table that of the financial investments listed, ELSS has the highest average returns along with high variability. The correlation of ELSS returns with other interest bearing investments is negative. There is a positive correlation between GDP growth and ELSS returns. For the 13 year period under consideration, the pre tax returns of Gold is the highest among the investments considered.

**Chart 4.06**

**Annual Returns of Investments for the period 2000-01 to 2012-13**

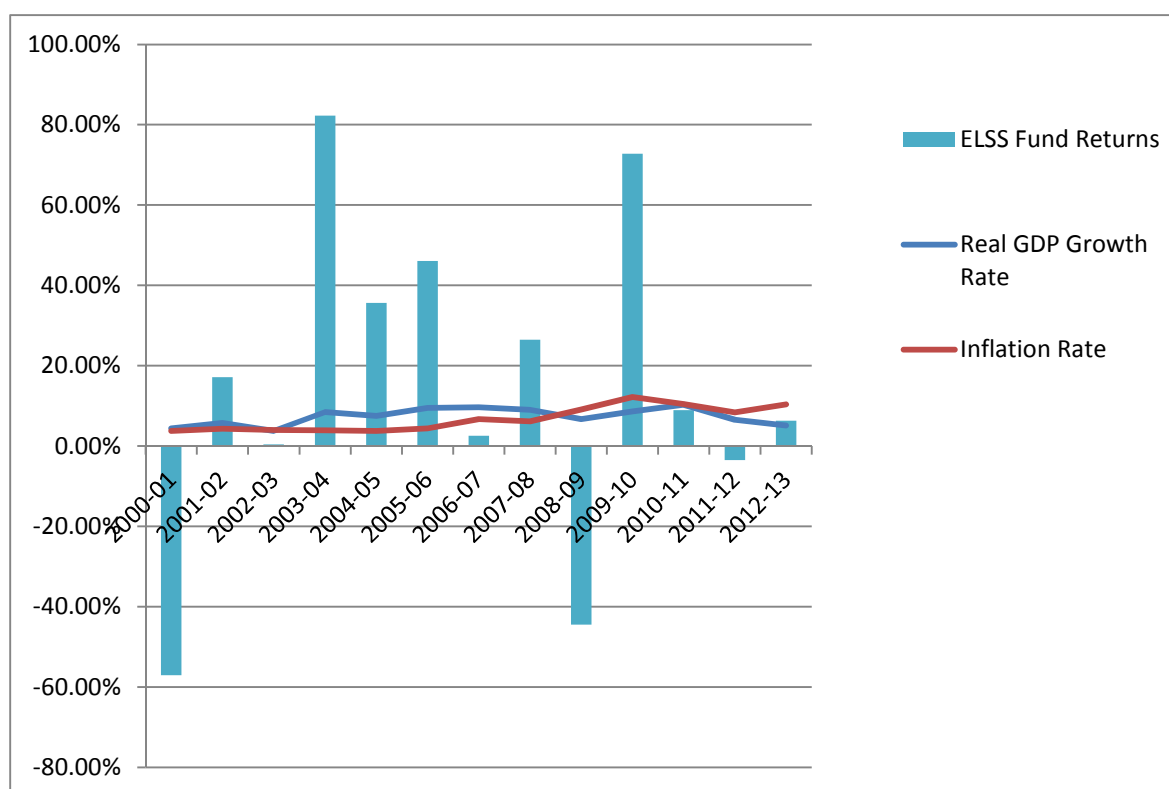


Source: Table No. 4.11

Chart 4.06 shows the annual returns of select investments. The variability of returns of ELSS funds for the period is quite evident in the chart. The returns of ELSS funds have been negative in 3 out of the 13 years of which in the year 2000-01 and 2008-09 there was substantial fall. The fall in both these years was due to global factors. The returns of gold comparatively were less volatile with steady growth during this period. The returns of interest bearing investments as can be seen, was flat with very little variability.

**Chart 4.07**

**Annual Returns of ELSS Funds, GDP Growth Rate and Inflation Rate  
for the period 2000-01 to 2012-12**



Source: Table No. 4.11

Chart 4.07 shows the economic performance, consumer inflation rate and ELSS fund category returns for the period 2000-01 to 2012-13. It can be seen from Table 4.11 that ELSS fund returns have a positive correlation with economic performance.

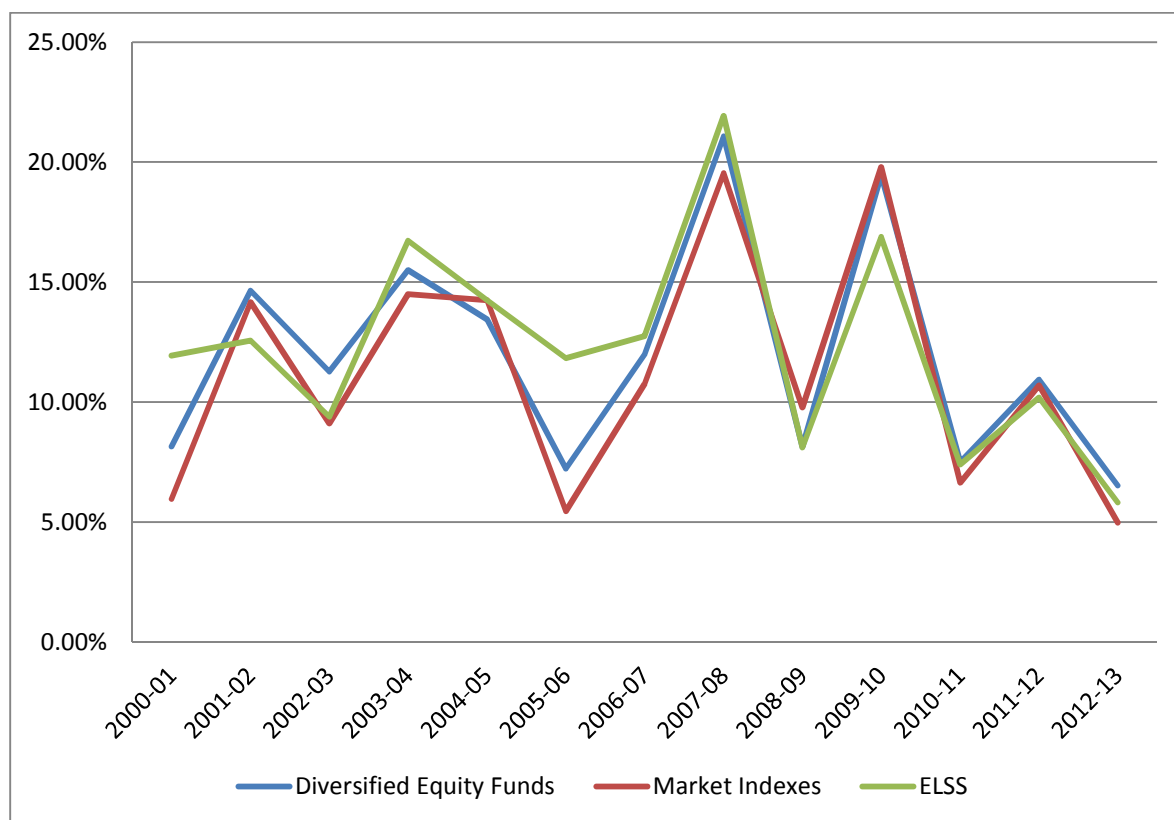
Standard Deviation is the measure of variability of returns from the mean. It is considered a measure of total risk of an investment. Higher the standard deviation, higher is the total risk undertaken by the investment and vice versa. The standard deviation of quarterly returns of ELSS funds, Diversified Equity funds and Market Indexes for a period of 13 years is tabulated in Table 4.12 and Chart 4.08. The average quarterly standard deviation for the 13 year period for ELSS funds as a whole has been 10.92 percentage as compared to 12.02 percentage for Diversified Equity funds and 11.25 percentage for Market Indexes. The standard deviation was lesser for ELSS funds for 7 of the 13 years period as compared to

Diversified Equity funds. As can be seen from Table 4.13 and 4.14, on an average, 56 percentage and 44 percentage of the ELSS funds had a lower standard deviation as compared to the average of Diversified Equity funds and Market Indexes respectively. The year-wise fund-wise outperformance of individual ELSS funds with regard to undertaking a lower risk as compared to the average of Diversified Equity funds and Market Indexes category is shown in Table 4.15 and Table 4.16. The fund wise absolute differences in standard deviation of ELSS funds as against the average of Diversified Equity funds and Market Indexes are shown in Table 4.17 and 4.18 respectively.

In absolute terms, the total risk represented by average quarterly standard deviation, undertaken by ELSS funds is 0.56 percentage lesser when compared to Diversified Equity funds. The same is 0.07 percentage lesser when compared with market indexes. This shows that the total risk undertaken by ELSS funds is almost comparable to that of the markets.

**Chart 4.08**

**Year wise Quarterly Standard Deviation  
for the period 2000-01 to 2012-13**



Source: Based on Table 4.12



Table 4.12

Yearwise Average Quarterly Standard Deviation for the period 2000-01 to 2012-2013															
Sl No.	Funds / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis LT Equity Fund											6.21%	8.40%	5.59%	6.73%
2	Birla SL Tax Plan								21.82%	9.09%	16.52%	6.02%	10.36%	6.87%	11.78%
3	Birla SL Tax Reilef 96									10.48%	23.02%	7.68%	11.01%	6.88%	11.81%
4	BNP Tax Adv Tax Advantage							14.57%	26.80%	8.61%	15.09%	6.91%	8.84%	5.69%	12.36%
5	BOI AXA ECO										21.76%	7.84%	8.44%	5.14%	10.79%
6	BOI AXA Tax Advantage										21.73%	7.84%	8.42%	5.18%	10.79%
7	Can Robeco Equity Tax Saver										21.29%	7.01%	8.53%	4.89%	10.43%
8	DSP Black Rock Tax Saver								26.24%	6.72%	17.40%	7.76%	11.05%	6.93%	12.68%
9	DWS Tax Saving							11.07%	23.70%	8.42%	13.34%	8.64%	8.46%	4.18%	11.12%
10	Edelweiss ELSS Fund										14.65%	7.22%	10.08%	5.32%	9.32%
11	Escorts Tax Plan	5.33%	11.75%	8.26%	15.05%	12.01%	12.12%	10.69%	21.44%	5.25%	19.20%	9.45%	15.45%	7.24%	11.79%
12	Franklin Tax Shield	3.04%	17.05%	9.01%	12.06%	11.34%	6.26%	10.51%	18.97%	8.63%	16.48%	6.49%	8.50%	5.30%	10.28%
13	HDFC Long Term Adv		10.40%	8.96%	8.41%	12.75%	5.32%	11.22%	17.59%	7.97%	20.47%	8.00%	11.07%	4.09%	10.52%
14	HDFC Tax Saver	21.32%	11.65%	7.88%	15.78%	14.69%	6.27%	11.72%	17.74%	11.96%	18.58%	7.93%	10.43%	5.96%	12.46%
15	HSBC Tax Saver								22.96%	6.03%	15.59%	7.42%	9.92%	6.30%	11.37%
16	ICICI Pru Right												6.20%	10.18%	7.60%
17	ICICI Pru Tax	11.11%	14.57%	9.65%	25.66%	14.95%	8.24%	15.16%	21.39%	9.14%	17.60%	6.91%	11.56%	6.66%	13.28%
18	IDFC Tax Adv										11.33%	7.58%	9.73%	6.01%	8.66%
19	IDFC Tax Saver								23.99%	6.03%	13.81%	7.08%	7.15%	4.77%	10.47%
20	ING Retire Invest								22.07%	5.54%	13.18%	5.93%	9.11%	6.28%	10.35%
21	ING Tax Savings					15.25%	4.11%	16.35%	21.62%	10.55%	19.77%	6.64%	7.06%	4.54%	11.77%
22	JM Tax Gain									12.77%	20.18%	6.17%	12.97%	9.64%	12.34%
23	JP Morgan Tax Adv										10.29%	7.05%	8.82%	5.10%	7.82%
24	Kotak Tax Saver							15.18%	22.64%	7.77%	17.87%	8.06%	11.21%	7.03%	12.82%
25	LIC Nomura Tax Plan	17.74%	4.74%	10.50%	12.79%	10.17%	8.24%	11.23%	22.97%	8.94%	18.49%	6.59%	10.27%	4.00%	11.28%
26	LNT LT Adv										12.17%	8.34%	11.42%	5.91%	9.46%
27	LNT Tax Adv							12.03%	18.89%	8.96%	15.39%	7.22%	9.32%	5.54%	11.05%
28	LNT Tax Saver							13.65%	18.97%	7.47%	24.93%	8.04%	10.48%	4.92%	12.64%
29	Quantum Tax Savings										13.54%	7.84%	9.69%	4.76%	8.96%
30	Reliance E linked Savings									8.44%	14.52%	7.75%	14.33%	7.06%	10.42%
31	Reliance Tax Saver							15.73%	21.65%		7.06%	16.23%	9.00%	14.98%	13.35%
32	Religare Agile									8.26%	6.14%	9.46%	6.29%	3.54%	6.74%
33	Religare Tax Plan								21.31%	7.35%	15.68%	7.22%	9.65%	5.13%	11.06%
34	Sahara Tax Gain	3.13%	14.57%	8.08%	18.85%	13.12%	41.69%	12.54%	22.54%	7.07%	20.63%	8.24%	11.13%	7.19%	14.52%
35	SBI Magnum Tax Gain										9.29%	18.24%	6.28%	10.26%	9.99%
36	SBI Tax Adv I										10.08%	21.87%	7.40%	12.71%	11.81%
37	Sundaramn Tax Saver							13.82%	23.30%	4.25%	19.10%	8.46%	10.52%	6.54%	12.28%
38	Tata Infra Tax Savings										10.83%	7.01%	14.61%	7.19%	9.91%
39	Tata Tax Adv I							10.81%	18.94%	6.82%	15.90%	6.70%	8.20%	4.91%	10.33%
40	Taurus Tax Shield	21.91%	15.74%	12.76%	25.23%	23.84%	14.22%	10.90%	30.29%	7.50%	23.41%	8.68%	7.51%	6.46%	16.03%
41	UTI ETSP							12.40%	19.91%	8.49%	14.40%	7.37%	9.08%	4.08%	10.82%
42	UTI LTA I								20.30%	9.27%	18.03%	6.03%	11.05%	5.33%	11.67%
43	UTI LTA II									5.34%	13.53%	6.75%	10.03%	3.94%	7.92%
	<b>Average</b>	<b>11.94%</b>	<b>12.56%</b>	<b>9.39%</b>	<b>16.73%</b>	<b>14.24%</b>	<b>11.83%</b>	<b>12.76%</b>	<b>21.92%</b>	<b>8.11%</b>	<b>16.88%</b>	<b>7.40%</b>	<b>10.19%</b>	<b>5.82%</b>	<b>10.92%</b>
<b>Index</b>															
1	BSE 30	4.02%	12.87%	9.13%	13.18%	13.42%	5.15%	10.09%	16.91%	9.77%	19.66%	6.70%	9.29%	3.97%	10.32%
2	BSE 100	6.43%	14.46%	9.50%	13.88%	13.80%	5.45%	10.97%	19.95%	9.50%	20.90%	6.49%	10.59%	4.99%	11.30%
3	BSE 200	6.65%	15.08%	8.51%	14.62%	14.55%	5.93%	11.45%	20.59%	9.37%	21.46%	6.73%	11.17%	5.26%	11.64%
4	BSE 500	6.83%	15.12%	8.88%	15.67%	14.83%	6.12%	11.74%	21.42%	9.43%	21.71%	6.91%	11.38%	5.60%	11.97%
5	CNX 500	6.88%	15.01%	8.96%	15.26%	14.91%	5.51%	11.38%	21.44%	9.79%	20.03%	6.36%	11.53%	5.63%	11.74%
6	CNX Nifty	4.97%	12.40%	9.71%	14.37%	13.89%	4.85%	9.49%	17.66%	10.35%	16.58%	6.66%	10.04%	4.40%	10.41%
7	CNX 100				14.53%	14.34%	5.14%	10.23%	18.80%	10.20%	18.16%	6.66%	10.89%	4.94%	11.39%
	<b>Average</b>	<b>5.96%</b>	<b>14.16%</b>	<b>9.11%</b>	<b>14.50%</b>	<b>14.25%</b>	<b>5.45%</b>	<b>10.76%</b>	<b>19.54%</b>	<b>9.78%</b>	<b>19.79%</b>	<b>6.64%</b>	<b>10.70%</b>	<b>4.97%</b>	<b>11.25%</b>
<b>Diversified Equity Funds</b>															
1	Birla SL Frontline Equity				10.99%	13.50%	7.19%	10.51%	18.69%	7.64%	19.20%	6.44%	9.48%	5.74%	10.94%
2	DSP Black Rock Top 100				14.44%	13.45%	6.42%	10.83%	19.78%	7.82%	15.20%	6.10%	10.29%	6.16%	11.05%
3	Franklin Bluechip	6.27%	17.56%	9.19%	13.96%	12.04%	7.71%	11.70%	17.62%	10.18%	17.71%	6.75%	8.78%	4.90%	11.11%
4	HDFC Equity Fund	5.66%	14.53%	8.78%	14.09%	13.36%	5.78%	10.60%	18.63%	9.54%	21.83%	8.26%	12.85%	6.04%	11.53%
5	HDFC Top 200	10.20%	13.23%	8.73%	15.72%	12.63%	4.89%	11.18%	17.49%	9.85%	21.22%	7.46%	11.53%	5.67%	11.52%
6	ICICI Pru Dynamic Fund	9.30%	13.95%	14.82%	19.65%	14.58%	8.08%	12.44%	23.86%	7.19%	21.16%	7.18%	12.06%	8.89%	13.32%
7	ICICI Pru Discovery Fund						8.38%	13.21%	22.11%	6.66%	23.37%	6.85%	13.41%	6.29%	12.54%
8	IDFC Premier Equity Fund							16.67%	26.98%	7.56%	18.40%	10.31%	9.41%	7.90%	13.89%
9	Reliance Growth	9.30%	13.95%	14.82%	19.65%	14.58%	8.08%	12.44%	23.86%	7.19%	21.16%	7.18%	12.06%	8.89%	13.32%
10	Reliance Opportunites Fund						8.53%	12.26%	21.91%	6.73%	16.58%	9.18%	12.47%	6.83%	11.81%
11	SBI Magnum Contra							10.90%	20.84%	8.98%	18.91%	6.83%	11.82%	5.36%	11.95%
12	UTI Opportunities Fund							11.07%	21.04%	8.32%	18.81%	7.36%	7.06%	5.57%	11.32%
	<b>Average</b>	<b>8.14%</b>	<b>14.64%</b>	<b>11.27%</b>	<b>15.50%</b>	<b>13.45%</b>	<b>7.23%</b>	<b>11.98%</b>	<b>21.07%</b>	<b>8.14%</b>	<b>19.46%</b>	<b>7.49%</b>	<b>10.93%</b>	<b>6.52%</b>	<b>12.02%</b>

Source: Computed from Secondary Data

**Table 4.13**

<b>Yearwise Comparison of Average Quarterly Standard Deviation of ELSS funds with Diversified Equity Funds</b>														
Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
Number of ELSS Funds under Study	7	8	9	8	9	9	18	25	32	41	43	43	43	
Number of ELSS Funds having Lower Standard Deviation as compared to average of Diversified Equity Funds	3	6	6	4	5	4	8	8	15	30	24	29	30	
% of Funds with Lower Standard Deviation	43%	75%	67%	50%	56%	44%	44%	32%	47%	73%	56%	67%	70%	56%

Source: Based on Table 4.12

**Table 4.14**

<b>Yearwise Comparison of Average Quarterly Standard Deviation of ELSS funds with Market Indexes</b>														
Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
Number of ELSS Funds under Study	7	8	9	8	9	9	18	25	32	41	43	43	43	
Number of ELSS Funds having Lower Standard Deviation as compared to Average of Market Indexes	3	4	5	3	5	2	2	6	27	31	10	29	12	
% of Funds with Lower Standard Deviation	43%	50%	56%	38%	56%	22%	11%	24%	84%	76%	23%	67%	28%	44%

Source: Based on Table 4.12

**Table 4.15**

Outperformance of ELSS Funds in undertkaing a Lower Total Risk over Diversified Equity Funds															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12	
	ELSS Funds														
1	Axis Long Term Equity											91.67%	91.67%	75.00%	86%
2	Birla Sunlife Tax Plan								41.67%	25.00%	91.67%	100.0%	58.33%	25.00%	57%
3	Birls Sunlife Tax Relief 96									0.00%	8.33%	25.00%	58.33%	25.00%	23%
4	BNP Paribas Tax Adv							8.33%	8.33%	33.33%	100.00%	58.33%	83.33%	66.67%	51%
5	BOI AXA Eco										16.67%	25.00%	91.67%	91.67%	56%
6	BOI AXA Tax Adv										16.67%	25.0%	91.67%	91.67%	56%
7	Canara Robeco Equity Tax Saver										16.67%	58.3%	91.67%	100.00%	67%
8	DSP Black Rock Tax Saver								8.33%	91.67%	83.33%	25.0%	58.33%	25.00%	49%
9	DWS Tax Saving							58.33%	25.00%	33.33%	100.00%	16.7%	91.67%	100.00%	61%
10	Edelweiss ELSS										100.00%	83.3%	33.33%	41.67%	65%
11	Escorts Tax Plan	0.00%	100.00%	25.00%	71.43%	57.14%	100.00%	83.33%	16.67%	100.00%	8.33%	91.7%	100.00%	100.00%	66%
12	Franklin India Tax Sheild	25.00%	75.00%	100.00%	71.43%	57.14%	88.89%	83.33%	41.67%	58.33%	66.67%	50.0%	25.00%	41.67%	60%
13	HDFC Long Term Adv		100.00%	50.00%	100.00%	71.43%	88.89%	50.00%	91.67%	41.67%	41.67%	25.00%	58.33%	100.00%	68%
14	HDFC Tax Saver	0.00%	100.00%	100.00%	28.57%	0.00%	77.78%	41.67%	83.33%	0.00%	66.67%	25.00%	58.33%	58.33%	49%
15	HSBC Tax Saver								25.00%	100.00%	91.67%	33.33%	66.67%	33.33%	58%
16	ICICI Pru Right											91.67%	66.67%	33.33%	64%
17	ICICI Pru Tax Plan	0.00%	25.00%	25.00%	0.00%	0.00%	22.22%	8.33%	41.67%	25.00%	83.33%	58.33%	50.00%	33.33%	29%
18	IDFC Tax Adv										100.00%	25.00%	66.67%	58.33%	63%
19	IDFC Tax Saver								8.33%	100.00%	100.00%	58.33%	91.67%	100.00%	76%
20	ING Retire Invest								33.33%	100.00%	100.00%	100.00%	83.33%	41.67%	76%
21	ING Tax Savings					0.00%	100.00%	8.33%	41.67%	0.00%	41.67%	83.33%	100.00%	100.00%	53%
22	JM Tax Gain									0.00%	41.67%	91.67%	8.33%	0.00%	28%
23	JP Morgan Tax Advantage										100.00%	58.33%	83.33%	91.67%	83%
24	Kotak Tax Saver							8.33%	25.00%	50.00%	75.00%	25.00%	58.33%	25.00%	38%
25	LIC Nomura Tax Plan	0.00%	100.00%	25.00%	85.71%	100.00%	22.22%	50.00%	25.00%	33.33%	66.67%	83.33%	66.67%	100.00%	58%
26	LNT Long Term Adv										100.00%	16.67%	58.33%	58.33%	58%
27	LNT Tax Advantage							41.67%	66.67%	33.33%	91.67%	41.67%	83.33%	83.33%	63%
28	LNT Tax Saver							8.33%	66.67%	66.67%	0.00%	25.00%	58.33%	91.67%	45%
29	Quantum Tax Savings										100.00%	25.00%	66.67%	100.00%	73%
30	Reliance Equity Linked Savings									33.33%	100.00%	25.00%	0.00%	25.00%	37%
31	Reliance Tax Saver							8.33%	41.67%	83.33%	91.67%	16.67%	0.00%	16.67%	37%
32	Religare Agile									41.67%	100.00%	8.33%	100.00%	100.00%	70%
33	Religare Tax Plan								41.67%	66.67%	91.67%	41.67%	66.67%	91.67%	67%
34	Sahara Tax Gain	100.00%	25.00%	100.00%	28.57%	71.43%	0.00%	16.67%	25.00%	83.33%	41.67%	25.00%	58.33%	25.00%	46%
35	SBI Magnum Tax Gain									25.00%	75.00%	91.67%	66.67%	58.33%	63%
36	SBI Tax Advantage I									8.33%	8.33%	33.33%	16.67%	25.00%	18%
37	Sundaram Tax Saver							8.33%	25.00%	100.00%	50.00%	16.67%	58.33%	33.33%	42%
38	Tata Infra Tax Savings										100.00%	58.33%	0.00%	25.00%	46%
39	Tata Tax Adv Fund I							83.33%	66.67%	83.33%	91.67%	83.33%	91.67%	91.67%	85%
40	Taurus Tax Shield	0.00%	25.00%	25.00%	0.00%	0.00%	0.00%	75.00%	0.00%	66.67%	0.00%	16.67%	91.67%	33.33%	26%
41	UTI ETSP							33.33%	58.33%	33.33%	100.00%	33.33%	83.33%	100.00%	63%
42	UTI LTA I								58.33%	25.00%	75.00%	100.00%	58.33%	91.67%	68%
43	UTI LTA II									100.00%	100.00%	83.33%	66.67%	100.00%	90%
	Average	18%	69%	56%	48%	40%	56%	38%	39%	51%	69%	50%	64%	63%	57%

Source: Computed from Table 4.12

**Table 4.16**

Outperformance of ELSS Funds in undertkaing a Lower Total Risk over Market Indexes															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Diversified Funds	6	6	6	7	7	7	7	7	7	7	7	7	7	
	ELSS Funds														
1	Axis Long Term Equity											100.00%	100.00%	28.57%	76%
2	Birla Sunlife Tax Plan								0.00%	100.00%	100.00%	100.0%	71.43%	0.00%	62%
3	Birls Sunlife Tax Relief 96									0.00%	0.00%	0%	43%	0%	9%
4	BNP Paribas Tax Adv							0.00%	0.00%	100.00%	100.00%	14.3%	100.00%	0.00%	45%
5	BOI AXA Eco										0.00%	0.0%	100.00%	42.86%	36%
6	BOI AXA Tax Adv										0.00%	0.0%	100.00%	42.86%	36%
7	Canara Robeco Equity Tax Saver										28.57%	0.0%	100.00%	71.43%	50%
8	DSP Black Rock Tax Saver								0.00%	100.00%	85.71%	0.0%	42.86%	0.00%	38%
9	DWS Tax Saving							42.86%	0.00%	100.00%	100.00%	0.0%	100.00%	85.71%	61%
10	Edelweiss ELSS										100.00%	42.9%	0.00%	57.14%	50%
11	Escorts Tax Plan	0.00%	33.33%	0.00%	57.14%	0.00%	28.57%	100.00%	0.00%	100.00%	85.71%	100.0%	100.00%	100.00%	54%
12	Franklin India Tax Sheild	33.33%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	85.71%	0.00%	42.86%	0.0%	0.00%	28.57%	22%
13	HDFC Long Term Adv		100.00%	50.00%	100.00%	100.00%	57.14%	42.86%	85.71%	100.00%	42.86%	0.00%	42.86%	85.71%	67%
14	HDFC Tax Saver	0%	100%	100%	0%	29%	0%	14%	71%	0%	71%	0%	71%	0%	35%
15	HSBC Tax Saver								0.00%	100.00%	100.00%	0.00%	85.71%	0.00%	48%
16	ICICI Pru Right											100.00%	71.43%	0.00%	57%
17	ICICI Pru Tax Plan	0.00%	50.00%	16.67%	0.00%	0.00%	0.00%	0.00%	28.57%	100.00%	85.71%	14.29%	0.00%	0.00%	23%
18	IDFC Tax Adv										100.00%	0.00%	85.71%	0.00%	46%
19	IDFC Tax Saver								0.00%	100.00%	100.00%	0.00%	100.00%	71.43%	62%
20	ING Retire Invest								0.00%	100.00%	100.00%	100.00%	100.00%	0.00%	67%
21	ING Tax Savings					0.00%	100.00%	0.00%	0.00%	0.00%	57.14%	71.43%	100.00%	71.43%	44%
22	JM Tax Gain									0.00%	42.86%	100.00%	0.00%	0.00%	29%
23	JP Morgan Tax Advantage										100.00%	0.00%	100.00%	42.86%	61%
24	Kotak Tax Saver							0.00%	0.00%	100.00%	85.71%	0.00%	28.57%	0.00%	31%
25	LIC Nomura Tax Plan	0.00%	100.00%	0.00%	100.00%	100.00%	0.00%	42.86%	0.00%	100.00%	71.43%	71.43%	71.43%	85.71%	57%
26	LNT Long Term Adv										100.00%	0.00%	14.29%	0.00%	29%
27	LNT Tax Advantage							0.00%	57.14%	100.00%	100.00%	0.00%	85.71%	28.57%	53%
28	LNT Tax Saver							0.00%	57.14%	100.00%	0.00%	0.00%	71.43%	71.43%	43%
29	Quantum Tax Savings										100.00%	0.00%	85.71%	71.43%	64%
30	Reliance Equity Linked Savings									100.00%	100.00%	0.00%	0.00%	0.00%	40%
31	Reliance Tax Saver							0.00%	0.00%	100.00%	100.00%	0.00%	0.00%	0.00%	29%
32	Religare Agile									100.00%	100.00%	0.00%	100.00%	100.00%	80%
33	Religare Tax Plan								28.57%	100.00%	100.00%	0.00%	85.71%	42.86%	60%
34	Sahara Tax Gain	100.00%	50.00%	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	42.86%	0.00%	42.86%	0.00%	41%
35	SBI Magnum Tax Gain									100.00%	71.43%	100.00%	71.43%	0.00%	69%
36	SBI Tax Advantage I									28.57%	0.00%	0.00%	0.00%	0.00%	6%
37	Sundaram Tax Saver							0.00%	0.00%	100.00%	71.43%	0.00%	71.43%	0.00%	35%
38	Tata Infra Tax Savings										100.00%	0.00%	0.00%	0.00%	25%
39	Tata Tax Adv Fund I							57.14%	57.14%	100.00%	100.00%	28.57%	100.00%	71.43%	73%
40	Taurus Tax Shield	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.14%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	20%
41	UTI ETSP							0.00%	57.14%	100.00%	100.00%	0.00%	100.00%	85.71%	63%
42	UTI LTA I								42.86%	100.00%	85.71%	100.00%	42.86%	28.57%	67%
43	UTI LTA II									100.00%	100.00%	14.29%	85.71%	100.00%	80%
	Average	19%	54%	33%	32%	37%	21%	25%	23%	82%	72%	25%	64%	33%	47%

Source: Computed from Table 4.12

**Table 4.17**

Absolute Difference in Total Risk Undertaken by ELSS Funds over Average Total Risk of Diversified Funds															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12	
	ELSS Funds														
1	Axis Long Term Equity											-1.28%	-2.53%	-0.93%	-1.58%
2	Birla Sunlife Tax Plan								0.75%	0.96%	-2.94%	-1.5%	-0.57%	0.35%	-0.49%
3	Birls Sunlife Tax Relief 96									2.34%	3.56%	0.19%	0.07%	0.36%	1.30%
4	BNP Paribas Tax Adv							2.59%	5.73%	0.47%	-4.37%	-0.58%	-2.09%	-0.83%	0.13%
5	BOI AXA Eco										2.30%	0.34%	-2.50%	-1.38%	-0.31%
6	BOI AXA Tax Adv										2.27%	0.35%	-2.51%	-1.34%	-0.31%
7	Canara Robeco Equity Tax Saver										1.82%	-0.5%	-2.40%	-1.63%	-0.67%
8	DSP Black Rock Tax Saver								5.17%	-1.42%	-2.06%	0.3%	0.12%	0.41%	0.41%
9	DWS Tax Saving							-0.92%	2.63%	0.28%	-6.12%	1.2%	-2.47%	-2.34%	-1.11%
10	Edelweiss ELSS										-4.82%	-0.3%	-0.85%	-1.20%	-1.79%
11	Escorts Tax Plan	-2.52%	-3.06%	-2.12%	-0.45%	-1.44%	4.89%	-1.29%	0.38%	-2.89%	-0.26%	2.0%	4.51%	0.72%	-0.12%
12	Franklin India Tax Sheild	-4.82%	2.23%	-1.37%	-3.44%	-2.10%	-0.97%	-1.47%	-2.10%	0.49%	-2.98%	-1.0%	-2.44%	-1.22%	-1.63%
13	HDFC Long Term Adv		-4.42%	-1.42%	-7.09%	-0.70%	-1.91%	-0.77%	-3.48%	-0.17%	1.01%	0.50%	0.14%	-2.43%	-1.73%
14	HDFC Tax Saver	13.47%	-3.17%	-2.50%	0.29%	1.25%	-0.96%	-0.26%	-3.32%	3.82%	-0.89%	0.44%	-0.50%	-0.56%	0.55%
15	HSBC Tax Saver								1.89%	-2.11%	-3.87%	-0.08%	-1.01%	-0.22%	-0.90%
16	ICICI Pru Right											-1.29%	-0.75%	-0.09%	-0.71%
17	ICICI Pru Tax Plan	3.25%	-0.25%	-0.73%	10.16%	1.50%	1.01%	3.18%	0.32%	1.00%	-1.86%	-0.58%	0.63%	0.14%	1.37%
18	IDFC Tax Adv										-8.13%	0.08%	-1.20%	-0.51%	-2.44%
19	IDFC Tax Saver								2.92%	-2.11%	-5.65%	-0.41%	-3.78%	-1.75%	-1.80%
20	ING Retire Invest								1.00%	-2.60%	-6.28%	-1.57%	-1.82%	-0.24%	-1.92%
21	ING Tax Savings					1.80%	-3.12%	4.36%	0.56%	2.42%	0.31%	-0.85%	-3.88%	-1.98%	-0.04%
22	JM Tax Gain									4.63%	0.72%	-1.33%	2.04%	3.12%	1.83%
23	JP Morgan Tax Advantage										-9.17%	-0.44%	-2.12%	-1.42%	-3.29%
24	Kotak Tax Saver							3.20%	1.57%	-0.36%	-1.59%	0.57%	0.27%	0.51%	0.59%
25	LIC Nomura Tax Plan	9.88%	-10.08%	0.12%	-2.71%	-3.28%	1.01%	-0.76%	1.90%	0.80%	-0.97%	-0.90%	-0.67%	-2.51%	-0.63%
26	LNT Long Term Adv										-7.29%	0.85%	0.49%	-0.61%	-1.64%
27	LNT Tax Advantage							0.05%	-2.18%	0.82%	-4.07%	-0.28%	-1.61%	-0.98%	-1.18%
28	LNT Tax Saver							1.67%	-2.09%	-0.67%	5.47%	0.55%	-0.46%	-1.60%	0.41%
29	Quantum Tax Savings										-5.92%	0.34%	-1.24%	-1.76%	-2.14%
30	Reliance Equity Linked Savings									0.30%	-4.94%	0.26%	3.40%	0.54%	-0.09%
31	Reliance Tax Saver							3.75%	0.58%	-1.08%	-3.23%	1.50%	4.04%	2.30%	1.12%
32	Religare Agile									0.12%	-13.32%	1.97%	-4.65%	-2.98%	-3.77%
33	Religare Tax Plan								0.24%	-0.79%	-3.79%	-0.27%	-1.28%	-1.39%	-1.21%
34	Sahara Tax Gain	-4.72%	-0.25%	-2.30%	3.35%	-0.33%	34.46%	0.56%	1.47%	-1.07%	1.17%	0.75%	0.19%	0.67%	2.61%
35	SBI Magnum Tax Gain									1.15%	-1.22%	-1.21%	-0.68%	-0.64%	-0.52%
36	SBI Tax Advantage I									1.94%	2.41%	-0.09%	1.77%	0.45%	1.30%
37	Sundaram Tax Saver							1.84%	2.23%	-3.89%	-0.36%	0.96%	-0.42%	0.02%	0.05%
38	Tata Infra Tax Savings										-8.63%	-0.48%	3.67%	0.67%	-1.19%
39	Tata Tax Adv Fund I							-1.17%	-2.12%	-1.32%	-3.56%	-0.79%	-2.73%	-1.61%	-1.90%
40	Taurus Tax Shield	14.05%	0.93%	2.38%	9.73%	10.39%	6.99%	-1.08%	9.22%	-0.64%	3.95%	1.19%	-3.43%	-0.06%	4.12%
41	UTI ETSP							0.41%	-1.16%	0.35%	-5.07%	-0.13%	-1.85%	-2.43%	-1.41%
42	UTI LTA I								-0.77%	1.13%	-1.43%	-1.46%	0.11%	-1.19%	-0.60%
43	UTI LTA II									-2.79%	-5.93%	-0.74%	-0.90%	-2.58%	-2.59%
	Average	4.08%	-2.26%	-0.99%	1.23%	0.79%	4.60%	0.77%	0.85%	-0.03%	-2.58%	-0.09%	-0.74%	-0.70%	-0.56%

Source: Computed from Table 4.12

**Table 4.18**

Absolute Difference in Total Risk Undertaken by ELSS Funds over Average Total Risk of Market Indexes															
Sl.No	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12	
	ELSS Funds														
1	Axis Long Term Equity											-0.43%	-2.30%	0.62%	-0.70%
2	Birla Sunlife Tax Plan								2.28%	-0.68%	-3.27%	-0.6%	-0.34%	1.90%	-0.12%
3	Birls Sunlife Tax Relief 96									0.70%	3.24%	1.03%	0.31%	1.91%	1.44%
4	BNP Paribas Tax Adv							3.81%	7.26%	-1.16%	-4.69%	0.27%	-1.86%	0.72%	0.62%
5	BOI AXA Eco										1.97%	1.19%	-2.26%	0.17%	0.27%
6	BOI AXA Tax Adv										1.95%	1.19%	-2.28%	0.21%	0.27%
7	Canara Robeco Equity Tax Saver										1.50%	0.4%	-2.17%	-0.08%	-0.10%
8	DSP Black Rock Tax Saver								6.70%	-3.06%	-2.39%	1.1%	0.36%	1.96%	0.78%
9	DWS Tax Saving							0.31%	4.16%	-1.36%	-6.44%	2.0%	-2.24%	-0.79%	-0.62%
10	Edelweiss ELSS										-5.14%	0.6%	-0.62%	0.35%	-1.21%
11	Escorts Tax Plan	-0.63%	-2.40%	-0.85%	0.55%	-2.24%	6.67%	-0.07%	1.91%	-4.53%	-0.58%	2.8%	4.75%	2.27%	0.59%
12	Franklin India Tax Sheild	-2.93%	2.89%	-0.11%	-2.44%	-2.90%	0.81%	-0.25%	-0.57%	-1.14%	-3.31%	-0.2%	-2.20%	0.33%	-0.92%
13	HDFC Long Term Adv		-3.76%	-0.15%	-6.09%	-1.50%	-0.13%	0.46%	-1.95%	-1.81%	0.69%	1.35%	0.37%	-0.88%	-1.12%
14	HDFC Tax Saver	15.36%	-2.51%	-1.23%	1.28%	0.45%	0.82%	0.96%	-1.79%	2.18%	-1.21%	1.29%	-0.27%	0.99%	1.26%
15	HSBC Tax Saver								3.42%	-3.75%	-4.20%	0.77%	-0.77%	1.33%	-0.53%
16	ICICI Pru Right											-0.44%	-0.52%	1.46%	0.17%
17	ICICI Pru Tax Plan	5.15%	0.41%	0.54%	11.16%	0.70%	2.79%	4.40%	1.85%	-0.64%	-2.19%	0.27%	0.86%	1.69%	2.08%
18	IDFC Tax Adv										-8.46%	0.93%	-0.97%	1.04%	-1.86%
19	IDFC Tax Saver								4.46%	-3.74%	-5.97%	0.44%	-3.55%	-0.20%	-1.43%
20	ING Retire Invest								2.54%	-4.23%	-6.60%	-0.72%	-1.59%	1.31%	-1.55%
21	ING Tax Savings					1.00%	-1.34%	5.58%	2.09%	0.78%	-0.01%	0.00%	-3.64%	-0.43%	0.45%
22	JM Tax Gain									2.99%	0.39%	-0.48%	2.27%	4.67%	1.97%
23	JP Morgan Tax Advantage										-9.49%	0.41%	-1.88%	0.13%	-2.71%
24	Kotak Tax Saver							4.42%	3.10%	-2.00%	-1.91%	1.42%	0.51%	2.06%	1.08%
25	LIC Nomura Tax Plan	11.77%	-9.42%	1.39%	-1.72%	-4.08%	2.79%	0.47%	3.43%	-0.84%	-1.30%	-0.06%	-0.43%	-0.97%	0.08%
26	LNT Long Term Adv										-7.61%	1.70%	0.73%	0.94%	-1.06%
27	LNT Tax Advantage							1.27%	-0.65%	-0.81%	-4.39%	0.57%	-1.38%	0.57%	-0.69%
28	LNT Tax Saver							2.89%	-0.56%	-2.30%	5.15%	1.40%	-0.22%	-0.05%	0.90%
29	Quantum Tax Savings										-6.25%	1.19%	-1.01%	-0.21%	-1.57%
30	Reliance Equity Linked Savings									-1.34%	-5.26%	1.11%	3.63%	2.09%	0.04%
31	Reliance Tax Saver							4.97%	2.11%	-2.72%	-3.55%	2.35%	4.28%	3.85%	1.61%
32	Religare Agile									-1.51%	-13.64%	2.81%	-4.41%	-1.43%	-3.64%
33	Religare Tax Plan								1.77%	-2.43%	-4.11%	0.57%	-1.05%	0.16%	-0.85%
34	Sahara Tax Gain	-2.83%	0.41%	-1.04%	4.35%	-1.13%	36.24%	1.78%	3.00%	-2.71%	0.84%	1.60%	0.43%	2.22%	3.32%
35	SBI Magnum Tax Gain									-0.49%	-1.55%	-0.37%	-0.44%	0.91%	-0.39%
36	SBI Tax Advantage I									0.31%	2.09%	0.76%	2.01%	2.00%	1.43%
37	Sundaram Tax Saver							3.06%	3.76%	-5.53%	-0.68%	1.81%	-0.18%	1.57%	0.54%
38	Tata Infra Tax Savings										-8.95%	0.37%	3.91%	2.22%	-0.61%
39	Tata Tax Adv Fund I							0.05%	-0.59%	-2.96%	-3.88%	0.06%	-2.50%	-0.06%	-1.41%
40	Taurus Tax Shield	15.94%	1.59%	3.65%	10.73%	9.59%	8.77%	0.14%	10.75%	-2.27%	3.63%	2.03%	-3.19%	1.49%	4.83%
41	UTI ETSP							1.63%	0.37%	-1.29%	-5.39%	0.72%	-1.61%	-0.89%	-0.92%
42	UTI LTA I								0.76%	-0.51%	-1.75%	-0.61%	0.35%	0.36%	-0.23%
43	UTI LTA II									-4.43%	-6.26%	0.10%	-0.66%	-1.03%	-2.46%
	Average	5.98%	-1.60%	0.28%	2.23%	-0.01%	6.38%	1.99%	2.38%	-1.66%	-2.90%	0.76%	-0.51%	0.85%	-0.07%

Source: Computed from Table 4.12

Coefficient of Variation (CV) relates risk undertaken by an investment to the return earned. It provides us with a measure of risk undertaken by an investment for earning a unit of return. Lesser the CV better is the performance of the investment. Table 4.19 provides the CV of ELSS funds, Diversified Equity funds and Market Indexes for the 13 year period. The average CV of ELSS funds for the entire period is 10.38 as against a CV of -6.16 for Diversified Equity funds and -0.31 for Market Indexes. This shows that on an average, the risk undertaken by ELSS funds to earn a unit of return is higher as compared to both Diversified Equity funds and Market Indexes.

Sharpe Ratio is one of the most widely used measures of risk adjusted portfolio performance. It is used in ranking portfolios. The ratio provides us with the risk premium earned for a unit of total risk undertaken by the portfolio. Higher the Sharpe ratio, better is the risk adjusted performance and vice versa. The Sharpe ratio of ELSS funds, Diversified Equity funds and Market Indexes is tabulated in Table 4.20. As can be seen from the table, the average Sharpe ratio of ELSS funds over the 13 year period is -0.03 as against 0.18 for Diversified Equity funds and 0.07 for Market Indexes. This implies that for a rupee of total risk undertaken by ELSS funds it has lost 3 paisa of the investor, whereas Diversified Equity funds earned 18 paisa risk premium and Market Indexes earned 7 paisa risk premium. This shows that as a category, ELSS funds have underperformed both Diversified Equity funds and Market Indexes on the basis of total risk undertaken. HDFC Long Term Advantage fund with 12 year track record and HDFC Tax saver with 13 year track record from the ELSS category, have outperformed with an average Sharpe ratio of 0.50 and 0.28 respectively. The year wise graph of Sharpe ratio is shown in Chart 4.09.

Table 4.19

Coefficient of Variation based on Quarterly Average Returns															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	ELSS Funds														
1	Axis Long Term Equity											1.71	16.00	1.70	6.47
2	Birla Sunlife Tax Plan								3.52	-0.80	0.99	2.59	-8.45	2.86	0.12
3	Birls Sunlife Tax Relief 96									-0.75	1.03	8.47	-5.53	2.79	1.20
4	BNP Paribas Tax Adv							32.93	3.76	-0.63	0.95	3.97	5.63	2.39	7.00
5	BOI AXA Eco										0.94	-47.56	-5.68	3.59	-12.18
6	BOI AXA Tax Adv										0.94	-33.80	-5.46	3.87	-8.61
7	Canara Robeco Equity Tax Saver										0.93	2.49	17.92	2.53	5.97
8	DSP Black Rock Tax Saver								2.42	-0.62	0.87	3.40	-9.97	2.51	-0.23
9	DWS Tax Saving							-6.90	2.34	-0.70	0.83	31.34	-3.28	1.85	3.64
10	Edelweiss ELSS										1.03	2.92	22.45	2.98	7.35
11	Escorts Tax Plan	-1.51	4.47	6.31	0.78	1.93	0.85	6.09	2.26	-0.32	1.17	28.77	-4.95	-1.94	3.38
12	Franklin India Tax Sheild	-0.37	3.61	-9.03	0.54	1.47	0.40	18.04	2.74	-0.95	0.88	1.85	20.54	2.83	3.28
13	HDFC Long Term Adv		1.71	2.39	0.35	1.06	0.33	15.64	3.98	-0.70	0.97	1.88	-30.47	2.26	-0.05
14	HDFC Tax Saver	-1.17	1.74	-6.22	0.71	0.99	0.34	9.89	3.57	-1.22	0.84	2.29	-18.86	13.57	0.50
15	HSBC Tax Saver								3.96	-0.72	0.87	4.39	-15.28	2.00	-0.80
16	ICI Pru Right											2.02	4.94	2.04	3.00
17	ICI Pru Tax Plan	-0.70	2.10	-3.61	0.99	0.87	0.50	-94.90	3.95	-0.83	0.75	2.48	-41.43	3.58	-9.71
18	IDFC Tax Adv										0.73	2.68	-8.31	1.88	-0.76
19	IDFC Tax Saver								3.13	-0.52	0.80	3.19	-5.94	1.65	0.38
20	ING Retire Invest								4.02	-0.49	0.85	4.87	-3.10	9.21	2.56
21	ING Tax Savings					2.18	0.23	7.22	8.49	-0.72	0.93	1.66	-3.29	3.73	2.27
22	JM Tax Gain									-0.66	1.20	42.35	-6.28	17.77	10.88
23	JP Morgan Tax Advantage										0.75	1.98	-6.48	3.95	0.05
24	Kotak Tax Saver							5.49	3.23	-0.59	0.98	3.71	-12.14	4.49	0.74
25	LIC Nomura Tax Plan	-1.02	3.73	-36.33	0.60	3.58	0.72	-49.20	-4.31	-0.84	1.27	2.48	-4.66	2.99	-6.23
26	LNT Long Term Adv										0.66	4.79	-13.28	8.70	0.22
27	LNT Tax Advantage							3.18	2.87	-1.02	0.83	1.56	-7.94	4.36	0.55
28	LNT Tax Saver							6.98	6.12	-0.56	1.14	3.74	-3.74	20.00	4.81
29	Quantum Tax Savings										0.74	1.77	1511.61	2.08	379.05
30	Reliance Equity Linked Savings									-1.03	0.85	2.25	38.07	3.06	8.64
31	Reliance Tax Saver							13.63	5.33	-0.83	0.86	2.60	12.25	16.27	7.16
32	Religare Agile									-0.79	0.76	3.86	-6.22	1.80	-0.12
33	Religare Tax Plan								2.08	-0.74	0.80	2.51	57.90	2.31	10.81
34	Sahara Tax Gain	-0.14	5.35	-3.51	0.94	1.82	-3.55	-69.14	2.44	-0.78	1.04	2.45	34.15	57.00	2.16
35	SBI Magnum Tax Gain									-0.82	1.00	5.39	-45.46	3.02	-7.37
36	SBI Tax Advantage I									-0.88	1.08	25.60	-10.56	3.84	3.82
37	Sundaram Tax Saver							6.89	2.56	-0.47	1.09	5.23	-43.09	3.51	-3.47
38	Tata Infra Tax Savings										0.76	-6.75	-5.07	-7.95	-4.75
39	Tata Tax Adv Fund I							-15.47	2.64	-0.76	0.91	2.14	188.74	3.41	25.95
40	Taurus Tax Shield	-1.54	4.73	3.83	2.72	4.52	2.60	-3.19	1.91	-0.87	1.19	2.54	-3.97	3.38	1.37
41	UTI ETSP							-19.81	2.80	-0.79	0.90	3.64	-7.11	2.32	-2.58
42	UTI LTA I								4.70	-0.80	0.98	4.57	-6.44	4.11	1.18
43	UTI LTA II									-0.78	0.84	3.09	-11.30	2.08	-1.21
	Average	-0.92	3.43	-5.77	0.95	2.05	0.27	-7.37	3.22	-0.75	0.92	3.56	36.43	5.36	10.38
	Indexes														
1	BSE 30	-0.50	-134.62	-3.29	0.77	2.85	0.35	2.38	2.76	-0.91	1.13	2.36	-4.02	1.92	-9.91
2	BSE 100	-0.50	10.09	-3.32	0.71	2.75	0.38	3.27	2.53	-0.83	1.11	2.85	-5.72	2.78	1.24
3	BSE 200	-0.53	5.08	-4.41	0.71	2.73	0.45	3.70	2.62	-0.79	1.09	3.06	-6.18	3.26	0.83
4	BSE 500	-0.51	4.93	-5.31	0.73	2.41	0.45	3.90	2.65	-0.75	1.08	3.37	-6.55	4.19	0.81
5	CNX 500	-0.54	8.13	-4.30	0.72	2.44	0.41	4.38	2.85	-0.86	1.07	3.24	-7.10	3.98	1.11
6	CNX Nifty	-0.73	32.62	-3.15	0.85	3.10	0.35	2.80	2.46	-1.03	1.04	2.31	-5.29	2.35	2.90
7	CNX 100				0.78	2.92	0.38	3.12	2.64	-0.97	1.03	2.52	-6.23	2.61	0.88
	Average	-0.55	-12.30	-3.96	0.75	2.75	0.40	3.37	2.64	-0.88	1.08	2.82	-5.87	3.01	-0.31
	Diversified Equity Funds														
1	Birla Sunlife Frontline Equity				0.57	2.38	0.50	1.88	2.48	-0.84	0.98	2.21	-6.24	1.65	0.56
2	DSP Black Rock Top 100				0.60	2.30	0.40	2.64	2.32	-1.11	0.95	2.16	-494.96	7.29	-47.74
3	Franklin India Bluechip	-0.88	3.80	-143.35	0.57	2.29	0.49	3.84	2.80	-1.24	0.95	2.07	-28.74	3.26	-11.86
4	HDFC Equity Fund	-0.58	1.63	27.85	0.58	1.77	0.33	3.07	3.25	-1.01	0.94	1.66	-10.94	5.63	2.63
5	HDFC Top 200	-1.01	2.57	9.74	0.61	1.63	0.30	4.17	2.31	-1.25	1.04	1.74	-11.38	4.45	1.15
6	ICI Pru Dynamic				1.07	1.39	0.42	2.45	4.94	-0.82	1.14	2.02	-176.28	7.97	-15.57
7	ICI Pru Discovery Fund						0.48	-158.10	4.76	-0.63	0.81	2.29	15.36	2.16	-16.61
8	IDFC Premier Equity							8.87	1.80	-0.75	0.83	2.72	5.48	2.71	3.09
9	Reliance Growth	-0.59	2.15	2.91	0.67	1.11	0.45	3.23	2.51	-0.66	0.95	5.19	-16.45	11.64	1.01
10	Reliance Equity Opportunties						0.50	3.86	4.89	-0.61	0.68	2.34	10.26	2.04	3.00
11	SBI Magnum Contra							3.59	2.37	-0.92	1.02	38.29	-10.11	2.18	5.20
12	UTI Opportunties Fund							-4.39	2.12	-1.13	1.03	2.02	4.96	4.17	1.26
	Average	-0.77	2.54	-25.71	0.67	1.84	0.43	-10.41	3.05	-0.91	0.94	5.39	-59.92	4.59	-6.16

Source: Computed from Secondary Data



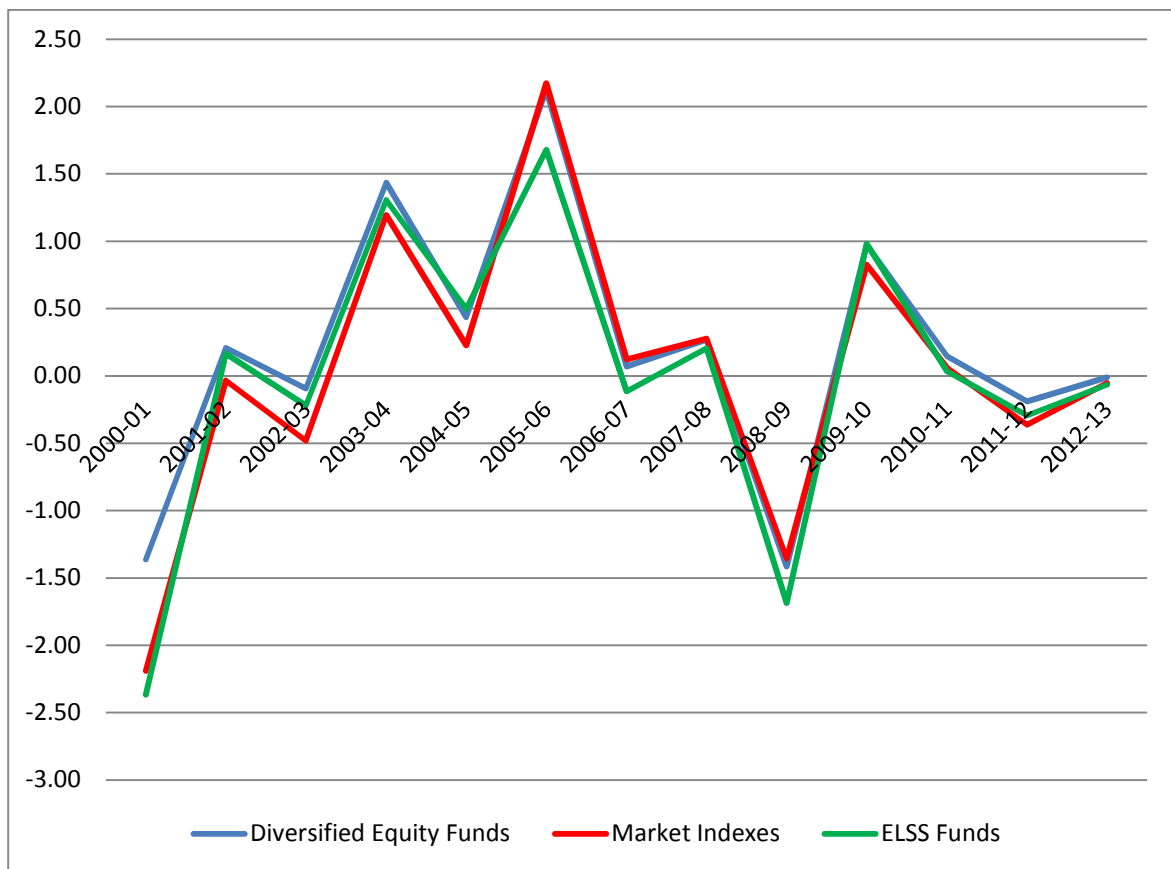
**Table 4.20**

Sharpe Ratio based on Quarterly Average Returns															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
ELSS Funds															
1	Axis Long Term Equity											0.26	-0.18	0.23	0.11
2	Birla Sunlife Tax Plan								0.19	-1.47	0.89	0.05	-0.31	0.06	-0.10
3	Birls Sunlife Tax Relief 96									-1.52	0.88	-0.14	-0.36	0.07	-0.21
4	BNP Paribas Tax Adv							-0.11	0.19	-1.81	0.93	-0.04	-0.05	0.07	-0.12
5	BOI AXA Eco										0.98	-0.28	-0.41	-0.11	0.04
6	BOI AXA Tax Adv										0.97	-0.28	-0.42	-0.13	0.04
7	Canara Robeco Equity Tax Saver										0.98	0.12	-0.18	-0.01	0.23
8	DSP Black Rock Tax Saver								0.34	-1.92	1.03	0.04	-0.28	0.11	-0.11
9	DWS Tax Saving							-0.33	0.34	-1.68	1.06	-0.20	-0.54	0.06	-0.18
10	Edelweiss ELSS										0.84	0.07	-0.15	-0.04	0.18
11	Escorts Tax Plan	-1.04	0.05	-0.08	1.15	0.35	1.01	-0.02	0.35	-3.51	0.75	-0.18	-0.33	-0.79	-0.18
12	Franklin India Tax Sheild	-3.37	0.16	-0.33	1.68	0.50	2.16	-0.13	0.26	-1.29	1.01	0.23	-0.19	-0.02	0.05
13	HDFC Long Term Adv		0.39	0.20	2.63	0.79	2.65	-0.11	0.14	-1.68	0.94	0.28	-0.21	-0.05	0.50
14	HDFC Tax Saver	-0.95	0.40	-0.41	1.28	0.88	2.59	-0.07	0.17	-0.99	1.08	0.18	-0.24	-0.26	0.28
15	HSBC Tax Saver								0.17	-1.72	1.02	-0.04	-0.27	0.18	-0.11
16	ICICI Pru Right											0.17	0.01	0.18	0.12
17	ICICI Pru Tax Plan	-1.61	0.34	-0.48	0.93	1.01	1.78	-0.14	0.16	-1.42	1.22	0.11	-0.20	-0.02	0.13
18	IDFC Tax Adv										1.20	0.11	-0.33	0.20	0.30
19	IDFC Tax Saver								0.24	-2.25	1.11	0.03	-0.45	0.19	-0.19
20	ING Retire Invest								0.16	-2.38	1.02	-0.13	-0.54	-0.21	-0.35
21	ING Tax Savings					0.33	3.87	0.02	0.03	-1.58	0.97	0.30	-0.59	-0.17	0.35
22	JM Tax Gain									-1.67	0.74	-0.30	-0.31	-0.15	-0.34
23	JP Morgan Tax Advantage										1.13	0.22	-0.38	-0.14	0.21
24	Kotak Tax Saver							0.05	0.22	-1.96	0.91	0.02	-0.26	-0.06	-0.15
25	LIC Nomura Tax Plan	-1.09	-0.15	-0.22	1.52	0.08	1.14	-0.20	-0.32	-1.41	0.68	0.10	-0.41	-0.17	-0.03
26	LNT Long Term Adv										1.36	-0.03	-0.25	-0.22	0.21
27	LNT Tax Advantage							0.15	0.24	-1.20	1.07	0.37	-0.34	-0.13	0.02
28	LNT Tax Saver							0.00	0.06	-2.05	0.80	0.02	-0.46	-0.36	-0.28
29	Quantum Tax Savings										1.21	0.31	-0.21	0.06	0.34
30	Reliance Equity Linked Savings									-1.21	1.04	0.19	-0.11	0.04	-0.01
31	Reliance Tax Saver							-0.05	0.10	-1.49	1.04	0.16	-0.05	-0.17	-0.07
32	Religare Agile									-1.50	0.98	0.05	-0.48	-0.01	-0.19
33	Religare Tax Plan								0.39	-1.63	1.13	0.12	-0.19	0.04	-0.02
34	Sahara Tax Gain	-7.77	0.05	-0.53	0.95	0.40	-0.33	-0.17	0.32	-1.57	0.87	0.17	-0.15	-0.26	-0.62
35	SBI Magnum Tax Gain									-1.43	0.89	-0.13	-0.22	-0.01	-0.18
36	SBI Tax Advantage I									-1.34	0.83	-0.23	-0.25	-0.03	-0.20
37	Sundaram Tax Saver							0.00	0.31	-2.61	0.82	-0.05	-0.21	-0.02	-0.25
38	Tata Infra Tax Savings										1.13	-0.43	-0.33	-0.40	-0.01
39	Tata Tax Adv Fund I							-0.25	0.27	-1.61	0.97	0.17	-0.24	-0.11	-0.11
40	Taurus Tax Shield	-0.74	0.08	0.10	0.29	0.14	0.24	-0.50	0.46	-1.42	0.76	0.16	-0.52	-0.01	-0.07
41	UTI ETSP							-0.21	0.26	-1.50	0.97	0.00	-0.36	-0.06	-0.13
42	UTI LTA I								0.11	-1.46	0.91	-0.11	-0.34	-0.13	-0.17
43	UTI LTA II									-1.66	1.05	0.03	-0.29	-0.03	-0.18
	Average	-2.37	0.17	-0.22	1.30	0.50	1.68	-0.12	0.21	-1.69	0.98	0.03	-0.29	-0.07	-0.03
Indexes															
1	BSE 30	-2.51	-0.16	-0.52	1.15	0.20	2.51	0.22	0.24	-1.30	0.79	0.13	-0.46	0.02	0.02
2	BSE 100	-2.29	-0.04	-0.51	1.26	0.22	2.24	0.12	0.30	-1.41	0.80	0.04	-0.36	-0.04	0.02
3	BSE 200	-2.18	0.06	-0.46	1.27	0.23	1.87	0.10	0.28	-1.48	0.82	0.03	-0.34	-0.07	0.01
4	BSE 500	-2.24	0.07	-0.41	1.24	0.28	1.88	0.09	0.28	-1.54	0.84	0.01	-0.33	-0.12	0.00
5	CNX 500	-2.16	-0.01	-0.46	1.25	0.27	2.06	0.05	0.26	-1.37	0.83	-0.01	-0.31	-0.10	0.02
6	CNX Nifty	-1.77	-0.13	-0.52	1.04	0.18	2.44	0.15	0.29	-1.16	0.84	0.13	-0.39	-0.03	0.08
7	CNX 100				1.15	0.20	2.21	0.12	0.27	-1.23	0.86	0.10	-0.34	-0.02	0.33
	Average	-2.19	-0.03	-0.48	1.19	0.23	2.17	0.12	0.28	-1.36	0.83	0.06	-0.36	-0.05	0.07
Diversified Equity Funds															
1	Birla Sunlife Frontline Equity				1.58	0.27	1.71	0.34	0.30	-1.46	0.92	0.14	-0.37	0.26	0.37
2	DSP Black Rock Top 100				1.53	0.29	2.18	0.19	0.33	-1.16	0.93	0.13	-0.20	-0.19	0.40
3	Franklin India Bluechip	-1.46	0.15	-0.22	1.61	0.27	1.79	0.09	0.24	-1.00	0.94	0.19	-0.26	-0.10	0.17
4	HDFC Equity Fund	-2.06	0.48	-0.19	1.58	0.41	2.70	0.14	0.20	-1.20	0.97	0.36	-0.25	-0.15	0.23
5	HDFC Top 200	-1.18	0.24	-0.13	1.50	0.45	2.98	0.06	0.32	-1.00	0.87	0.31	-0.26	-0.13	0.31
6	ICICI Pru Dynamic	-0.22	-0.14	-0.13	0.83	0.58	2.12	0.25	0.12	-1.49	0.78	0.22	-0.17	-0.10	0.20
7	ICICI Discovery Fund						1.86	-0.16	0.12	-1.89	1.15	0.15	-0.08	0.14	0.16
8	IDFC Premier Equity							-0.01	0.48	-1.60	1.10	0.17	-0.03	0.12	0.03
9	Reliance Growth	-1.90	0.32	0.21	1.40	0.77	1.98	0.15	0.31	-1.80	0.96	-0.09	-0.23	-0.14	0.15
10	Reliance Equity Opportunities						1.77	0.10	0.11	-1.94	1.34	0.21	-0.06	0.20	0.22
11	SBI Magnum Contra							0.10	0.33	-1.31	0.87	-0.27	-0.27	0.09	-0.07
12	UTI Opportunities Fund							-0.41	0.38	-1.13	0.87	0.22	-0.08	-0.12	-0.04
	Average	-1.36	0.21	-0.09	1.43	0.44	2.12	0.07	0.27	-1.42	0.97	0.15	-0.19	-0.01	0.18

Source: Computed from Secondary Data

**Chart 4.09**

**Year wise Quarterly Sharpe Ratio for the period 2000-01 to 2012-13**



Source: Based on Table 4.20

Table 4.21 and 4.22 show the outperformance on the basis of Sharpe Ratio of ELSS funds over Diversified Equity funds and Market Indexes. As can be seen on an average, ELSS funds outperformed 39 percentage of Diversified Equity funds and 55 percentage of Market Indexes respectively based on quarterly Sharpe ratio. The absolute fund wise outperformance of ELSS over Diversified Equity funds category average and Market Indexes average is provided in Table 4.23 and Table 4.24. The absolute quarterly average Sharpe ratio of ELSS funds is less by .10 percentage as compared to diversified equity funds. The absolute average difference when compared with market indexes is negligible.

**Table 4.21**

Outperformance of ELSS Funds over Diversified Funds based on Quarterly Sharpe Ratio															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12	
	ELSS Funds														
1	Axis Long Term Equity											83.33%	58.33%	91.67%	78%
2	Birla Sunlife Tax Plan								25.00%	41.67%	33.33%	16.7%	8.33%	58.33%	31%
3	Birls Sunlife Tax Relief 96									33.33%	33.33%	8.3%	8.33%	58.33%	28%
4	BNP Paribas Tax Adv							16.67%	25.00%	16.67%	41.67%	16.7%	91.67%	58.33%	38%
5	BOI AXA Eco										75.00%	0.0%	0.00%	41.67%	29%
6	BOI AXA Tax Adv										75.00%	0.0%	0.00%	33.33%	27%
7	Canara Robeco Equity Tax Saver										75.00%	16.7%	58.33%	58.33%	52%
8	DSP Black Rock Tax Saver								83.33%	8.33%	75.00%	16.7%	8.33%	66.67%	43%
9	DWS Tax Saving							8.33%	83.33%	25.00%	75.00%	8.3%	0.00%	58.33%	37%
10	Edelweiss ELSS										8.33%	16.7%	66.67%	58.33%	38%
11	Escorts Tax Plan	100.00%	0.00%	75.00%	14.29%	42.86%	0.00%	16.67%	83.33%	0.00%	0.00%	8.3%	8.33%	0.00%	27%
12	Franklin India Tax Sheild	0.00%	25.00%	0.00%	100.00%	71.43%	66.67%	16.67%	41.67%	58.33%	75.00%	83.3%	58.33%	58.33%	50%
13	HDFC Long Term Adv		75.00%	75.00%	100.00%	100.00%	77.78%	16.67%	25.00%	25.00%	50.00%	83.33%	50.00%	58.33%	61%
14	HDFC Tax Saver	100.00%	75.00%	0.00%	14.29%	100.00%	77.78%	16.67%	25.00%	100.00%	75.00%	50.00%	41.67%	0.00%	52%
15	HSBC Tax Saver								25.00%	25.00%	75.00%	16.67%	16.67%	83.33%	40%
16	ICICI Pru Right											41.67%	100.00%	83.33%	75%
17	ICICI Pru Tax Plan	50.00%	75.00%	0.00%	14.29%	100.00%	22.22%	16.67%	25.00%	50.00%	91.67%	16.67%	50.00%	58.33%	44%
18	IDFC Tax Adv										91.67%	16.67%	8.33%	91.67%	52%
19	IDFC Tax Saver								33.33%	0.00%	83.33%	16.67%	0.00%	83.33%	36%
20	ING Retire Invest								25.00%	0.00%	75.00%	8.33%	0.00%	0.00%	18%
21	ING Tax Savings					42.86%	100.00%	25.00%	0.00%	33.33%	66.67%	83.33%	0.00%	8.33%	40%
22	JM Tax Gain									25.00%	0.00%	0.00%	8.33%	16.67%	10%
23	JP Morgan Tax Advantage										83.33%	83.33%	0.00%	25.00%	48%
24	Kotak Tax Saver							25.00%	33.33%	0.00%	33.33%	16.67%	33.33%	58.33%	29%
25	LIC Nomura Tax Plan	100.00%	0.00%	25.00%	42.86%	0.00%	0.00%	8.33%	0.00%	50.00%	0.00%	16.67%	0.00%	8.33%	19%
26	LNT Long Term Adv										100.00%	16.67%	33.33%	0.00%	38%
27	LNT Tax Advantage							66.67%	33.33%	66.67%	75.00%	100.00%	8.33%	25.00%	54%
28	LNT Tax Saver							25.00%	0.00%	0.00%	8.33%	16.67%	0.00%	0.00%	7%
29	Quantum Tax Savings										91.67%	91.67%	50.00%	58.33%	73%
30	Reliance Equity Linked Savings									58.33%	75.00%	50.00%	66.67%	58.33%	62%
31	Reliance Tax Saver							16.67%	0.00%	41.67%	75.00%	41.67%	91.67%	8.33%	39%
32	Religare Agile									33.33%	75.00%	16.67%	0.00%	58.33%	37%
33	Religare Tax Plan								91.67%	25.00%	83.33%	16.67%	58.33%	58.33%	56%
34	Sahara Tax Gain	0.00%	0.00%	0.00%	14.29%	42.86%	0.00%	8.33%	66.67%	33.33%	8.33%	41.67%	66.67%	0.00%	22%
35	SBI Magnum Tax Gain									50.00%	33.33%	8.33%	50.00%	58.33%	40%
36	SBI Tax Advantage I									50.00%	8.33%	8.33%	33.33%	58.33%	32%
37	Sundaram Tax Saver							25.00%	50.00%	0.00%	8.33%	16.67%	50.00%	58.33%	30%
38	Tata Infra Tax Savings										83.33%	0.00%	8.33%	0.00%	23%
39	Tata Tax Adv Fund I							8.33%	41.67%	25.00%	75.00%	41.67%	41.67%	41.67%	39%
40	Taurus Tax Shield	100.00%	0.00%	75.00%	0.00%	0.00%	0.00%	0.00%	91.67%	50.00%	0.00%	41.67%	0.00%	58.33%	32%
41	UTI ETSP							8.33%	41.67%	33.33%	75.00%	16.67%	8.33%	58.33%	35%
42	UTI LTA I								8.33%	41.67%	33.33%	8.33%	8.33%	25.00%	21%
43	UTI LTA II									25.00%	75.00%	16.67%	8.33%	58.33%	37%
	Average	64%	31%	31%	38%	56%	38%	18%	38%	32%	55%	30%	29%	44%	39%

Source: Computed from Table 4.20

**Table 4.22**

Outperformance of ELSS Funds over Market Index based on Quarterly Sharpe Ratio															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Diversified Funds	6	6	6	7	7	7	7	7	7	7	7	7	7	
	ELSS Funds														
1	Axis Long Term Equity											100.00%	100.00%	100.00%	100%
2	Birla Sunlife Tax Plan								0.00%	28.57%	100.00%	57.1%	100.00%	100.00%	64%
3	Birls Sunlife Tax Relief 96									14.29%	100.00%	0%	43%	100%	51%
4	BNP Paribas Tax Adv							0.00%	0.00%	0.00%	100.00%	0.0%	100.00%	100.00%	43%
5	BOI AXA Eco										100.00%	0.0%	14.29%	14.29%	32%
6	BOI AXA Tax Adv										100.00%	0.0%	14.29%	0.00%	29%
7	Canara Robeco Equity Tax Saver										100.00%	71.4%	100.00%	85.71%	89%
8	DSP Black Rock Tax Saver								100.00%	0.00%	100.00%	42.9%	100.00%	100.00%	74%
9	DWS Tax Saving							0.00%	100.00%	0.00%	100.00%	0.0%	0.00%	100.00%	43%
10	Edelweiss ELSS										57%	57%	100%	57%	68%
11	Escorts Tax Plan	100.00%	66.67%	100.00%	42.86%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.0%	71.43%	0.00%	45%
12	Franklin India Tax Shield	0.00%	100.00%	100.00%	100.00%	100.00%	42.86%	0.00%	28.57%	71.43%	100.00%	100.0%	100.00%	71.43%	70%
13	HDFC Long Term Adv		100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	42.86%	70%
14	HDFC Tax Saver	100%	100%	83%	100%	100%	100%	0%	0%	100%	100%	100%	100%	0%	76%
15	HSBC Tax Saver								0.00%	0.00%	100.00%	0.00%	100.00%	100.00%	50%
16	ICI Pru Right											100.00%	100.00%	100.00%	100%
17	ICI Pru Tax Plan	100.00%	100.00%	50.00%	0.00%	100.00%	0.00%	0.00%	0.00%	28.57%	100.00%	71.43%	100.00%	85.71%	57%
18	IDFC Tax Adv										100.00%	71.43%	85.71%	100.00%	89%
19	IDFC Tax Saver								0.00%	0.00%	100.00%	42.86%	14.29%	100.00%	43%
20	ING Retire Invest								0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	17%
21	ING Tax Savings					100.00%	100.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	0.00%	44%
22	JM Tax Gain									0.00%	0.00%	0.00%	100.00%	0.00%	20%
23	JP Morgan Tax Advantage										100.00%	100.00%	28.57%	0.00%	57%
24	Kotak Tax Saver							0.00%	0.00%	0.00%	100.00%	28.57%	100.00%	42.86%	39%
25	LIC Nomura Tax Plan	100.00%	16.67%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	42.86%	0.00%	71.43%	14.29%	0.00%	34%
26	LNT Long Term Adv										100.00%	0.00%	100.00%	0.00%	50%
27	LNT Tax Advantage							85.71%	0.00%	85.71%	100.00%	100.00%	71.43%	0.00%	63%
28	LNT Tax Saver							0.00%	0.00%	0.00%	14.29%	28.57%	14.29%	0.00%	8%
29	Quantum Tax Savings										100.00%	100.00%	100.00%	100.00%	100%
30	Reliance Equity Linked Savings									85.71%	100.00%	100.00%	100.00%	100.00%	97%
31	Reliance Tax Saver							0.00%	0.00%	14.29%	100.00%	100.00%	100.00%	0.00%	45%
32	Religare Agile									14.29%	100.00%	57.14%	0.00%	85.71%	51%
33	Religare Tax Plan								100.00%	0.00%	100.00%	71.43%	100.00%	100.00%	79%
34	Sahara Tax Gain	0.00%	66.67%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	100.00%	100.00%	0.00%	44%
35	SBI Magnum Tax Gain									28.57%	100.00%	0.00%	100.00%	85.71%	63%
36	SBI Tax Advantage I									57.14%	57.14%	0.00%	100.00%	71.43%	57%
37	Sundaram Tax Saver							0.00%	100.00%	0.00%	28.57%	0.00%	100.00%	85.71%	45%
38	Tata Infra Tax Savings										100.00%	0.00%	71.43%	0.00%	43%
39	Tata Tax Adv Fund I							0.00%	28.57%	0.00%	100.00%	100.00%	100.00%	14.29%	49%
40	Taurus Tax Shield	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	28.57%	0.00%	100.00%	0.00%	85.71%	47%
41	UTI ETSP							0.00%	14.29%	14.29%	100.00%	14.29%	42.86%	42.86%	33%
42	UTI LTA I								0.00%	28.57%	100.00%	0.00%	71.43%	0.00%	33%
43	UTI LTA II									0.00%	100.00%	28.57%	100.00%	71.43%	60%
^	Average	71%	81%	79%	55%	78%	38%	5%	31%	20%	84%	49%	71%	52%	55%

Source: Computed from Table 4.20

**Table 4.23**

Absolute Outperformance of ELSS Funds as against Diversified Equity Funds category Quarterly Average Sharpe Ratio															
Sl.No.	Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	Number of Diversified Fund	4	4	4	7	7	9	12	12	12	12	12	12	12	
	ELSS Funds														
1	Axis Long Term Equity											0.12	0.01	0.24	0.12
2	Birla Sunlife Tax Plan								-0.08	-0.05	-0.09	-0.09	-0.12	0.07	-0.06
3	Birls Sunlife Tax Relief 96									-0.10	-0.09	-0.29	-0.17	0.08	-0.12
4	BNP Paribas Tax Adv							-0.18	-0.08	-0.40	-0.05	-0.18	0.14	0.08	-0.10
5	BOI AXA Eco										0.00	-0.42	-0.22	-0.10	-0.19
6	BOI AXA Tax Adv										0.00	-0.43	-0.23	-0.12	-0.19
7	Canara Robeco Equity Tax Saver										0.00	-0.03	0.01	0.00	-0.01
8	DSP Black Rock Tax Saver								0.07	-0.50	0.06	-0.11	-0.09	0.12	-0.08
9	DWS Tax Saving							-0.40	0.07	-0.26	0.08	-0.35	-0.35	0.07	-0.16
10	Edelweiss ELSS										-0.14	-0.08	0.03	-0.03	-0.05
11	Escorts Tax Plan	0.62	-0.24	0.00	-0.28	-0.08	-1.11	-0.09	0.08	-2.10	-0.23	-0.32	-0.14	-0.78	-0.36
12	Franklin India Tax Shield	-1.72	-0.14	-0.25	0.24	0.07	0.03	-0.20	-0.01	0.13	0.04	0.09	0.00	-0.01	-0.13
13	HDFC Long Term Adv		0.10	0.28	1.20	0.35	0.53	-0.18	-0.13	-0.26	-0.04	0.14	-0.02	-0.04	0.16
14	HDFC Tax Saver	0.71	0.11	-0.33	-0.15	0.44	0.46	-0.14	-0.10	0.43	0.10	0.04	-0.06	-0.25	0.10
15	HSBC Tax Saver								-0.10	-0.30	0.05	-0.19	-0.08	0.19	-0.07
16	ICICI Pru Right											0.03	0.19	0.19	0.14
17	ICICI Pru Tax Plan	0.04	0.04	-0.40	-0.50	0.58	-0.35	-0.21	-0.11	-0.01	0.25	-0.03	-0.01	-0.01	-0.06
18	IDFC Tax Adv										0.23	-0.04	-0.14	0.21	0.07
19	IDFC Tax Saver								-0.03	-0.84	0.13	-0.11	-0.26	0.20	-0.15
20	ING Retire Invest								-0.11	-0.97	0.05	-0.28	-0.35	-0.20	-0.31
21	ING Tax Savings					-0.11	1.75	-0.05	-0.24	-0.16	-0.01	0.16	-0.40	-0.16	0.09
22	JM Tax Gain									-0.26	-0.24	-0.45	-0.12	-0.14	-0.24
23	JP Morgan Tax Advantage										0.16	0.08	-0.19	-0.13	-0.02
24	Kotak Tax Saver							-0.02	-0.05	-0.54	-0.06	-0.12	-0.07	-0.05	-0.13
25	LIC Nomura Tax Plan	0.56	-0.45	-0.13	0.08	-0.35	-0.98	-0.27	-0.59	0.00	-0.30	-0.05	-0.22	-0.15	-0.22
26	LNT Long Term Adv										0.38	-0.18	-0.06	-0.21	-0.02
27	LNT Tax Advantage							0.08	-0.03	0.22	0.10	0.22	-0.15	-0.12	0.04
28	LNT Tax Saver							-0.07	-0.21	-0.63	-0.17	-0.13	-0.27	-0.35	-0.26
29	Quantum Tax Savings										0.23	0.16	-0.02	0.07	0.11
30	Reliance Equity Linked Savings									0.20	0.07	0.04	0.08	0.05	0.09
31	Reliance Tax Saver							-0.12	-0.17	-0.07	0.06	0.02	0.14	-0.15	-0.04
32	Religare Agile									-0.09	0.01	-0.10	-0.29	0.00	-0.09
33	Religare Tax Plan								0.12	-0.21	0.15	-0.02	0.00	0.05	0.01
34	Sahara Tax Gain	-6.12	-0.25	-0.45	-0.48	-0.04	-2.45	-0.24	0.05	-0.15	-0.11	0.02	0.04	-0.25	-0.80
35	SBI Magnum Tax Gain									-0.02	-0.08	-0.28	-0.03	0.00	-0.08
36	SBI Tax Advantage I									0.08	-0.14	-0.38	-0.06	-0.02	-0.10
37	Sundaram Tax Saver							-0.07	0.04	-1.20	-0.16	-0.19	-0.02	-0.01	-0.23
38	Tata Infra Tax Savings										0.15	-0.58	-0.15	-0.39	-0.24
39	Tata Tax Adv Fund I							-0.32	0.00	-0.19	0.00	0.02	-0.05	-0.10	-0.09
40	Taurus Tax Shield	0.91	-0.21	0.19	-1.15	-0.30	-1.88	-0.57	0.19	0.00	-0.22	0.02	-0.33	0.00	-0.26
41	UTI ETSP							-0.28	-0.01	-0.09	0.00	-0.14	-0.17	-0.05	-0.11
42	UTI LTA I								-0.16	-0.05	-0.06	-0.26	-0.15	-0.12	-0.13
43	UTI LTA II									-0.25	0.07	-0.12	-0.10	-0.02	-0.08
	Average	-0.72	-0.13	-0.14	-0.13	0.06	-0.44	-0.19	-0.06	-0.27	0.00	-0.11	-0.10	-0.05	-0.10

Source: Computed from Table 4.20

**Table 4.24**

Absolute Outperformance of ELSS Funds as against Market Indexes Quarterly Average Sharpe Ratio															
Sl.No.	Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	Number of Market Indexes	6	6	6	7	7	7	7	7	7	7	7	7	7	
	Name of ELSS Funds														
1	Axis Long Term Equity											0.20	0.19	0.28	0.22
2	Birla Sunlife Tax Plan								-0.08	-0.11	0.06	-0.01	0.05	0.11	0.00
3	Birls Sunlife Tax Relief 96									-0.16	0.06	-0.20	0.00	0.12	-0.04
4	BNP Paribas Tax Adv							-0.23	-0.08	-0.45	0.10	-0.10	0.31	0.12	-0.05
5	BOI AXA Eco										0.15	-0.34	-0.05	-0.06	-0.07
6	BOI AXA Tax Adv										0.15	-0.35	-0.06	-0.07	-0.08
7	Canara Robeco Equity Tax Saver										0.15	0.05	0.18	0.04	0.11
8	DSP Black Rock Tax Saver								0.06	-0.56	0.21	-0.03	0.08	0.16	-0.01
9	DWS Tax Saving							-0.45	0.07	-0.32	0.23	-0.26	-0.18	0.11	-0.11
10	Edelweiss ELSS										0.01	0.00	0.21	0.01	0.06
11	Escorts Tax Plan	1.15	0.09	0.40	-0.04	0.13	-1.16	-0.14	0.07	-2.16	-0.08	-0.24	0.03	-0.74	-0.21
12	Franklin India Tax Sheild	-1.18	0.19	0.15	0.48	0.28	-0.02	-0.26	-0.02	0.07	0.19	0.17	0.18	0.03	0.02
13	HDFC Long Term Adv		0.43	0.68	1.44	0.56	0.48	-0.24	-0.14	-0.32	0.11	0.22	0.15	0.01	0.28
14	HDFC Tax Saver	1.24	0.44	0.07	0.09	0.65	0.41	-0.19	-0.11	0.37	0.25	0.12	0.12	-0.21	0.25
15	HSBC Tax Saver								-0.11	-0.36	0.20	-0.10	0.10	0.24	-0.01
16	ICICI Pru Right											0.11	0.37	0.23	0.24
17	ICICI Pru Tax Plan	0.58	0.37	0.00	-0.26	0.79	-0.40	-0.26	-0.12	-0.07	0.40	0.05	0.17	0.03	0.10
18	IDFC Tax Adv										0.38	0.05	0.04	0.25	0.18
19	IDFC Tax Saver								-0.04	-0.90	0.28	-0.03	-0.08	0.24	-0.09
20	ING Retire Invest								-0.12	-1.03	0.20	-0.19	-0.18	-0.16	-0.25
21	ING Tax Savings					0.10	1.70	-0.11	-0.25	-0.22	0.14	0.24	-0.22	-0.12	0.14
22	JM Tax Gain									-0.32	-0.09	-0.36	0.05	-0.10	-0.16
23	JP Morgan Tax Advantage										0.31	0.16	-0.02	-0.09	0.09
24	Kotak Tax Saver							-0.07	-0.05	-0.60	0.09	-0.04	0.10	-0.01	-0.08
25	LIC Nomura Tax Plan	1.10	-0.12	0.26	0.32	-0.14	-1.03	-0.32	-0.60	-0.06	-0.15	0.04	-0.05	-0.11	-0.07
26	LNT Long Term Adv										0.53	-0.09	0.11	-0.17	0.09
27	LNT Tax Advantage							0.03	-0.03	0.16	0.25	0.30	0.02	-0.08	0.09
28	LNT Tax Saver							-0.12	-0.22	-0.69	-0.03	-0.04	-0.09	-0.30	-0.21
29	Quantum Tax Savings										0.38	0.25	0.16	0.11	0.22
30	Reliance Equity Linked Savings									0.14	0.22	0.12	0.25	0.10	0.17
31	Reliance Tax Saver							-0.18	-0.18	-0.13	0.21	0.10	0.31	-0.11	0.00
32	Religare Agile									-0.15	0.16	-0.01	-0.12	0.04	-0.02
33	Religare Tax Plan								0.11	-0.27	0.30	0.06	0.17	0.10	0.08
34	Sahara Tax Gain	-5.58	0.08	-0.05	-0.24	0.17	-2.50	-0.30	0.04	-0.21	0.04	0.10	0.21	-0.21	-0.65
35	SBI Magnum Tax Gain									-0.08	0.07	-0.19	0.15	0.04	0.00
36	SBI Tax Advantage I									0.02	0.01	-0.29	0.11	0.03	-0.03
37	Sundaram Tax Saver							-0.12	0.03	-1.26	-0.01	-0.11	0.15	0.03	-0.18
38	Tata Infra Tax Savings										0.30	-0.49	0.03	-0.35	-0.13
39	Tata Tax Adv Fund I							-0.37	0.00	-0.25	0.14	0.11	0.12	-0.06	-0.04
40	Taurus Tax Shield	1.45	0.12	0.59	-0.90	-0.09	-1.93	-0.62	0.18	-0.06	-0.07	0.10	-0.15	0.04	-0.10
41	UTI ETSP							-0.33	-0.02	-0.15	0.14	-0.06	0.00	-0.01	-0.06
42	UTI LTA I								-0.16	-0.11	0.09	-0.17	0.03	-0.08	-0.07
43	UTI LTA II									-0.31	0.22	-0.03	0.08	0.03	0.00
	Average	-0.18	0.20	0.26	0.11	0.27	-0.50	-0.24	-0.07	-0.33	0.15	-0.03	0.07	-0.01	-0.01

Source: Computed from Table 4.20

Table 4.25 ranks all funds and indexes based on Sharpe Ratio. The rankings show that there is no consistency in performance of either ELSS or Diversified Equity Funds.

**Table 4.25**

Ranks assigned based on Quarterly Average Sharpe Ratio														
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
		Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank
<b>ELSS Funds</b>														
1	Axis Long Term Equity											7	12	2
2	Birla Sunlife Tax Plan								30	23	39	34	35	16
3	Birls Sunlife Tax Relief 96									29	40	54	47	12
4	BNP Paribas Tax Adv							26	31	42	34	47	3	13
5	BOI AXA Eco										24	59	53	40
6	BOI AXA Tax Adv										25	60	54	44
7	Canara Robeco Equity Tax Saver										23	28	13	23
8	DSP Black Rock Tax Saver								7	44	18	37	33	10
9	DWS Tax Saving							35	6	38	14	56	60	14
10	Edelweiss ELSS										48	33	10	31
11	Escorts Tax Plan	4	12	4	15	10	23	23	5	51	58	55	40	62
12	Franklin India Tax Shield	17	7	10	2	6	11	28	21	11	21	8	14	27
13	HDFC Long Term Adv		3	2	1	3	4	27	36	39	32	6	20	33
14	HDFC Tax Saver	3	2	12	10	2	5	25	32	1	12	15	24	59
15	HSBC Tax Saver								33	40	19	48	31	6
16	ICICI Pru Right											17	1	7
17	ICICI Pru Tax Plan	8	4	15	20	1	19	29	34	19	3	29	17	25
18	IDFC Tax Adv										5	30	38	3
19	IDFC Tax Saver								27	48	10	38	55	5
20	ING Retire Invest								35	49	20	52	61	56
21	ING Tax Savings					11	1	19	43	32	29	5	62	54
22	JM Tax Gain									37	59	61	36	50
23	JP Morgan Tax Advantage										7	9	50	48
24	Kotak Tax Saver							18	28	46	37	41	28	35
25	LIC Nomura Tax Plan	5	18	8	7	23	22	32	44	16	60	31	52	52
26	LNT Long Term Adv										1	46	26	57
27	LNT Tax Advantage							6	26	7	13	1	43	47
28	LNT Tax Saver							21	42	47	54	42	56	60
29	Quantum Tax Savings										4	3	18	15
30	Reliance Equity Linked Savings									9	16	14	8	17
31	Reliance Tax Saver							24	41	25	17	21	4	53
32	Religare Agile									28	22	35	58	21
33	Religare Tax Plan								3	35	9	27	15	18
34	Sahara Tax Gain	18	13	19	19	9	25	31	10	31	44	19	9	58
35	SBI Magnum Tax Gain									20	38	53	21	20
36	SBI Tax Advantage I									14	49	57	27	28
37	Sundaram Tax Saver							20	13	50	52	49	19	24
38	Tata Infra Tax Savings										8	62	41	61
39	Tata Tax Adv Fund I							34	20	34	26	18	23	41
40	Taurus Tax Shield	2	9	3	22	22	24	37	2	18	57	20	59	22
41	UTI ETSP							33	23	27	27	44	46	34
42	UTI LTA I								39	22	36	51	42	46
43	UTI LTA II									36	15	40	34	29
<b>Indexes</b>														
1	BSE 30	16	19	18	16	20	6	3	24	12	55	26	57	19
2	BSE 100	15	15	16	12	18	8	10	15	17	53	36	48	32
3	BSE 200	13	11	14	11	17	16	12	17	24	51	39	44	36
4	BSE 500	14	10	11	14	13	15	15	18	30	47	43	39	42
5	CNX 500	12	14	13	13	14	13	17	22	15	50	45	37	39
6	CNX Nifty	9	16	17	18	21	7	7	16	6	46	25	51	30
7	CNX 100				17	19	9	9	19	10	45	32	45	26
<b>Diversified Equity Funds</b>														
1	Birla Sunlife Frontline Equity				5	15	21	1	14	21	35	23	49	1
2	DSP Black Rock Top 100				6	12	10	4	8	5	33	24	16	55
3	Franklin India Bluechip	7	8	9	3	16	18	14	25	3	31	13	30	38
4	HDFC Equity Fund	11	1	7	4	8	3	8	29	8	28	2	25	51
5	HDFC Top 200	6	6	5	8	7	2	16	11	2	42	4	29	45
6	ICICI Pru Dynamic	1	17	6	21	5	12	2	38	26	56	11	11	37
7	ICICI Discovery Fund						17	30	37	43	6	22	7	8
8	IDFC Premier Equity							22	1	33	11	16	2	9
9	Reliance Growth	10	5	1	9	4	14	5	12	41	30	50	22	49
10	Reliance Equity Opportunities						20	11	40	45	2	12	5	4
11	SBI Magnum Contra							13	9	13	41	58	32	11
12	UTI Opportunities Fund							36	4	4	43	10	6	43

Source: Based on Table 4.20

Composite portfolio evaluation analyses both risk and return of the investment in its appraisal. Total risk is generally measured by standard deviation of the investment. Standard Deviation considers the extent of variability of returns from the mean return. So standard deviation considers both upside and downside variability. From the investors perspective, upside variability is welcome whereas downside variability is not. Downside variability is what is considered as risk by an investor as this could mean a loss in invested amount. As compared to total risk, downside risk only considers the variability of return on the downside. Downside risk is measured using Semi Variance or Semi Deviation. Sortino Ratio as considered in this study is a ratio of risk premium earned by the investor for undertaking a unit of down side risk. Similar to the Sharpe ratio, higher the Sortino ratio, better is the risk adjusted performance of the investment.

The Year wise quarterly Sortino ratio is tabulated in Table 4.26 and shown in Chart 4.10. As per Table 4.26, the average quarterly Sortino ratio for ELSS funds was -0.03 as against 0.06 for market indexes and 0.26 for diversified equity funds. The Sortino ratio reflects that for every rupee of downside risk undertaken, ELSS funds lost 3paisa, as against an earnings of 6 paisa risk premium by market indexes and earning of 26 paisa risk premium by diversified equity funds. This shows that ELSS funds as a category have underperformed the Markets Indexes and Diversified Equity funds based on Sortino Ratio.

Table 4.27 and 4.28 shows the outperformance of ELSS funds as against Diversified Equity funds and Market Indexes. As per Table 4.27, on an average ELSS funds have outperformed 36 percentage of the Diversified Equity funds and 53 percentage of Market Indexes based on Sortino ratio. The absolute outperformance of ELSS funds as against Diversified Equity funds and Market Indexes are provided in Table 4.29 and 4.30. This shows that ELSS funds had 0.15 percentage lesser Sortino ratio as compared to Diversified Equity funds category average. The absolute difference is negligible when compared with Market Indexes.



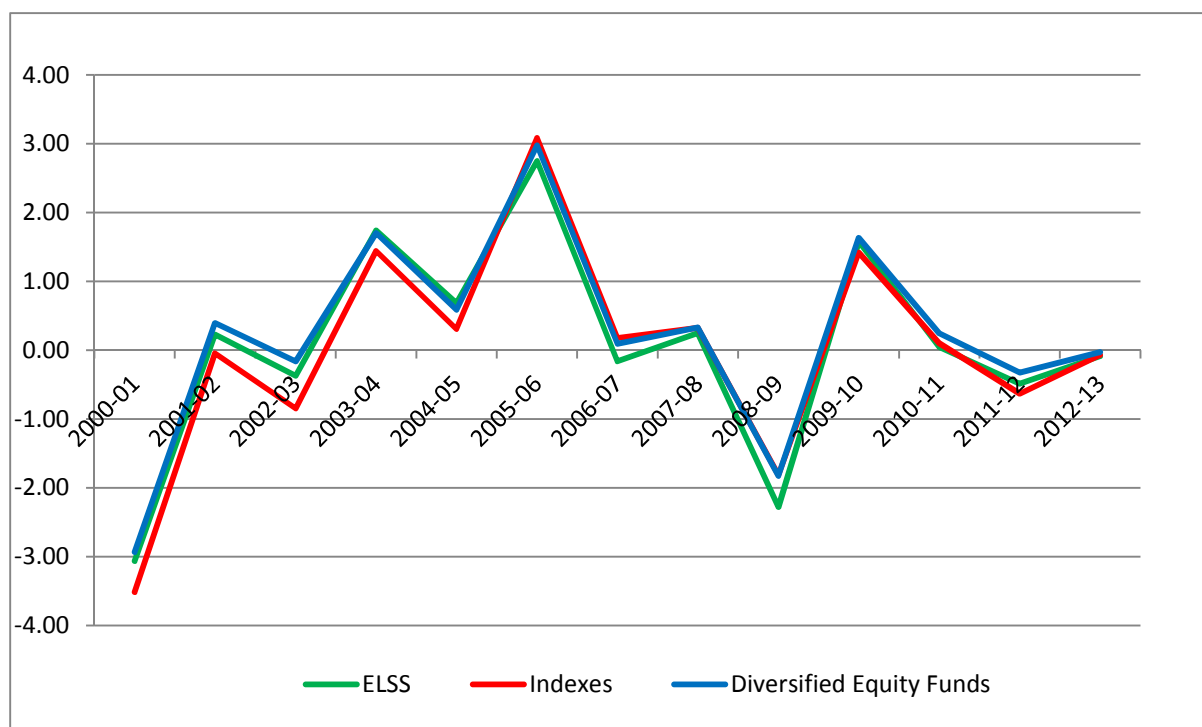
Table 4.26

Sortino Ratio based on Quarterly Average Returns															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	ELSS Funds														
1	Axis Long Term Equity											0.39	-0.27	0.33	0.15
2	Birla Sunlife Tax Plan								0.23	-1.98	1.46	0.09	-0.55	0.08	-0.11
3	Birls Sunlife Tax Relief 96									-2.11	1.51	-0.20	-0.61	0.09	-0.27
4	BNP Paribas Tax Advantage							-0.15	0.23	-2.65	1.47	-0.06	-0.08	0.09	-0.16
5	BOI AXA Eco										1.58	-0.49	-0.68	-0.15	0.06
6	BOI AXA Tax Advantage										1.58	-0.50	-0.69	-0.18	0.05
7	Canara Robeco Equity Tax Saver										1.74	0.17	-0.29	-0.02	0.40
8	DSP Black Rock Tax Saver								0.41	-2.40	1.73	0.05	-0.48	0.14	-0.09
9	DWS Tax Saving							-0.45	0.41	-2.21	1.65	-0.31	-0.86	0.09	-0.24
10	Edelweiss ELSS										1.31	0.09	-0.25	-0.06	0.28
11	Escorts Tax Plan	-1.33	0.07	-0.13	1.60	0.43	1.40	-0.03	0.41	-4.23	1.40	-0.25	-0.51	-1.03	-0.17
12	Franklin India Tax Shield	-4.59	0.22	-0.57	2.05	0.69	3.03	-0.19	0.30	-1.76	1.89	0.41	-0.33	-0.03	0.08
13	HDFC Long Term Advantage		0.57	0.28	4.19	1.13	4.83	-0.16	0.16	-2.06	1.65	0.40	-0.36	-0.07	0.88
14	HDFC Tax Saver	-1.14	0.53	-0.67	1.54	1.18	3.76	-0.10	0.19	-1.38	1.75	0.27	-0.39	-0.36	0.40
15	HSBC Tax Saver								0.17	-1.72	1.02	-0.04	-0.27	0.18	-0.11
16	ICICI Prudential Right											0.28	0.01	0.25	0.18
17	ICICI Prudential Tax Plan	-1.90	0.46	-0.72	1.08	1.38	2.67	-0.23	0.20	-1.76	1.98	0.17	-0.33	-0.03	0.23
18	IDFC Tax Advantage										1.79	0.18	-0.59	0.28	0.42
19	IDFC Tax Saver								0.30	-3.96	1.68	0.05	-0.77	0.27	-0.40
20	ING Retire Invest								0.19	-3.48	1.62	-0.21	-0.88	-0.29	-0.51
21	ING Tax Savings					0.46	7.47	0.02	0.03	-1.98	1.59	0.41	-0.97	-0.23	0.76
22	JM Tax Gain									-2.17	1.36	-0.43	-0.56	-0.22	-0.41
23	JP Morgan Tax Advantage											0.32	-0.63	-0.18	-0.17
24	Kotak Tax Saver							0.07	0.27	-2.70	1.57	0.03	-0.44	-0.08	-0.18
25	LIC Nomura Tax Plan	-1.41	-0.23	-0.34	1.83	0.11	1.63	-0.28	-0.39	-1.97	1.16	0.16	-0.72	-0.22	-0.05
26	LNT Long Term Advantage										1.90	-0.04	-0.45	-0.30	0.28
27	LNT Tax Advantage							0.20	0.28	-1.63	1.74	0.52	-0.60	-0.18	0.05
28	LNT Tax Saver							0.00	0.07	-2.74	1.45	0.03	-0.85	-0.47	-0.36
29	Quantum Tax Savings										1.79	0.44	-0.39	0.09	0.48
30	Reliance Equity Linked Savings									-1.48	1.54	0.24	-0.19	0.05	0.03
31	Reliance Tax Saver							-0.07	0.11	-2.07	1.83	0.25	-0.09	-0.21	-0.04
32	Religare Agile									-2.44	1.20	0.08	-0.67	-0.01	-0.37
33	Religare Tax Plan								0.46	-2.27	1.78	0.18	-0.29	0.06	-0.01
34	Sahara Tax Gain	-10.01	0.07	-0.96	1.24	0.56	-0.38	-0.24	0.39	-2.24	1.36	0.23	-0.25	-0.33	-0.81
35	SBI Magnum Tax Gain									-2.00	1.51	-0.18	-0.39	-0.01	-0.21
36	SBI Tax Advantage I									-1.63	1.43	-0.36	-0.43	-0.04	-0.20
37	Sundaram Tax Saver							0.00	0.37	-3.65	1.24	-0.07	-0.40	-0.03	-0.36
38	Tata Infra Tax Savings										1.92	-0.63	-0.60	-0.56	0.03
39	Tata Tax Advantage Fund I							-0.36	0.32	-2.00	1.73	0.24	-0.39	-0.16	-0.09
41	Taurus Tax Shield	-1.07	0.12	0.15	0.38	0.19	0.33	-0.66	0.56	-1.78	1.36	0.25	-0.85	-0.02	-0.08
42	UTI ETSP							-0.29	0.30	-2.06	1.57	0.01	-0.63	-0.08	-0.17
43	UTI LTA I								0.14	-2.01	1.61	-0.17	-0.61	-0.18	-0.20
44	UTI LTA II									-2.36	1.66	0.04	-0.49	-0.04	-0.24
	Average	-3.06	0.23	-0.37	1.74	0.68	2.75	-0.16	0.24	-2.28	1.58	0.05	-0.49	-0.09	-0.03
	Indexes														
1	BSE 30	-2.57	-0.22	-1.02	1.42	0.27	3.52	0.32	0.28	-1.73	1.34	0.20	-0.78	0.03	0.08
2	BSE 100	-4.09	-0.05	-0.92	1.52	0.30	3.18	0.18	0.35	-1.87	1.41	0.07	-0.64	-0.06	-0.05
3	BSE 200	-4.02	0.08	-0.75	1.49	0.31	2.64	0.14	0.33	-1.95	1.45	0.05	-0.60	-0.10	-0.07
4	BSE 500	-4.07	0.09	-0.64	1.46	0.38	2.67	0.12	0.33	-2.02	1.47	0.01	-0.58	-0.16	-0.07
5	CNX 500	-3.92	-0.01	-0.73	1.47	0.37	2.91	0.07	0.31	-1.88	1.43	-0.01	-0.55	-0.14	-0.05
6	CNX Nifty	-2.44	-0.18	-1.01	1.32	0.24	3.52	0.21	0.34	-1.58	1.37	0.22	-0.67	-0.04	0.10
7	CNX 100				1.42	0.28	3.15	0.18	0.32	-1.67	1.45	0.16	-0.60	-0.03	0.46
	Average	-3.52	-0.05	-0.85	1.44	0.31	3.08	0.17	0.32	-1.82	1.42	0.10	-0.63	-0.07	0.06
	Diversified Equity Funds														
1	Birla Sunlife Frontline Equity				1.86	0.37	2.46	0.49	0.35	-2.02	1.57	0.22	-0.63	0.35	0.50
2	DSP Black Rock Equity				1.87	0.40	3.02	0.27	0.39	-1.53	1.47	0.21	-0.33	-0.25	0.55
3	Franklin India Bluechip	-2.83	0.20	-0.43	2.01	0.38	2.52	0.13	0.28	-1.38	1.77	0.33	-0.47	-0.14	0.18
4	HDFC Equity Fund	-4.11	0.64	-0.32	1.84	0.55	4.07	0.19	0.24	-1.63	1.68	0.54	-0.42	-0.23	0.23
5	HDFC Top 200	-1.94	0.32	-0.22	1.77	0.62	4.00	0.09	0.37	-1.35	1.53	0.47	-0.46	-0.17	0.39
6	ICICI Prudential Dynamic				0.92	0.77	2.31	0.33	0.21	-2.03	1.90	0.55	-0.31	-0.28	0.44
7	ICICI Discovery						2.87	-0.25	0.15	-2.30	1.82	0.20	-0.14	0.19	0.32
8	IDFC Premier Equity							-0.01	0.60	-2.03	1.90	0.25	-0.04	0.15	0.12
9	Reliance Growth	-2.87	0.43	0.31	1.64	1.02	2.94	0.20	0.39	-2.15	1.70	-0.12	-0.41	-0.18	0.22
10	Reliance Opportunties						2.61	0.13	0.14	-1.94	1.35	0.32	-0.10	0.26	0.35
11	SBI Magnum Contra							0.13	0.38	-1.85	1.46	-0.39	-0.46	0.12	-0.08
12	UTI Opportunities							-0.59	0.44	-1.73	1.42	0.37	-0.15	-0.16	-0.06
	Average	-2.94	0.40	-0.16	1.70	0.59	2.98	0.09	0.33	-1.83	1.63	0.25	-0.33	-0.03	0.26

Source : Computed from Secondary Data

**Chart 4.10**

**Year wise Quarterly Sortino Ratio  
for the period 2000-01 to 2012-13**



Source : Based on Table 4.26

**Table 4.27**

Outperformance of ELSS Funds over Diversified Equity Funds category Quarterly Average Sortino Ratio															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12	
	ELSS Funds														
1	Axis Long Term Equity											8.33%	8.33%	58.33%	25%
2	Birla Sunlife Tax Plan								25.00%	41.67%	16.67%	16.67%	8.33%	58.33%	28%
3	Birls Sunlife Tax Relief 96									16.67%	33.33%	8.33%	8.33%	58.33%	25%
4	BNP Paribas Tax Adv							16.67%	25.00%	0.00%	25.00%	16.67%	91.67%	58.33%	33%
5	BOI AXA Eco										50.00%	0.00%	0.00%	50.00%	25%
6	BOI AXA Tax Adv										50.00%	0.00%	0.00%	33.33%	21%
7	Canara Robeco Equity Tax Saver										66.67%	16.67%	66.67%	58.33%	52%
8	DSP Black Rock Tax Saver								83.33%	0.00%	66.67%	16.67%	8.33%	66.67%	40%
9	DWS Tax Saving							8.33%	83.33%	8.33%	50.00%	8.33%	0.00%	58.33%	31%
10	Edelweiss ELSS										0.00%	16.67%	66.67%	58.33%	35%
11	Escorts Tax Plan	100.00%	0.00%	75.00%	14.29%	42.86%	0.00%	16.67%	83.33%	0.00%	8.33%	8.33%	8.33%	0.00%	27%
12	Franklin India Tax Sheild	0.00%	25.00%	0.00%	100.00%	71.43%	77.78%	16.67%	41.67%	58.33%	83.33%	75.00%	58.33%	58.33%	51%
13	HDFC Long Term Adv		75.00%	75.00%	100.00%	100.00%	100.00%	16.67%	16.67%	16.67%	50.00%	75.00%	50.00%	58.33%	61%
14	HDFC Tax Saver	100.00%	75.00%	0.00%	14.29%	100.00%	77.78%	16.67%	16.67%	91.67%	66.67%	50.00%	50.00%	0.00%	51%
15	HSBC Tax Saver								16.67%	66.67%	0.00%	16.67%	66.67%	75.00%	40%
16	ICI Pru Right											50.00%	100.00%	83.33%	78%
17	ICI Pru Tax Plan	100.00%	75.00%	0.00%	14.29%	100.00%	44.44%	16.67%	16.67%	58.33%	100.00%	16.67%	58.33%	58.33%	51%
18	IDFC Tax Adv										75.00%	16.67%	8.33%	91.67%	48%
19	IDFC Tax Saver								41.67%	0.00%	58.33%	16.67%	0.00%	91.67%	35%
20	ING Retire Invest								16.67%	0.00%	50.00%	8.33%	0.00%	0.00%	13%
21	ING Tax Savings					42.86%	100.00%	25.00%	0.00%	41.67%	50.00%	75.00%	0.00%	16.67%	39%
22	JM Tax Gain									8.33%	8.33%	0.00%	8.33%	25.00%	10%
23	JP Morgan Tax Advantage											50.00%	8.33%	33.33%	31%
24	Kotak Tax Saver							25.00%	33.33%	0.00%	41.67%	16.67%	33.33%	58.33%	30%
25	LIC Nomura Tax Plan	100.00%	0.00%	25.00%	42.86%	0.00%	0.00%	8.33%	0.00%	41.67%	0.00%	16.67%	0.00%	25.00%	20%
26	LNT Long Term Adv										100.00%	16.67%	33.33%	0.00%	38%
27	LNT Tax Advantage							66.67%	41.67%	75.00%	66.67%	83.33%	8.33%	33.33%	54%
28	LNT Tax Saver							25.00%	0.00%	0.00%	16.67%	16.67%	0.00%	0.00%	8%
29	Quantum Tax Savings										75.00%	75.00%	50.00%	58.33%	65%
30	Reliance Equity Linked Savings									83.33%	41.67%	41.67%	66.67%	58.33%	58%
31	Reliance Tax Saver							16.67%	0.00%	16.67%	83.33%	50.00%	91.67%	25.00%	40%
32	Religare Agile									0.00%	0.00%	16.67%	0.00%	58.33%	15%
33	Religare Tax Plan								91.67%	8.33%	75.00%	16.67%	66.67%	58.33%	53%
34	Sahara Tax Gain	0.00%	0.00%	0.00%	14.29%	57.14%	0.00%	16.67%	83.33%	8.33%	8.33%	41.67%	66.67%	0.00%	23%
35	SBI Magnum Tax Gain									41.67%	33.33%	8.33%	50.00%	58.33%	38%
36	SBI Tax Advantage I									75.00%	16.67%	8.33%	33.33%	58.33%	38%
37	Sundaram Tax Saver							25.00%	58.33%	0.00%	0.00%	16.67%	50.00%	58.33%	30%
38	Tata Infra Tax Savings										100.00%	0.00%	8.33%	0.00%	27%
39	Tata Tax Adv Fund I							8.33%	41.67%	41.67%	66.67%	41.67%	50.00%	41.67%	42%
40	Taurus Tax Shield	100.00%	0.00%	75.00%	0.00%	0.00%	0.00%	0.00%	91.67%	58.33%	8.33%	50.00%	0.00%	58.33%	34%
41	UTI ETSP							8.33%	41.67%	16.67%	41.67%	16.67%	8.33%	58.33%	27%
42	UTI LTA I								8.33%	41.67%	50.00%	8.33%	8.33%	33.33%	25%
43	UTI LTA II									0.00%	50.00%	16.67%	8.33%	58.33%	27%
	Average	71%	31%	31%	38%	57%	44%	19%	38%	29%	45%	26%	30%	45%	36%

Source: Computed from Table 4.26

**Table 4.28**

Outperformance of ELSS Funds over Market Indexes Quarterly Average Sortino Ratio															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	No. of Diversified Funds	6	6	6	7	7	7	7	7	7	7	7	7	7	
	ELSS Funds														
1	Axis Long Term Equity											0%	43%	100%	48%
2	Birla Sunlife Tax Plan								0%	14%	86%	57%	100%	100%	60%
3	Birls Sunlife Tax Relief 96									0%	100%	0%	43%	100%	49%
4	BNP Paribas Tax Adv							0%	0%	0%	100%	0%	100%	100%	43%
5	BOI AXA Eco										100%	0%	14%	14%	32%
6	BOI AXA Tax Adv										100%	0%	14%	0%	29%
7	Canara Robeco Equity Tax Saver										100%	71%	100%	86%	89%
8	DSP Black Rock Tax Saver								100%	0%	100%	43%	100%	100%	74%
9	DWS Tax Saving							0%	100%	0%	100%	0%	0%	100%	43%
10	Edelweiss ELSS										0%	57%	100%	57%	54%
11	Escorts Tax Plan	100%	67%	100%	100%	100%	0%	0%	100%	0%	29%	0%	100%	0%	53%
12	Franklin India Tax Shield	0%	100%	100%	100%	100%	43%	0%	14%	57%	100%	100%	100%	71%	68%
13	HDFC Long Term Adv		100%	100%	100%	100%	100%	0%	0%	0%	100%	100%	100%	43%	70%
14	HDFC Tax Saver	100%	100%	83%	100%	100%	100%	0%	0%	100%	100%	100%	100%	0%	76%
15	HSBC Tax Saver								0%	71%	0%	0%	100%	100%	45%
16	ICICI Pru Right											100%	100%	100%	100%
17	ICICI Pru Tax Plan	100%	100%	83%	0%	100%	29%	0%	0%	57%	100%	71%	100%	86%	64%
18	IDFC Tax Adv										100%	71%	71%	100%	86%
19	IDFC Tax Saver								14%	0%	100%	43%	14%	100%	45%
20	ING Retire Invest								0%	0%	100%	0%	0%	0%	17%
21	ING Tax Savings					100%	100%	0%	0%	14%	100%	100%	0%	0%	46%
22	JM Tax Gain									0%	14%	0%	86%	0%	20%
23	JP Morgan Tax Advantage											100%	43%	0%	48%
24	Kotak Tax Saver							0%	0%	0%	100%	29%	100%	43%	39%
25	LIC Nomura Tax Plan	100%	0%	100%	100%	0%	0%	0%	0%	14%	0%	57%	14%	0%	30%
26	LNT Long Term Adv										100%	0%	100%	0%	50%
27	LNT Tax Advantage							71%	0%	86%	100%	100%	43%	0%	57%
28	LNT Tax Saver							0%	0%	0%	57%	29%	0%	0%	12%
29	Quantum Tax Savings										100%	100%	100%	100%	100%
30	Reliance Equity Linked Savings									100%	100%	100%	100%	100%	100%
31	Reliance Tax Saver							0%	0%	0%	100%	100%	100%	0%	43%
32	Religare Agile									0%	0%	57%	29%	86%	34%
33	Religare Tax Plan								100%	0%	100%	71%	100%	100%	79%
34	Sahara Tax Gain	0%	67%	33%	0%	100%	0%	0%	100%	0%	14%	100%	100%	0%	40%
35	SBI Magnum Tax Gain									14%	100%	0%	100%	86%	60%
36	SBI Tax Advantage I									86%	57%	0%	100%	71%	63%
37	Sundaram Tax Saver							0%	100%	0%	0%	0%	100%	86%	41%
38	Tata Infra Tax Savings										100%	0%	57%	0%	39%
39	Tata Tax Adv Fund I							0%	29%	14%	100%	100%	100%	0%	49%
40	Taurus Tax Shield	100%	100%	100%	0%	0%	0%	0%	100%	57%	14%	100%	0%	86%	51%
41	UTI ETSP							0%	14%	0%	100%	14%	43%	43%	31%
42	UTI LTA I								0%	14%	100%	0%	43%	0%	26%
43	UTI LTA II									0%	100%	29%	100%	71%	60%
	Average	71%	79%	88%	63%	78%	41%	4%	31%	22%	77%	47%	69%	52%	53%

Source: Computed from Table 4.26

**Table 4.29**

Absolute Outperformance of ELSS Funds as against Diversified Equity Funds category Quarterly Average Sortino Ratio															
Sl.No.	Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	Number of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12	
	Name of ELSS Funds														
1	Axis Long Term Equity											-0.45	-0.29	0.12	-0.20
2	Birla Sunlife Tax Plan								-0.10	-0.15	-0.18	-0.15	-0.22	0.11	-0.12
3	Birls Sunlife Tax Relief 96									-0.28	-0.13	-0.45	-0.29	0.12	-0.20
4	BNP Paribas Tax Adv							-0.25	-0.10	-0.82	-0.16	-0.30	0.25	0.12	-0.18
5	BOI AXA Eco										-0.05	-0.73	-0.35	-0.12	-0.32
6	BOI AXA Tax Adv										-0.06	-0.75	-0.36	-0.15	-0.33
7	Canara Robeco Equity Tax Saver										0.11	-0.07	0.04	0.01	0.02
8	DSP Black Rock Tax Saver								0.08	-0.58	0.10	-0.20	-0.15	0.17	-0.10
9	DWS Tax Saving							-0.54	0.08	-0.38	0.01	-0.56	-0.53	0.12	-0.26
10	Edelweiss ELSS										-0.32	-0.15	0.08	-0.03	-0.10
11	Escorts Tax Plan	1.61	-0.33	0.04	-0.10	-0.15	-1.58	-0.13	0.08	-2.41	-0.24	-0.49	-0.19	-1.00	-0.38
12	Franklin India Tax Shield	-1.65	-0.18	-0.41	0.35	0.10	0.05	-0.28	-0.03	0.06	0.26	0.17	-0.01	0.00	-0.12
13	HDFC Long Term Adv		0.17	0.44	2.49	0.55	1.85	-0.25	-0.17	-0.23	0.02	0.16	-0.03	-0.04	0.41
14	HDFC Tax Saver	1.80	0.14	-0.51	-0.16	0.59	0.79	-0.19	-0.13	0.45	0.12	0.03	-0.07	-0.33	0.19
15	HSBC Tax Saver								-0.16	0.11	-0.61	-0.29	0.06	0.21	-0.11
16	ICICI Pru Right											0.04	0.34	0.28	0.22
17	ICICI Pru Tax Plan	1.03	0.07	-0.56	-0.62	0.79	-0.30	-0.32	-0.13	0.07	0.35	-0.08	0.00	0.00	0.02
18	IDFC Tax Adv										0.16	-0.06	-0.26	0.31	0.04
19	IDFC Tax Saver								-0.03	-2.13	0.05	-0.20	-0.44	0.30	-0.41
20	ING Retire Invest								-0.14	-1.65	-0.01	-0.46	-0.55	-0.26	-0.51
21	ING Tax Savings					-0.13	4.49	-0.07	-0.30	-0.15	-0.04	0.16	-0.64	-0.20	0.35
22	JM Tax Gain									-0.35	-0.27	-0.68	-0.23	-0.19	-0.34
23	JP Morgan Tax Advantage											0.07	-0.30	-0.15	-0.13
24	Kotak Tax Saver							-0.03	-0.06	-0.88	-0.06	-0.21	-0.11	-0.05	-0.20
25	LIC Nomura Tax Plan	1.53	-0.62	-0.18	0.13	-0.48	-1.35	-0.37	-0.72	-0.14	-0.47	-0.09	-0.39	-0.19	-0.26
26	LNT Long Term Adv										0.27	-0.29	-0.13	-0.27	-0.10
27	LNT Tax Advantage							0.11	-0.04	0.20	0.11	0.27	-0.28	-0.15	0.03
28	LNT Tax Saver							-0.10	-0.26	-0.91	-0.19	-0.22	-0.52	-0.44	-0.38
29	Quantum Tax Savings										0.16	0.19	-0.06	0.12	0.10
30	Reliance Equity Linked Savings									0.34	-0.09	-0.01	0.14	0.08	0.09
31	Reliance Tax Saver							-0.17	-0.22	-0.24	0.20	0.01	0.23	-0.18	-0.05
32	Religare Agile									-0.61	-0.44	-0.17	-0.34	0.02	-0.31
33	Religare Tax Plan								0.13	-0.44	0.15	-0.07	0.03	0.09	-0.02
34	Sahara Tax Gain	-7.07	-0.33	-0.80	-0.46	-0.03	-3.36	-0.33	0.06	-0.41	-0.27	-0.02	0.07	-0.30	-1.02
35	SBI Magnum Tax Gain									-0.17	-0.12	-0.43	-0.07	0.02	-0.15
36	SBI Tax Advantage I									0.20	-0.20	-0.60	-0.10	-0.01	-0.14
37	Sundaram Tax Saver							-0.09	0.05	-1.82	-0.39	-0.31	-0.07	0.00	-0.38
38	Tata Infra Tax Savings										0.29	-0.88	-0.28	-0.53	-0.35
39	Tata Tax Adv Fund I							-0.45	-0.01	-0.17	0.10	0.00	-0.06	-0.13	-0.11
40	Taurus Tax Shield	1.87	-0.28	0.31	-1.32	-0.39	-2.64	-0.76	0.24	0.05	-0.27	0.01	-0.52	0.01	-0.28
41	UTI ETSP							-0.39	-0.03	-0.24	-0.06	-0.24	-0.30	-0.05	-0.19
42	UTI LTA I								-0.19	-0.18	-0.02	-0.42	-0.29	-0.15	-0.21
43	UTI LTA II									-0.53	0.03	-0.20	-0.16	-0.01	-0.17
	Average	-0.13	-0.17	-0.21	0.04	0.09	-0.23	-0.26	-0.08	-0.45	-0.05	-0.21	-0.17	-0.06	-0.15

Source: Computed from Table 4.26

**Table 4.30**

Absolute Outperformance of ELSS Funds as against Market Indexes Quarterly Average Sortino Ratio															
Sl.No.	Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	Number of Market Indexes	6	6	6	7	7	7	7	7	7	7	7	7	7	
	ELSS Funds														
1	Axis Long Term Equity											-0.30	0.02	0.16	-0.04
2	Birla Sunlife Tax Plan								-0.10	-0.16	0.04	-0.01	0.09	0.15	0.00
3	Birls Sunlife Tax Relief 96									-0.30	0.09	-0.30	0.02	0.16	-0.06
4	BNP Paribas Tax Adv							-0.33	-0.10	-0.84	0.05	-0.16	0.55	0.16	-0.09
5	BOI AXA Eco										0.16	-0.59	-0.05	-0.08	-0.14
6	BOI AXA Tax Adv										0.16	-0.60	-0.06	-0.10	-0.15
7	Canara Robeco Equity Tax Saver										0.32	0.07	0.34	0.05	0.20
8	DSP Black Rock Tax Saver								0.08	-0.59	0.32	-0.05	0.15	0.21	0.02
9	DWS Tax Saving							-0.62	0.09	-0.39	0.23	-0.41	-0.23	0.17	-0.17
10	Edelweiss ELSS										-0.10	-0.01	0.38	0.01	0.07
11	Escorts Tax Plan	2.19	0.12	0.72	0.15	0.13	-1.69	-0.21	0.08	-2.42	-0.02	-0.35	0.12	-0.95	-0.16
12	Franklin India Tax Sheild	-1.07	0.26	0.27	0.61	0.38	-0.06	-0.36	-0.02	0.05	0.47	0.31	0.30	0.04	0.09
13	HDFC Long Term Adv		0.61	1.12	2.75	0.83	1.75	-0.33	-0.16	-0.25	0.23	0.30	0.27	0.00	0.59
14	HDFC Tax Saver	2.38	0.58	0.17	0.10	0.87	0.68	-0.27	-0.13	0.43	0.34	0.17	0.24	-0.28	0.41
15	HSBC Tax Saver								-0.16	0.10	-0.40	-0.14	0.37	0.26	0.00
16	ICICI Pru Right											0.19	0.64	0.32	0.38
17	ICICI Pru Tax Plan	1.61	0.51	0.12	-0.36	1.07	-0.41	-0.40	-0.12	0.05	0.56	0.07	0.30	0.04	0.23
18	IDFC Tax Adv										0.37	0.08	0.05	0.35	0.21
19	IDFC Tax Saver								-0.02	-2.14	0.27	-0.05	-0.14	0.34	-0.29
20	ING Retire Invest								-0.13	-1.67	0.20	-0.31	-0.25	-0.22	-0.40
21	ING Tax Savings					0.15	4.39	-0.15	-0.29	-0.16	0.17	0.31	-0.34	-0.16	0.43
22	JM Tax Gain									-0.36	-0.06	-0.53	0.07	-0.14	-0.20
23	JP Morgan Tax Advantage											0.22	0.00	-0.11	0.04
24	Kotak Tax Saver							-0.11	-0.06	-0.89	0.15	-0.07	0.19	-0.01	-0.11
25	LIC Nomura Tax Plan	2.11	-0.18	0.50	0.38	-0.20	-1.46	-0.45	-0.71	-0.15	-0.26	0.06	-0.08	-0.15	-0.05
26	LNT Long Term Adv										0.49	-0.14	0.18	-0.23	0.07
27	LNT Tax Advantage							0.03	-0.04	0.19	0.32	0.42	0.03	-0.11	0.12
28	LNT Tax Saver							-0.18	-0.25	-0.92	0.03	-0.07	-0.22	-0.40	-0.29
29	Quantum Tax Savings										0.38	0.34	0.25	0.16	0.28
30	Reliance Equity Linked Savings									0.33	0.12	0.14	0.44	0.13	0.23
31	Reliance Tax Saver							-0.25	-0.21	-0.25	0.41	0.15	0.54	-0.14	0.04
32	Religare Agile									-0.63	-0.22	-0.02	-0.04	0.06	-0.17
33	Religare Tax Plan								0.14	-0.46	0.36	0.08	0.34	0.13	0.10
34	Sahara Tax Gain	-6.49	0.12	-0.12	-0.20	0.25	-3.47	-0.42	0.07	-0.42	-0.05	0.13	0.38	-0.25	-0.81
35	SBI Magnum Tax Gain									-0.18	0.09	-0.28	0.24	0.06	-0.01
36	SBI Tax Advantage I									0.18	0.01	-0.46	0.21	0.04	0.00
37	Sundaram Tax Saver							-0.17	0.05	-1.83	-0.17	-0.17	0.23	0.04	-0.29
38	Tata Infra Tax Savings										0.50	-0.73	0.03	-0.49	-0.17
39	Tata Tax Adv Fund I							-0.53	-0.01	-0.18	0.31	0.14	0.24	-0.09	-0.02
40	Taurus Tax Shield	2.45	0.16	0.99	-1.07	-0.11	-2.75	-0.84	0.24	0.03	-0.06	0.15	-0.22	0.06	-0.07
41	UTI ETSP							-0.47	-0.02	-0.25	0.16	-0.09	0.00	-0.01	-0.10
42	UTI LTA I								-0.18	-0.20	0.19	-0.27	0.02	-0.10	-0.09
43	UTI LTA II									-0.55	0.24	-0.06	0.14	0.04	-0.04
	Average	0.45	0.27	0.47	0.30	0.37	-0.33	-0.34	-0.08	-0.46	0.16	-0.07	0.13	-0.02	-0.01

Source: Computed from Table 4.26

Beta is another widely used measure of risk in investment analysis. Beta or Slope establishes a linear relationship between dependent and independent variable. Beta explains by how much the dependent variable changes for a given change in independent variable. The strength of this relationship can be gauged by  $R^2$  also known as the Coefficient of Determination. In investment analysis, markets are considered to be the independent variable and fund or security is considered as dependent variable. Markets beta is assumed to be 1 and the funds beta is computed and compared with the market beta. If the fund beta is greater than 1, it means that the funds risk return potential is greater than that of the market. Beta sometimes is also denoted as a measure of market risk and this is true in the application of Treynor's ratio.

Beta as used in the CAPM model and Jensen's alpha computation is considered to be a risk multiplier. If we assume the beta of fund is 1.20, then it means that the expected returns of the fund should be greater by 20 percentage as compared to market returns as the market risk under taken by the fund is 20 percentage greater than the market.

The beta values for ELSS funds and Diversified funds based on 7 benchmark indexes computed from quarterly returns, for each of the years from 2000-01 to 2012-13 is provided in Tables 4.31 to 4.37. As can be seen from the tables, the beta of funds for individual periods has been varying over time and a consistent pattern is not visible. The category average beta for ELSS funds based on BSE 30 Sensex is 1.05 as against 1.11 for Diversified Equity funds category. Similarly the same for ELSS funds as against NSE Nifty Index is 1.03 as against Diversified Equity fund average of 1.10.

As is evident from Tables 4.31 to 4.37, the average beta of ELSS funds as a category has always been lesser than the Diversified Equity funds category for all the 7 indexes considered for the study.

**Table 4.31**

Beta of Funds based on BSE 30 ( Sensex )															
SI No.	Fund Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis LT Equity Fund											0.89	0.84	1.38	1.03
2	Birla SL Tax Plan								1.22	0.93	0.84	0.89	1.06	1.68	1.10
3	Birla SL Tax Releif 96									1.03	1.17	1.04	1.15	1.69	1.22
4	BNP Tax Adv							1.33	1.53	0.85	0.76	0.93	0.88	1.31	1.09
5	BOI AXA ECO										1.09	1.16	0.90	1.28	1.11
6	BOI AXA Tax Advantage										1.09	1.16	0.90	1.29	1.11
7	Can Robeco Equity Tax Saver										1.08	0.93	0.89	1.15	1.01
8	DSP Black Rock Tax Saver								1.48	0.67	0.88	1.05	1.17	1.65	1.15
9	DWS Tax Saving							1.03	1.38	0.84	0.67	1.25	0.89	1.05	1.02
10	Edelweiss ELSS Fund										0.74	0.99	1.04	1.30	1.02
11	Escorts Tax Plan	0.42	0.87	0.79	1.10	0.86	2.18	1.04	1.26	0.52	0.95	1.20	1.53	1.77	1.12
12	Franklin Tax Shield	0.28	1.32	0.93	0.91	0.84	1.17	1.00	1.11	0.84	0.83	0.96	0.88	1.28	0.95
13	HDFC Long Term Adv		0.68	0.60	0.10	0.87	0.79	1.08	1.00	0.78	1.04	1.14	1.17	1.00	0.85
14	HDFC Tax Saver	0.12	0.85	0.76	1.13	1.08	1.09	1.15	1.02	1.12	0.94	1.10	1.10	1.42	0.99
15	HSBC Tax Saver								1.29	0.61	0.79	1.08	1.06	1.52	1.06
16	ICICI Pru Right											0.88	1.04	1.53	1.15
17	ICICI Pru Tax	-0.68	1.13	0.91	1.77	1.11	1.39	1.44	1.17	0.90	0.89	0.98	1.21	1.56	1.06
18	IDFC Tax Adv										0.55	1.12	0.97	1.50	1.04
19	IDFC Tax Saver								1.32	0.51	0.69	1.03	0.76	1.20	0.92
20	ING Retire Invest								1.27	0.54	0.67	0.87	0.97	1.56	0.98
21	ING Tax Savings					1.10	0.53	1.56	1.20	1.02	1.00	0.88	0.75	1.08	1.02
22	JM Tax Gain									1.27	0.98	0.79	1.38	2.38	1.36
23	JP Morgan Tax Adv										0.51	1.02	0.92	1.26	0.93
24	Kotak Tax Saver								1.30	1.26	0.78	0.91	1.16	1.19	1.18
25	LIC Nomura Tax Plan	1.11	0.24	1.05	0.93	0.75	1.57	1.07	1.30	0.87	0.94	0.97	1.10	0.99	0.99
26	LNT LT Adv										0.55	1.06	1.15	1.43	1.05
27	LNT Tax Adv								1.13	1.08	0.91	0.78	0.94	0.97	1.39
28	LNT Tax Saver								1.34	1.08	0.76	1.26	1.17	1.10	1.13
29	Quantum Tax Savings										0.66	1.11	1.03	1.20	1.00
30	Reliance E linked Savings									1.00	0.71	0.89	1.49	1.59	1.14
31	Reliance Tax Saver							1.51	1.26	0.67	0.82	1.19	1.51	2.12	1.30
32	Religare Agile									0.76	0.15	1.33	0.62	0.88	0.75
33	Religare Tax Plan								1.22	0.57	0.79	0.97	0.96	1.26	0.96
34	Sahara Tax Gain	0.01	1.13	0.87	1.40	0.96	-3.77	1.21	1.27	0.64	1.04	1.02	1.14	1.70	0.66
35	SBI Magnum Tax Gain									0.94	0.92	0.89	1.07	1.46	1.06
36	SBI Tax Adv I									1.00	1.11	1.01	1.32	1.65	1.22
37	Sundaramn Tax Saver							1.27	1.33	0.36	0.95	1.23	1.10	1.64	1.13
38	Tata Infra Tax Savings										0.55	0.93	1.51	1.79	1.19
39	Tata Tax Adv I								1.05	1.10	0.69	0.80	0.97	0.86	1.23
40	Taurus Tax Shield	0.95	1.21	0.84	1.58	1.72	0.67	1.01	1.68	0.71	1.18	1.22	0.80	1.51	1.16
41	UTI ETSP							1.20	1.17	0.86	0.73	1.09	0.94	1.01	1.00
42	UTI LTA I								1.15	0.94	0.92	0.87	1.15	1.32	1.06
43	UTI LTA II									0.54	0.68	0.98	1.02	0.97	0.84
	<b>Average</b>														<b>1.05</b>
<b>Diversified Equity Funds</b>															
1	Birla SL Frontline Equity				0.83	1.00	1.34	1.03	1.09	0.76	0.97	0.95	1.01	1.40	1.04
2	DSP Black Rock Top 100				1.08	0.99	1.16	1.05	1.14	0.80	0.77	0.89	1.10	1.46	1.04
3	Franklin Bluechip	1.27	1.31	0.98	1.05	0.89	1.46	1.15	1.03	1.00	0.89	1.00	0.93	1.17	1.09
4	HDFC Equity Fund	1.10	1.10	0.89	0.98	0.99	0.90	1.01	1.06	0.91	1.11	1.16	1.35	1.45	1.08
5	HDFC Top 200	1.47	0.96	0.91	1.06	0.94	0.83	1.09	1.03	0.96	1.08	1.05	1.22	1.37	1.08
6	ICICI Pru Dynamic Fund				1.60	1.11	2.03	1.24	0.91	0.68	0.70	0.56	1.26	1.03	1.11
7	ICICI Pru Discovery Fund						1.45	1.27	1.17	0.64	1.18	0.95	1.42	1.50	1.20
8	IDFC Premier Equity Fund							1.43	1.42	0.75	0.93	1.42	0.81	1.83	1.23
9	Reliance Growth	0.70	0.99	0.60	1.46	1.08	1.47	1.18	1.32	0.70	1.07	0.98	1.24	2.13	1.15
10	Reliance Opportunites Fund						1.52	1.16	1.22	0.68	0.83	1.30	1.28	1.66	1.21
11	SBI Magnum Contra							1.06	1.21	0.90	0.96	0.96	1.25	1.25	1.09
12	UTI Opportunites Fund							0.98	1.23	0.80	0.95	1.09	0.75	1.38	1.03
	<b>Average</b>														<b>1.11</b>

Source: Computed from Secondary Data



Table 4.32

Beta of Funds based on BSE 100 Index															
Sl.No.	Fund Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	ELSS Funds														
1	Axis Long Term Equity											0.94	0.75	1.07	0.92
2	Birla Sunlife Tax Plan								1.07	0.96	0.78	0.92	0.96	1.37	1.01
3	Birls Sunlife Tax Relief 96									1.07	1.10	1.11	1.03	1.37	1.14
4	BNP Paribas Tax Adv							1.21	1.33	0.87	0.71	1.01	0.80	1.10	1.00
5	BOI AXA Eco										1.03	1.19	0.79	1.01	1.01
6	BOI AXA Tax Adv										1.02	1.19	0.79	1.02	1.01
7	Canara Robeco Equity Tax Saver										1.01	1.01	0.79	0.95	0.94
8	DSP Black Rock Tax Saver								1.30	0.68	0.83	1.13	1.04	1.36	1.06
9	DWS Tax Saving							0.96	1.18	0.86	0.63	1.32	0.79	0.81	0.94
10	Edelweiss ELSS										0.69	1.06	0.93	1.05	0.93
11	Escorts Tax Plan	0.07	0.79	0.83	1.03	0.83	2.13	0.97	1.07	0.53	0.90	1.31	1.38	1.42	1.02
12	Franklin India Tax Sheild	0.01	1.18	0.93	0.86	0.82	1.13	0.94	0.95	0.87	0.78	0.99	0.79	1.05	0.87
13	HDFC Long Term Adv		0.63	0.70	0.13	0.86	0.79	1.01	0.86	0.81	0.98	1.20	1.04	0.79	0.82
14	HDFC Tax Saver	2.45	0.77	0.76	1.07	1.05	1.03	1.06	0.88	1.17	0.88	1.18	0.97	1.18	1.11
15	HSBC Tax Saver								1.13	0.63	0.74	1.13	0.94	1.24	0.97
16	ICICI Pru Right											0.94	0.94	1.26	1.04
17	ICICI Pru Tax Plan	1.09	1.01	0.96	1.72	1.08	1.32	1.33	1.04	0.92	0.83	1.02	1.08	1.30	1.13
18	IDFC Tax Adv										0.51	1.17	0.89	1.21	0.94
19	IDFC Tax Saver								1.16	0.51	0.64	1.08	0.67	0.95	0.84
20	ING Retire Invest								1.09	0.55	0.62	0.91	0.85	1.23	0.88
21	ING Tax Savings					1.07	0.54	1.46	1.06	1.04	0.94	0.94	0.66	0.89	0.96
22	JM Tax Gain									1.32	0.94	0.86	1.22	1.91	1.25
23	JP Morgan Tax Advantage										0.48	1.06	0.82	1.01	0.84
24	Kotak Tax Saver							1.24	1.11	0.81	0.85	1.22	1.05	1.37	1.09
25	LIC Nomura Tax Plan	2.01	0.23	1.08	0.89	0.73	1.46	0.99	1.13	0.90	0.88	1.01	0.97	0.79	1.01
26	LNT Long Term Adv										0.51	1.28	1.05	1.18	1.00
27	LNT Tax Advantage							1.07	0.94	0.94	0.73	1.02	0.87	1.11	0.95
28	LNT Tax Saver							1.24	0.94	0.79	1.19	1.23	0.98	0.97	1.05
29	Quantum Tax Savings										0.62	1.17	0.91	0.94	0.91
30	Reliance Equity Linked Savings									1.03	0.66	0.97	1.33	1.25	1.05
31	Reliance Tax Saver							1.40	1.08	0.70	0.77	1.29	1.37	1.73	1.19
32	Religare Agile									0.77	0.14	1.31	0.51	0.68	0.68
33	Religare Tax Plan								1.06	0.59	0.74	1.05	0.86	1.02	0.89
34	Sahara Tax Gain	0.30	1.00	0.85	1.33	0.94	-4.02	1.13	1.11	0.66	0.97	1.12	1.03	1.39	0.60
35	SBI Magnum Tax Gain									0.96	0.87	0.93	0.96	1.17	0.98
36	SBI Tax Advantage I									1.03	1.04	1.09	1.18	1.37	1.15
37	Sundaram Tax Saver							1.18	1.15	0.38	0.89	1.29	0.98	1.31	1.03
38	Tata Infra Tax Savings										0.51	1.01	1.36	1.41	1.07
39	Tata Tax Adv Fund I							0.98	0.95	0.71	0.76	1.02	0.76	0.98	0.88
40	Taurus Tax Shield	3.00	1.08	0.99	1.48	1.69	0.50	0.95	1.48	0.72	1.12	1.30	0.71	1.23	1.25
41	UTI ETSP							1.11	1.00	0.87	0.68	1.13	0.85	0.80	0.92
42	UTI LTA I								1.00	0.97	0.86	0.92	1.03	1.06	0.97
43	UTI LTA II									0.55	0.64	1.03	0.93	0.77	0.78
	Average														0.98
	Diversified Equity Funds														
1	Birla Sunlife Frontline Equity				0.79	0.97	1.30	0.95	0.94	0.78	0.92	0.99	0.89	1.14	0.97
2	DSP Black Rock Top 100				1.02	0.97	1.12	0.98	0.99	0.82	0.72	0.93	0.97	1.21	0.97
3	Franklin India Bluechip	0.89	1.18	0.94	0.99	0.87	1.39	1.06	0.88	1.03	0.84	1.03	0.83	0.97	0.99
4	HDFC Equity Fund	0.83	0.99	0.89	0.95	0.96	0.91	0.95	0.92	0.95	1.04	1.24	1.21	1.19	1.00
5	HDFC Top 200	1.45	0.88	0.91	1.02	0.91	0.83	1.02	0.88	1.00	1.02	1.12	1.09	1.13	1.02
6	ICICI Pru Dynamic				1.52	1.08	1.93	1.15	0.79	0.70	0.66	0.59	1.11	0.84	1.04
7	ICICI Discovery Fund						1.39	1.17	1.05	0.66	1.10	1.01	1.26	1.24	1.11
8	IDFC Premier Equity							1.36	1.27	0.76	0.88	1.52	0.76	1.53	1.15
9	Reliance Growth	1.40	0.90	0.83	1.40	1.05	1.40	1.10	1.17	0.72	1.01	1.05	1.12	1.76	1.15
10	Reliance Equity Opportunities						1.43	1.08	1.07	0.70	0.77	1.38	1.15	1.34	1.12
11	SBI Magnum Contra							0.98	1.04	0.93	0.90	1.02	1.11	1.03	1.00
12	UTI Opportunities Fund							0.93	1.05	0.82	0.89	1.13	0.66	1.11	0.94
	Average														1.04

Source: Computed from Secondary Data

Table 4.33

Beta of Funds based on BSE 200 Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis Long Term Equity											0.92	0.72	1.00	0.88
2	Birla Sunlife Tax Plan								1.04	0.97	0.76	0.88	0.91	1.30	0.98
3	Birls Sunlife Tax Relief 96									1.08	1.07	1.10	0.98	1.31	1.11
4	BNP Paribas Tax Adv							1.17	1.29	0.88	0.69	0.99	0.76	1.05	0.98
5	BOI AXA Eco										1.00	1.14	0.75	0.95	0.96
6	BOI AXA Tax Adv										1.00	1.14	0.75	0.96	0.96
7	Canara Robeco Equity Tax Saver										0.99	1.00	0.76	0.90	0.91
8	DSP Black Rock Tax Saver								1.26	0.69	0.81	1.11	0.99	1.30	1.03
9	DWS Tax Saving							0.93	1.14	0.87	0.61	1.28	0.75	0.77	0.91
10	Edelweiss ELSS										0.67	1.04	0.89	1.00	0.90
11	Escorts Tax Plan	0.05	0.78	0.96	0.94	0.79	2.01	0.93	1.04	0.54	0.88	1.31	1.32	1.34	0.99
12	Franklin India Tax Shield	0.00	1.11	1.03	0.82	0.78	1.05	0.90	0.92	0.89	0.76	0.95	0.75	1.00	0.84
13	HDFC Long Term Adv		0.64	0.89	0.18	0.80	0.68	0.97	0.84	0.82	0.95	1.18	0.99	0.74	0.81
14	HDFC Tax Saver	2.36	0.76	0.81	1.06	0.99	0.87	1.02	0.85	1.18	0.86	1.16	0.93	1.12	1.07
15	HSBC Tax Saver								1.10	0.64	0.72	1.10	0.89	1.18	0.94
16	ICICI Pru Right											0.91	0.89	1.20	1.00
17	ICICI Pru Tax Plan	1.01	0.95	1.12	1.69	1.02	1.11	1.27	1.01	0.94	0.81	0.99	1.03	1.24	1.09
18	IDFC Tax Adv										0.50	1.12	0.85	1.14	0.90
19	IDFC Tax Saver								1.12	0.52	0.62	1.05	0.64	0.89	0.81
20	ING Retire Invest								1.06	0.56	0.61	0.88	0.81	1.16	0.85
21	ING Tax Savings					1.03	0.44	1.41	1.03	1.06	0.92	0.94	0.63	0.85	0.92
22	JM Tax Gain									1.34	0.91	0.86	1.16	1.81	1.22
23	JP Morgan Tax Advantage										0.47	1.04	0.78	0.96	0.81
24	Kotak Tax Saver							1.20	1.08	0.82	0.83	1.19	1.00	1.30	1.06
25	LIC Nomura Tax Plan	1.83	0.24	1.23	0.84	0.69	1.33	0.95	1.10	0.92	0.86	0.98	0.92	0.75	0.97
26	LNT Long Term Adv										0.50	1.32	1.00	1.12	0.98
27	LNT Tax Advantage							1.03	0.91	0.95	0.71	1.01	0.83	1.05	0.93
28	LNT Tax Saver							1.19	0.92	0.80	1.16	1.19	0.93	0.92	1.02
29	Quantum Tax Savings										0.60	1.15	0.86	0.88	0.87
30	Reliance Equity Linked Savings									1.04	0.64	0.98	1.27	1.19	1.02
31	Reliance Tax Saver							1.35	1.05	0.71	0.75	1.26	1.31	1.64	1.15
32	Religare Agile									0.78	0.13	1.23	0.48	0.64	0.65
33	Religare Tax Plan								1.03	0.60	0.72	1.03	0.83	0.97	0.86
34	Sahara Tax Gain	0.26	0.94	0.94	1.21	0.89	-3.28	1.08	1.08	0.67	0.95	1.12	0.98	1.32	0.63
35	SBI Magnum Tax Gain									0.98	0.85	0.91	0.91	1.11	0.95
36	SBI Tax Advantage I									1.05	1.02	1.07	1.13	1.31	1.11
37	Sundaram Tax Saver							1.15	1.11	0.39	0.86	1.25	0.93	1.24	0.99
38	Tata Infra Tax Savings										0.50	0.99	1.30	1.33	1.03
39	Tata Tax Adv Fund I							0.94	0.92	0.72	0.74	0.99	0.73	0.93	0.85
40	Taurus Tax Shield	2.77	1.03	1.25	1.52	1.60	0.08	0.92	1.44	0.74	1.09	1.27	0.67	1.17	1.20
41	UTI ETSP							1.07	0.97	0.89	0.67	1.09	0.81	0.76	0.89
42	UTI LTA I								0.97	0.98	0.84	0.89	0.98	1.01	0.95
43	UTI LTA II									0.55	0.62	1.00	0.88	0.73	0.76
	<b>Average</b>														<b>0.95</b>
<b>Diversified Equity Funds</b>															
1	Birla Sunlife Frontline Equity				0.75	0.92	1.19	0.91	0.91	0.80	0.89	0.96	0.85	1.09	0.93
2	DSP Black Rock Top 100				0.98	0.92	1.07	0.94	0.96	0.83	0.70	0.91	0.92	1.15	0.94
3	Franklin India Bluechip	0.88	1.16	1.01	0.94	0.82	1.30	1.02	0.85	1.05	0.82	0.99	0.79	0.92	0.96
4	HDFC Equity Fund	0.81	0.96	0.98	0.94	0.91	0.85	0.91	0.90	0.96	1.02	1.21	1.15	1.14	0.98
5	HDFC Top 200	1.44	0.87	1.00	1.02	0.87	0.79	0.97	0.85	1.01	0.99	1.10	1.03	1.07	1.00
6	ICICI Pru Dynamic				1.45	1.02	1.75	1.11	0.77	0.71	0.64	0.58	1.05	0.80	0.99
7	ICICI Discovery Fund						1.19	1.12	1.02	0.67	1.07	0.99	1.20	1.18	1.06
8	IDFC Premier Equity							1.32	1.24	0.78	0.86	1.49	0.74	1.46	1.13
9	Reliance Growth	1.33	0.90	1.16	1.34	1.00	1.22	1.06	1.14	0.73	0.99	1.04	1.06	1.67	1.13
10	Reliance Equity Opportunities						1.37	1.04	1.05	0.71	0.75	1.35	1.10	1.27	1.08
11	SBI Magnum Contra							0.95	1.01	0.94	0.88	1.00	1.05	0.98	0.97
12	UTI Opportunities Fund							0.89	1.02	0.83	0.87	1.09	0.63	1.06	0.91
	<b>Average</b>														<b>1.01</b>

Source: Computed from Secondary Data

Table 4.34

Beta of Funds based on BSE 500 Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis Long Term Equity											0.90	0.71	0.94	0.85
2	Birla Sunlife Tax Plan								1.00	0.96	0.76	0.85	0.90	1.23	0.95
3	Birls Sunlife Tax Relief 96									1.07	1.06	1.08	0.96	1.23	1.08
4	BNP Paribas Tax Adv							1.15	1.25	0.87	0.69	0.97	0.75	0.99	0.95
5	BOI AXA Eco										0.99	1.10	0.74	0.89	0.93
6	BOI AXA Tax Adv										0.99	1.10	0.74	0.90	0.93
7	Canara Robeco Equity Tax Saver										0.98	0.98	0.74	0.85	0.89
8	DSP Black Rock Tax Saver								1.22	0.69	0.80	1.09	0.97	1.23	1.00
9	DWS Tax Saving							0.91	1.10	0.87	0.60	1.25	0.74	0.71	0.88
10	Edelweiss ELSS										0.66	1.02	0.88	0.93	0.87
11	Escorts Tax Plan	0.05	0.77	0.92	0.86	0.77	1.94	0.91	1.00	0.54	0.87	1.29	1.31	1.26	0.96
12	Franklin India Tax Shield	0.00	1.11	0.97	0.76	0.76	1.02	0.88	0.88	0.88	0.75	0.92	0.74	0.94	0.82
13	HDFC Long Term Adv		0.64	0.90	0.18	0.78	0.71	0.95	0.81	0.82	0.94	1.15	0.97	0.69	0.80
14	HDFC Tax Saver	2.31	0.76	0.76	0.99	0.97	0.90	0.99	0.82	1.17	0.85	1.13	0.91	1.05	1.05
15	HSBC Tax Saver								1.06	0.64	0.71	1.07	0.87	1.11	0.91
16	ICICI Pru Right											0.88	0.88	1.13	0.96
17	ICICI Pru Tax Plan	1.01	0.95	1.08	1.58	1.00	1.15	1.23	0.98	0.93	0.80	0.97	1.01	1.17	1.07
18	IDFC Tax Adv										0.49	1.09	0.84	1.07	0.87
19	IDFC Tax Saver								1.08	0.52	0.61	1.02	0.63	0.83	0.78
20	ING Retire Invest								1.02	0.55	0.60	0.86	0.80	1.09	0.82
21	ING Tax Savings					1.01	0.48	1.38	0.99	1.06	0.91	0.92	0.62	0.80	0.91
22	JM Tax Gain									1.33	0.90	0.84	1.14	1.69	1.18
23	JP Morgan Tax Advantage										0.46	1.01	0.77	0.90	0.79
24	Kotak Tax Saver							1.19	1.04	0.81	0.82	1.16	0.98	1.23	1.03
25	LIC Nomura Tax Plan	1.83	0.24	1.18	0.77	0.68	1.28	0.94	1.06	0.91	0.85	0.95	0.90	0.71	0.95
26	LNT Long Term Adv										0.49	1.33	0.99	1.05	0.96
27	LNT Tax Advantage							1.00	0.88	0.94	0.70	1.00	0.82	0.98	0.90
28	LNT Tax Saver							1.16	0.88	0.79	1.15	1.16	0.92	0.86	0.99
29	Quantum Tax Savings										0.60	1.12	0.85	0.82	0.85
30	Reliance Equity Linked Savings									1.04	0.64	0.97	1.25	1.12	1.00
31	Reliance Tax Saver							1.32	1.01	0.70	0.74	1.24	1.29	1.55	1.12
32	Religare Agile									0.77	0.13	1.17	0.46	0.60	0.62
33	Religare Tax Plan								0.99	0.58	0.71	1.02	0.82	0.91	0.84
34	Sahara Tax Gain	0.27	0.93	0.88	1.11	0.87	-3.66	1.06	1.04	0.66	0.94	1.11	0.97	1.25	0.57
35	SBI Magnum Tax Gain									0.97	0.84	0.89	0.90	1.04	0.93
36	SBI Tax Advantage I									1.05	1.01	1.05	1.11	1.23	1.09
37	Sundaram Tax Saver							1.13	1.07	0.39	0.85	1.22	0.92	1.16	0.96
38	Tata Infra Tax Savings										0.50	0.98	1.28	1.25	1.00
39	Tata Tax Adv Fund I							0.91	0.88	0.71	0.73	0.96	0.72	0.86	0.83
40	Taurus Tax Shield	2.76	1.03	1.27	1.45	1.57	0.28	0.90	1.39	0.74	1.08	1.24	0.65	1.11	1.19
41	UTI ETSP							1.05	0.93	0.88	0.66	1.06	0.79	0.72	0.87
42	UTI LTA I								0.93	0.97	0.83	0.87	0.97	0.95	0.92
43	UTI LTA II									0.55	0.62	0.98	0.87	0.68	0.74
	<b>Average</b>														<b>0.92</b>
<b>Diversified Equity Funds</b>															
1	Birla Sunlife Frontline Equity				0.70	0.91	1.17	0.89	0.87	0.79	0.88	0.93	0.83	1.02	0.90
2	DSP Black Rock Top 100				0.91	0.90	1.02	0.92	0.92	0.83	0.69	0.88	0.90	1.09	0.91
3	Franklin India Bluechip	0.85	1.16	0.93	0.87	0.81	1.25	1.00	0.81	1.04	0.81	0.95	0.77	0.86	0.93
4	HDFC Equity Fund	0.79	0.96	0.92	0.88	0.90	0.84	0.89	0.86	0.95	1.00	1.18	1.13	1.07	0.95
5	HDFC Top 200	1.39	0.87	0.95	0.96	0.85	0.76	0.95	0.81	1.00	0.98	1.07	1.01	1.01	0.97
6	ICICI Pru Dynamic				1.35	1.00	1.72	1.09	0.74	0.71	0.63	0.56	1.03	0.75	0.96
7	ICICI Discovery Fund						1.22	1.08	0.99	0.67	1.06	0.97	1.18	1.11	1.04
8	IDFC Premier Equity							1.30	1.20	0.77	0.85	1.46	0.74	1.38	1.10
9	Reliance Growth	1.31	0.90	1.23	1.25	0.98	1.23	1.04	1.10	0.73	0.97	1.02	1.05	1.58	1.11
10	Reliance Equity Opportunities						1.28	1.02	1.01	0.70	0.75	1.32	1.08	1.20	1.04
11	SBI Magnum Contra							0.92	0.97	0.93	0.87	0.98	1.04	0.92	0.95
12	UTI Opportunities Fund							0.87	0.98	0.82	0.86	1.06	0.62	0.99	0.89
	<b>Average</b>														<b>0.98</b>

Source: Computed from Secondary Data

**Table 4.35**

Beta of Funds based on NSE Nifty Index															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis Long Term Equity											0.90	0.78	1.24	0.97
2	Birla Sunlife Tax Plan								1.20	0.88	0.99	0.90	0.99	1.52	1.08
3	Birls Sunlife Tax Relief 96									0.99	1.38	1.05	1.07	1.52	1.20
4	BNP Paribas Tax Adv							1.43	1.50	0.81	0.91	0.95	0.82	1.18	1.09
5	BOI AXA Eco										1.29	1.17	0.83	1.16	1.11
6	BOI AXA Tax Adv										1.29	1.17	0.83	1.16	1.11
7	Canara Robeco Equity Tax Saver										1.27	0.95	0.83	1.04	1.02
8	DSP Black Rock Tax Saver								1.46	0.62	1.05	1.07	1.08	1.49	1.13
9	DWS Tax Saving							1.14	1.34	0.78	0.80	1.27	0.82	0.94	1.01
10	Edelweiss ELSS										0.88	1.00	0.97	1.18	1.01
11	Escorts Tax Plan	0.47	0.91	0.76	1.02	0.83	2.31	1.13	1.21	0.48	1.11	1.23	1.43	1.59	1.11
12	Franklin India Tax Shield	0.30	1.37	0.89	0.82	0.81	1.25	1.09	1.07	0.80	0.97	0.97	0.82	1.16	0.95
13	HDFC Long Term Adv		0.70	0.59	0.05	0.83	0.68	1.17	0.97	0.73	1.22	1.15	1.09	0.90	0.84
14	HDFC Tax Saver	-0.33	0.88	0.72	1.00	1.04	0.99	1.23	0.98	1.07	1.12	1.12	1.02	1.29	0.93
15	HSBC Tax Saver								1.28	0.57	0.94	1.09	0.99	1.37	1.04
16	ICICI Pru Right												0.90	0.97	1.38
17	ICICI Pru Tax Plan	-0.74	1.17	0.88	1.57	1.06	1.24	1.50	1.17	0.83	1.05	0.98	1.12	1.41	1.02
18	IDFC Tax Adv										0.67	1.13	0.91	1.36	1.02
19	IDFC Tax Saver								1.31	0.48	0.82	1.04	0.71	1.08	0.91
20	ING Retire Invest								1.24	0.52	0.79	0.88	0.89	1.40	0.96
21	ING Tax Savings					1.07	0.42	1.71	1.19	0.94	1.19	0.89	0.69	0.98	1.01
22	JM Tax Gain									1.20	1.15	0.81	1.28	2.15	1.32
23	JP Morgan Tax Advantage										0.62	1.02	0.86	1.14	0.91
24	Kotak Tax Saver							1.49	1.25	0.75	1.07	1.17	1.10	1.52	1.19
25	LIC Nomura Tax Plan	1.10	0.25	1.00	0.85	0.73	1.68	1.17	1.28	0.84	1.11	0.98	1.02	0.89	0.99
26	LNT Long Term Adv										0.67	1.13	1.08	1.30	1.05
27	LNT Tax Advantage							1.24	1.05	0.86	0.93	0.96	0.90	1.25	1.03
28	LNT Tax Saver							1.44	1.06	0.72	1.48	1.19	1.03	1.09	1.15
29	Quantum Tax Savings										0.80	1.12	0.96	1.08	0.99
30	Reliance Equity Linked Savings									0.94	0.85	0.90	1.39	1.43	1.10
31	Reliance Tax Saver							1.65	1.22	0.65	0.96	1.22	1.41	1.91	1.29
32	Religare Agile									0.73	0.19	1.33	0.56	0.79	0.72
33	Religare Tax Plan								1.20	0.56	0.94	0.99	0.89	1.14	0.95
34	Sahara Tax Gain	0.05	1.17	0.82	1.30	0.93	-2.43	1.32	1.25	0.62	1.24	1.04	1.07	1.54	0.76
35	SBI Magnum Tax Gain									0.89	1.09	0.89	1.00	1.32	1.04
36	SBI Tax Advantage I									0.93	1.31	1.03	1.23	1.50	1.20
37	Sundaram Tax Saver							1.41	1.30	0.34	1.14	1.24	1.03	1.48	1.14
38	Tata Infra Tax Savings										0.65	0.95	1.41	1.61	1.15
39	Tata Tax Adv Fund I							1.12	1.07	0.64	0.95	0.98	0.80	1.11	0.95
40	Taurus Tax Shield	0.81	1.25	0.83	1.35	1.67	0.10	1.12	1.67	0.65	1.39	1.24	0.74	1.36	1.09
41	UTI ETSP							1.30	1.13	0.80	0.87	1.10	0.88	0.91	1.00
42	UTI LTA I								1.13	0.89	1.08	0.88	1.08	1.19	1.04
43	UTI LTA II									0.50	0.81	0.99	0.96	0.88	0.83
	<b>Average</b>														<b>1.03</b>
<b>Diversified Equity Funds</b>															
1	Birla Sunlife Frontline Equity				0.74	0.97	1.36	1.10	1.06	0.73	1.15	0.96	0.94	1.27	1.03
2	DSP Black Rock Top 100				0.98	0.96	1.28	1.14	1.11	0.75	0.91	0.90	1.02	1.31	1.04
3	Franklin India Bluechip	0.98	1.36	0.92	0.96	0.86	1.55	1.23	0.99	0.96	1.04	1.01	0.86	1.06	1.06
4	HDFC Equity Fund	0.86	1.14	0.84	0.87	0.96	0.88	1.10	1.04	0.86	1.31	1.18	1.26	1.31	1.05
5	HDFC Top 200	1.03	1.00	0.86	0.92	0.91	0.90	1.17	0.99	0.91	1.27	1.07	1.14	1.24	1.03
6	ICICI Pru Dynamic				1.45	1.07	2.08	1.36	0.89	0.64	0.83	0.57	1.17	0.93	1.10
7	ICICI Discovery Fund						1.32	1.32	1.18	0.59	1.41	0.96	1.32	1.35	1.18
8	IDFC Premier Equity							1.64	1.43	0.69	1.10	1.44	0.77	1.65	1.24
9	Reliance Growth	0.47	1.03	0.63	1.32	1.04	1.38	1.30	1.32	0.65	1.26	1.00	1.16	1.92	1.11
10	Reliance Equity Opportunities						1.73	1.27	1.21	0.64	0.99	1.32	1.19	1.50	1.23
11	SBI Magnum Contra							1.15	1.18	0.86	1.14	0.97	1.16	1.13	1.08
12	UTI Opportunities Fund							1.07	1.19	0.77	1.13	1.10	0.70	1.24	1.03
	<b>Average</b>														<b>1.10</b>

Source: Computed from Secondary Data

**Table 4.36**

Beta of Funds based on NSE CNX 100 Index															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis Long Term Equity											0.92	0.73	1.08	0.91
2	Birla Sunlife Tax Plan							1.14	0.89	0.91	0.90	0.93	1.38	1.02	
3	Birls Sunlife Tax Relief 96								1.01	1.27	1.08	1.00	1.38	1.15	
4	BNP Paribas Tax Adv							1.30	1.42	0.82	0.83	0.98	0.77	1.09	1.03
5	BOI AXA Eco										1.18	1.16	0.77	1.02	1.03
6	BOI AXA Tax Adv										1.18	1.16	0.77	1.03	1.04
7	Canara Robeco Equity Tax Saver										1.17	0.98	0.77	0.94	0.97
8	DSP Black Rock Tax Saver								1.38	0.62	0.96	1.10	1.01	1.36	1.07
9	DWS Tax Saving							1.05	1.25	0.78	0.73	1.29	0.77	0.83	0.96
10	Edelweiss ELSS										0.80	1.03	0.91	1.07	0.95
11	Escorts Tax Plan				1.00	0.80	2.24	1.04	1.14	0.48	1.03	1.28	1.34	1.42	1.18
12	Franklin India Tax Shield				0.82	0.79	1.20	1.02	1.01	0.82	0.89	0.97	0.77	1.06	0.93
13	HDFC Long Term Adv				0.08	0.81	0.72	1.09	0.92	0.74	1.12	1.17	1.01	0.81	0.85
14	HDFC Tax Saver				1.01	1.01	0.98	1.13	0.93	1.10	1.02	1.15	0.95	1.18	1.05
15	HSBC Tax Saver								1.21	0.58	0.86	1.10	0.91	1.24	0.98
16	ICICI Pru Right											0.91	0.91	1.27	1.03
17	ICICI Pru Tax Plan				1.59	1.03	1.24	1.41	1.11	0.83	0.96	0.99	1.05	1.30	1.15
18	IDFC Tax Adv										0.60	1.13	0.86	1.22	0.95
19	IDFC Tax Saver								1.23	0.48	0.74	1.06	0.66	0.96	0.85
20	ING Retire Invest								1.16	0.53	0.72	0.89	0.83	1.24	0.89
21	ING Tax Savings					1.04	0.46	1.59	1.13	0.94	1.09	0.92	0.64	0.90	0.97
22	JM Tax Gain										1.22	1.06	0.84	1.19	1.25
23	JP Morgan Tax Advantage										0.56	1.04	0.80	1.01	0.85
24	Kotak Tax Saver							1.38	1.18	0.76	0.98	1.19	1.02	1.37	1.13
25	LIC Nomura Tax Plan				0.85	0.71	1.58	1.07	1.21	0.86	1.02	0.99	0.94	0.80	1.00
26	LNT Long Term Adv										0.60	1.24	1.02	1.18	1.01
27	LNT Tax Advantage							1.16	1.00	0.88	0.85	0.99	0.84	1.12	0.98
28	LNT Tax Saver							1.33	1.00	0.73	1.36	1.20	0.96	0.97	1.08
29	Quantum Tax Savings										0.72	1.14	0.89	0.95	0.93
30	Reliance Equity Linked Savings									0.95	0.77	0.94	1.30	1.25	1.04
31	Reliance Tax Saver							1.52	1.15	0.66	0.88	1.25	1.33	1.73	1.22
32	Religare Agile									0.73	0.17	1.29	0.50	0.69	0.68
33	Religare Tax Plan								1.13	0.59	0.86	1.02	0.84	1.03	0.91
34	Sahara Tax Gain				1.28	0.90	-3.00	1.22	1.18	0.64	1.13	1.09	1.00	1.39	0.68
35	SBI Magnum Tax Gain									0.91	1.00	0.91	0.93	1.18	0.98
36	SBI Tax Advantage I									0.94	1.20	1.06	1.15	1.38	1.14
37	Sundaram Tax Saver							1.30	1.22	0.35	1.03	1.26	0.96	1.32	1.06
38	Tata Infra Tax Savings										0.59	0.98	1.32	1.42	1.08
39	Tata Tax Adv Fund I							1.05	1.01	0.64	0.87	0.99	0.74	0.99	0.90
40	Taurus Tax Shield				1.38	1.62	0.17	1.05	1.58	0.65	1.28	1.26	0.69	1.23	1.09
41	UTI ETSP							1.21	1.06	0.81	0.79	1.11	0.82	0.81	0.94
42	UTI LTA I								1.06	0.91	0.99	0.89	1.00	1.07	0.99
43	UTI LTA II									0.51	0.74	1.00	0.90	0.77	0.78
	<b>Average</b>														<b>0.99</b>
<b>Diversified Equity Funds</b>															
1	Birla Sunlife Frontline Equity				0.75	0.94	1.33	1.02	0.99	0.74	1.05	0.97	0.87	1.15	0.98
2	DSP Black Rock Top 100				0.97	0.93	1.22	1.05	1.05	0.76	0.83	0.91	0.94	1.21	0.99
3	Franklin India Bluechip				0.95	0.84	1.49	1.14	0.93	0.98	0.96	1.01	0.80	0.97	1.01
4	HDFC Equity Fund				0.88	0.93	0.89	1.02	0.98	0.88	1.20	1.20	1.17	1.20	1.04
5	HDFC Top 200				0.95	0.88	0.87	1.09	0.93	0.93	1.17	1.09	1.06	1.13	1.01
6	ICICI Pru Dynamic				1.45	1.04	2.01	1.25	0.84	0.65	0.76	0.58	1.08	0.85	1.05
7	ICICI Discovery Fund						1.32	1.23	1.12	0.59	1.28	0.98	1.23	1.24	1.12
8	IDFC Premier Equity							1.53	1.36	0.69	1.01	1.48	0.74	1.53	1.19
9	Reliance Growth				1.32	1.01	1.37	1.21	1.24	0.65	1.16	1.02	1.08	1.76	1.18
10	Reliance Equity Opportunities						1.61	1.17	1.14	0.66	0.90	1.34	1.12	1.34	1.16
11	SBI Magnum Contra							1.06	1.11	0.87	1.04	0.99	1.08	1.05	1.03
12	UTI Opportunities Fund							1.01	1.12	0.77	1.03	1.10	0.65	1.12	0.97
	<b>Average</b>														<b>1.06</b>

Source: Computed from Secondary Data

**Table 4.37**

Beta of Funds based on NSE CNX 500 Index															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
ELSS Funds															
1	Axis Long Term Equity											0.97	0.70	0.93	0.87
2	Birla Sunlife Tax Plan								1.00	0.93	0.82	0.92	0.89	1.22	0.96
3	Birls Sunlife Tax Relief 96									1.05	1.15	1.18	0.95	1.22	1.11
4	BNP Paribas Tax Adv							1.16	1.25	0.86	0.75	1.05	0.75	0.98	0.97
5	BOI AXA Eco										1.08	1.19	0.73	0.89	0.97
6	BOI AXA Tax Adv										1.08	1.19	0.73	0.89	0.97
7	Canara Robeco Equity Tax Saver										1.05	1.06	0.73	0.85	0.92
8	DSP Black Rock Tax Saver								1.22	0.65	0.87	1.19	0.96	1.22	1.02
9	DWS Tax Saving							0.95	1.10	0.82	0.66	1.35	0.73	0.71	0.90
10	Edelweiss ELSS										0.72	1.11	0.86	0.93	0.91
11	Escorts Tax Plan	0.09	0.76	0.91	0.89	0.77	2.16	0.94	0.99	0.50	0.94	1.40	1.29	1.25	0.99
12	Franklin India Tax Sheild	0.02	1.14	0.98	0.78	0.76	1.13	0.92	0.88	0.85	0.82	0.99	0.73	0.94	0.84
13	HDFC Long Term Adv		0.60	0.85	0.19	0.78	0.78	0.99	0.80	0.77	1.02	1.25	0.96	0.69	0.81
14	HDFC Tax Saver	2.21	0.74	0.77	1.02	0.97	0.99	1.02	0.81	1.14	0.92	1.23	0.90	1.05	1.06
15	HSBC Tax Saver								1.07	0.60	0.78	1.17	0.86	1.10	0.93
16	ICICI Pru Right											0.95	0.87	1.12	0.98
17	ICICI Pru Tax Plan	0.97	0.97	1.06	1.63	0.99	1.27	1.26	0.98	0.87	0.87	1.06	1.00	1.16	1.08
18	IDFC Tax Adv										0.54	1.18	0.83	1.06	0.90
19	IDFC Tax Saver								1.09	0.50	0.67	1.11	0.62	0.83	0.81
20	ING Retire Invest								1.02	0.55	0.65	0.93	0.78	1.08	0.84
21	ING Tax Savings					1.00	0.52	1.43	0.99	0.98	0.98	1.01	0.61	0.80	0.93
22	JM Tax Gain									1.27	0.98	0.91	1.12	1.68	1.19
23	JP Morgan Tax Advantage										0.50	1.11	0.76	0.89	0.82
24	Kotak Tax Saver							1.25	1.04	0.79	0.89	1.26	0.97	1.22	1.06
25	LIC Nomura Tax Plan	1.90	0.22	1.17	0.80	0.68	1.43	0.96	1.07	0.89	0.92	1.03	0.89	0.70	0.97
26	LNT Long Term Adv										0.54	1.45	0.97	1.05	1.00
27	LNT Tax Advantage							1.05	0.87	0.91	0.76	1.08	0.81	0.98	0.92
28	LNT Tax Saver							1.20	0.88	0.76	1.24	1.26	0.91	0.86	1.01
29	Quantum Tax Savings										0.66	1.23	0.83	0.82	0.88
30	Reliance Equity Linked Savings									0.99	0.70	1.07	1.24	1.11	1.02
31	Reliance Tax Saver							1.36	1.00	0.69	0.81	1.33	1.28	1.54	1.14
32	Religare Agile									0.77	0.16	1.27	0.45	0.59	0.65
33	Religare Tax Plan								0.99	0.61	0.78	1.10	0.81	0.91	0.87
34	Sahara Tax Gain	0.28	0.97	0.89	1.14	0.87	-3.98	1.10	1.05	0.66	1.02	1.20	0.96	1.24	0.57
35	SBI Magnum Tax Gain									0.95	0.91	0.98	0.89	1.03	0.95
36	SBI Tax Advantage I									0.98	1.09	1.13	1.10	1.23	1.10
37	Sundaram Tax Saver							1.17	1.08	0.37	0.93	1.33	0.91	1.15	0.99
38	Tata Infra Tax Savings										0.54	1.06	1.26	1.24	1.02
39	Tata Tax Adv Fund I							0.94	0.88	0.67	0.79	1.05	0.71	0.86	0.84
40	Taurus Tax Shield	2.79	1.04	1.20	1.48	1.56	0.30	0.94	1.40	0.68	1.17	1.34	0.65	1.10	1.20
41	UTI ETSP							1.08	0.92	0.84	0.72	1.15	0.78	0.71	0.89
42	UTI LTA I								0.94	0.95	0.90	0.94	0.95	0.94	0.94
43	UTI LTA II									0.53	0.67	1.06	0.86	0.68	0.76
	Average														0.94
Diversified Equity Funds															
1	Birla Sunlife Frontline Equity				0.72	0.90	1.29	0.92	0.87	0.77	0.96	1.01	0.82	1.02	0.93
2	DSP Black Rock Top 100				0.94	0.90	1.13	0.95	0.92	0.79	0.75	0.96	0.89	1.08	0.93
3	Franklin India Bluechip	0.84	1.13	0.96	0.90	0.80	1.39	1.02	0.81	1.02	0.88	1.03	0.76	0.86	0.95
4	HDFC Equity Fund	0.78	0.95	0.93	0.90	0.89	0.93	0.92	0.86	0.92	1.09	1.28	1.11	1.07	0.97
5	HDFC Top 200	1.35	0.84	0.95	0.99	0.85	0.84	0.98	0.81	0.97	1.06	1.16	1.00	1.00	0.98
6	ICICI Pru Dynamic				1.39	1.00	1.91	1.12	0.74	0.67	0.69	0.62	1.02	0.75	0.99
7	ICICI Discovery Fund						1.35	1.11	0.99	0.62	1.15	1.06	1.16	1.10	1.07
8	IDFC Premier Equity							1.38	1.20	0.72	0.92	1.59	0.73	1.37	1.13
9	Reliance Growth	1.29	0.87	1.11	1.28	0.97	1.37	1.09	1.10	0.68	1.06	1.11	1.04	1.57	1.12
10	Reliance Equity Opportunities						1.43	1.05	1.01	0.68	0.82	1.42	1.07	1.19	1.08
11	SBI Magnum Contra							0.95	0.97	0.91	0.94	1.06	1.02	0.92	0.97
12	UTI Opportunties Fund							0.92	0.98	0.81	0.94	1.15	0.61	0.98	0.91
	Average														1.00

Source: Computed from Secondary Data

R Squared or Coefficient of Determination of funds is an important variable in investment analysis and in particular mutual fund portfolio evaluation. Firstly it tells us the extent of reliance that can be placed on beta. If the R Squared is low, then beta as a variable would lose its prominence. As R Squared is a square of Correlation Coefficient, its range is always between +1 to 0. In case the R Squared is +1, it means that the portfolio returns and risk is fully determined by the market. So R Squared also tells us the extent of diversification achieved by the fund portfolio in relation to its benchmark. Higher the R Squared, higher is the diversification of the portfolio in relation to its benchmark.

The R Squared of ELSS funds and Diversified Equity funds for the period 2000-01 to 2012-13 based on 7 benchmark indexes is tabulated in Tables 4.38 to 4.44. As can be seen from Table 4.38, the average R Squared of ELSS funds as a category is 0.90 as against 0.91 for Diversified Equity funds in relation to benchmark BSE 30 Sensex. In case NSE Nifty index, the R Squared is 0.91 for both ELSS and for Diversified Equity funds category.

As can be seen from Tables 4.38 to 4.44, the R Squared of ELSS fund category has been between .90 and 0.93 for the 7 benchmark indexes considered. This shows that the ELSS fund portfolio is well diversified. Relatively, Diversified Equity funds are more diversified as compared to ELSS funds as reflected by a higher R Squared.

Table 4.38

R Square of Funds based on BSE 30 (Sensex )															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
ELSS Funds															
1	Axis Long Term Equity											0.92	0.86	0.96	0.91
2	Birla Sunlife Tax Plan								0.90	1.00	0.99	0.99	0.90	0.95	0.96
3	Birls Sunlife Tax Relief 96									0.92	0.99	0.82	0.94	0.95	0.92
4	BNP Paribas Tax Adv							0.84	0.94	0.93	0.99	0.82	0.85	0.84	0.89
5	BOI AXA Eco										0.97	0.99	0.98	0.98	0.98
6	BOI AXA Tax Adv										0.97	0.98	0.98	0.98	0.98
7	Canara Robeco Equity Tax Saver										0.99	0.80	0.94	0.88	0.90
8	DSP Black Rock Tax Saver								0.91	0.94	1.00	0.82	0.96	0.89	0.92
9	DWS Tax Saving							0.88	0.97	0.96	0.98	0.94	0.95	0.99	0.95
10	Edelweiss ELSS										0.98	0.84	0.92	0.95	0.92
11	Escorts Tax Plan	0.10	0.92	0.77	0.93	0.93	0.86	0.96	0.98	0.92	0.95	0.73	0.85	0.94	0.83
12	Franklin India Tax Sheild	0.14	1.00	0.90	0.98	0.99	0.93	0.92	0.97	0.91	0.97	0.98	0.92	0.92	0.89
13	HDFC Long Term Adv		0.70	0.37	0.03	0.83	0.58	0.95	0.92	0.92	0.99	0.91	0.96	0.94	0.76
14	HDFC Tax Saver	0.00	0.88	0.78	0.89	0.98	0.80	0.97	0.95	0.83	0.99	0.86	0.97	0.90	0.83
15	HSBC Tax Saver								0.91	0.99	0.99	0.95	0.99	0.92	0.96
16	ICICI Pru Right											0.90	0.90	0.89	0.90
17	ICICI Pru Tax Plan	0.06	0.99	0.74	0.83	0.99	0.76	0.92	0.86	0.93	0.98	0.94	0.94	0.87	0.83
18	IDFC Tax Adv										0.93	0.97	0.86	0.98	0.94
19	IDFC Tax Saver								0.86	0.70	0.95	0.95	0.98	1.00	0.91
20	ING Retire Invest								0.94	0.91	0.98	0.97	0.97	0.97	0.96
21	ING Tax Savings					0.94	0.45	0.93	0.88	0.90	1.00	0.79	0.97	0.89	0.86
22	JM Tax Gain									0.95	0.92	0.73	0.97	0.96	0.91
23	JP Morgan Tax Advantage										0.96	0.93	0.95	0.96	0.95
24	Kotak Tax Saver							0.75	0.89	0.97	1.00	0.92	0.97	0.91	0.92
25	LIC Nomura Tax Plan	0.06	0.43	0.83	0.91	0.98	0.97	0.92	0.92	0.91	1.00	0.97	0.98	0.96	0.83
26	LNT Long Term Adv										0.80	0.72	0.88	0.93	0.83
27	LNT Tax Advantage							0.90	0.94	0.99	0.99	0.76	0.93	0.99	0.93
28	LNT Tax Saver							0.97	0.93	1.00	0.99	0.96	0.96	0.95	0.97
29	Quantum Tax Savings										0.93	0.90	0.97	0.99	0.95
30	Reliance Equity Linked Savings									0.90	0.92	0.59	0.93	0.81	0.83
31	Reliance Tax Saver							0.93	0.97	0.87	0.98	0.78	0.87	0.91	0.90
32	Religare Agile									0.80	0.23	0.89	0.83	0.97	0.74
33	Religare Tax Plan								0.93	0.57	0.98	0.82	0.85	0.95	0.85
34	Sahara Tax Gain	0.00	1.00	0.96	0.96	0.96	0.22	0.95	0.90	0.77	0.98	0.69	0.91	0.89	0.78
35	SBI Magnum Tax Gain									0.97	0.99	0.90	0.94	0.97	0.95
36	SBI Tax Advantage I									0.94	0.99	0.84	0.93	0.89	0.92
37	Sundaram Tax Saver							0.86	0.94	0.70	0.96	0.95	0.94	0.99	0.91
38	Tata Infra Tax Savings										0.98	0.78	0.92	0.98	0.92
39	Tata Tax Adv Fund I							0.96	0.96	0.97	0.99	0.95	0.94	1.00	0.97
40	Taurus Tax Shield	0.03	0.98	0.36	0.68	0.94	0.06	0.87	0.88	0.86	0.99	0.88	0.99	0.87	0.72
41	UTI ETSP							0.95	0.99	0.97	0.99	0.99	0.93	0.96	0.97
42	UTI LTA I								0.92	0.99	1.00	0.93	0.94	0.96	0.96
43	UTI LTA II									0.96	0.99	0.94	0.90	0.96	0.95
	Average														0.90
Diversified Equity Funds															
1	Birla Sunlife Frontline Equity				0.98	0.99	0.92	0.97	0.97	0.95	0.99	0.98	0.99	0.94	0.97
2	DSP Black Rock Top 100				0.98	0.98	0.86	0.96	0.95	0.99	0.98	0.95	0.98	0.88	0.95
3	Franklin India Bluechip	0.66	0.92	0.94	0.99	0.98	0.95	0.99	0.98	0.92	0.98	0.99	0.97	0.90	0.94
4	HDFC Equity Fund	0.61	0.95	0.85	0.84	1.00	0.64	0.93	0.93	0.87	0.99	0.88	0.95	0.91	0.87
5	HDFC Top 200	0.34	0.88	0.91	0.79	1.00	0.77	0.97	0.99	0.91	1.00	0.90	0.97	0.93	0.87
6	ICICI Pru Dynamic				0.98	1.00	0.98	0.92	0.94	0.94	0.98	0.91	0.98	0.95	0.96
7	ICICI Discovery Fund						0.80	0.94	0.80	0.89	0.98	0.86	0.97	0.90	0.89
8	IDFC Premier Equity							0.74	0.79	0.93	0.99	0.85	0.64	0.85	0.83
9	Reliance Growth	0.09	0.83	0.14	0.96	1.00	0.87	0.91	0.88	0.91	0.99	0.84	0.90	0.90	0.79
10	Reliance Equity Opportunities						0.84	0.92	0.89	0.97	0.96	0.89	0.91	0.93	0.91
11	SBI Magnum Contra							0.96	0.97	0.97	0.99	0.88	0.96	0.86	0.94
12	UTI Opportunities Fund							0.80	0.98	0.89	0.99	0.99	0.96	0.97	0.94
	Average														0.91

Source: Computed from Secondary Data



Table 4.39

R Square of Funds based on BSE 100 Index															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis Long Term Equity											0.96	0.90	0.91	0.92
2	Birla Sunlife Tax Plan								0.95	1.00	0.99	0.99	0.95	0.99	0.98
3	Birls Sunlife Tax Relief 96									0.93	1.00	0.89	0.98	0.99	0.96
4	BNP Paribas Tax Adv							0.84	0.98	0.92	0.98	0.90	0.91	0.92	0.92
5	BOI AXA Eco										0.97	0.98	0.99	0.96	0.98
6	BOI AXA Tax Adv										0.97	0.98	0.99	0.96	0.98
7	Canara Robeco Equity Tax Saver										0.99	0.88	0.97	0.93	0.94
8	DSP Black Rock Tax Saver								0.97	0.94	1.00	0.89	0.99	0.96	0.96
9	DWS Tax Saving							0.91	0.99	0.94	0.96	0.99	0.98	0.94	0.96
10	Edelweiss ELSS										0.97	0.91	0.96	0.97	0.95
11	Escorts Tax Plan	0.01	0.95	0.91	0.90	0.90	0.92	0.98	1.00	0.93	0.97	0.82	0.90	0.95	0.86
12	Franklin India Tax Shield	0.00	1.00	0.97	0.98	0.99	0.97	0.95	1.00	0.93	0.99	0.99	0.97	0.98	0.90
13	HDFC Long Term Adv		0.76	0.56	0.04	0.86	0.65	0.98	0.96	0.94	1.00	0.95	0.99	0.93	0.80
14	HDFC Tax Saver	0.55	0.92	0.83	0.89	0.97	0.81	0.98	0.97	0.86	0.99	0.93	0.98	0.97	0.90
15	HSBC Tax Saver								0.97	0.99	0.99	0.98	1.00	0.96	0.98
16	ICICI Pru Right											0.96	0.95	0.96	0.96
17	ICICI Pru Tax Plan	0.39	1.00	0.89	0.86	0.98	0.77	0.93	0.94	0.92	0.98	0.96	0.98	0.94	0.89
18	IDFC Tax Adv										0.90	1.00	0.93	1.00	0.96
19	IDFC Tax Saver								0.92	0.66	0.93	0.98	1.00	0.98	0.91
20	ING Retire Invest								0.97	0.90	0.97	1.00	0.98	0.95	0.96
21	ING Tax Savings					0.95	0.50	0.96	0.95	0.88	0.99	0.85	0.99	0.96	0.89
22	JM Tax Gain									0.97	0.94	0.83	1.00	0.98	0.94
23	JP Morgan Tax Advantage										0.94	0.96	0.98	0.97	0.96
24	Kotak Tax Saver							0.80	0.95	0.97	1.00	0.97	0.99	0.94	0.95
25	LIC Nomura Tax Plan	0.53	0.49	0.95	0.94	0.98	0.93	0.93	0.97	0.92	1.00	1.00	1.00	0.98	0.89
26	LNT Long Term Adv										0.77	0.80	0.94	0.98	0.87
27	LNT Tax Advantage							0.94	0.98	0.99	0.98	0.85	0.98	1.00	0.96
28	LNT Tax Saver							0.99	0.98	1.00	1.00	0.99	0.99	0.97	0.99
29	Quantum Tax Savings										0.91	0.95	0.99	0.97	0.96
30	Reliance Equity Linked Savings									0.92	0.90	0.66	0.97	0.79	0.85
31	Reliance Tax Saver							0.95	0.99	0.89	0.99	0.87	0.94	0.95	0.94
32	Religare Agile									0.77	0.22	0.81	0.74	0.92	0.69
33	Religare Tax Plan								0.98	0.58	0.97	0.89	0.90	0.99	0.89
34	Sahara Tax Gain	0.38	0.99	1.00	0.95	0.98	0.28	0.97	0.97	0.79	0.97	0.78	0.96	0.92	0.84
35	SBI Magnum Tax Gain									0.97	0.99	0.93	0.98	0.98	0.97
36	SBI Tax Advantage I									0.95	1.00	0.92	0.97	0.96	0.96
37	Sundaram Tax Saver							0.88	0.97	0.74	0.94	0.98	0.98	1.00	0.93
38	Tata Infra Tax Savings										0.99	0.87	0.97	0.96	0.95
39	Tata Tax Adv Fund I							0.98	0.99	0.97	0.99	0.97	0.97	0.99	0.98
40	Taurus Tax Shield	0.78	0.99	0.54	0.67	0.96	0.04	0.91	0.95	0.84	0.99	0.95	0.99	0.90	0.81
41	UTI ETSP							0.97	1.00	0.96	0.98	1.00	0.98	0.97	0.98
42	UTI LTA I								0.97	0.99	1.00	0.98	0.98	0.99	0.99
43	UTI LTA II									0.94	0.97	0.98	0.95	0.95	0.96
	<b>Average</b>														<b>0.93</b>
<b>Diversified Equity Funds</b>															
1	Birla Sunlife Frontline Equity				0.99	0.98	0.97	0.99	1.00	0.95	1.00	1.00	1.00	0.99	0.99
2	DSP Black Rock Top 100				0.97	0.99	0.90	0.98	0.99	1.00	0.97	0.99	1.00	0.96	0.98
3	Franklin India Bluechip	0.83	0.95	0.95	0.97	0.99	0.97	0.99	0.98	0.93	0.99	0.99	1.00	0.96	0.96
4	HDFC Equity Fund	0.88	0.97	0.93	0.87	0.99	0.74	0.96	0.98	0.89	1.00	0.95	0.99	0.97	0.93
5	HDFC Top 200	0.84	0.92	0.98	0.82	1.00	0.85	0.99	1.00	0.93	1.00	0.96	1.00	0.98	0.94
6	ICICI Pru Dynamic				0.99	1.00	1.00	0.94	0.98	0.96	0.97	0.94	1.00	0.99	0.98
7	ICICI Discovery Fund						0.82	0.94	0.89	0.88	0.97	0.92	0.99	0.96	0.92
8	IDFC Premier Equity							0.80	0.88	0.92	0.99	0.92	0.74	0.93	0.88
9	Reliance Growth	0.93	0.88	0.29	0.98	0.99	0.90	0.95	0.95	0.91	1.00	0.90	0.96	0.97	0.89
10	Reliance Equity Opportunities						0.84	0.93	0.96	0.97	0.95	0.96	0.96	0.96	0.94
11	SBI Magnum Contra							0.98	1.00	0.96	0.99	0.94	0.99	0.93	0.97
12	UTI Opportunities Fund							0.85	1.00	0.87	0.99	1.00	0.99	0.99	0.96
	<b>Average</b>														<b>0.95</b>

Source: Computed from Secondary Data

**Table 4.40**

R Square of Funds based on BSE 200 Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	ELSS Funds														
1	Axis Long Term Equity											0.99	0.92	0.89	0.93
2	Birla Sunlife Tax Plan								0.96	1.00	0.99	0.97	0.96	1.00	0.98
3	Birls Sunlife Tax Relief 96									0.93	1.00	0.93	0.99	1.00	0.97
4	BNP Paribas Tax Adv							0.84	0.99	0.92	0.97	0.93	0.93	0.94	0.93
5	BOI AXA Eco										0.97	0.95	0.99	0.95	0.97
6	BOI AXA Tax Adv										0.97	0.95	0.99	0.95	0.97
7	Canara Robeco Equity Tax Saver										0.99	0.91	0.98	0.94	0.96
8	DSP Black Rock Tax Saver								0.98	0.94	0.99	0.93	0.99	0.97	0.97
9	DWS Tax Saving							0.92	0.99	0.95	0.96	1.00	0.98	0.93	0.96
10	Edelweiss ELSS										0.96	0.95	0.97	0.97	0.96
11	Escorts Tax Plan	0.00	0.99	0.97	0.83	0.92	0.97	0.99	0.99	0.93	0.97	0.86	0.91	0.95	0.87
12	Franklin India Tax Sheild	0.00	0.97	0.95	0.98	1.00	1.00	0.96	1.00	0.92	0.99	0.97	0.98	0.99	0.90
13	HDFC Long Term Adv		0.85	0.71	0.10	0.83	0.58	0.98	0.96	0.94	1.00	0.98	0.99	0.92	0.82
14	HDFC Tax Saver	0.54	0.98	0.77	0.96	0.97	0.68	0.98	0.97	0.86	0.99	0.96	0.98	0.98	0.89
15	HSBC Tax Saver								0.98	0.99	0.99	0.99	1.00	0.97	0.99
16	ICICI Pru Right											0.97	0.96	0.97	0.97
17	ICICI Pru Tax Plan	0.37	0.98	0.97	0.93	0.98	0.64	0.92	0.95	0.92	0.98	0.98	0.99	0.96	0.89
18	IDFC Tax Adv										0.89	0.99	0.94	1.00	0.96
19	IDFC Tax Saver								0.93	0.66	0.93	1.00	1.00	0.97	0.92
20	ING Retire Invest								0.97	0.90	0.97	1.00	0.99	0.94	0.96
21	ING Tax Savings					0.96	0.41	0.97	0.96	0.89	0.99	0.90	0.99	0.98	0.89
22	JM Tax Gain									0.96	0.95	0.87	1.00	0.98	0.95
23	JP Morgan Tax Advantage										0.94	0.98	0.98	0.97	0.97
24	Kotak Tax Saver							0.82	0.96	0.97	1.00	0.99	0.99	0.95	0.95
25	LIC Nomura Tax Plan	0.47	0.59	0.99	0.91	0.99	0.91	0.95	0.98	0.92	0.99	1.00	1.00	0.98	0.90
26	LNT Long Term Adv										0.77	0.85	0.95	0.99	0.89
27	LNT Tax Advantage							0.95	0.98	0.99	0.98	0.89	0.98	0.99	0.97
28	LNT Tax Saver							1.00	0.99	1.00	1.00	1.00	0.99	0.97	0.99
29	Quantum Tax Savings										0.91	0.97	0.99	0.95	0.96
30	Reliance Equity Linked Savings									0.92	0.90	0.72	0.98	0.78	0.86
31	Reliance Tax Saver							0.96	0.99	0.89	0.99	0.89	0.95	0.96	0.95
32	Religare Agile									0.78	0.22	0.76	0.72	0.91	0.68
33	Religare Tax Plan								0.99	0.58	0.97	0.93	0.91	0.99	0.90
34	Sahara Tax Gain	0.32	0.95	0.97	0.88	0.97	0.22	0.98	0.97	0.79	0.97	0.83	0.97	0.93	0.83
35	SBI Magnum Tax Gain									0.97	0.99	0.95	0.99	0.98	0.98
36	SBI Tax Advantage I									0.95	1.00	0.94	0.98	0.97	0.97
37	Sundaram Tax Saver							0.90	0.97	0.73	0.94	0.99	0.99	0.99	0.93
38	Tata Infra Tax Savings										0.99	0.91	0.98	0.95	0.96
39	Tata Tax Adv Fund I							0.98	1.00	0.97	1.00	0.98	0.98	0.98	0.98
40	Taurus Tax Shield	0.71	0.98	0.70	0.78	0.95	0.00	0.93	0.96	0.85	1.00	0.97	0.99	0.91	0.83
41	UTI ETSP							0.98	1.00	0.96	0.98	0.99	0.98	0.96	0.98
42	UTI LTA I								0.97	0.99	1.00	0.99	0.99	0.99	0.99
43	UTI LTA II									0.94	0.97	0.99	0.97	0.94	0.96
	Average														0.93
	Diversified Equity Funds														
1	Birla Sunlife Frontline Equity				1.00	0.99	0.96	0.99	1.00	0.95	1.00	1.00	1.00	1.00	0.99
2	DSP Black Rock Top 100				0.98	0.99	0.98	0.98	0.99	1.00	0.97	1.00	1.00	0.97	0.99
3	Franklin India Bluechip	0.88	0.99	0.87	0.97	0.99	1.00	0.99	0.98	0.93	0.99	0.96	1.00	0.97	0.96
4	HDFC Equity Fund	0.91	1.00	0.89	0.94	0.99	0.75	0.96	0.98	0.89	1.00	0.97	0.99	0.98	0.94
5	HDFC Top 200	0.88	0.98	0.95	0.91	1.00	0.92	0.99	1.00	0.93	1.00	0.98	1.00	0.99	0.96
6	ICICI Pru Dynamic				1.00	1.00	0.97	0.95	0.99	0.96	0.98	0.96	1.00	1.00	0.98
7	ICICI Discovery Fund						0.71	0.93	0.91	0.88	0.97	0.95	1.00	0.97	0.92
8	IDFC Premier Equity							0.82	0.89	0.92	1.00	0.95	0.76	0.95	0.90
9	Reliance Growth	0.91	0.95	0.44	1.00	0.99	0.80	0.96	0.96	0.91	1.00	0.94	0.97	0.98	0.91
10	Reliance Equity Opportunities						0.91	0.94	0.97	0.97	0.95	0.97	0.97	0.96	0.96
11	SBI Magnum Contra							0.99	1.00	0.96	0.99	0.97	0.99	0.93	0.98
12	UTI Opportunities Fund							0.85	1.00	0.87	0.99	0.99	1.00	0.99	0.96
	Average														0.95

Source: Computed from Secondary Data

**Table 4.41**

R Square of Funds based on BSE 500 Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	ELSS Funds														
1	Axis Long Term Equity											0.99	0.93	0.88	0.93
2	Birla Sunlife Tax Plan								0.96	0.99	0.99	0.95	0.98	1.00	0.98
3	Birls Sunlife Tax Relief 96									0.92	1.00	0.94	0.99	1.00	0.97
4	BNP Paribas Tax Adv							0.85	0.99	0.91	0.98	0.95	0.94	0.96	0.94
5	BOI AXA Eco										0.97	0.94	0.99	0.95	0.96
6	BOI AXA Tax Adv										0.97	0.94	0.99	0.95	0.96
7	Canara Robeco Equity Tax Saver										0.99	0.93	0.99	0.96	0.97
8	DSP Black Rock Tax Saver								0.99	0.95	1.00	0.95	1.00	0.98	0.98
9	DWS Tax Saving							0.94	0.99	0.95	0.96	1.00	0.99	0.91	0.96
10	Edelweiss ELSS										0.97	0.96	0.98	0.96	0.97
11	Escorts Tax Plan	0.00	0.99	0.99	0.80	0.91	0.96	0.99	0.99	0.94	0.97	0.89	0.93	0.96	0.87
12	Franklin India Tax Sheild	0.00	0.97	0.92	0.98	1.00	0.99	0.96	1.00	0.92	0.99	0.96	0.99	0.99	0.90
13	HDFC Long Term Adv		0.86	0.80	0.12	0.83	0.66	0.99	0.97	0.94	1.00	0.99	1.00	0.90	0.84
14	HDFC Tax Saver	0.55	0.98	0.72	0.97	0.96	0.77	0.99	0.97	0.85	0.99	0.97	0.98	0.98	0.90
15	HSBC Tax Saver								0.98	0.99	0.99	0.99	0.99	0.98	0.99
16	ICICI Pru Right											0.97	0.97	0.97	0.97
17	ICICI Pru Tax Plan	0.38	0.97	0.99	0.93	0.98	0.73	0.91	0.96	0.93	0.98	0.98	0.99	0.97	0.90
18	IDFC Tax Adv										0.90	0.99	0.96	0.99	0.96
19	IDFC Tax Saver								0.93	0.66	0.93	1.00	1.00	0.96	0.91
20	ING Retire Invest								0.97	0.89	0.97	1.00	0.99	0.94	0.96
21	ING Tax Savings					0.96	0.50	0.98	0.96	0.90	0.99	0.92	0.99	0.98	0.91
22	JM Tax Gain									0.96	0.94	0.89	1.00	0.96	0.95
23	JP Morgan Tax Advantage										0.94	0.98	0.99	0.97	0.97
24	Kotak Tax Saver							0.84	0.97	0.97	1.00	0.99	1.00	0.96	0.96
25	LIC Nomura Tax Plan	0.50	0.60	0.99	0.89	0.99	0.90	0.96	0.98	0.91	0.99	1.00	1.00	0.98	0.90
26	LNT Long Term Adv										0.77	0.88	0.97	1.00	0.91
27	LNT Tax Advantage							0.96	0.99	0.99	0.99	0.91	0.99	0.99	0.97
28	LNT Tax Saver							1.00	0.99	1.00	1.00	0.99	0.99	0.97	0.99
29	Quantum Tax Savings										0.92	0.98	0.99	0.94	0.96
30	Reliance Equity Linked Savings									0.92	0.91	0.75	0.99	0.79	0.87
31	Reliance Tax Saver							0.97	0.99	0.88	0.99	0.91	0.96	0.97	0.95
32	Religare Agile									0.77	0.22	0.73	0.68	0.90	0.66
33	Religare Tax Plan								0.99	0.56	0.97	0.95	0.93	0.99	0.90
34	Sahara Tax Gain	0.34	0.94	0.93	0.85	0.98	0.29	0.99	0.98	0.77	0.97	0.86	0.98	0.95	0.83
35	SBI Magnum Tax Gain									0.96	0.99	0.96	0.99	0.98	0.98
36	SBI Tax Advantage I									0.96	1.00	0.95	0.99	0.98	0.98
37	Sundaram Tax Saver							0.92	0.97	0.73	0.94	1.00	0.99	0.98	0.93
38	Tata Infra Tax Savings										0.99	0.93	0.99	0.94	0.96
39	Tata Tax Adv Fund I							0.98	1.00	0.98	1.00	0.99	0.99	0.97	0.99
40	Taurus Tax Shield	0.74	0.98	0.78	0.81	0.96	0.01	0.94	0.97	0.86	1.00	0.98	0.98	0.92	0.84
41	UTI ETSP							0.99	1.00	0.96	0.99	0.99	0.99	0.96	0.98
42	UTI LTA I								0.97	0.98	1.00	1.00	0.99	0.99	0.99
43	UTI LTA II									0.94	0.98	1.00	0.98	0.94	0.97
	Average														0.93
	Diversifed Equity Funds														
1	Birla Sunlife Frontline Equity				0.99	0.99	0.99	0.99	1.00	0.94	1.00	0.99	0.99	1.00	0.99
2	DSP Black Rock Top 100				0.98	0.99	0.94	0.99	1.00	1.00	0.98	1.00	1.00	0.98	0.99
3	Franklin India Bluechip	0.86	0.99	0.81	0.96	0.99	0.99	1.00	0.98	0.92	0.99	0.95	1.00	0.97	0.95
4	HDFC Equity Fund	0.90	1.00	0.86	0.96	0.99	0.79	0.97	0.99	0.88	1.00	0.98	1.00	0.99	0.95
5	HDFC Top 200	0.86	0.98	0.92	0.92	1.00	0.90	0.99	0.99	0.92	1.00	0.98	1.00	1.00	0.96
6	ICICI Pru Dynamic				0.99	1.00	0.99	0.96	0.99	0.96	0.98	0.97	1.00	1.00	0.98
7	ICICI Discovery Fund						0.80	0.92	0.92	0.89	0.97	0.96	1.00	0.98	0.93
8	IDFC Premier Equity							0.84	0.91	0.93	1.00	0.96	0.79	0.96	0.91
9	Reliance Growth	0.92	0.96	0.54	0.99	0.99	0.87	0.97	0.97	0.92	1.00	0.96	0.98	0.99	0.93
10	Reliance Equity Opportunities						0.85	0.95	0.97	0.97	0.95	0.98	0.98	0.97	0.95
11	SBI Magnum Contra							0.99	1.00	0.96	0.99	0.98	1.00	0.93	0.98
12	UTI Opportunties Fund							0.85	1.00	0.86	0.99	0.98	1.00	0.99	0.95
	Average														0.96

Source: Computed from Secondary Data

**Table 4.42**

R Square of Funds based on NSE Nifty Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
ELSS Funds															
1	Axis Long Term Equity											0.93	0.87	0.95	0.92
2	Birla Sunlife Tax Plan								0.94	1.00	0.99	1.00	0.92	1.00	0.98
3	Birls Sunlife Tax Relief 96									0.95	0.99	0.83	0.96	0.95	0.94
4	BNP Paribas Tax Adv							0.87	0.98	0.95	1.00	0.84	0.87	0.84	0.91
5	BOI AXA Eco										0.97	0.99	0.98	0.98	0.98
6	BOI AXA Tax Adv										0.97	0.99	0.98	0.98	0.98
7	Canara Robeco Equity Tax Saver										0.98	0.82	0.95	0.87	0.91
8	DSP Black Rock Tax Saver								0.97	0.91	1.00	0.84	0.97	0.89	0.93
9	DWS Tax Saving							0.96	0.99	0.93	0.99	0.96	0.96	0.99	0.97
10	Edelweiss ELSS										0.99	0.86	0.93	0.95	0.93
11	Escorts Tax Plan	0.20	0.92	0.80	0.96	0.93	0.85	1.00	0.99	0.89	0.92	0.75	0.86	0.93	0.85
12	Franklin India Tax Sheild	0.24	1.00	0.92	0.96	1.00	0.93	0.96	0.99	0.93	0.95	0.99	0.94	0.93	0.90
13	HDFC Long Term Adv		0.70	0.41	0.01	0.82	0.39	0.99	0.95	0.90	0.98	0.92	0.97	0.95	0.75
14	HDFC Tax Saver	0.01	0.88	0.79	0.83	0.97	0.58	0.99	0.96	0.86	1.00	0.88	0.97	0.90	0.82
15	HSBC Tax Saver								0.97	0.97	0.99	0.96	1.00	0.92	0.97
16	ICICI Pru Right											0.93	0.91	0.90	0.91
17	ICICI Pru Tax Plan	0.11	0.99	0.78	0.77	0.98	0.53	0.88	0.94	0.89	0.98	0.94	0.95	0.87	0.82
18	IDFC Tax Adv										0.96	0.98	0.89	0.98	0.95
19	IDFC Tax Saver								0.93	0.68	0.98	0.96	0.99	1.00	0.92
20	ING Retire Invest								0.98	0.94	1.00	0.98	0.97	0.97	0.97
21	ING Tax Savings					0.96	0.25	0.99	0.94	0.85	1.00	0.80	0.97	0.89	0.85
22	JM Tax Gain									0.95	0.89	0.76	0.99	0.97	0.91
23	JP Morgan Tax Advantage										0.98	0.93	0.96	0.96	0.96
24	Kotak Tax Saver							0.87	0.95	0.99	0.99	0.94	0.97	0.90	0.94
25	LIC Nomura Tax Plan	0.10	0.44	0.86	0.91	0.99	0.98	0.97	0.98	0.94	1.00	0.98	0.99	0.96	0.85
26	LNT Long Term Adv										0.85	0.73	0.91	0.93	0.86
27	LNT Tax Advantage							0.96	0.97	1.00	1.00	0.78	0.95	0.99	0.95
28	LNT Tax Saver							1.00	0.98	1.00	0.97	0.97	0.97	0.95	0.98
29	Quantum Tax Savings										0.95	0.91	0.98	1.00	0.96
30	Reliance Equity Linked Savings									0.88	0.94	0.59	0.94	0.80	0.83
31	Reliance Tax Saver							0.99	0.99	0.90	0.96	0.81	0.90	0.91	0.92
32	Religare Agile									0.83	0.27	0.88	0.80	0.97	0.75
33	Religare Tax Plan								0.98	0.63	0.99	0.84	0.86	0.95	0.88
34	Sahara Tax Gain	0.01	1.00	0.98	0.98	0.97	0.08	0.99	0.97	0.82	0.99	0.71	0.92	0.88	0.79
35	SBI Magnum Tax Gain									0.99	0.98	0.90	0.96	0.97	0.96
36	SBI Tax Advantage I									0.91	0.99	0.87	0.94	0.89	0.92
37	Sundaram Tax Saver							0.94	0.98	0.70	0.98	0.96	0.96	0.99	0.93
38	Tata Infra Tax Savings										0.97	0.81	0.94	0.98	0.93
39	Tata Tax Adv Fund I							0.97	0.99	0.94	0.97	0.95	0.95	1.00	0.97
40	Taurus Tax Shield	0.03	0.98	0.40	0.59	0.94	0.00	0.94	0.95	0.81	0.97	0.90	0.99	0.86	0.72
41	UTI ETSP							1.00	1.00	0.96	1.00	0.99	0.95	0.96	0.98
42	UTI LTA I								0.97	1.00	0.99	0.94	0.96	0.96	0.97
43	UTI LTA II									0.95	1.00	0.95	0.92	0.96	0.96
	Average														0.91
Diversified Equity Funds															
1	Birla Sunlife Frontline Equity				0.95	0.99	0.85	0.99	1.00	0.97	0.99	0.99	0.99	0.94	0.97
2	DSP Black Rock Top 100				0.95	0.99	0.95	0.99	0.99	0.99	0.99	0.99	1.00	0.94	0.98
3	Franklin India Bluechip	0.60	0.92	0.95	0.97	0.99	0.95	1.00	0.98	0.94	0.95	1.00	0.98	0.90	0.93
4	HDFC Equity Fund	0.57	0.95	0.87	0.78	0.99	0.54	0.96	0.97	0.88	0.98	0.90	0.97	0.91	0.87
5	HDFC Top 200	0.25	0.88	0.93	0.71	1.00	0.79	0.99	0.99	0.92	0.99	0.91	0.98	0.93	0.87
6	ICICI Pru Dynamic				0.95	1.00	0.92	0.97	0.98	0.94	0.98	0.91	0.99	0.95	0.96
7	ICICI Discovery Fund						0.58	0.90	0.88	0.84	1.00	0.87	0.98	0.90	0.87
8	IDFC Premier Equity							0.87	0.87	0.90	0.98	0.87	0.67	0.85	0.86
9	Reliance Growth	0.06	0.84	0.17	0.93	0.99	0.69	0.98	0.95	0.87	0.98	0.85	0.93	0.90	0.78
10	Reliance Equity Opportunities						0.97	0.97	0.95	0.98	0.98	0.91	0.92	0.93	0.95
11	SBI Magnum Contra							1.00	0.99	0.99	0.99	0.90	0.97	0.87	0.96
12	UTI Opportunities Fund							0.84	1.00	0.91	0.99	1.00	0.98	0.97	0.96
	Average														0.91

Source: Computed from Secondary Data

**Table 4.43**

R Square of Funds based on NSE CNX 100 Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
ELSS Funds															
1	Axis Long Term Equity											0.96	0.90	0.91	0.92
2	Birla Sunlife Tax Plan								0.96	1.00	0.99	0.99	0.95	0.98	0.98
3	Birls Sunlife Tax Relief 96									0.97	1.00	0.88	0.98	0.98	0.96
4	BNP Paribas Tax Adv							0.84	0.99	0.95	0.99	0.89	0.91	0.90	0.92
5	BOI AXA Eco										0.98	0.98	0.99	0.96	0.98
6	BOI AXA Tax Adv										0.98	0.98	0.99	0.96	0.98
7	Canara Robeco Equity Tax Saver										0.99	0.87	0.97	0.91	0.94
8	DSP Black Rock Tax Saver								0.98	0.88	1.00	0.89	0.99	0.94	0.95
9	DWS Tax Saving							0.95	0.98	0.90	0.98	0.98	0.97	0.96	0.96
10	Edelweiss ELSS										0.98	0.91	0.96	0.98	0.96
11	Escorts Tax Plan				0.93	0.92	0.91	1.00	1.00	0.87	0.95	0.81	0.90	0.94	0.92
12	Franklin India Tax Sheild				0.97	1.00	0.97	0.98	1.00	0.95	0.97	0.98	0.96	0.97	0.98
13	HDFC Long Term Adv				0.02	0.82	0.48	1.00	0.97	0.89	0.99	0.95	0.99	0.95	0.81
14	HDFC Tax Saver				0.86	0.96	0.65	0.98	0.97	0.88	1.00	0.92	0.98	0.96	0.92
15	HSBC Tax Saver								0.98	0.96	0.99	0.98	1.00	0.95	0.98
16	ICICI Pru Right											0.95	0.94	0.96	0.95
17	ICICI Pru Tax Plan				0.82	0.98	0.60	0.90	0.95	0.86	0.98	0.96	0.98	0.92	0.90
18	IDFC Tax Adv										0.93	1.00	0.93	1.00	0.97
19	IDFC Tax Saver								0.92	0.65	0.96	0.98	1.00	0.99	0.92
20	ING Retire Invest								0.97	0.95	0.99	1.00	0.98	0.95	0.97
21	ING Tax Savings					0.96	0.33	0.99	0.96	0.82	1.00	0.85	0.99	0.95	0.87
22	JM Tax Gain									0.95	0.92	0.82	1.00	0.99	0.94
23	JP Morgan Tax Advantage										0.97	0.96	0.98	0.96	0.97
24	Kotak Tax Saver							0.87	0.96	1.00	1.00	0.97	0.99	0.93	0.96
25	LIC Nomura Tax Plan				0.93	0.99	0.97	0.96	0.97	0.96	1.00	1.00	1.00	0.97	0.98
26	LNT Long Term Adv										0.81	0.80	0.94	0.97	0.88
27	LNT Tax Advantage							0.98	0.99	1.00	1.00	0.84	0.97	1.00	0.97
28	LNT Tax Saver							1.00	0.99	1.00	0.99	0.99	0.99	0.95	0.99
29	Quantum Tax Savings										0.94	0.95	0.99	0.98	0.97
30	Reliance Equity Linked Savings									0.87	0.93	0.66	0.97	0.77	0.84
31	Reliance Tax Saver							0.98	0.99	0.92	0.98	0.86	0.93	0.93	0.94
32	Religare Agile									0.82	0.25	0.82	0.75	0.93	0.71
33	Religare Tax Plan								0.99	0.67	0.99	0.89	0.90	0.99	0.91
34	Sahara Tax Gain				0.97	0.97	0.14	1.00	0.97	0.85	0.98	0.77	0.96	0.90	0.85
35	SBI Magnum Tax Gain									0.99	0.99	0.93	0.98	0.97	0.97
36	SBI Tax Advantage I									0.90	1.00	0.91	0.97	0.95	0.95
37	Sundaram Tax Saver							0.93	0.97	0.72	0.96	0.98	0.98	1.00	0.93
38	Tata Infra Tax Savings										0.99	0.86	0.97	0.95	0.94
39	Tata Tax Adv Fund I							0.99	1.00	0.92	0.99	0.97	0.97	1.00	0.98
40	Taurus Tax Shield				0.63	0.95	0.00	0.96	0.96	0.77	0.98	0.94	0.99	0.88	0.81
41	UTI ETSP							0.99	1.00	0.94	1.00	1.00	0.97	0.96	0.98
42	UTI LTA I								0.97	1.00	1.00	0.97	0.98	0.98	0.98
43	UTI LTA II									0.93	0.99	0.98	0.95	0.94	0.96
	Average														0.93
Diversified Equity Funds															
1	Birla Sunlife Frontline Equity				0.97	0.99	0.91	1.00	1.00	0.98	0.99	1.00	1.00	0.98	0.98
2	DSP Black Rock Top 100				0.96	0.99	0.95	0.99	0.99	0.99	0.99	0.99	1.00	0.94	0.98
3	Franklin India Bluechip				0.97	0.99	0.98	0.99	0.98	0.96	0.97	0.99	0.99	0.96	0.98
4	HDFC Equity Fund				0.82	0.99	0.63	0.98	0.98	0.90	0.99	0.94	0.98	0.96	0.92
5	HDFC Top 200				0.76	1.00	0.84	0.99	1.00	0.93	1.00	0.95	0.99	0.97	0.94
6	ICICI Pru Dynamic				0.97	1.00	0.96	0.96	0.99	0.94	0.98	0.94	1.00	0.98	0.97
7	ICICI Discovery Fund						0.66	0.91	0.91	0.81	0.99	0.91	0.99	0.94	0.89
8	IDFC Premier Equity							0.88	0.90	0.87	0.99	0.91	0.73	0.91	0.88
9	Reliance Growth				0.96	0.99	0.76	0.99	0.96	0.84	0.99	0.90	0.96	0.96	0.93
10	Reliance Equity Opportunities						0.95	0.95	0.97	0.99	0.97	0.95	0.95	0.95	0.96
11	SBI Magnum Contra							0.99	1.00	0.99	1.00	0.94	0.99	0.93	0.98
12	UTI Opportunities Fund							0.88	1.00	0.90	0.99	1.00	0.99	0.98	0.96
	Average														0.95

Source: Computed from Secondary Data

**Table 4.44**

R Square of Funds based on NSE CNX 500 Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	<b>ELSS Funds</b>														
1	Axis Long Term Equity											0.99	0.93	0.88	0.93
2	Birla Sunlife Tax Plan								0.96	1.00	1.00	0.94	0.98	1.00	0.98
3	Birls Sunlife Tax Relief 96									0.96	1.00	0.95	0.99	1.00	0.98
4	BNP Paribas Tax Adv							0.82	0.99	0.96	0.98	0.94	0.95	0.95	0.94
5	BOI AXA Eco										0.99	0.93	0.99	0.95	0.97
6	BOI AXA Tax Adv										0.99	0.92	0.99	0.94	0.96
7	Canara Robeco Equity Tax Saver										0.98	0.92	0.99	0.95	0.96
8	DSP Black Rock Tax Saver								0.99	0.89	0.99	0.95	1.00	0.98	0.97
9	DWS Tax Saving							0.95	0.99	0.91	0.97	0.99	0.99	0.91	0.96
10	Edelweiss ELSS										0.97	0.96	0.98	0.96	0.97
11	Escorts Tax Plan	0.01	0.94	0.98	0.81	0.91	0.96	0.99	0.98	0.88	0.97	0.89	0.93	0.95	0.86
12	Franklin India Tax Shield	0.00	1.00	0.95	0.98	0.99	0.99	0.99	0.99	0.94	0.98	0.94	0.99	0.99	0.90
13	HDFC Long Term Adv		0.75	0.72	0.12	0.83	0.65	1.00	0.96	0.89	1.00	0.99	1.00	0.90	0.82
14	HDFC Tax Saver	0.51	0.91	0.77	0.97	0.97	0.76	0.97	0.95	0.87	0.99	0.97	0.98	0.98	0.89
15	HSBC Tax Saver								0.99	0.96	1.00	1.00	0.99	0.98	0.99
16	ICICI Pru Right											0.95	0.97	0.97	0.96
17	ICICI Pru Tax Plan	0.36	1.00	0.97	0.94	0.98	0.72	0.90	0.97	0.87	0.99	0.99	0.99	0.97	0.90
18	IDFC Tax Adv										0.90	0.98	0.96	0.99	0.96
19	IDFC Tax Saver								0.95	0.67	0.94	1.00	1.00	0.97	0.92
20	ING Retire Invest								0.98	0.95	0.98	0.99	0.99	0.94	0.97
21	ING Tax Savings					0.96	0.49	0.99	0.97	0.83	0.99	0.93	0.99	0.98	0.90
22	JM Tax Gain									0.95	0.95	0.89	1.00	0.97	0.95
23	JP Morgan Tax Advantage										0.95	0.99	0.99	0.97	0.98
24	Kotak Tax Saver							0.87	0.98	1.00	1.00	0.99	1.00	0.96	0.97
25	LIC Nomura Tax Plan	0.55	0.49	0.99	0.90	0.99	0.91	0.95	0.99	0.95	0.99	1.00	1.00	0.98	0.90
26	LNT Long Term Adv										0.80	0.88	0.97	1.00	0.91
27	LNT Tax Advantage							0.99	0.98	1.00	0.99	0.91	0.99	0.99	0.98
28	LNT Tax Saver							1.00	1.00	1.00	0.99	0.98	0.99	0.96	0.99
29	Quantum Tax Savings										0.94	0.99	0.99	0.94	0.97
30	Reliance Equity Linked Savings									0.87	0.93	0.77	0.99	0.78	0.87
31	Reliance Tax Saver							0.97	0.98	0.91	0.99	0.88	0.96	0.96	0.95
32	Religare Agile									0.83	0.26	0.73	0.68	0.90	0.68
33	Religare Tax Plan								1.00	0.66	0.98	0.94	0.93	0.99	0.92
34	Sahara Tax Gain	0.39	0.99	0.97	0.85	0.98	0.28	1.00	0.99	0.84	0.98	0.86	0.98	0.94	0.85
35	SBI Magnum Tax Gain									0.99	1.00	0.98	0.99	0.97	0.99
36	SBI Tax Advantage I									0.90	1.00	0.93	0.99	0.98	0.96
37	Sundaram Tax Saver							0.93	0.98	0.71	0.95	1.00	0.99	0.98	0.93
38	Tata Infra Tax Savings										1.00	0.92	0.99	0.94	0.96
39	Tata Tax Adv Fund I							0.99	0.99	0.93	1.00	1.00	0.99	0.97	0.98
40	Taurus Tax Shield	0.77	0.99	0.70	0.80	0.96	0.01	0.97	0.98	0.79	0.99	0.96	0.98	0.92	0.83
41	UTI ETSP							0.99	0.99	0.95	0.99	0.99	0.99	0.96	0.98
42	UTI LTA I								0.98	1.00	1.00	0.99	0.99	0.99	0.99
43	UTI LTA II									0.94	0.98	0.99	0.98	0.94	0.97
	<b>Average</b>														<b>0.93</b>
	<b>Diversified Equity Funds</b>														
1	Birla Sunlife Frontline Equity				1.00	0.99	0.98	1.00	1.00	0.98	1.00	0.99	0.99	1.00	0.99
2	DSP Black Rock Top 100				0.98	0.99	0.94	0.99	0.99	0.99	0.99	0.99	1.00	0.98	0.98
3	Franklin India Bluechip	0.85	0.94	0.87	0.96	0.99	0.99	0.98	0.96	0.95	0.98	0.94	1.00	0.98	0.95
4	HDFC Equity Fund	0.90	0.97	0.90	0.96	0.99	0.78	0.99	0.99	0.88	1.00	0.97	1.00	0.99	0.95
5	HDFC Top 200	0.83	0.91	0.96	0.92	1.00	0.90	0.99	0.98	0.92	1.00	0.97	1.00	0.99	0.95
6	ICICI Pru Dynamic				0.99	1.00	0.99	0.96	1.00	0.94	0.99	0.98	1.00	1.00	0.99
7	ICICI Discovery Fund						0.79	0.91	0.93	0.82	0.97	0.97	1.00	0.98	0.92
8	IDFC Premier Equity							0.89	0.92	0.88	1.00	0.97	0.80	0.96	0.92
9	Reliance Growth	0.91	0.87	0.45	0.99	0.99	0.87	0.99	0.98	0.85	1.00	0.96	0.98	0.99	0.91
10	Reliance Equity Opportunities						0.86	0.94	0.98	0.99	0.97	0.97	0.98	0.96	0.96
11	SBI Magnum Contra							0.99	0.99	0.99	1.00	0.98	1.00	0.93	0.98
12	UTI Opportunities Fund							0.89	0.99	0.91	1.00	0.98	1.00	0.99	0.97
	<b>Average</b>														<b>0.96</b>

Source: Computed from Secondary Data

Treynor's ratio also known as Reward to Volatility ratio, is another measure used in risk adjusted portfolio performance evaluation. It considers beta as the measure of risk. Beta represents the market risk or systemic risk undertaken by the portfolio. Treynor's ratio provides us with the risk premium earned by the fund for a unit of market risk undertaken. Treynor's ratio as it considers only systemic risk or market risk for evaluation is appropriate for well diversified portfolios in which the un-systemic or idiosyncratic risk is not significant.

The Treynor's ratio for ELSS funds and Diversified Equity funds based on all the 7 benchmark indexes is computed based on quarterly average returns and is tabulated in Tables 4.45 to 4.51. The category average Treynor's ratio over the year's 2000-01 to 2012-13 is shown in Charts 4.11 to 4.17.

Table 4.45 shows that the average of the Treynor's ratio computed based on BSE 30 Sensex for ELSS funds category has been – 2 percentage as against +2.96 percentage for Diversified Equity funds category. Similarly for NSE Nifty, the ELSS average was 1.09 percentage as against 2.47 percentage for Diversified Equity funds. In case of BSE100, BSE200 and BSE500 benchmarks, ELSS has posted a negative Treynor's ratio. There is an underperformance of ELSS category across all the 7 benchmark indexes, as compared to Diversified Equity funds.

**Table 4.45**

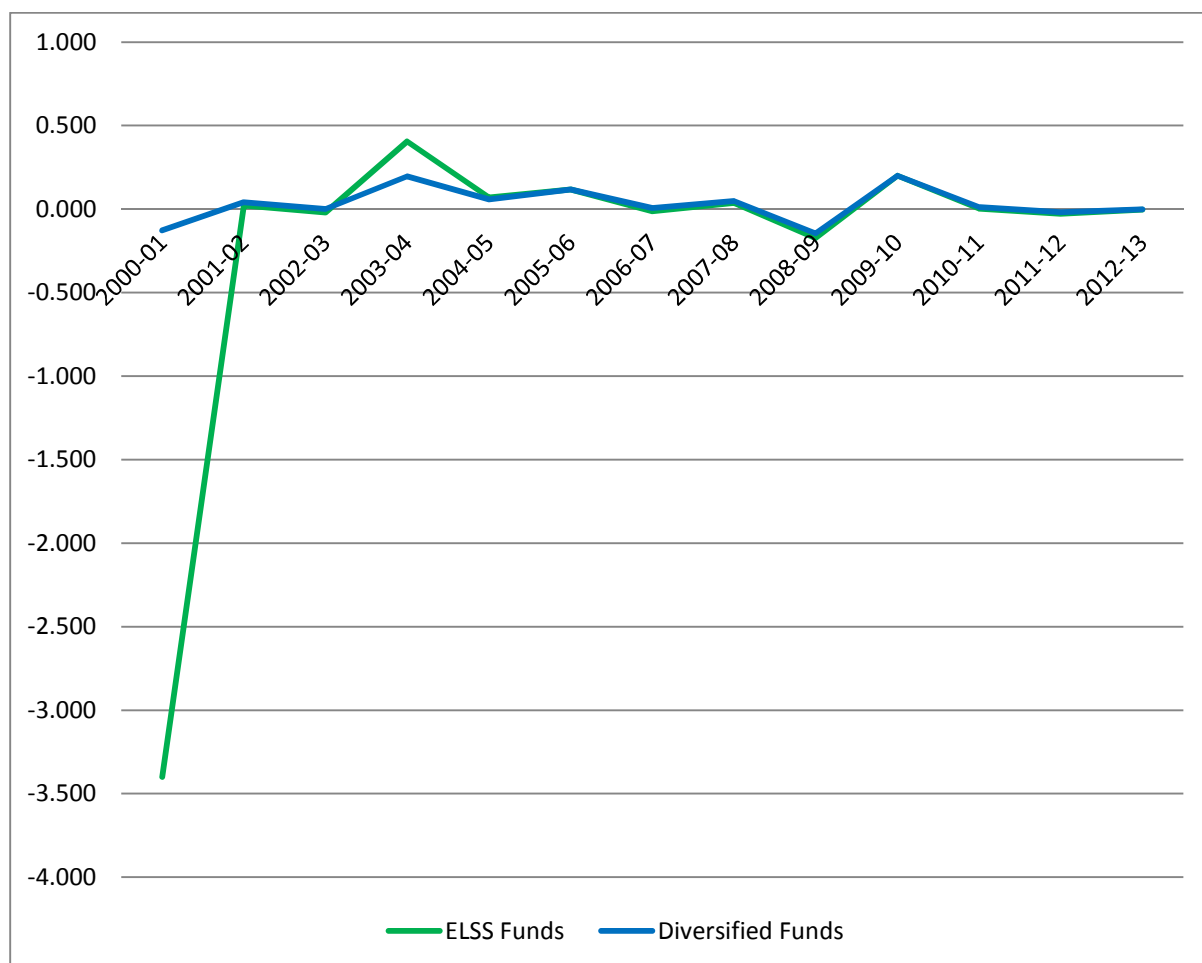
Treyrnor's Ratio based on BSE 30 (Sensex)															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
ELSS Funds															
1	Axis Long Term Equity											0.0184	-0.0176	0.0093	0.0034
2	Birla Sunlife Tax Plan								0.0343	-0.1434	0.1758	0.0036	-0.0306	0.0024	0.0070
3	Birls Sunlife Tax Relief 96									-0.1542	0.1743	-0.0105	-0.0347	0.0028	-0.0044
4	BNP Paribas Tax Adv							-0.0117	0.0335	-0.1830	0.1831	-0.0028	-0.0049	0.0029	0.0024
5	BOI AXA Eco										0.1950	-0.0186	-0.0387	-0.0044	0.0333
6	BOI AXA Tax Adv										0.1945	-0.0192	-0.0394	-0.0051	0.0327
7	Canara Robeco Equity Tax Saver										0.1930	0.0087	-0.0171	-0.0006	0.0460
8	DSP Black Rock Tax Saver								0.0595	-0.1931	0.2030	0.0027	-0.0266	0.0046	0.0083
9	DWS Tax Saving							-0.0350	0.0590	-0.1675	0.2103	-0.0137	-0.0516	0.0025	0.0006
10	Edelweiss ELSS										0.1658	0.0048	-0.0149	-0.0017	0.0385
11	Escorts Tax Plan	-0.1301	0.0072	-0.0087	0.1573	0.0489	0.0561	-0.0023	0.0596	-0.3573	0.1512	-0.0139	-0.0334	-0.0325	-0.0075
12	Franklin India Tax Sheild	-0.3679	0.0206	-0.0321	0.2225	0.0680	0.1148	-0.0142	0.0444	-0.1321	0.2013	0.0157	-0.0181	-0.0010	0.0094
13	HDFC Long Term Adv		0.0604	0.0293	2.1630	0.1158	0.1788	-0.0118	0.0242	-0.1706	0.1844	0.0198	-0.0202	-0.0019	0.2143
14	HDFC Tax Saver	-1.7200	0.0550	-0.0429	0.1791	0.1189	0.1486	-0.0071	0.0290	-0.1057	0.2122	0.0133	-0.0231	-0.0110	-0.0887
15	HSBC Tax Saver								0.0294	-0.1690	0.2021	-0.0029	-0.0249	0.0076	0.0071
16	ICICI Pru Right											0.0121	0.0006	0.0075	0.0067
17	ICICI Pru Tax Plan	0.2629	0.0438	-0.0514	0.1353	0.1368	0.1051	-0.0150	0.0291	-0.1446	0.2428	0.0081	-0.0189	-0.0009	0.0564
18	IDFC Tax Adv										0.2455	0.0074	-0.0326	0.0079	0.0571
19	IDFC Tax Saver								0.0430	-0.2640	0.2231	0.0022	-0.0420	0.0075	-0.0051
20	ING Retire Invest								0.0275	-0.2440	0.2024	-0.0090	-0.0511	-0.0085	-0.0138
21	ING Tax Savings					0.0451	0.2976	0.0017	0.0045	-0.1629	0.1910	0.0228	-0.0554	-0.0072	0.0375
22	JM Tax Gain									-0.1678	0.1510	-0.0235	-0.0295	-0.0061	-0.0152
23	JP Morgan Tax Advantage										0.2267	0.0154	-0.0364	-0.0056	0.0500
24	Kotak Tax Saver							0.0059	0.0397	-0.1938	0.1792	0.0015	-0.0246	-0.0026	0.0008
25	LIC Nomura Tax Plan	-0.1750	-0.0301	-0.0219	0.2095	0.0112	0.0598	-0.0209	-0.0564	-0.1446	0.1337	0.0068	-0.0383	-0.0067	-0.0056
26	LNT Long Term Adv										0.2983	-0.0024	-0.0248	-0.0092	0.0655
27	LNT Tax Advantage							0.0157	0.0423	-0.1178	0.2115	0.0280	-0.0328	-0.0053	0.0202
28	LNT Tax Saver							-0.0003	0.0102	-0.2005	0.1583	0.0013	-0.0435	-0.0145	-0.0127
29	Quantum Tax Savings										0.2465	0.0218	-0.0194	0.0024	0.0628
30	Reliance Equity Linked Savings									-0.1022	0.2142	0.0162	-0.0109	0.0019	0.0238
31	Reliance Tax Saver							-0.0056	0.0163	-0.1554	0.2066	0.0123	-0.0052	-0.0069	0.0089
32	Religare Agile									-0.1643	0.4004	0.0034	-0.0488	-0.0004	0.0381
33	Religare Tax Plan								0.0675	-0.2113	0.2234	0.0090	-0.0191	0.0018	0.0119
34	Sahara Tax Gain	-21.4986	0.0064	-0.0495	0.1287	0.0541	0.0365	-0.0180	0.0571	-0.1743	0.1722	0.0134	-0.0147	-0.0110	-1.6383
35	SBI Magnum Tax Gain									-0.1421	0.1762	-0.0094	-0.0208	-0.0004	0.0007
36	SBI Tax Advantage I									-0.1344	0.1642	-0.0169	-0.0243	-0.0011	-0.0025
37	Sundaram Tax Saver							0.0001	0.0534	-0.3048	0.1641	-0.0031	-0.0204	-0.0008	-0.0159
38	Tata Infra Tax Savings										0.2237	-0.0328	-0.0323	-0.0162	0.0356
39	Tata Tax Adv Fund I							-0.0257	0.0470	-0.1596	0.1921	0.0116	-0.0228	-0.0045	0.0054
40	Taurus Tax Shield	-0.1699	0.0110	0.0159	0.0461	0.0190	0.0516	-0.0539	0.0824	-0.1497	0.1499	0.0117	-0.0484	-0.0006	-0.0027
41	UTI ETSP							-0.0219	0.0438	-0.1489	0.1915	0.0002	-0.0347	-0.0024	0.0039
42	UTI LTA I								0.0202	-0.1438	0.1801	-0.0079	-0.0323	-0.0053	0.0018
43	UTI LTA II									-0.1659	0.2070	0.0019	-0.0282	-0.0011	0.0027
	Average	-3.3998	0.0218	-0.0202	0.4052	0.0686	0.1165	-0.0122	0.0360	-0.1741	0.2005	0.0025	-0.0281	-0.0027	-0.0214
Diversified Equity Funds															
1	Birla Sunlife Frontline Equity				0.2100	0.0368	0.0918	0.0351	0.0508	-0.1466	0.1810	0.0096	-0.0347	0.0106	0.0444
2	DSP Black Rock Top 100				0.2033	0.0389	0.1210	0.0200	0.0572	-0.1133	0.1835	0.0092	-0.0184	-0.0079	0.0493
3	Franklin India Bluechip	-0.0720	0.0200	-0.0211	0.2140	0.0367	0.0947	0.0091	0.0414	-0.1022	0.1879	0.0126	-0.0248	-0.0042	0.0302
4	HDFC Equity Fund	-0.1062	0.0632	-0.0190	0.2266	0.0557	0.1731	0.0144	0.0351	-0.1262	0.1914	0.0256	-0.0235	-0.0064	0.0387
5	HDFC Top 200	-0.0819	0.0326	-0.0121	0.2229	0.0611	0.1751	0.0062	0.0541	-0.1027	0.1709	0.0218	-0.0247	-0.0053	0.0398
6	ICICI Pru Dynamic				0.1022	0.0765	0.0846	0.0248	0.0310	-0.1583	0.2358	0.0277	-0.0165	-0.0086	0.0399
7	ICICI Discovery Fund						0.1074	-0.0164	0.0225	-0.1958	0.2284	0.0105	-0.0079	0.0061	0.0194
8	IDFC Premier Equity							-0.0008	0.0915	-0.1623	0.2167	0.0126	-0.0035	0.0050	0.0227
9	Reliance Growth	-0.2525	0.0453	0.0511	0.1877	0.1030	0.1093	0.0158	0.0566	-0.1844	0.1900	-0.0063	-0.0221	-0.0058	0.0221
10	Reliance Equity Opportunities						0.0993	0.0101	0.0203	-0.1928	0.2684	0.0149	-0.0061	0.0081	0.0278
11	SBI Magnum Contra							0.0098	0.0560	-0.1301	0.1719	-0.0190	-0.0254	0.0037	0.0095
12	UTI Opportunities Fund							-0.0460	0.0643	-0.1170	0.1714	0.0150	-0.0077	-0.0048	0.0107
	Average	-0.1281	0.0403	-0.0003	0.1952	0.0584	0.1174	0.0068	0.0484	-0.1443	0.1998	0.0112	-0.0179	-0.0008	0.0296

Source: Computed from Secondary Data



**Chart 4.11**

**Year wise Quarterly Average Treynor's Ratio  
based on BSE 30 (Sensex) for the period 2000-01 to 2012-13**



Source : Based on Table 4.45

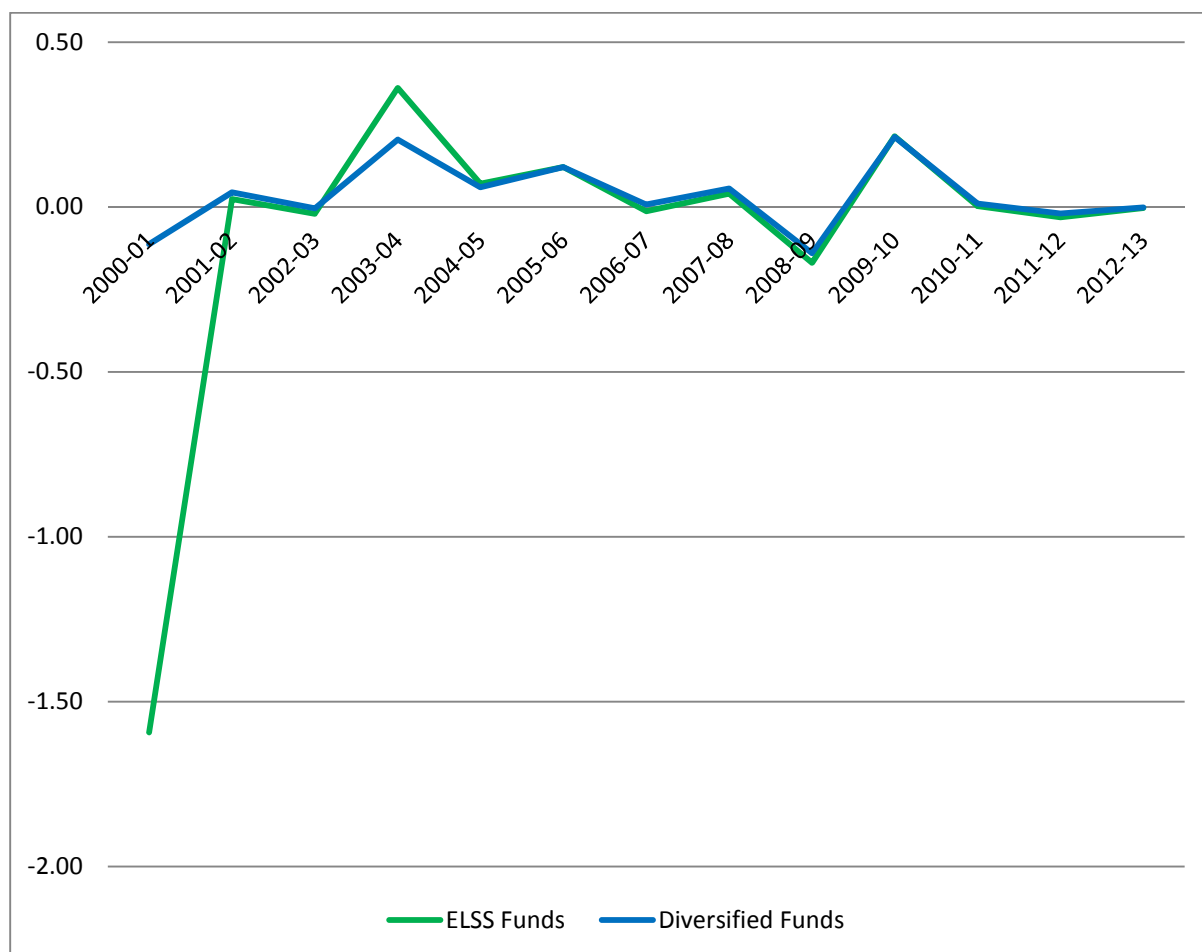
Table 4.46

Treyrnor's Ratio based on BSE 100 Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
ELSS Funds															
1	Axis Long Term Equity											0.0174	-0.0196	0.0121	0.0033
2	Birla Sunlife Tax Plan								0.0393	-0.1395	0.1873	0.0035	-0.0338	0.0030	-0.0091
3	Birls Sunlife Tax Relief 96									-0.1492	0.1853	-0.0098	-0.0388	0.0034	-0.0151
4	BNP Paribas Tax Adv							-0.0128	0.0385	-0.1793	0.1957	-0.0026	-0.0054	0.0034	-0.0015
5	BOI AXA Eco										0.2073	-0.0181	-0.0440	-0.0056	-0.0226
6	BOI AXA Tax Adv										0.2068	-0.0187	-0.0448	-0.0065	-0.0233
7	Canara Robeco Equity Tax Saver										0.2051	0.0080	-0.0192	-0.0008	-0.0040
8	DSP Black Rock Tax Saver								0.0681	-0.1885	0.2163	0.0025	-0.0299	0.0056	-0.0073
9	DWS Tax Saving							-0.0375	0.0689	-0.1641	0.2253	-0.0131	-0.0580	0.0032	-0.0226
10	Edelweiss ELSS										0.1776	0.0044	-0.0166	-0.0021	-0.0048
11	Escorts Tax Plan	-0.7779	0.0079	-0.0083	0.1686	0.0511	0.0573	-0.0025	0.0699	-0.3457	0.1592	-0.0127	-0.0370	-0.0405	-0.0301
12	Franklin India Tax Sheild	-9.1704	0.0231	-0.0321	0.2356	0.0699	0.1193	-0.0151	0.0518	-0.1272	0.2126	0.0152	-0.0201	-0.0012	-0.0020
13	HDFC Long Term Adv		0.0653	0.0249	1.7482	0.1173	0.1789	-0.0127	0.0280	-0.1646	0.1956	0.0188	-0.0227	-0.0024	-0.0021
14	HDFC Tax Saver	-0.0822	0.0606	-0.0432	0.1886	0.1227	0.1571	-0.0077	0.0339	-0.1012	0.2265	0.0124	-0.0262	-0.0133	-0.0090
15	HSBC Tax Saver								0.0335	-0.1644	0.2152	-0.0028	-0.0283	0.0093	-0.0072
16	ICICI Pru Right											0.0114	0.0006	0.0091	0.0070
17	ICICI Pru Tax Plan	-0.1650	0.0490	-0.0487	0.1395	0.1408	0.1104	-0.0162	0.0329	-0.1412	0.2585	0.0078	-0.0211	-0.0011	-0.0048
18	IDFC Tax Adv										0.2648	0.0071	-0.0358	0.0099	-0.0063
19	IDFC Tax Saver								0.0490	-0.2640	0.2398	0.0021	-0.0475	0.0094	-0.0120
20	ING Retire Invest								0.0320	-0.2387	0.2165	-0.0086	-0.0579	-0.0107	-0.0257
21	ING Tax Savings					0.0464	0.2972	0.0018	0.0052	-0.1595	0.2038	0.0212	-0.0626	-0.0087	-0.0167
22	JM Tax Gain									-0.1618	0.1587	-0.0215	-0.0332	-0.0076	-0.0208
23	JP Morgan Tax Advantage										0.2434	0.0147	-0.0408	-0.0070	-0.0110
24	Kotak Tax Saver							0.0062	0.0452	-0.1883	0.1905	0.0014	-0.0278	-0.0032	-0.0098
25	LIC Nomura Tax Plan	-0.0963	-0.0317	-0.0212	0.2168	0.0116	0.0646	-0.0225	-0.0646	-0.1397	0.1424	0.0065	-0.0434	-0.0083	-0.0151
26	LNT Long Term Adv										0.3234	-0.0020	-0.0273	-0.0112	-0.0135
27	LNT Tax Advantage							0.0167	0.0488	-0.1144	0.2258	0.0258	-0.0365	-0.0066	-0.0058
28	LNT Tax Saver							-0.0004	0.0117	-0.1948	0.1677	0.0012	-0.0487	-0.0181	-0.0219
29	Quantum Tax Savings										0.2641	0.0206	-0.0219	0.0030	0.0006
30	Reliance Equity Linked Savings									-0.0995	0.2295	0.0149	-0.0122	0.0024	0.0017
31	Reliance Tax Saver							-0.0060	0.0191	-0.1494	0.2187	0.0113	-0.0057	-0.0084	-0.0010
32	Religare Agile									-0.1624	0.4424	0.0034	-0.0589	-0.0005	-0.0187
33	Religare Tax Plan									-0.2029	0.2387	0.0084	-0.0212	0.0022	-0.0036
34	Sahara Tax Gain	-0.8088	0.0072	-0.0506	0.1358	0.0552	0.0342	-0.0193	0.0651	-0.1674	0.1842	0.0122	-0.0163	-0.0135	-0.0059
35	SBI Magnum Tax Gain									-0.1383	0.1871	-0.0090	-0.0232	-0.0005	-0.0109
36	SBI Tax Advantage I									-0.1304	0.1744	-0.0157	-0.0271	-0.0013	-0.0147
37	Sundaram Tax Saver							0.0001	0.0618	-0.2891	0.1761	-0.0030	-0.0228	-0.0011	-0.0089
38	Tata Infra Tax Savings										0.2373	-0.0302	-0.0358	-0.0206	-0.0289
39	Tata Tax Adv Fund I							-0.0277	0.0546	-0.1550	0.2035	0.0111	-0.0256	-0.0057	-0.0067
40	Taurus Tax Shield	-0.0540	0.0123	0.0135	0.0490	0.0193	0.0694	-0.0570	0.0934	-0.1468	0.1586	0.0109	-0.0552	-0.0007	-0.0150
41	UTI ETSP							-0.0236	0.0513	-0.1459	0.2044	0.0002	-0.0387	-0.0030	-0.0138
42	UTI LTA I								0.0232	-0.1400	0.1911	-0.0074	-0.0360	-0.0066	-0.0167
43	UTI LTA II									-0.1629	0.2213	0.0018	-0.0312	-0.0014	-0.0103
	Average	-1.59	0.02	-0.02	0.36	0.07	0.12	-0.01	0.04	-0.17	0.21	0.00	-0.03	0.00	-0.0108
Diversified Equity Funds															
1	Birla Sunlife Frontline Equity				0.2202	0.0379	0.0948	0.0378	0.0592	-0.1420	0.1922	0.0092	-0.0394	0.0130	-0.0057
2	DSP Black Rock Top 100				0.2154	0.0398	0.1253	0.0215	0.0661	-0.1100	0.1960	0.0088	-0.0208	-0.0096	-0.0072
3	Franklin India Bluechip	-0.1028	0.0221	-0.0219	0.2272	0.0376	0.0989	0.0099	0.0489	-0.0986	0.1986	0.0123	-0.0279	-0.0051	-0.0069
4	HDFC Equity Fund	-0.1414	0.0700	-0.0189	0.2352	0.0575	0.1708	0.0154	0.0403	-0.1210	0.2031	0.0239	-0.0263	-0.0078	-0.0034
5	HDFC Top 200	-0.0831	0.0359	-0.0121	0.2308	0.0628	0.1766	0.0067	0.0634	-0.0987	0.1814	0.0204	-0.0277	-0.0065	-0.0046
6	ICICI Pru Dynamic				0.1075	0.0786	0.0888	0.0267	0.0357	-0.1526	0.2512	0.0264	-0.0186	-0.0105	-0.0009
7	ICICI Discovery Fund						0.1119	-0.0178	0.0252	-0.1913	0.2445	0.0099	-0.0089	0.0073	0.0028
8	IDFC Premier Equity							-0.0009	0.1025	-0.1588	0.2299	0.0118	-0.0037	0.0060	0.0047
9	Reliance Growth	-0.1263	0.0496	0.0371	0.1962	0.1063	0.1144	0.0168	0.0642	-0.1790	0.2014	-0.0059	-0.0245	-0.0070	-0.0125
10	Reliance Equity Opportunities						0.1055	0.0109	0.0231	-0.1867	0.2870	0.0140	-0.0068	0.0101	0.0057
11	SBI Magnum Contra							0.0106	0.0652	-0.1269	0.1829	-0.0179	-0.0286	0.0045	-0.0140
12	UTI Opportunities Fund							-0.0487	0.0751	-0.1152	0.1826	0.0145	-0.0087	-0.0060	-0.0001
	Average	-0.113	0.044	-0.004	0.205	0.060	0.121	0.007	0.056	-0.140	0.213	0.011	-0.020	-0.0010	-0.0035

Source: Computed from Secondary Data

**Chart 4.12**

**Year wise Quarterly Average Treynor's Ratio  
based on BSE 100 Index for the period 2000-01 to 2012-13**



Source: Based on Table 4.46

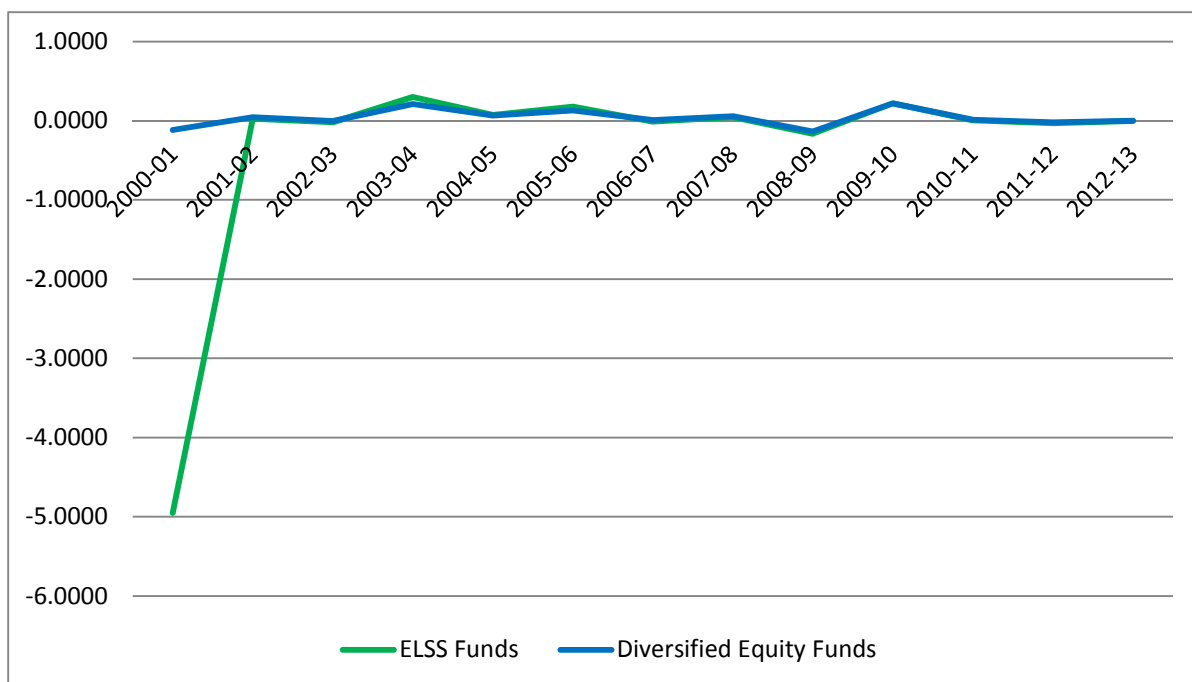
Table 4.47

Treyrnor's Ratio based on BSE 200 Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	ELSS Funds														
1	Axis Long Term Equity											0.0178	-0.0205	0.0128	0.0034
2	Birla Sunlife Tax Plan								0.0404	-0.1375	0.1923	0.0036	-0.0354	0.0031	0.0111
3	Birls Sunlife Tax Relief 96									-0.1472	0.1902	-0.0099	-0.0408	0.0036	-0.0008
4	BNP Paribas Tax Adv							-0.0133	0.0397	-0.1766	0.2011	-0.0026	-0.0056	0.0036	0.0066
5	BOI AXA Eco										0.2126	-0.0190	-0.0464	-0.0060	0.0353
6	BOI AXA Tax Adv										0.2121	-0.0196	-0.0472	-0.0069	0.0346
7	Canara Robeco Equity Tax Saver										0.2107	0.0082	-0.0202	-0.0008	0.0495
8	DSP Black Rock Tax Saver								0.0700	-0.1856	0.2222	0.0025	-0.0315	0.0058	0.0139
9	DWS Tax Saving							-0.0388	0.0712	-0.1615	0.2315	-0.0134	-0.0610	0.0034	0.0045
10	Edelweiss ELSS										0.1826	0.0045	-0.0175	-0.0022	0.0419
11	Escorts Tax Plan	-1.1210	0.0081	-0.0072	0.1852	0.0534	0.0608	-0.0026	0.0722	-0.3407	0.1632	-0.0128	-0.0387	-0.0427	-0.0787
12	Franklin India Tax Sheild	-32.1955	0.0244	-0.0291	0.2472	0.0736	0.1279	-0.0158	0.0535	-0.1256	0.2182	0.0159	-0.0211	-0.0013	-2.4329
13	HDFC Long Term Adv		0.0641	0.0196	1.2125	0.1259	0.2064	-0.0132	0.0288	-0.1624	0.2008	0.0192	-0.0239	-0.0025	0.1396
14	HDFC Tax Saver	-0.0855	0.0612	-0.0403	0.1915	0.1299	0.1862	-0.0080	0.0349	-0.1000	0.2326	0.0126	-0.0276	-0.0139	0.0441
15	HSBC Tax Saver								0.0345	-0.1619	0.2209	-0.0028	-0.0298	0.0098	0.0118
16	ICICI Pru Right											0.0117	0.0007	0.0095	0.0073
17	ICICI Pru Tax Plan	-0.1775	0.0517	-0.0418	0.1419	0.1491	0.1315	-0.0170	0.0338	-0.1390	0.2653	0.0080	-0.0222	-0.0012	0.0294
18	IDFC Tax Adv										0.2725	0.0074	-0.0375	0.0104	0.0632
19	IDFC Tax Saver								0.0504	-0.2592	0.2465	0.0021	-0.0501	0.0100	0.0000
20	ING Retire Invest								0.0330	-0.2352	0.2225	-0.0089	-0.0609	-0.0114	-0.0102
21	ING Tax Savings					0.0485	0.3582	0.0019	0.0053	-0.1569	0.2093	0.0214	-0.0659	-0.0092	0.0459
22	JM Tax Gain									-0.1597	0.1625	-0.0217	-0.0350	-0.0081	-0.0124
23	JP Morgan Tax Advantage										0.2502	0.0151	-0.0429	-0.0074	0.0537
24	Kotak Tax Saver							0.0064	0.0464	-0.1857	0.1957	0.0014	-0.0292	-0.0033	0.0045
25	LIC Nomura Tax Plan	-0.1057	-0.0302	-0.0186	0.2321	0.0121	0.0709	-0.0234	-0.0666	-0.1379	0.1463	0.0067	-0.0457	-0.0088	0.0024
26	LNT Long Term Adv										0.3324	-0.0020	-0.0286	-0.0118	0.0725
27	LNT Tax Advantage							0.0174	0.0503	-0.1128	0.2319	0.0260	-0.0384	-0.0070	0.0239
28	LNT Tax Saver							-0.0004	0.0120	-0.1920	0.1721	0.0013	-0.0513	-0.0191	-0.0111
29	Quantum Tax Savings										0.2711	0.0211	-0.0231	0.0032	0.0681
30	Reliance Equity Linked Savings									-0.0980	0.2356	0.0147	-0.0128	0.0026	0.0284
31	Reliance Tax Saver							-0.0063	0.0197	-0.1476	0.2243	0.0115	-0.0059	-0.0089	0.0124
32	Religare Agile									-0.1599	0.4517	0.0037	-0.0631	-0.0005	0.0464
33	Religare Tax Plan								0.0799	-0.2007	0.2451	0.0085	-0.0222	0.0023	0.0188
34	Sahara Tax Gain	-0.9199	0.0077	-0.0460	0.1492	0.0584	0.0420	-0.0201	0.0670	-0.1655	0.1892	0.0122	-0.0171	-0.0142	-0.0505
35	SBI Magnum Tax Gain									-0.1363	0.1920	-0.0092	-0.0244	-0.0005	0.0043
36	SBI Tax Advantage I									-0.1285	0.1790	-0.0160	-0.0284	-0.0014	0.0009
37	Sundaram Tax Saver							0.0001	0.0638	-0.2859	0.1809	-0.0031	-0.0240	-0.0011	-0.0099
38	Tata Infra Tax Savings										0.2435	-0.0306	-0.0377	-0.0218	0.0384
39	Tata Tax Adv Fund I							-0.0288	0.0563	-0.1527	0.2088	0.0114	-0.0269	-0.0061	0.0088
40	Taurus Tax Shield	-0.0585	0.0129	0.0106	0.0478	0.0205	0.4161	-0.0591	0.0960	-0.1444	0.1628	0.0112	-0.0582	-0.0008	0.0351
41	UTI ETSP							-0.0245	0.0530	-0.1436	0.2100	0.0002	-0.0406	-0.0032	0.0073
42	UTI LTA I								0.0239	-0.1380	0.1962	-0.0076	-0.0378	-0.0069	0.0050
43	UTI LTA II									-0.1603	0.2274	0.0018	-0.0327	-0.0014	0.0069
	Average	-4.9519	0.0250	-0.0191	0.3009	0.0746	0.1778	-0.0136	0.0428	-0.1668	0.2199	0.0024	-0.0332	-0.0035	-0.0378
	Diversified Equity Funds														
1	Birla Sunlife Frontline Equity				0.2308	0.0398	0.1036	0.0394	0.0611	-0.1401	0.1973	0.0096	-0.0415	0.0136	0.0514
2	DSP Black Rock Top 100				0.2252	0.0419	0.1311	0.0224	0.0681	-0.1084	0.2013	0.0090	-0.0220	-0.0100	0.0559
3	Franklin India Bluechip	-0.1035	0.0226	-0.0205	0.2400	0.0396	0.1061	0.0103	0.0505	-0.0974	0.2038	0.0128	-0.0294	-0.0054	0.0330
4	HDFC Equity Fund	-0.1436	0.0721	-0.0173	0.2379	0.0606	0.1842	0.0160	0.0415	-0.1195	0.2085	0.0245	-0.0277	-0.0081	0.0407
5	HDFC Top 200	-0.0840	0.0362	-0.0110	0.2308	0.0661	0.1841	0.0070	0.0655	-0.0975	0.1862	0.0210	-0.0292	-0.0068	0.0437
6	ICICI Pru Dynamic				0.1126	0.0829	0.0978	0.0277	0.0368	-0.1506	0.2578	0.0270	-0.0196	-0.0110	0.0461
7	ICICI Discovery Fund						0.1306	-0.0187	0.0259	-0.1882	0.2513	0.0101	-0.0094	0.0077	0.0262
8	IDFC Premier Equity							-0.0009	0.1050	-0.1563	0.2359	0.0120	-0.0038	0.0063	0.0283
9	Reliance Growth	-0.1324	0.0496	0.0266	0.2050	0.1122	0.1316	0.0174	0.0660	-0.1763	0.2067	-0.0059	-0.0257	-0.0074	0.0360
10	Reliance Equity Opportunities						0.1102	0.0113	0.0237	-0.1842	0.2946	0.0143	-0.0071	0.0106	0.0342
11	SBI Magnum Contra							0.0110	0.0672	-0.1251	0.1877	-0.0182	-0.0301	0.0047	0.0139
12	UTI Opportunities Fund							-0.0507	0.0775	-0.1134	0.1874	0.0150	-0.0091	-0.0063	0.0143
	Average	-0.1159	0.0451	-0.0055	0.2118	0.0633	0.1310	0.0077	0.0574	-0.1381	0.2182	0.0109	-0.0212	-0.0010	0.0353

Source: Computed from Secondary Data

**Chart 4.13**

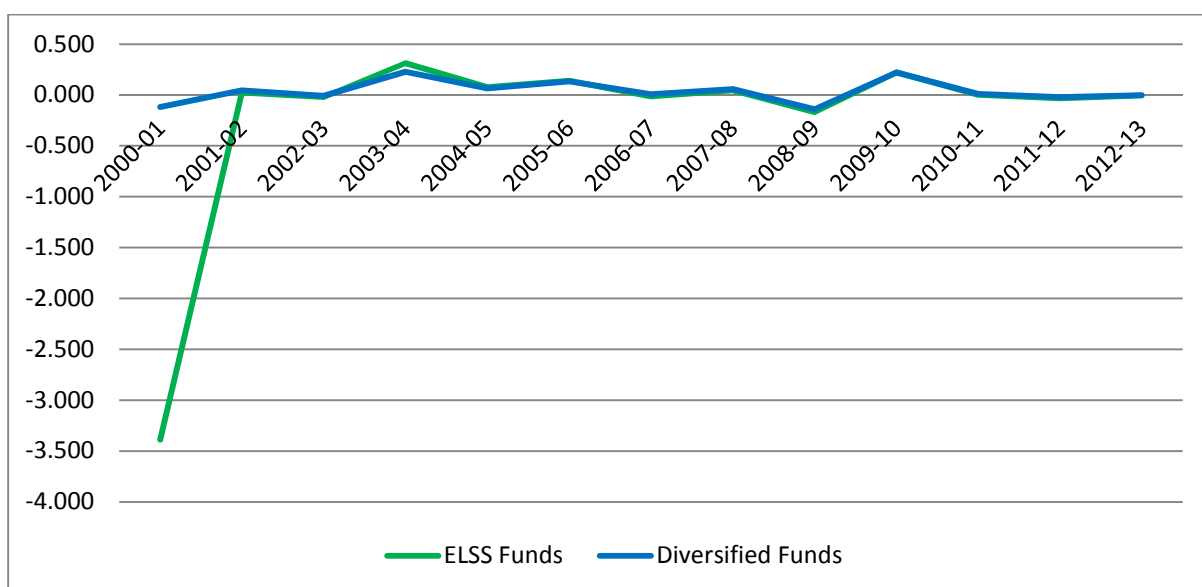
**Year wise Quarterly Average Treynor's Ratio  
based on BSE 200 Index for the period 2000-01 to 2012-13**



Source: Based on Table 4.47

**Chart 4.14**

**Year wise Quarterly Average Treynor's Ratio based on BSE 500 Index for  
the period 2000-01 to 2012-13**



Source: Based on Table 4.48

**Table 4.48**

Trenor's Ratio based on BSE 500 Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
ELSS Funds															
1	Axis Long Term Equity											0.0183	-0.0207	0.0137	0.0038
2	Birla Sunlife Tax Plan								0.0419	-0.1387	0.1944	0.0038	-0.0359	0.0033	0.0115
3	Birls Sunlife Tax Relief 96									-0.1490	0.1924	-0.0101	-0.0414	0.0038	-0.0009
4	BNP Paribas Tax Adv							-0.0136	0.0412	-0.1786	0.2033	-0.0027	-0.0057	0.0038	0.0068
5	BOI AXA Eco										0.2150	-0.0197	-0.0473	-0.0064	0.0354
6	BOI AXA Tax Adv										0.2145	-0.0203	-0.0482	-0.0074	0.0347
7	Canara Robeco Equity Tax Saver										0.2132	0.0083	-0.0205	-0.0008	0.0501
8	DSP Black Rock Tax Saver								0.0726	-0.1861	0.2247	0.0026	-0.0321	0.0062	0.0147
9	DWS Tax Saving							-0.0395	0.0741	-0.1621	0.2339	-0.0138	-0.0620	0.0036	0.0049
10	Edelweiss ELSS										0.1846	0.0046	-0.0177	-0.0023	0.0423
11	Escorts Tax Plan	-1.0294	0.0081	-0.0075	0.2012	0.0545	0.0630	-0.0027	0.0752	-0.3416	0.1652	-0.0130	-0.0391	-0.0453	-0.0701
12	Franklin India Tax Sheild	-21.3403	0.0245	-0.0308	0.2652	0.0749	0.1325	-0.0161	0.0556	-0.1269	0.2209	0.0164	-0.0214	-0.0014	-1.5959
13	HDFC Long Term Adv		0.0640	0.0194	1.2077	0.1280	0.1991	-0.0135	0.0299	-0.1630	0.2031	0.0196	-0.0244	-0.0027	0.1389
14	HDFC Tax Saver	-0.0872	0.0613	-0.0432	0.2035	0.1324	0.1809	-0.0082	0.0364	-0.1011	0.2352	0.0129	-0.0281	-0.0148	0.0446
15	HSBC Tax Saver								0.0358	-0.1628	0.2234	-0.0029	-0.0305	0.0104	0.0122
16	ICICI Pru Right											0.0120	0.0007	0.0102	0.0076
17	ICICI Pru Tax Plan	-0.1782	0.0519	-0.0431	0.1515	0.1519	0.1269	-0.0176	0.0350	-0.1393	0.2682	0.0082	-0.0225	-0.0012	0.0301
18	IDFC Tax Adv										0.2753	0.0076	-0.0379	0.0112	0.0640
19	IDFC Tax Saver								0.0522	-0.2609	0.2491	0.0022	-0.0510	0.0107	0.0004
20	ING Retire Invest								0.0343	-0.2382	0.2249	-0.0092	-0.0621	-0.0121	-0.0104
21	ING Tax Savings					0.0495	0.3342	0.0019	0.0055	-0.1571	0.2116	0.0218	-0.0671	-0.0097	0.0434
22	JM Tax Gain									-0.1608	0.1646	-0.0220	-0.0357	-0.0086	-0.0125
23	JP Morgan Tax Advantage										0.2528	0.0155	-0.0436	-0.0079	0.0542
24	Kotak Tax Saver							0.0065	0.0481	-0.1876	0.1979	0.0015	-0.0298	-0.0035	0.0047
25	LIC Nomura Tax Plan	-0.1058	-0.0300	-0.0194	0.2519	0.0124	0.0736	-0.0238	-0.0691	-0.1396	0.1479	0.0069	-0.0467	-0.0094	0.0038
26	LNT Long Term Adv										0.3353	-0.0019	-0.0290	-0.0126	0.0729
27	LNT Tax Advantage							0.0178	0.0522	-0.1138	0.2344	0.0264	-0.0389	-0.0074	0.0244
28	LNT Tax Saver							-0.0004	0.0125	-0.1935	0.1741	0.0013	-0.0523	-0.0203	-0.0112
29	Quantum Tax Savings										0.2738	0.0216	-0.0236	0.0035	0.0688
30	Reliance Equity Linked Savings									-0.0987	0.2379	0.0148	-0.0130	0.0027	0.0288
31	Reliance Tax Saver							-0.0064	0.0205	-0.1493	0.2269	0.0118	-0.0060	-0.0094	0.0126
32	Religare Agile									-0.1619	0.4531	0.0039	-0.0660	-0.0006	0.0457
33	Religare Tax Plan								0.0829	-0.2052	0.2477	0.0086	-0.0224	0.0024	0.0190
34	Sahara Tax Gain	-0.9061	0.0077	-0.0490	0.1626	0.0594	0.0376	-0.0205	0.0694	-0.1680	0.1913	0.0123	-0.0173	-0.0150	-0.0489
35	SBI Magnum Tax Gain									-0.1378	0.1942	-0.0094	-0.0248	-0.0005	0.0044
36	SBI Tax Advantage I									-0.1288	0.1810	-0.0164	-0.0289	-0.0015	0.0011
37	Sundaram Tax Saver							0.0001	0.0664	-0.2880	0.1828	-0.0031	-0.0245	-0.0012	-0.0096
38	Tata Infra Tax Savings										0.2463	-0.0311	-0.0383	-0.0233	0.0384
39	Tata Tax Adv Fund I							-0.0296	0.0585	-0.1533	0.2113	0.0117	-0.0273	-0.0065	0.0092
40	Taurus Tax Shield	-0.0588	0.0129	0.0105	0.0501	0.0208	0.1227	-0.0603	0.0994	-0.1444	0.1647	0.0115	-0.0595	-0.0008	0.0130
41	UTI ETSP							-0.0250	0.0552	-0.1445	0.2123	0.0003	-0.0412	-0.0034	0.0076
42	UTI LTA I								0.0249	-0.1392	0.1985	-0.0078	-0.0384	-0.0074	0.0051
43	UTI LTA II									-0.1614	0.2298	0.0019	-0.0331	-0.0015	0.0071
	Average	-3.387	0.025	-0.020	0.312	0.076	0.141	-0.014	0.044	-0.168	0.222	0.002	-0.034	-0.004	-0.0185
Diversified Equity Funds															
1	Birla Sunlife Frontline Equity				0.2480	0.0405	0.1056	0.0404	0.0635	-0.1416	0.1996	0.0098	-0.0424	0.0145	0.0538
2	DSP Black Rock Top 100				0.2414	0.0427	0.1379	0.0229	0.0707	-0.1092	0.2035	0.0093	-0.0224	-0.0106	0.0586
3	Franklin India Bluechip	-0.1075	0.0226	-0.0222	0.2579	0.0403	0.1101	0.0105	0.0527	-0.0985	0.2063	0.0133	-0.0299	-0.0057	0.0346
4	HDFC Equity Fund	-0.1486	0.0722	-0.0184	0.2532	0.0618	0.1855	0.0164	0.0431	-0.1206	0.2109	0.0250	-0.0282	-0.0086	0.0418
5	HDFC Top 200	-0.0870	0.0363	-0.0117	0.2449	0.0674	0.1918	0.0072	0.0683	-0.0983	0.1884	0.0214	-0.0298	-0.0072	0.0455
6	ICICI Pru Dynamic				0.1210	0.0844	0.0999	0.0282	0.0382	-0.1516	0.2606	0.0276	-0.0200	-0.0118	0.0477
7	ICICI Discovery Fund						0.1274	-0.0193	0.0267	-0.1883	0.2540	0.0103	-0.0096	0.0082	0.0262
8	IDFC Premier Equity							-0.0009	0.1085	-0.1567	0.2387	0.0123	-0.0038	0.0066	0.0292
9	Reliance Growth	-0.1349	0.0497	0.0252	0.2202	0.1143	0.1300	0.0178	0.0683	-0.1766	0.2091	-0.0061	-0.0261	-0.0078	0.0372
10	Reliance Equity Opportunities						0.1175	0.0115	0.0246	-0.1860	0.2977	0.0146	-0.0072	0.0112	0.0355
11	SBI Magnum Contra							0.0112	0.0699	-0.1264	0.1899	-0.0186	-0.0306	0.0050	0.0144
12	UTI Opportunities Fund							-0.0520	0.0807	-0.1147	0.1895	0.0155	-0.0093	-0.0067	0.0147
	Average	-0.1195	0.0452	-0.0068	0.2266	0.0645	0.1340	0.0078	0.0596	-0.1390	0.2207	0.0112	-0.0216	-0.0011	0.0366

Source: Computed from Secondary Data

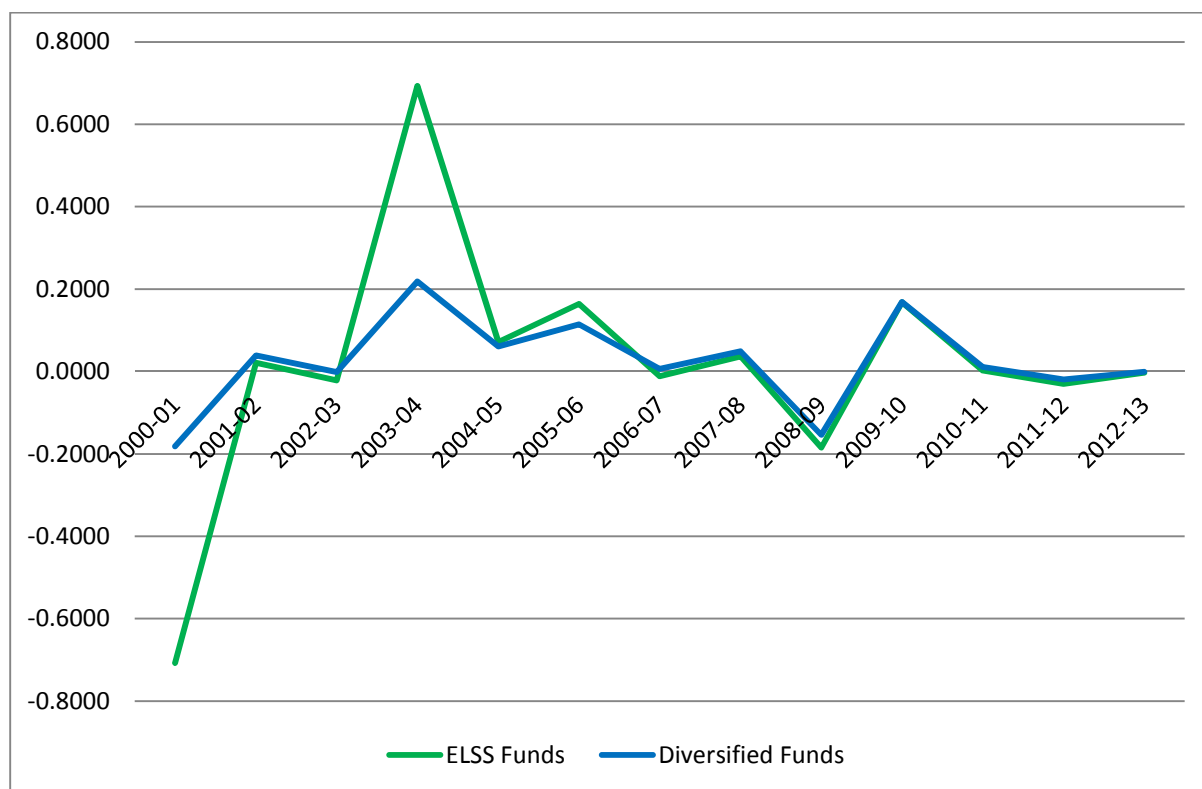
Table 4.49

Treynor's Ratio based on NSE Nifty Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	ELSS Funds														
1	Axis Long Term Equity											0.0182	-0.0189	0.0104	0.0032
2	Birla Sunlife Tax Plan								0.0350	-0.1517	0.1482	0.0035	-0.0326	0.0027	0.0008
3	Birls Sunlife Tax Relief 96									-0.1608	0.1475	-0.0104	-0.0373	0.0031	-0.0116
4	BNP Paribas Tax Adv							-0.0109	0.0342	-0.1918	0.1536	-0.0027	-0.0052	0.0032	-0.0028
5	BOI AXA Eco										0.1644	-0.0185	-0.0419	-0.0049	0.0248
6	BOI AXA Tax Adv										0.1641	-0.0191	-0.0426	-0.0057	0.0242
7	Canara Robeco Equity Tax Saver										0.1638	0.0085	-0.0184	-0.0007	0.0383
8	DSP Black Rock Tax Saver								0.0603	-0.2086	0.1714	0.0026	-0.0287	0.0051	0.0004
9	DWS Tax Saving							-0.0316	0.0608	-0.1800	0.1759	-0.0136	-0.0556	0.0027	-0.0059
10	Edelweiss ELSS										0.1388	0.0047	-0.0160	-0.0018	0.0314
11	Escorts Tax Plan	-0.1163	0.0069	-0.0091	0.1691	0.0507	0.0529	-0.0022	0.0621	-0.3854	0.1294	-0.0136	-0.0359	-0.0360	-0.0098
12	Franklin India Tax Sheild	-0.3420	0.0198	-0.0338	0.2463	0.0702	0.1083	-0.0130	0.0460	-0.1384	0.1719	0.0156	-0.0194	-0.0011	0.0100
13	HDFC Long Term Adv		0.0581	0.0296	4.3530	0.1209	0.2061	-0.0109	0.0249	-0.1831	0.1564	0.0196	-0.0218	-0.0021	0.3959
14	HDFC Tax Saver	0.6032	0.0530	-0.0453	0.2028	0.1238	0.1641	-0.0066	0.0302	-0.1104	0.1785	0.0131	-0.0250	-0.0121	0.0899
15	HSBC Tax Saver								0.0297	-0.1807	0.1704	-0.0029	-0.0269	0.0084	-0.0003
16	ICICI Pru Right											0.0119	0.0006	0.0083	0.0069
17	ICICI Pru Tax Plan	0.2432	0.0422	-0.0533	0.1531	0.1423	0.1183	-0.0144	0.0291	-0.1566	0.2046	0.0080	-0.0203	-0.0010	0.0535
18	IDFC Tax Adv										0.2037	0.0073	-0.0347	0.0088	0.0463
19	IDFC Tax Saver								0.0431	-0.2824	0.1858	0.0021	-0.0453	0.0083	-0.0147
20	ING Retire Invest								0.0282	-0.2544	0.1697	-0.0089	-0.0552	-0.0094	-0.0217
21	ING Tax Savings					0.0464	0.3787	0.0015	0.0046	-0.1769	0.1608	0.0225	-0.0598	-0.0080	0.0411
22	JM Tax Gain									-0.1780	0.1297	-0.0230	-0.0317	-0.0068	-0.0220
23	JP Morgan Tax Advantage										0.1891	0.0153	-0.0392	-0.0063	0.0398
24	Kotak Tax Saver							0.0051	0.0401	-0.2035	0.1516	0.0015	-0.0266	-0.0029	-0.0049
25	LIC Nomura Tax Plan	-0.1759	-0.0289	-0.0228	0.2287	0.0116	0.0559	-0.0191	-0.0571	-0.1507	0.1129	0.0067	-0.0413	-0.0074	-0.0067
26	LNT Long Term Adv										0.2444	-0.0023	-0.0264	-0.0102	0.0514
27	LNT Tax Advantage							0.0143	0.0434	-0.1243	0.1778	0.0275	-0.0351	-0.0058	0.0140
28	LNT Tax Saver							-0.0003	0.0103	-0.2122	0.1347	0.0013	-0.0466	-0.0161	-0.0184
29	Quantum Tax Savings										0.2054	0.0216	-0.0208	0.0026	0.0522
30	Reliance Equity Linked Savings									-0.1085	0.1784	0.0161	-0.0117	0.0021	0.0153
31	Reliance Tax Saver							-0.0051	0.0170	-0.1622	0.1756	0.0120	-0.0055	-0.0076	0.0034
32	Religare Agile									-0.1714	0.3120	0.0034	-0.0536	-0.0004	0.0180
33	Religare Tax Plan							0.0688	-0.2121	0.1874	0.0089	-0.0206	0.0019	0.0057	
34	Sahara Tax Gain	-4.9655	0.0062	-0.0523	0.1383	0.0560	0.0566	-0.0166	0.0576	-0.1792	0.1443	0.0131	-0.0157	-0.0122	-0.3669
35	SBI Magnum Tax Gain									-0.1491	0.1490	-0.0094	-0.0223	-0.0004	-0.0064
36	SBI Tax Advantage I									-0.1448	0.1390	-0.0165	-0.0261	-0.0012	-0.0099
37	Sundaram Tax Saver							0.0000	0.0545	-0.3223	0.1369	-0.0031	-0.0219	-0.0009	-0.0224
38	Tata Infra Tax Savings										0.1894	-0.0321	-0.0345	-0.0180	0.0262
39	Tata Tax Adv Fund I							-0.0240	0.0484	-0.1715	0.1633	0.0115	-0.0246	-0.0050	-0.0003
40	Taurus Tax Shield	-0.2009	0.0106	0.0160	0.0537	0.0196	0.3341	-0.0485	0.0827	-0.1633	0.1275	0.0115	-0.0524	-0.0007	0.0146
41	UTI ETSP							-0.0201	0.0454	-0.1589	0.1610	0.0002	-0.0372	-0.0027	-0.0018
42	UTI LTA I								0.0205	-0.1516	0.1527	-0.0078	-0.0346	-0.0059	-0.0044
43	UTI LTA II									-0.1766	0.1736	0.0018	-0.0302	-0.0012	-0.0065
	Average	-0.7077	0.0210	-0.0214	0.6931	0.0713	0.1639	-0.0112	0.0368	-0.1844	0.1682	0.0025	-0.0302	-0.0030	0.0109
	Diversified Equity Funds														
1	Birla Sunlife Frontline Equity				0.2326	0.0380	0.0903	0.0327	0.0524	-0.1533	0.1532	0.0095	-0.0374	0.0117	0.0430
2	DSP Black Rock Top 100				0.2256	0.0401	0.1097	0.0184	0.0586	-0.1201	0.1541	0.0091	-0.0199	-0.0088	0.0467
3	Franklin India Bluechip	-0.0935	0.0193	-0.0224	0.2358	0.0379	0.0888	0.0085	0.0434	-0.1068	0.1605	0.0125	-0.0267	-0.0047	0.0271
4	HDFC Equity Fund	-0.1364	0.0608	-0.0199	0.2573	0.0578	0.1772	0.0133	0.0358	-0.1328	0.1622	0.0252	-0.0253	-0.0071	0.0360
5	HDFC Top 200	-0.1176	0.0314	-0.0128	0.2553	0.0631	0.1627	0.0058	0.0562	-0.1081	0.1449	0.0215	-0.0265	-0.0059	0.0362
6	ICICI Pru Dynamic				0.1132	0.0791	0.0825	0.0226	0.0317	-0.1683	0.1984	0.0275	-0.0177	-0.0095	0.0360
7	ICICI Discovery Fund						0.1181	-0.0158	0.0224	-0.2132	0.1914	0.0104	-0.0085	0.0067	0.0139
8	IDFC Premier Equity							-0.0007	0.0913	-0.1755	0.1836	0.0125	-0.0037	0.0056	0.0161
9	Reliance Growth	-0.3779	0.0436	0.0493	0.2083	0.1070	0.1161	0.0143	0.0568	-0.2000	0.1613	-0.0062	-0.0236	-0.0064	0.0110
10	Reliance Equity Opportunities						0.0870	0.0092	0.0205	-0.2026	0.2247	0.0147	-0.0066	0.0090	0.0195
11	SBI Magnum Contra							0.0090	0.0578	-0.1366	0.1452	-0.0188	-0.0274	0.0041	0.0048
12	UTI Opportunties Fund							-0.0423	0.0665	-0.1227	0.1445	0.0148	-0.0083	-0.0053	0.0067
	Average	-0.1814	0.0388	-0.0014	0.2183	0.0604	0.1147	0.0063	0.0495	-0.1533	0.1686	0.0111	-0.0193	-0.0009	0.0247

Source: Computed from Secondary Data

**Chart 4.15**

**Year wise Quarterly Average Treynor's Ratio  
based on NSE Nifty Index for the period 2000-01 to 2012-13**



Source: Based on Table 4.49



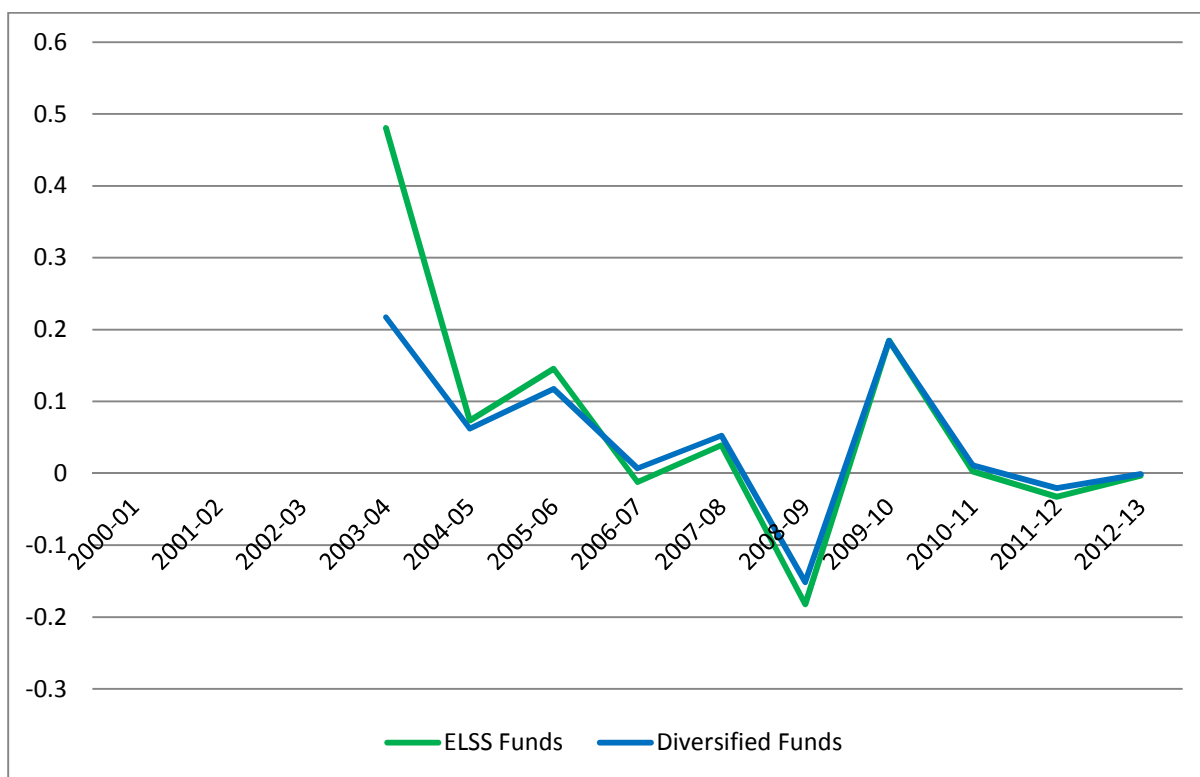
**Table 4.50**

Treyner's Ratio based on NSE CNX 100 Index															
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis Long Term Equity											0.0179	-0.0201	0.0119	0.0032
2	Birla Sunlife Tax Plan								0.0369	-0.1497	0.1622	0.0036	-0.0348	0.0029	0.0035
3	Birls Sunlife Tax Relief 96									-0.1571	0.1609	-0.0101	-0.0399	0.0034	-0.0086
4	BNP Paribas Tax Adv							-0.0120	0.0362	-0.1892	0.1688	-0.0027	-0.0055	0.0035	-0.0001
5	BOI AXA Eco										0.1796	-0.0186	-0.0452	-0.0056	0.0276
6	BOI AXA Tax Adv										0.1792	-0.0192	-0.0460	-0.0064	0.0269
7	Canara Robeco Equity Tax Saver										0.1787	0.0083	-0.0197	-0.0008	0.0416
8	DSP Black Rock Tax Saver								0.0640	-0.2085	0.1875	0.0025	-0.0308	0.0056	0.0034
9	DWS Tax Saving							-0.0342	0.0650	-0.1799	0.1938	-0.0134	-0.0597	0.0031	-0.0036
10	Edelweiss ELSS										0.1529	0.0046	-0.0171	-0.0020	0.0346
11	Escorts Tax Plan				0.1732	0.0526	0.0545	-0.0023	0.0659	-0.3831	0.1398	-0.0131	-0.0381	-0.0404	0.0009
12	Franklin India Tax Shield				0.2475	0.0724	0.1126	-0.0139	0.0488	-0.1351	0.1863	0.0156	-0.0207	-0.0012	0.0512
13	HDFC Long Term Adv				2.6493	0.1242	0.1968	-0.0117	0.0262	-0.1813	0.1703	0.0192	-0.0234	-0.0023	0.2967
14	HDFC Tax Saver				0.2011	0.1280	0.1650	-0.0072	0.0319	-0.1074	0.1958	0.0127	-0.0269	-0.0132	0.0580
15	HSBC Tax Saver								0.0315	-0.1794	0.1864	-0.0028	-0.0291	0.0093	0.0027
16	ICICI Pru Right											0.0117	0.0007	0.0090	0.0071
17	ICICI Pru Tax Plan				0.1502	0.1469	0.1177	-0.0154	0.0309	-0.1568	0.2238	0.0079	-0.0217	-0.0011	0.0483
18	IDFC Tax Adv										0.2262	0.0073	-0.0369	0.0098	0.0516
19	IDFC Tax Saver								0.0461	-0.2847	0.2055	0.0021	-0.0488	0.0093	-0.0118
20	ING Retire Invest								0.0302	-0.2500	0.1866	-0.0088	-0.0595	-0.0107	-0.0187
21	ING Tax Savings					0.0478	0.3489	0.0017	0.0048	-0.1777	0.1763	0.0218	-0.0643	-0.0087	0.0389
22	JM Tax Gain									-0.1752	0.1396	-0.0221	-0.0342	-0.0075	-0.0199
23	JP Morgan Tax Advantage										0.2089	0.0151	-0.0420	-0.0070	0.0437
24	Kotak Tax Saver							0.0056	0.0424	-0.1999	0.1656	0.0014	-0.0286	-0.0032	-0.0024
25	LIC Nomura Tax Plan				0.2286	0.0120	0.0597	-0.0207	-0.0608	-0.1471	0.1235	0.0067	-0.0446	-0.0083	0.0149
26	LNT Long Term Adv										0.2732	-0.0021	-0.0281	-0.0112	0.0580
27	LNT Tax Advantage							0.0153	0.0459	-0.1224	0.1951	0.0265	-0.0376	-0.0065	0.0166
28	LNT Tax Saver							-0.0003	0.0110	-0.2094	0.1464	0.0013	-0.0502	-0.0180	-0.0170
29	Quantum Tax Savings										0.2265	0.0212	-0.0225	0.0030	0.0570
30	Reliance Equity Linked Savings									-0.1074	0.1968	0.0153	-0.0125	0.0024	0.0189
31	Reliance Tax Saver							-0.0056	0.0180	-0.1579	0.1907	0.0116	-0.0058	-0.0084	0.0061
32	Religare Agile									-0.1695	0.3575	0.0035	-0.0602	-0.0005	0.0262
33	Religare Tax Plan								0.0730	-0.2026	0.2059	0.0086	-0.0218	0.0021	0.0109
34	Sahara Tax Gain				0.1406	0.0575	0.0458	-0.0178	0.0612	-0.1732	0.1587	0.0125	-0.0168	-0.0135	0.0255
35	SBI Magnum Tax Gain									-0.1466	0.1626	-0.0092	-0.0239	-0.0005	-0.0035
36	SBI Tax Advantage I									-0.1441	0.1516	-0.0161	-0.0279	-0.0013	-0.0076
37	Sundaram Tax Saver							0.0001	0.0584	-0.3135	0.1511	-0.0031	-0.0235	-0.0010	-0.0188
38	Tata Infra Tax Savings										0.2064	-0.0311	-0.0369	-0.0204	0.0295
39	Tata Tax Adv Fund I							-0.0257	0.0514	-0.1705	0.1775	0.0114	-0.0263	-0.0056	0.0017
40	Taurus Tax Shield				0.0528	0.0201	0.2081	-0.0518	0.0877	-0.1646	0.1385	0.0112	-0.0567	-0.0007	0.0245
41	UTI ETSP							-0.0218	0.0484	-0.1582	0.1767	0.0002	-0.0398	-0.0030	0.0004
42	UTI LTA I								0.0219	-0.1493	0.1664	-0.0076	-0.0370	-0.0066	-0.0020
43	UTI LTA II									-0.1757	0.1909	0.0018	-0.0321	-0.0013	-0.0033
	<b>Average</b>				<b>0.4804</b>	<b>0.0735</b>	<b>0.1454</b>	<b>-0.0121</b>	<b>0.0391</b>	<b>-0.1821</b>	<b>0.1847</b>	<b>0.0024</b>	<b>-0.0325</b>	<b>-0.0033</b>	<b>0.0212</b>
<b>Diversified Equity Funds</b>															
1	Birla Sunlife Frontline Equity				0.2325	0.0392	0.0925	0.0352	0.0558	-0.1501	0.1671	0.0095	-0.0405	0.0129	0.0454
2	DSP Black Rock Top 100				0.2265	0.0413	0.1151	0.0199	0.0621	-0.1186	0.1692	0.0090	-0.0214	-0.0095	0.0494
3	Franklin India Bluechip				0.2378	0.0390	0.0928	0.0092	0.0461	-0.1043	0.1739	0.0126	-0.0287	-0.0051	0.0473
4	HDFC Equity Fund				0.2530	0.0597	0.1742	0.0142	0.0379	-0.1297	0.1767	0.0246	-0.0271	-0.0077	0.0576
5	HDFC Top 200				0.2497	0.0651	0.1669	0.0063	0.0598	-0.1058	0.1579	0.0210	-0.0285	-0.0064	0.0586
6	ICICI Pru Dynamic				0.1133	0.0816	0.0856	0.0246	0.0336	-0.1657	0.2172	0.0271	-0.0191	-0.0104	0.0388
7	ICICI Discovery Fund						0.1177	-0.0169	0.0236	-0.2141	0.2107	0.0102	-0.0092	0.0073	0.0162
8	IDFC Premier Equity							-0.0008	0.0958	-0.1757	0.2001	0.0122	-0.0038	0.0060	0.0191
9	Reliance Growth				0.2077	0.1106	0.1173	0.0154	0.0603	-0.1997	0.1755	-0.0060	-0.0252	-0.0070	0.0449
10	Reliance Equity Opportunities						0.0935	0.0100	0.0216	-0.1988	0.2471	0.0144	-0.0070	0.0100	0.0239
11	SBI Magnum Contra							0.0098	0.0614	-0.1345	0.1586	-0.0184	-0.0294	0.0044	0.0074
12	UTI Opportunities Fund							-0.0447	0.0708	-0.1214	0.1581	0.0148	-0.0089	-0.0059	0.0090
	<b>Average</b>				<b>0.2172</b>	<b>0.0624</b>	<b>0.1173</b>	<b>0.0068</b>	<b>0.0524</b>	<b>-0.1515</b>	<b>0.1843</b>	<b>0.0109</b>	<b>-0.0207</b>	<b>-0.0010</b>	<b>0.0348</b>

Source: Computed from Secondary Data

**Chart 4.16**

**Year wise Quarterly Average Treynor's Ratio  
based on NSE CNX 100 Index for the period 2000-01 to 2012-13**



Source: Based on Table 4.50

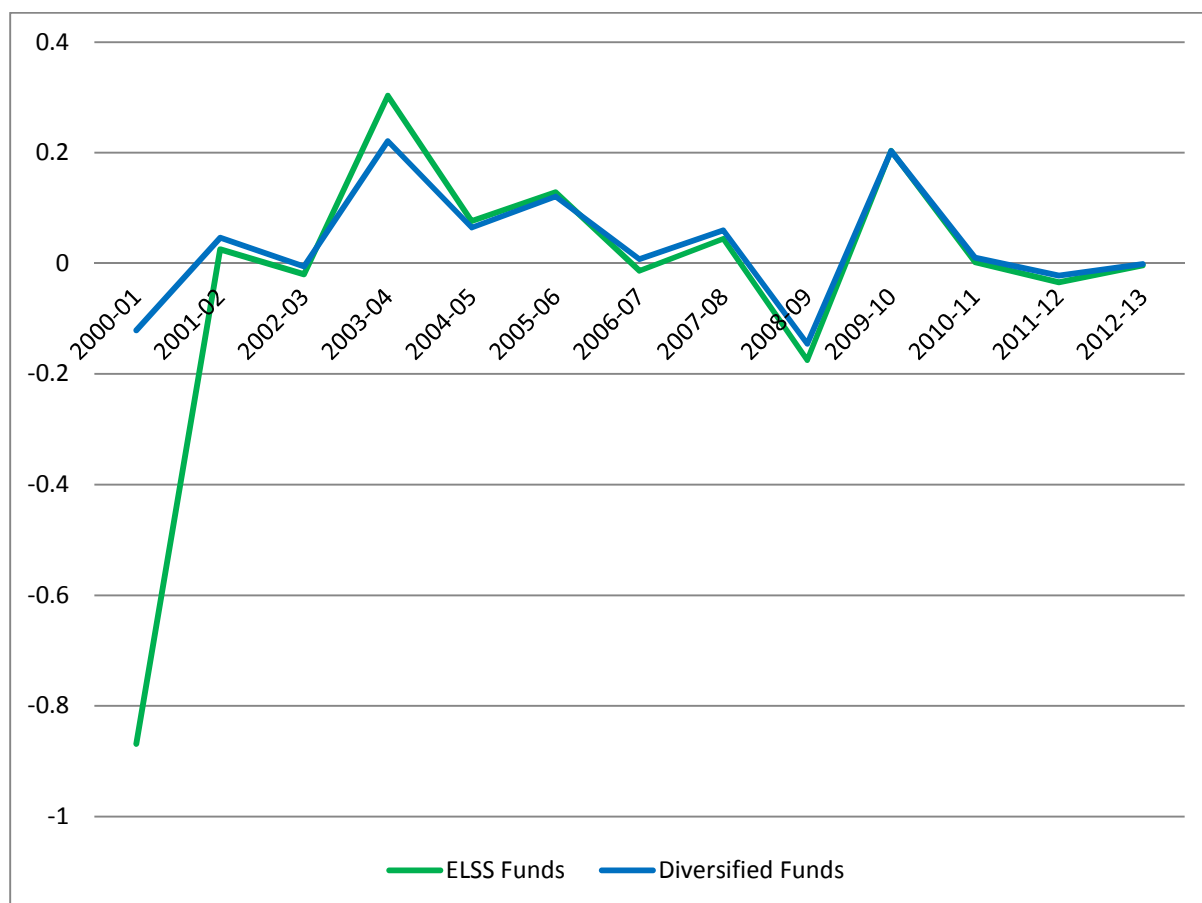
Table 4.51

Treynor's Ratio based on NSE CNX 500 Index															
Sl.No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
	ELSS Funds														
1	Axis Long Term Equity											0.0168	-0.0210	0.0138	0.0032
2	Birla Sunlife Tax Plan								0.0421	-0.1436	0.1786	0.0035	-0.0363	0.0033	0.0079
3	Birls Sunlife Tax Relief 96									-0.1513	0.1771	-0.0093	-0.0419	0.0038	-0.0043
4	BNP Paribas Tax Adv							-0.0134	0.0412	-0.1811	0.1868	-0.0025	-0.0058	0.0038	0.0042
5	BOI AXA Eco										0.1969	-0.0182	-0.0480	-0.0064	0.0311
6	BOI AXA Tax Adv										0.1965	-0.0188	-0.0488	-0.0074	0.0304
7	Canara Robeco Equity Tax Saver										0.1978	0.0077	-0.0207	-0.0008	0.0460
8	DSP Black Rock Tax Saver								0.0724	-0.1991	0.2074	0.0023	-0.0325	0.0062	0.0095
9	DWS Tax Saving							-0.0380	0.0741	-0.1716	0.2149	-0.0127	-0.0628	0.0036	0.0010
10	Edelweiss ELSS										0.1699	0.0042	-0.0180	-0.0023	0.0385
11	Escorts Tax Plan	-0.6174	0.0083	-0.0076	0.1958	0.0549	0.0567	-0.0026	0.0757	-0.3674	0.1525	-0.0119	-0.0396	-0.0457	-0.0422
12	Franklin India Tax Sheild	-4.1676	0.0239	-0.0306	0.2585	0.0754	0.1192	-0.0154	0.0559	-0.1303	0.2043	0.0152	-0.0217	-0.0014	-0.2780
13	HDFC Long Term Adv		0.0680	0.0206	1.1745	0.1285	0.1809	-0.0130	0.0300	-0.1741	0.1874	0.0180	-0.0247	-0.0027	0.1328
14	HDFC Tax Saver	-0.0910	0.0632	-0.0423	0.1987	0.1330	0.1636	-0.0080	0.0367	-0.1038	0.2166	0.0119	-0.0285	-0.0149	0.0412
15	HSBC Tax Saver								0.0356	-0.1718	0.2052	-0.0027	-0.0309	0.0105	0.0077
16	ICICI Pru Right											0.0112	0.0007	0.0102	0.0074
17	ICICI Pru Tax Plan	-0.1853	0.0509	-0.0439	0.1472	0.1526	0.1149	-0.0171	0.0347	-0.1497	0.2460	0.0075	-0.0228	-0.0012	0.0257
18	IDFC Tax Adv										0.2533	0.0070	-0.0384	0.0112	0.0583
19	IDFC Tax Saver								0.0517	-0.2695	0.2286	0.0020	-0.0517	0.0108	-0.0047
20	ING Retire Invest								0.0342	-0.2396	0.2068	-0.0084	-0.0629	-0.0122	-0.0137
21	ING Tax Savings					0.0498	0.3047	0.0019	0.0055	-0.1694	0.1949	0.0199	-0.0680	-0.0098	0.0366
22	JM Tax Gain									-0.1685	0.1516	-0.0203	-0.0362	-0.0087	-0.0164
23	JP Morgan Tax Advantage										0.2322	0.0142	-0.0442	-0.0080	0.0485
24	Kotak Tax Saver							0.0062	0.0479	-0.1920	0.1827	0.0014	-0.0301	-0.0036	0.0018
25	LIC Nomura Tax Plan	-0.1018	-0.0330	-0.0196	0.2438	0.0124	0.0660	-0.0231	-0.0687	-0.1417	0.1368	0.0064	-0.0473	-0.0094	0.0016
26	LNT Long Term Adv										0.3036	-0.0018	-0.0293	-0.0126	0.0650
27	LNT Tax Advantage							0.0170	0.0524	-0.1175	0.2157	0.0243	-0.0394	-0.0075	0.0207
28	LNT Tax Saver							-0.0004	0.0125	-0.2009	0.1608	0.0012	-0.0530	-0.0204	-0.0143
29	Quantum Tax Savings										0.2496	0.0198	-0.0239	0.0035	0.0622
30	Reliance Equity Linked Savings									-0.1029	0.2166	0.0134	-0.0131	0.0028	0.0234
31	Reliance Tax Saver							-0.0062	0.0206	-0.1524	0.2088	0.0110	-0.0061	-0.0095	0.0095
32	Religare Agile									-0.1617	0.3840	0.0036	-0.0670	-0.0006	0.0316
33	Religare Tax Plan								0.0828	-0.1964	0.2273	0.0080	-0.0227	0.0024	0.0169
34	Sahara Tax Gain	-0.8608	0.0075	-0.0485	0.1577	0.0597	0.0345	-0.0198	0.0691	-0.1675	0.1756	0.0113	-0.0175	-0.0152	-0.0472
35	SBI Magnum Tax Gain									-0.1407	0.1786	-0.0086	-0.0251	-0.0005	0.0007
36	SBI Tax Advantage I									-0.1380	0.1667	-0.0152	-0.0292	-0.0015	-0.0034
37	Sundaram Tax Saver							0.0001	0.0661	-0.3039	0.1674	-0.0029	-0.0248	-0.0012	-0.0142
38	Tata Infra Tax Savings										0.2263	-0.0287	-0.0387	-0.0234	0.0339
39	Tata Tax Adv Fund I							-0.0286	0.0587	-0.1633	0.1948	0.0107	-0.0277	-0.0065	0.0055
40	Taurus Tax Shield	-0.0581	0.0127	0.0111	0.0492	0.0209	0.1152	-0.0573	0.0988	-0.1567	0.1520	0.0106	-0.0603	-0.0008	0.0106
41	UTI ETSP							-0.0242	0.0554	-0.1510	0.1953	0.0002	-0.0418	-0.0034	0.0044
42	UTI LTA I								0.0247	-0.1432	0.1833	-0.0072	-0.0389	-0.0074	0.0019
43	UTI LTA II									-0.1677	0.2113	0.0017	-0.0335	-0.0015	0.0020
	Average	-0.8688	0.0252	-0.0201	0.3032	0.0764	0.1284	-0.0135	0.0444	-0.1746	0.2035	0.0022	-0.0343	-0.0037	0.0089
	Diversified Equity Funds														
1	Birla Sunlife Frontline Equity				0.2412	0.0408	0.0952	0.0391	0.0637	-0.1444	0.1838	0.0091	-0.0429	0.0146	0.0500
2	DSP Black Rock Top 100				0.2353	0.0429	0.1239	0.0222	0.0708	-0.1138	0.1868	0.0086	-0.0227	-0.0107	0.0543
3	Franklin India Bluechip	-0.1089	0.0231	-0.0216	0.2513	0.0406	0.0990	0.0103	0.0532	-0.1005	0.1911	0.0123	-0.0303	-0.0058	0.0318
4	HDFC Equity Fund	-0.1499	0.0728	-0.0181	0.2466	0.0621	0.1679	0.0157	0.0432	-0.1252	0.1942	0.0231	-0.0285	-0.0087	0.0381
5	HDFC Top 200	-0.0895	0.0374	-0.0116	0.2386	0.0678	0.1728	0.0070	0.0687	-0.1020	0.1740	0.0198	-0.0301	-0.0073	0.0420
6	ICICI Pru Dynamic				0.1177	0.0849	0.0900	0.0274	0.0382	-0.1594	0.2389	0.0252	-0.0203	-0.0118	0.0431
7	ICICI Discovery Fund						0.1153	-0.0188	0.0266	-0.2042	0.2338	0.0094	-0.0097	0.0082	0.0201
8	IDFC Premier Equity							-0.0009	0.1080	-0.1676	0.2198	0.0113	-0.0039	0.0067	0.0248
9	Reliance Growth	-0.1367	0.0518	0.0278	0.2141	0.1149	0.1174	0.0171	0.0679	-0.1911	0.1929	-0.0056	-0.0264	-0.0079	0.0336
10	Reliance Equity Opportunities						0.1052	0.0112	0.0245	-0.1911	0.2723	0.0135	-0.0073	0.0113	0.0300
11	SBI Magnum Contra							0.0109	0.0702	-0.1290	0.1747	-0.0171	-0.0310	0.0050	0.0120
12	UTI Opportunties Fund							-0.0493	0.0810	-0.1160	0.1741	0.0143	-0.0094	-0.0067	0.0126
	Average	-0.1213	0.0463	-0.0059	0.2207	0.0649	0.1207	0.0077	0.0596	-0.1454	0.2030	0.0103	-0.0219	-0.0011	0.0327

Source: Computed from Secondary Data

**Chart 4.17**

**Year wise Quarterly Average Treynor's Ratio  
based on NSE CNX 500 Index for the period 2000-01 to 2012-13**



Source: Based on Table 4.51

The risk adjusted measures of performance that were computed hitherto, were all relative either to the total risk or downward risk or market risk undertaken by the funds. One of the popular measures of absolute measure of performance is the Jensen's Alpha. It is considered to be the excess returns earned by the portfolio over the returns required to be earned for the systemic risk or market risk undertaken. As excess returns of a portfolio over market returns, can be generated only through fund manager's abilities, Jensen's Alpha is considered to be a measure of portfolio manager's ability to pick under-priced assets for the portfolio. Higher the Jensen's alpha better is the fund manager's ability and thereby the fund's performance.

The quarterly average Jensen's Alpha for the sample ELSS funds and Diversified Equity funds based on 7 benchmark indexes is computed and tabulated in Tables 4.52, 4.54, 4.55, 4.56, 4.57, 4.59 and 4.60. The category quarterly average for years is also shown in Charts 4.18 to 4.24.

Table 4.52

Yearwise Quarterly Average Jensen's Alpha for the period 2000-01 to 2012-13 based on BSE 30 (Sensex)															
Sl No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis LT Equity Fund											0.89%	2.14%	1.18%	1.40%
2	Birla SL Tax Plan								-0.86%	-1.53%	1.79%	-0.43%	1.32%	0.28%	0.09%
3	Birla SL Tax Reilef 96									-2.81%	2.32%	-1.97%	0.97%	0.34%	-0.23%
4	BNP Tax Advantage							-4.53%	-1.21%	-4.78%	2.18%	-1.04%	3.35%	0.28%	-0.82%
5	BOI AXA ECO										4.41%	-3.14%	0.39%	-0.66%	0.25%
6	BOI AXA Tax Advantage										4.36%	-3.21%	0.33%	-0.76%	0.18%
7	Can Robeco Equity Tax Saver										4.16%	0.03%	2.32%	-0.16%	1.59%
8	DSP Black Rock Tax Saver								2.70%	-4.42%	4.30%	-0.61%	1.92%	0.64%	0.75%
9	DWS Tax Saving							-5.91%	2.43%	-3.42%	3.74%	-2.78%	-0.76%	0.18%	-0.93%
10	Edelweiss ELSS Fund										0.84%	-0.36%	2.94%	-0.31%	0.78%
11	Escorts Tax Plan	-1.24%	2.46%	3.09%	0.63%	1.89%	-15.95%	-2.58%	2.30%	-11.88%	-0.32%	-2.69%	1.48%	-5.86%	-2.20%
12	Franklin Tax Shield	-7.43%	5.49%	1.46%	6.44%	3.45%	-1.69%	-3.65%	0.34%	-0.43%	3.88%	0.70%	2.19%	-0.22%	0.81%
13	HDFC Long Term Advantage		5.50%	4.60%	20.60%	7.69%	3.91%	-3.71%	-1.71%	-3.43%	3.10%	1.29%	2.67%	-0.26%	3.36%
14	HDFC Tax Saver	-18.98%	6.46%	0.37%	3.11%	9.96%	2.11%	-3.38%	-1.27%	2.38%	5.44%	0.53%	2.20%	-1.66%	0.56%
15	HSBC Tax Saver								-1.55%	-2.58%	3.76%	-1.22%	1.93%	1.04%	0.23%
16	ICICI Pru Right											0.32%	4.55%	1.03%	1.97%
17	ICICI Pru Tax	-24.79%	7.30%	-0.33%	-2.89%	12.15%	-3.37%	-5.39%	-1.43%	-1.59%	7.83%	-0.03%	2.92%	-0.26%	-0.76%
18	IDFC Tax Advantage										5.05%	-0.11%	1.02%	1.08%	1.76%
19	IDFC Tax Saver								0.22%	-7.05%	4.71%	-0.65%	0.08%	0.81%	-0.31%
20	ING Retire Invest								-1.75%	-6.34%	3.19%	-1.52%	-0.77%	-1.43%	-1.44%
21	ING Tax Savings					2.00%	9.00%	-3.24%	-4.43%	-3.67%	3.67%	1.26%	-0.92%	-0.86%	0.31%
22	JM Tax Gain									-5.20%	-0.34%	-2.52%	1.87%	-1.63%	-1.56%
23	JP Morgan Tax Advantage										3.71%	0.71%	0.62%	-0.80%	1.06%
24	Kotak Tax Saver							-2.16%	-0.21%	-5.25%	2.25%	-0.80%	2.19%	-0.56%	-0.65%
25	LIC Nomura Tax Plan	-8.20%	-0.22%	2.71%	5.36%	-1.19%	-10.92%	-4.62%	-12.71%	-1.54%	-1.96%	-0.16%	0.52%	-0.73%	-2.59%
26	LNT LT Advanatge										7.95%	-1.15%	2.11%	-1.43%	1.87%
27	LNT Tax Advantage							-0.76%	0.10%	0.84%	4.45%	1.85%	0.99%	-0.83%	0.95%
28	LNT Tax Saver							-3.03%	-3.38%	-5.62%	0.49%	-0.84%	-0.04%	-1.84%	-2.04%
29	Quantum Tax Savings										6.10%	1.49%	2.43%	0.20%	2.55%
30	Reliance Equity Linked Savings									2.47%	4.22%	0.69%	4.79%	0.19%	2.47%
31	Reliance Tax Saver							-4.22%	-3.16%	-1.93%	4.25%	0.46%	5.71%	-1.61%	-0.07%
32	Religare Agile									-2.83%	3.70%	-0.67%	-0.36%	-0.10%	-0.05%
33	Religare Tax Plan								3.19%	-4.78%	5.45%	0.06%	2.30%	0.13%	1.06%
34	Sahara Tax Gain	-24.24%	3.10%	-0.15%	-3.20%	2.60%	34.93%	-4.89%	1.99%	-3.01%	1.85%	0.50%	3.24%	-2.00%	0.83%
35	SBI Magnum Tax Gain									-1.42%	2.00%	-1.58%	2.39%	-0.16%	0.24%
36	SBI Tax Advantage I									-0.75%	1.08%	-2.56%	2.48%	-0.30%	-0.01%
37	Sundaramn Tax Saver							-2.83%	1.60%	-6.48%	0.92%	-1.42%	2.49%	-0.26%	-0.85%
38	Tata Infra Tax Savings										3.78%	-3.82%	1.63%	-3.03%	-0.36%
39	Tata Tax Advantage I							-5.05%	0.62%	-2.24%	3.03%	0.31%	1.73%	-0.65%	-0.32%
40	Taurus Tax Shield	-6.58%	3.86%	5.33%	-16.65%	-1.38%	-5.22%	-7.67%	6.89%	-1.62%	-0.55%	0.40%	-0.43%	-0.20%	-1.83%
41	UTI ETSP							-5.31%	0.28%	-1.88%	2.70%	-0.90%	0.79%	-0.32%	-0.66%
42	UTI LTA I								-2.44%	-1.59%	2.34%	-1.41%	1.24%	-0.80%	-0.44%
43	UTI LTA II									-2.09%	3.59%	-0.64%	1.53%	-0.17%	0.44%
	<b>Average</b>	<b>-13.07%</b>	<b>4.24%</b>	<b>2.14%</b>	<b>1.68%</b>	<b>4.13%</b>	<b>1.42%</b>	<b>-4.05%</b>	<b>-0.54%</b>	<b>-3.01%</b>	<b>3.16%</b>	<b>-0.62%</b>	<b>1.69%</b>	<b>-0.52%</b>	<b>0.17%</b>
<b>Diversified Equity Funds</b>															
1	Birla SL Frontline Equity				4.82%	0.98%	-5.01%	1.31%	1.03%	-1.49%	2.58%	0.11%	0.85%	1.38%	0.66%
2	DSP Black Rock Top 100				5.61%	1.18%	-0.95%	-0.25%	1.80%	1.09%	2.23%	0.07%	2.70%	-1.26%	1.22%
3	Franklin Bluechip	3.66%	5.35%	2.61%	6.57%	0.86%	-5.02%	-1.53%	0.01%	2.47%	2.98%	0.42%	1.70%	-0.58%	1.50%
4	HDFC Equity Fund	-0.58%	9.24%	2.56%	7.37%	2.86%	3.95%	-0.81%	-0.67%	0.06%	4.08%	1.99%	2.65%	-1.03%	2.44%
5	HDFC Top 200	2.80%	5.16%	3.24%	7.55%	3.20%	3.82%	-1.77%	1.31%	2.33%	1.77%	1.41%	2.25%	-0.83%	2.48%
6	ICICI Pru Dynamic Fund				-7.92%	5.49%	-9.05%	0.29%	-0.94%	-2.13%	5.70%	1.08%	3.34%	-0.96%	-0.51%
7	ICICI Pru Discovery Fund						-3.16%	-4.93%	-2.21%	-4.42%	8.71%	0.20%	5.01%	0.80%	0.00%
8	IDFC Premier Equity Fund							-3.32%	7.13%	-2.65%	5.80%	0.60%	3.20%	0.78%	1.65%
9	Reliance Growth	-10.61%	6.56%	5.98%	5.28%	8.24%	-2.92%	-0.78%	2.02%	-4.03%	3.81%	-1.44%	2.59%	-1.39%	1.02%
10	Reliance Opportunites Fund						-4.55%	-1.43%	-2.57%	-4.46%	9.43%	0.84%	4.73%	1.23%	0.40%
11	SBI Magnum Contra							-1.34%	1.78%	-0.29%	1.67%	-2.63%	2.20%	0.37%	0.25%
12	UTI Opportunities Fund							-6.72%	2.82%	0.80%	1.61%	0.72%	2.64%	-0.77%	0.16%
	<b>Average</b>	<b>-1.18%</b>	<b>6.58%</b>	<b>3.60%</b>	<b>4.18%</b>	<b>3.26%</b>	<b>-2.55%</b>	<b>-1.77%</b>	<b>0.96%</b>	<b>-1.06%</b>	<b>4.20%</b>	<b>0.28%</b>	<b>2.82%</b>	<b>-0.19%</b>	<b>0.94%</b>

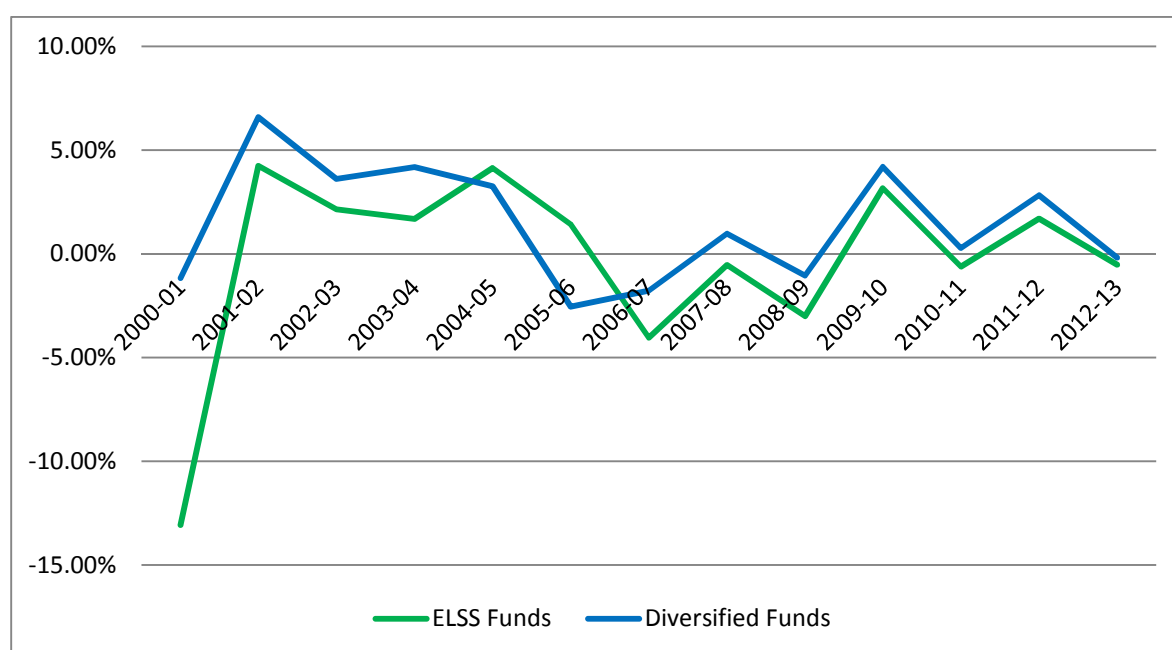
Source: Computed from Secondary Data

As can be seen from Table 4.52, ELSS funds as a category have earned on an average excess return of 0.17 percentage per quarter as against 0.94 percentage for Diversified Equity funds considering BSE Sensex as benchmark. The same as per Table 4.57 considering NSE Nifty is -0.20 percentage for ELSS as against 0.71 percentage for Diversified Equity funds. This underperformance with regard to Jensen's Alpha of ELSS funds as against Diversified Equity funds is clearly visible for all the 7 benchmark indexes.

As can be seen from Table 4.53, ELSS funds have on an average underperformed 74 percentage of the Diversified Equity funds on the basis of Jensen's Alpha (BSE Sensex). Similarly as per Table 4.58, the underperformance is 71 percentage considering NSE Nifty index.

**Chart 4.18**

**Year wise Quarterly Average Jensen's Alpha based on BSE 30 (Sensex) for the period 2000-01 to 2012-13**



Source: Based on Table 4.52

**Table 4.53**

Yearwise underperformance of Jensen's Alpha based on BSE 30 (Sensex ) of ELSS Funds as against Diversified Equity Funds Category Average														
Particulars	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
Total Number of ELSS Funds	7	8	8	8	9	9	18	25	32	41	43	43	43	
Number of ELSS funds underperforming	7	7	6	5	5	4	17	18	27	28	29	36	27	
% of Funds Underperforming	100%	88%	75%	63%	56%	44%	94%	72%	84%	68%	67%	84%	63%	<b>74%</b>

Source: Computed from Table 4.52



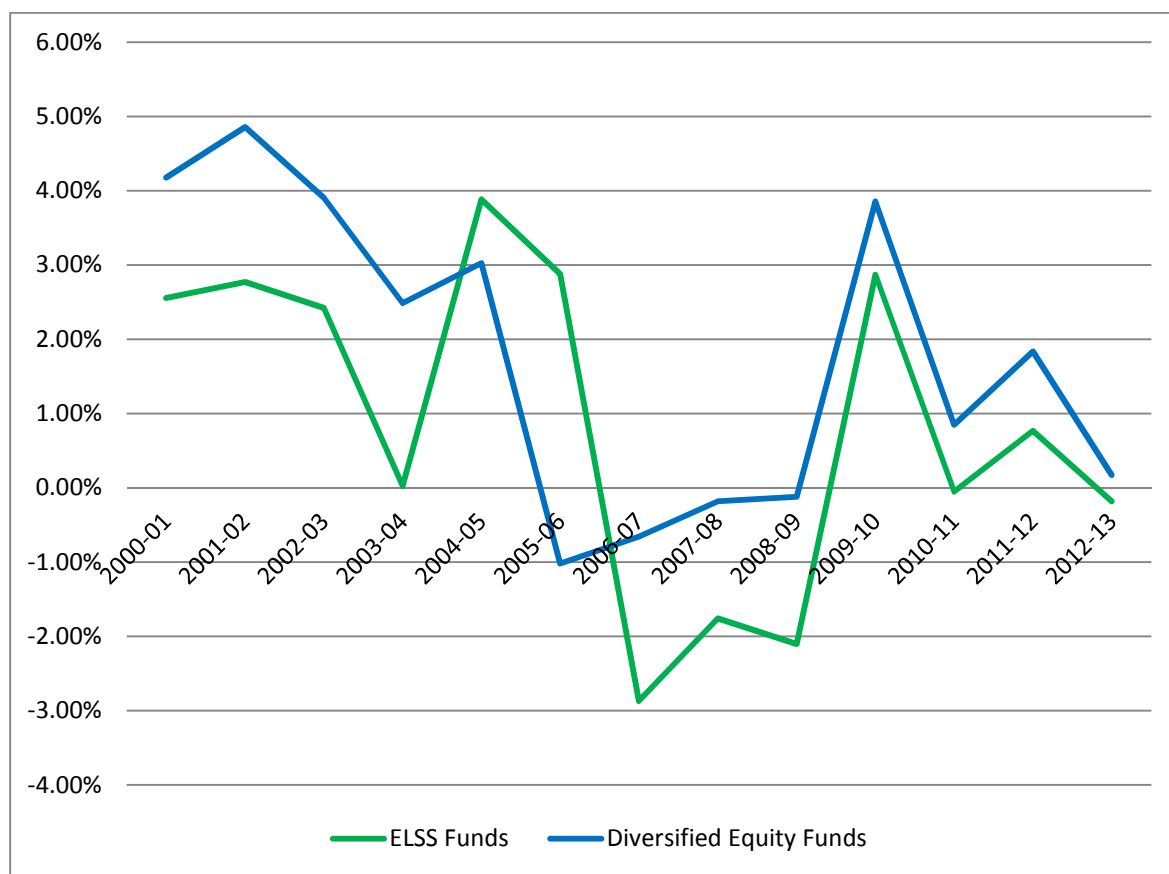
Table 4.54

Yearwise Quarterly Average Jensen's Alpha for the period 2000-01 to 2012-13 based on BSE 100 Index															
Sl No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis LT Equity Fund											1.38%	1.43%	1.51%	1.44%
2	Birla SL Tax Plan								-2.09%	-0.48%	1.50%	0.07%	0.45%	0.69%	0.02%
3	Birla SL Tax Reilef 96									-1.57%	1.88%	-1.40%	-0.03%	0.76%	-0.07%
4	BNP Tax Advantage							-3.20%	-2.72%	-3.90%	1.97%	-0.54%	2.64%	0.61%	-0.73%
5	BOI AXA ECO										4.01%	-2.49%	-0.44%	-0.36%	0.18%
6	BOI AXA Tax Advantage										3.96%	-2.56%	-0.50%	-0.45%	0.11%
7	Can Robeco Equity Tax Saver										3.75%	0.53%	1.54%	0.13%	1.49%
8	DSP Black Rock Tax Saver								1.19%	-3.70%	4.00%	-0.03%	0.89%	1.04%	0.57%
9	DWS Tax Saving							-4.91%	1.18%	-2.54%	3.58%	-2.09%	-1.54%	0.43%	-0.84%
10	Edelweiss ELSS Fund										0.66%	0.18%	2.04%	0.00%	0.72%
11	Escorts Tax Plan	-4.48%	1.08%	3.35%	-0.60%	1.73%	-13.89%	-1.55%	1.18%	-11.26%	-0.81%	-2.03%	0.21%	-5.44%	-2.50%
12	Franklin Tax Shield	-10.08%	3.38%	1.54%	5.25%	3.25%	-0.36%	-2.68%	-0.67%	0.64%	3.49%	1.23%	1.45%	0.09%	0.50%
13	HDFC Long Term Advantage		4.44%	5.16%	19.95%	7.45%	4.45%	-2.65%	-2.67%	-2.45%	2.69%	1.92%	1.64%	-0.02%	3.32%
14	HDFC Tax Saver	15.98%	5.12%	0.41%	1.52%	9.72%	3.58%	-2.25%	-2.19%	3.88%	5.15%	1.13%	1.20%	-1.31%	3.23%
15	HSBC Tax Saver								-2.88%	-1.88%	3.49%	-0.62%	0.96%	1.41%	0.08%
16	ICICI Pru Right											0.81%	3.66%	1.41%	1.96%
17	ICICI Pru Tax	-1.91%	5.51%	-0.01%	-6.00%	11.89%	-1.59%	-3.96%	-2.70%	-0.62%	7.52%	0.51%	1.87%	0.13%	0.82%
18	IDFC Tax Advantage										4.97%	0.51%	0.24%	1.44%	1.79%
19	IDFC Tax Saver								-1.15%	-6.67%	4.58%	-0.07%	-0.61%	1.09%	-0.47%
20	ING Retire Invest								-2.94%	-5.77%	3.01%	-1.03%	-1.65%	-1.06%	-1.57%
21	ING Tax Savings					1.74%	9.36%	-1.71%	-5.67%	-2.61%	3.35%	1.75%	-1.59%	-0.60%	0.45%
22	JM Tax Gain									-3.61%	-0.89%	-2.09%	0.64%	-1.06%	-1.40%
23	JP Morgan Tax Advantage										3.60%	1.28%	-0.19%	-0.50%	1.05%
24	Kotak Tax Saver							-0.90%	-1.52%	-4.35%	1.91%	-0.16%	1.13%	-0.15%	-0.58%
25	LIC Nomura Tax Plan	10.28%	-0.60%	2.95%	3.79%	-1.36%	-8.44%	-3.57%	-14.02%	-0.47%	-2.28%	0.38%	-0.47%	-0.50%	-1.10%
26	LNT LT Advantage										7.92%	-0.61%	1.18%	-1.07%	1.85%
27	LNT Tax Advantage							0.34%	-0.94%	1.88%	4.21%	2.36%	0.17%	-0.50%	1.08%
28	LNT Tax Saver							-1.72%	-4.46%	-4.74%	-0.05%	-0.19%	-1.01%	-1.55%	-1.96%
29	Quantum Tax Savings										5.94%	2.10%	1.51%	0.48%	2.51%
30	Reliance Equity Linked Savings									3.60%	4.05%	1.17%	3.52%	0.57%	2.58%
31	Reliance Tax Saver							-2.74%	-4.30%	-1.05%	3.90%	1.10%	4.50%	-1.10%	0.04%
32	Religare Agile									-2.14%	3.74%	0.09%	-1.04%	0.11%	0.15%
33	Religare Tax Plan								1.98%	-4.04%	5.21%	0.59%	1.50%	0.44%	0.95%
34	Sahara Tax Gain	-19.91%	1.29%	-0.17%	-5.12%	2.35%	35.46%	-3.71%	0.69%	-2.18%	1.56%	1.06%	2.29%	-1.58%	0.93%
35	SBI Magnum Tax Gain									-0.37%	1.65%	-1.09%	1.47%	0.19%	0.37%
36	SBI Tax Advantage I									0.43%	0.65%	-2.01%	1.35%	0.10%	0.10%
37	Sundaramn Tax Saver							-1.60%	0.34%	-5.94%	0.70%	-0.74%	1.54%	0.14%	-0.79%
38	Tata Infra Tax Savings										3.56%	-3.32%	0.36%	-2.61%	-0.50%
39	Tata Tax Advantage I							-4.02%	-0.41%	-1.45%	2.68%	0.85%	0.98%	-0.35%	-0.25%
40	Taurus Tax Shield	28.01%	1.94%	6.12%	-18.61%	-1.84%	-2.66%	-6.70%	5.11%	-0.89%	-1.06%	1.06%	-1.18%	0.17%	0.73%
41	UTI ETSP							-4.13%	-0.76%	-0.99%	2.48%	-0.29%	-0.01%	-0.07%	-0.54%
42	UTI LTA I								-3.57%	-0.53%	1.98%	-0.93%	0.26%	-0.48%	-0.54%
43	UTI LTA II									-1.55%	3.40%	-0.10%	0.68%	0.06%	0.50%
	<b>Average</b>	<b>2.55%</b>	<b>2.77%</b>	<b>2.42%</b>	<b>0.02%</b>	<b>3.88%</b>	<b>2.88%</b>	<b>-2.87%</b>	<b>-1.76%</b>	<b>-2.10%</b>	<b>2.87%</b>	<b>-0.05%</b>	<b>0.77%</b>	<b>-0.18%</b>	<b>0.36%</b>
<b>Diversified Equity Funds</b>															
1	Birla SL Frontline Equity				3.60%	0.75%	-3.58%	2.31%	0.03%	-0.59%	2.21%	0.64%	-0.08%	1.72%	0.70%
2	DSP Black Rock Top 100				4.19%	0.93%	0.32%	0.78%	0.71%	2.01%	2.00%	0.56%	1.71%	-0.90%	1.23%
3	Franklin Bluechip	3.96%	3.29%	2.51%	5.24%	0.64%	-3.28%	-0.39%	-0.88%	3.71%	2.57%	0.98%	0.88%	-0.29%	1.46%
4	HDFC Equity Fund	0.49%	7.50%	2.64%	5.75%	2.63%	4.41%	0.17%	-1.71%	1.28%	3.65%	2.62%	1.46%	-0.68%	2.32%
5	HDFC Top 200	9.32%	3.64%	3.31%	5.77%	2.98%	4.47%	-0.69%	0.40%	3.58%	1.35%	1.99%	1.17%	-0.49%	2.83%
6	ICICI Pru Dynamic Fund				-10.20%	5.22%	-6.49%	1.51%	-1.84%	-1.28%	5.47%	1.40%	2.21%	-0.71%	-0.47%
7	ICICI Pru Discovery Fund						-1.46%	-3.67%	-3.52%	-3.73%	8.41%	0.72%	3.73%	1.17%	0.21%
8	IDFC Premier Equity Fund							-1.96%	5.54%	-1.86%	5.42%	1.38%	2.66%	1.24%	1.77%
9	Reliance Growth	2.94%	4.99%	7.15%	3.05%	8.00%	-1.13%	0.36%	0.62%	-3.22%	3.36%	-0.91%	1.57%	-0.87%	1.99%
10	Reliance Opportunites Fund						-2.43%	-0.29%	-3.85%	-3.65%	9.19%	1.55%	3.65%	1.63%	0.73%
11	SBI Magnum Contra							-0.29%	0.65%	0.70%	1.33%	-2.10%	1.10%	0.68%	0.30%
12	UTI Opportunities Fund							-5.78%	1.70%	1.58%	1.29%	1.33%	1.98%	-0.43%	0.24%
	<b>Average</b>	<b>4.18%</b>	<b>4.85%</b>	<b>3.90%</b>	<b>2.49%</b>	<b>3.02%</b>	<b>-1.02%</b>	<b>-0.66%</b>	<b>-0.18%</b>	<b>-0.12%</b>	<b>3.85%</b>	<b>0.85%</b>	<b>1.84%</b>	<b>0.17%</b>	<b>1.11%</b>

Source: Computed from Secondary Data

**Chart 4.19**

**Year wise Quarterly Average Jensen's Alpha  
based on BSE 100 Index for the period 2000-01 to 2012-13**



Source: Based on Table 4.54

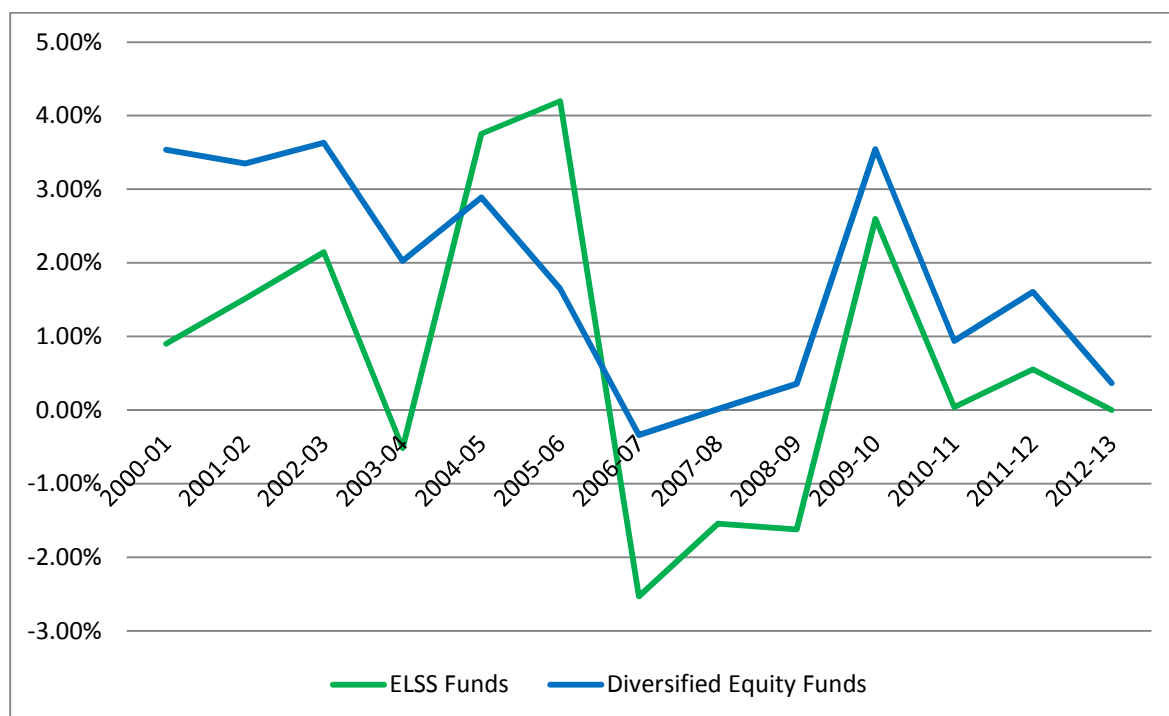
**Table 4.55**

Yearwise Quarterly Average Jensen's Alpha for the period 2000-01 to 2012-13 based on BSE 200 Index															
Sl No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis LT Equity Fund											1.46%	1.26%	1.68%	1.47%
2	Birla SL Tax Plan								-1.89%	0.08%	1.23%	0.15%	0.24%	0.91%	0.12%
3	Birla SL Tax Reilef 96								-0.96%	-0.96%	1.50%	-1.31%	-0.27%	0.98%	-0.01%
4	BNP Tax Advantage							-2.84%	-2.46%	-3.38%	1.73%	-0.45%	2.47%	0.79%	-0.59%
5	BOI AXA ECO										3.65%	-2.39%	-0.63%	-0.20%	0.11%
6	BOI AXA Tax Advantage										3.60%	-2.45%	-0.69%	-0.29%	0.04%
7	Can Robeco Equity Tax Saver										3.41%	0.62%	1.35%	0.28%	1.42%
8	DSP Black Rock Tax Saver								1.44%	-3.28%	3.72%	0.06%	0.65%	1.26%	0.64%
9	DWS Tax Saving							-4.62%	1.43%	-2.02%	3.37%	-1.97%	-1.72%	0.56%	-0.71%
10	Edelweiss ELSS Fund										0.43%	0.27%	1.83%	0.17%	0.67%
11	Escorts Tax Plan	-4.81%	-0.13%	3.07%	0.00%	1.59%	-10.12%	-1.26%	1.41%	-10.94%	-1.14%	-1.93%	-0.09%	-5.21%	-2.27%
12	Franklin Tax Shield	-10.20%	1.64%	1.05%	5.07%	3.14%	1.77%	-2.40%	-0.47%	1.13%	3.21%	1.32%	1.28%	0.26%	0.52%
13	HDFC Long Term Advanatge		3.47%	5.24%	18.77%	7.38%	6.50%	-2.34%	-2.50%	-1.98%	2.35%	2.03%	1.39%	0.10%	3.37%
14	HDFC Tax Saver	13.99%	3.94%	-0.08%	0.66%	9.59%	6.54%	-1.92%	-2.01%	4.53%	4.86%	1.23%	0.97%	-1.12%	3.17%
15	HSBC Tax Saver								-2.66%	-1.51%	3.23%	-0.52%	0.73%	1.61%	0.15%
16	ICICI Pru Right											0.89%	3.45%	1.61%	1.99%
17	ICICI Pru Tax Plan	-3.30%	4.01%	-0.28%	-7.32%	11.76%	2.26%	-3.55%	-2.51%	-0.06%	7.23%	0.60%	1.63%	0.34%	0.83%
18	IDFC Tax Advanatge										4.81%	0.61%	0.05%	1.64%	1.78%
19	IDFC Tax Saver								-0.93%	-6.33%	4.37%	0.02%	-0.77%	1.24%	-0.40%
20	ING Retire Invest								-2.71%	-5.44%	2.80%	-0.96%	-1.85%	-0.87%	-1.50%
21	ING Tax Savings					1.57%	10.98%	-1.27%	-5.48%	-1.97%	3.04%	1.82%	-1.75%	-0.45%	0.72%
22	JM Tax Gain									-2.85%	-1.24%	-2.02%	0.35%	-0.75%	-1.30%
23	JP Morgan Tax Advantage										3.45%	1.37%	-0.38%	-0.34%	1.02%
24	Kotak Tax Saver							-0.54%	-1.32%	-3.88%	1.62%	-0.06%	0.88%	0.07%	-0.46%
25	LIC Nomura Tax Plan	7.17%	-0.96%	2.54%	3.92%	-1.46%	-5.35%	-3.27%	-13.79%	0.04%	-2.57%	0.47%	-0.71%	-0.37%	-1.10%
26	LNT LT Advantage										7.75%	-0.51%	0.94%	-0.89%	1.82%
27	LNT Tax Advantage							0.66%	-0.76%	2.43%	3.97%	2.44%	-0.02%	-0.32%	1.20%
28	LNT Tax Saver							-1.34%	-4.27%	-4.27%	-0.47%	-0.08%	-1.24%	-1.40%	-1.87%
29	Quantum Tax Savings										5.72%	2.20%	1.29%	0.63%	2.46%
30	Reliance Equity Linked Savings									4.20%	3.82%	1.25%	3.21%	0.77%	2.65%
31	Reliance Tax Saver							-2.32%	-4.08%	-0.66%	3.62%	1.21%	4.20%	-0.82%	0.16%
32	Religare Agile									-1.67%	3.68%	0.21%	-1.20%	0.21%	0.25%
33	Religare Tax Plan								2.19%	-3.72%	4.96%	0.68%	1.31%	0.60%	1.00%
34	Sahara Tax Gain	-20.52%	-0.19%	-0.63%	-4.35%	2.24%	22.68%	-3.37%	0.90%	-1.81%	1.24%	1.15%	2.06%	-1.36%	-0.15%
35	SBI Magnum Tax Gain									0.20%	1.34%	-1.01%	1.25%	0.37%	0.43%
36	SBI Tax Advantage I									1.04%	0.29%	-1.92%	1.08%	0.33%	0.16%
37	Sundaramn Tax Saver							-1.25%	0.58%	-5.73%	0.41%	-0.63%	1.31%	0.34%	-0.71%
38	Tata Infra Tax Savings										3.38%	-3.23%	0.05%	-2.39%	-0.55%
39	Tata Tax Advantage I							-3.72%	-0.22%	-1.03%	2.41%	0.93%	0.81%	-0.20%	-0.14%
40	Taurus Tax Shield	23.96%	0.33%	6.26%	-20.90%	-2.04%	2.54%	-6.41%	5.38%	-0.44%	-1.45%	1.17%	-1.35%	0.37%	0.57%
41	UTI ETSP							-3.80%	-0.55%	-0.46%	2.25%	-0.19%	-0.21%	0.05%	-0.41%
42	UTI LTA I								-3.37%	0.04%	1.69%	-0.86%	0.02%	-0.31%	-0.46%
43	UTI LTA II									-1.22%	3.19%	-0.01%	0.47%	0.18%	0.52%
	<b>Average</b>	<b>0.90%</b>	<b>1.51%</b>	<b>2.15%</b>	<b>-0.52%</b>	<b>3.75%</b>	<b>4.20%</b>	<b>-2.53%</b>	<b>-1.55%</b>	<b>-1.62%</b>	<b>2.60%</b>	<b>0.04%</b>	<b>0.55%</b>	<b>0.00%</b>	<b>0.39%</b>
<b>Diversified Equity Funds</b>															
1	Birla SL Frontline Equity				3.42%	0.60%	-0.90%	2.61%	0.22%	-0.13%	1.89%	0.73%	-0.29%	1.91%	1.01%
2	DSP Black Rock Top 100				3.92%	0.80%	2.13%	1.08%	0.90%	2.50%	1.76%	0.64%	1.48%	-0.71%	1.45%
3	Franklin Bluechip	3.65%	1.49%	1.89%	5.15%	0.53%	-0.66%	-0.07%	-0.69%	4.30%	2.27%	1.07%	0.68%	-0.14%	1.50%
4	HDFC Equity Fund	0.10%	6.01%	2.15%	4.93%	2.51%	6.18%	0.46%	-1.54%	1.81%	3.28%	2.73%	1.19%	-0.48%	2.25%
5	HDFC Top 200	8.74%	2.30%	2.83%	4.66%	2.85%	5.77%	-0.38%	0.59%	4.14%	1.00%	2.09%	0.91%	-0.31%	2.71%
6	ICICI Pru Dynamic Fund				-10.55%	5.08%	-2.34%	1.86%	-1.68%	-0.87%	5.24%	1.45%	1.94%	-0.57%	-0.05%
7	ICICI Pru Discovery Fund						2.32%	-3.30%	-3.35%	-3.33%	8.05%	0.81%	3.43%	1.37%	0.75%
8	IDFC Premier Equity Fund							-1.57%	5.75%	-1.39%	5.12%	1.51%	2.52%	1.49%	1.92%
9	Reliance Growth	1.67%	3.61%	7.66%	2.65%	7.86%	2.49%	0.69%	0.83%	-2.79%	3.01%	-0.82%	1.32%	-0.59%	2.12%
10	Reliance Opportunitites Fund						-0.14%	0.04%	-3.65%	-3.25%	8.93%	1.67%	3.39%	1.84%	1.10%
11	SBI Magnum Contra							0.01%	0.87%	1.25%	1.02%	-2.02%	0.84%	0.85%	0.40%
12	UTI Opportunitites Fund							-5.49%	1.93%	2.07%	0.98%	1.43%	1.83%	-0.25%	0.35%
	<b>Average</b>	<b>3.54%</b>	<b>3.35%</b>	<b>3.63%</b>	<b>2.03%</b>	<b>2.89%</b>	<b>1.65%</b>	<b>-0.34%</b>	<b>0.02%</b>	<b>0.36%</b>	<b>3.54%</b>	<b>0.94%</b>	<b>1.60%</b>	<b>0.37%</b>	<b>1.29%</b>

Source: Computed from Secondary Data

**Chart 4.20**

**Year wise Quarterly Average Jensen's Alpha  
based on BSE 200 Index for the period 2000-01 to 2012-13**



Source: Based on Table 4.55

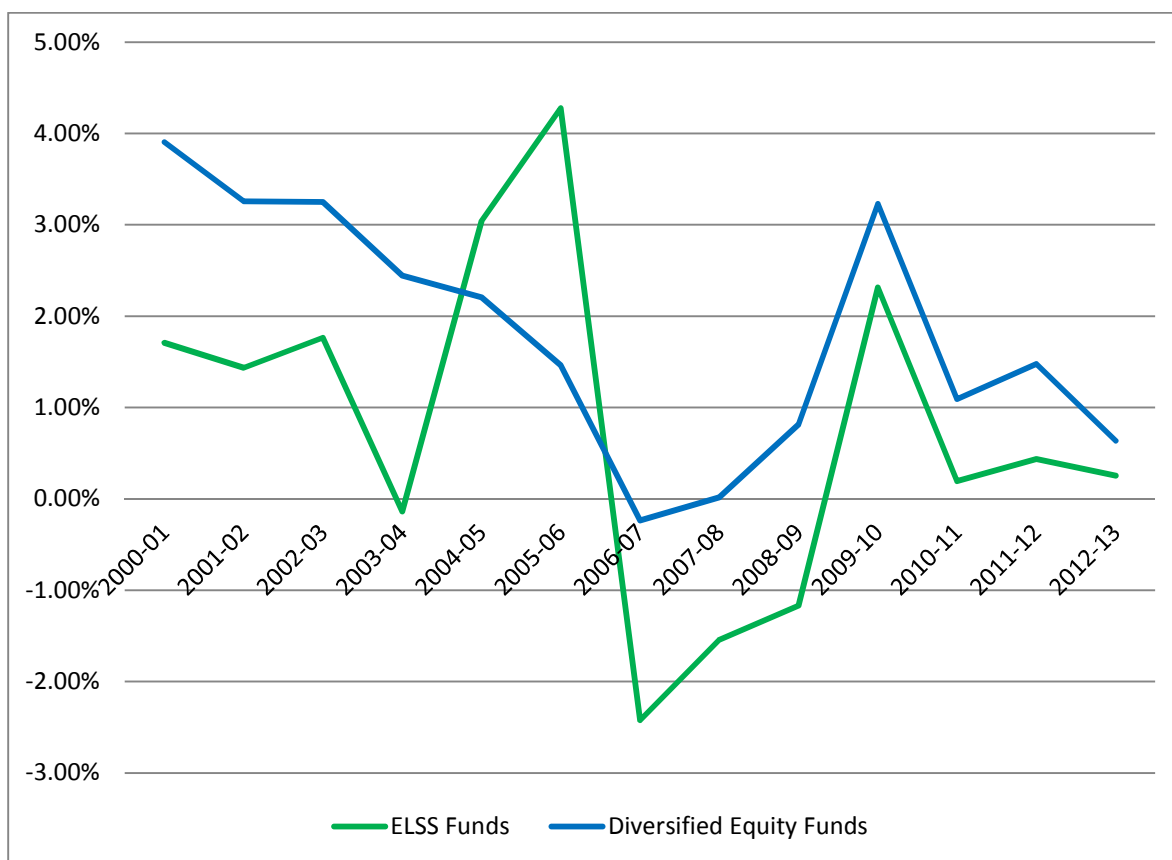
Table 4.56

Yearwise Quarterly Average Jensen's Alpha for the period 2000-01 to 2012-13 based on BSE 500 Index															
Sl No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis LT Equity Fund											1.59%	1.19%	1.90%	1.56%
2	Birla SL Tax Plan								-1.89%	0.61%	0.95%	0.28%	0.14%	1.22%	0.22%
3	Birla SL Tax Reilef 96									-0.43%	1.12%	-1.15%	-0.39%	1.28%	0.09%
4	BNP Tax Advantage							-2.72%	-2.45%	-2.94%	1.47%	-0.31%	2.39%	1.03%	-0.50%
5	BOI AXA ECO										3.28%	-2.22%	-0.73%	0.02%	0.09%
6	BOI AXA Tax Advantage										3.23%	-2.29%	-0.80%	-0.07%	0.02%
7	Can Robeco Equity Tax Saver										3.07%	0.76%	1.26%	0.49%	1.39%
8	DSP Black Rock Tax Saver								1.43%	-2.85%	3.43%	0.22%	0.52%	1.57%	0.72%
9	DWS Tax Saving							-4.53%	1.45%	-1.49%	3.14%	-1.79%	-1.82%	0.73%	-0.62%
10	Edelweiss ELSS Fund										0.18%	0.42%	1.72%	0.40%	0.68%
11	Escorts Tax Plan	-4.71%	-0.20%	2.70%	0.61%	1.01%	-10.16%	-1.17%	1.43%	-10.61%	-1.44%	-1.74%	-0.22%	-4.90%	-2.26%
12	Franklin Tax Shield	-10.17%	1.53%	0.58%	5.42%	2.56%	1.75%	-2.31%	-0.46%	1.59%	2.95%	1.46%	1.18%	0.49%	0.51%
13	HDFC Long Term Advantage		3.40%	5.06%	18.59%	6.79%	5.93%	-2.25%	-2.50%	-1.48%	2.01%	2.20%	1.26%	0.27%	3.27%
14	HDFC Tax Saver	15.15%	3.86%	-0.49%	0.94%	8.86%	5.88%	-1.82%	-2.00%	5.13%	4.54%	1.40%	0.84%	-0.86%	3.19%
15	HSBC Tax Saver								-2.67%	-1.13%	2.97%	-0.36%	0.60%	1.89%	0.21%
16	ICICI Pru Right											1.02%	3.35%	1.89%	2.09%
17	ICICI Pru Tax	-2.56%	3.92%	-0.69%	-6.74%	11.01%	1.34%	-3.41%	-2.53%	0.53%	6.93%	0.74%	1.50%	0.63%	0.82%
18	IDFC Tax Advantage										4.62%	0.77%	-0.05%	1.90%	1.81%
19	IDFC Tax Saver								-0.93%	-6.04%	4.13%	0.17%	-0.86%	1.45%	-0.35%
20	ING Retire Invest								-2.70%	-5.17%	2.58%	-0.83%	-1.96%	-0.60%	-1.45%
21	ING Tax Savings					0.81%	10.43%	-1.13%	-5.49%	-1.29%	2.70%	1.96%	-1.83%	-0.25%	0.66%
22	JM Tax Gain									-2.10%	-1.56%	-1.90%	0.19%	-0.34%	-1.14%
23	JP Morgan Tax Advantage										3.27%	1.52%	-0.48%	-0.12%	1.05%
24	Kotak Tax Saver							-0.44%	-1.33%	-3.45%	1.33%	0.11%	0.75%	0.38%	-0.38%
25	LIC Nomura Tax Plan	8.58%	-0.99%	2.04%	4.45%	-1.98%	-5.34%	-3.18%	-13.80%	0.49%	-2.88%	0.61%	-0.84%	-0.19%	-1.00%
26	LNT LT Advantage										7.55%	-0.32%	0.83%	-0.62%	1.86%
27	LNT Tax Advantage							0.76%	-0.75%	2.94%	3.70%	2.59%	-0.13%	-0.08%	1.29%
28	LNT Tax Saver							-1.22%	-4.27%	-3.84%	-0.88%	0.09%	-1.37%	-1.18%	-1.81%
29	Quantum Tax Savings										5.49%	2.37%	1.17%	0.83%	2.46%
30	Reliance Equity Linked Savings									4.78%	3.57%	1.39%	3.06%	1.05%	2.77%
31	Reliance Tax Saver							-2.19%	-4.06%	-0.30%	3.35%	1.39%	4.05%	-0.43%	0.26%
32	Religare Agile									-1.30%	3.61%	0.39%	-1.31%	0.36%	0.35%
33	Religare Tax Plan								2.19%	-3.52%	4.70%	0.83%	1.22%	0.82%	1.04%
34	Sahara Tax Gain	-20.25%	-0.27%	-1.08%	-3.49%	1.58%	28.46%	-3.26%	0.89%	-1.52%	0.88%	1.31%	1.94%	-1.05%	0.32%
35	SBI Magnum Tax Gain									0.70%	1.04%	-0.88%	1.13%	0.63%	0.52%
36	SBI Tax Advantage I									1.69%	-0.08%	-1.76%	0.95%	0.63%	0.28%
37	Sundaramn Tax Saver							-1.14%	0.59%	-5.51%	0.08%	-0.45%	1.19%	0.63%	-0.66%
38	Tata Infra Tax Savings										3.20%	-3.09%	-0.11%	-2.08%	-0.52%
39	Tata Tax Advantage I							-3.62%	-0.21%	-0.60%	2.15%	1.08%	0.72%	0.01%	-0.07%
40	Taurus Tax Shield	25.90%	0.23%	6.00%	-20.90%	-3.24%	0.21%	-6.32%	5.36%	0.04%	-1.84%	1.36%	-1.45%	0.64%	0.46%
41	UTI ETSP							-3.69%	-0.53%	0.04%	2.00%	-0.03%	-0.31%	0.23%	-0.33%
42	UTI LTA I								-3.36%	0.56%	1.39%	-0.73%	-0.10%	-0.07%	-0.39%
43	UTI LTA II									-0.90%	2.95%	0.13%	0.37%	0.35%	0.58%
	<b>Average</b>	<b>1.71%</b>	<b>1.44%</b>	<b>1.76%</b>	<b>-0.14%</b>	<b>3.04%</b>	<b>4.28%</b>	<b>-2.42%</b>	<b>-1.54%</b>	<b>-1.17%</b>	<b>2.31%</b>	<b>0.19%</b>	<b>0.44%</b>	<b>0.25%</b>	<b>0.44%</b>
<b>Diversified Equity Funds</b>															
1	Birla SL Frontline Equity				3.76%	-0.08%	-1.13%	2.70%	0.23%	0.26%	1.57%	0.87%	-0.42%	2.16%	0.99%
2	DSP Black Rock Top 100				4.32%	0.12%	2.30%	1.17%	0.91%	2.96%	1.50%	0.77%	1.35%	-0.44%	1.49%
3	Franklin Bluechip	3.84%	1.38%	1.35%	5.58%	-0.09%	-0.65%	0.04%	-0.67%	4.82%	1.99%	1.22%	0.58%	0.08%	1.50%
4	HDFC Equity Fund	0.32%	5.91%	1.69%	5.20%	1.83%	5.90%	0.55%	-1.54%	2.32%	2.92%	2.90%	1.04%	-0.22%	2.22%
5	HDFC Top 200	9.12%	2.22%	2.37%	4.90%	2.21%	5.81%	-0.28%	0.60%	4.68%	0.65%	2.24%	0.77%	-0.06%	2.71%
6	ICICI Pru Dynamic Fund				-9.91%	4.32%	-2.64%	1.96%	-1.68%	-0.47%	5.00%	1.53%	1.79%	-0.39%	-0.05%
7	ICICI Pru Discovery Fund						1.48%	-3.18%	-3.38%	-2.89%	7.65%	0.95%	3.27%	1.64%	0.69%
8	IDFC Premier Equity Fund							-1.44%	5.71%	-0.91%	4.81%	1.72%	2.47%	1.83%	2.03%
9	Reliance Growth	2.34%	3.52%	7.60%	3.25%	7.12%	1.81%	0.80%	0.82%	-2.32%	2.66%	-0.67%	1.19%	-0.19%	2.15%
10	Reliance Opportunitites Fund						0.29%	0.14%	-3.66%	-2.88%	8.64%	1.86%	3.27%	2.14%	1.22%
11	SBI Magnum Contra							0.10%	0.88%	1.73%	0.70%	-1.87%	0.71%	1.07%	0.47%
12	UTI Opportunities Fund							-5.40%	1.94%	2.48%	0.66%	1.58%	1.74%	-0.01%	0.43%
	<b>Average</b>	<b>3.91%</b>	<b>3.26%</b>	<b>3.25%</b>	<b>2.44%</b>	<b>2.21%</b>	<b>1.46%</b>	<b>-0.24%</b>	<b>0.01%</b>	<b>0.82%</b>	<b>3.23%</b>	<b>1.09%</b>	<b>1.48%</b>	<b>0.64%</b>	<b>1.32%</b>

Source: Computed from Secondary Data

**Chart 4.21**

**Year wise Quarterly Average Jensen's Alpha  
based on BSE 500 Index for the period 2000-01 to 2012-13**



Source: Based on Table 4.56

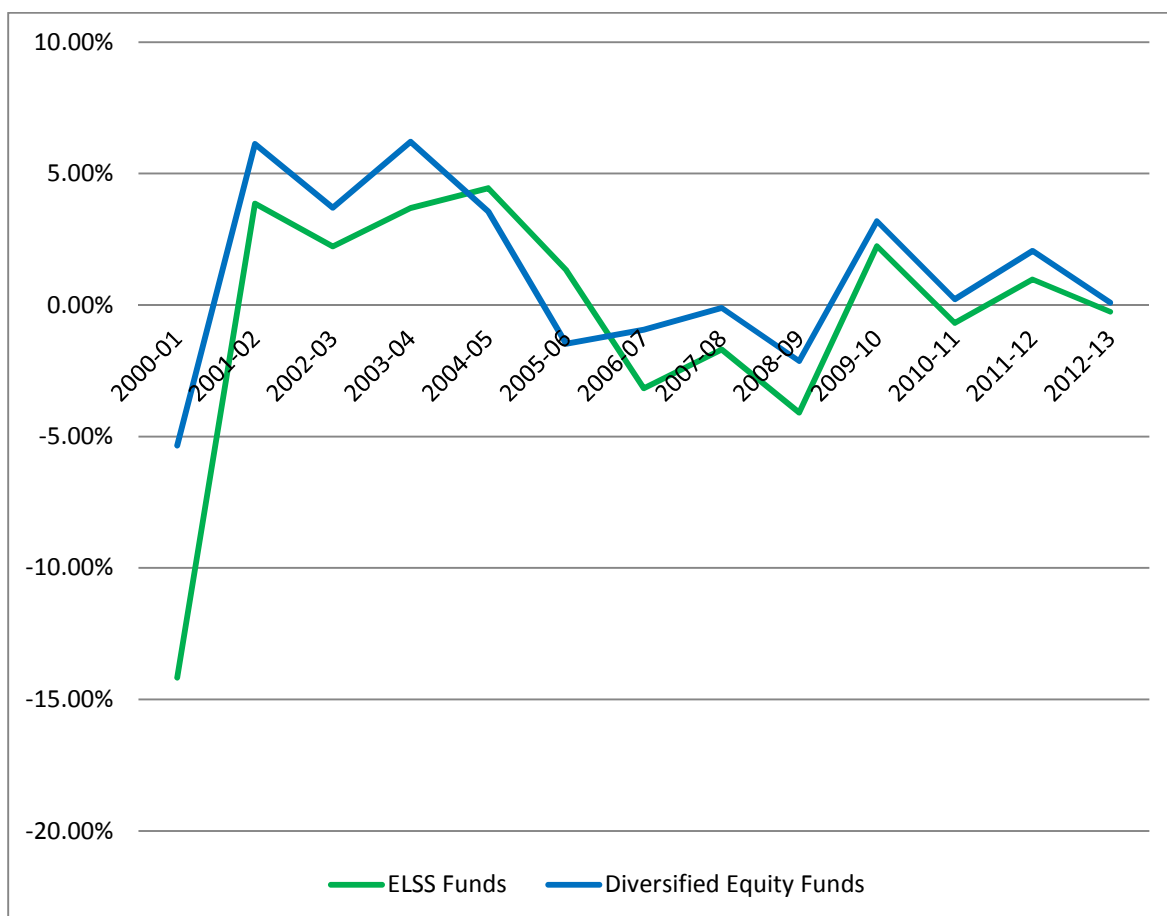
Table 4.57

Yearwise Quarterly Average Jensen's Alpha for the period 2000-01 to 2012-13 based on NSE Nifty Index															
Sl No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis LT Equity Fund											0.84%	1.56%	1.44%	1.28%
2	Birla SL Tax Plan								-1.99%	-2.77%	0.87%	-0.48%	0.63%	0.60%	-0.52%
3	Birla SL Tax Reilef 96									-4.02%	1.12%	-2.03%	0.19%	0.66%	-0.82%
4	BNP Tax Adv							-3.54%	-2.63%	-5.83%	1.30%	-1.10%	2.77%	0.53%	-1.21%
5	BOI AXA ECO										3.24%	-3.20%	-0.24%	-0.42%	-0.16%
6	BOI AXA Tax Advantage										3.19%	-3.27%	-0.30%	-0.51%	-0.22%
7	Can Robeco Equity Tax Saver										3.11%	-0.03%	1.71%	0.06%	1.21%
8	DSP Black Rock Tax Saver								1.27%	-5.47%	3.35%	-0.66%	1.12%	0.95%	0.09%
9	DWS Tax Saving							-5.18%	1.23%	-4.69%	2.93%	-2.85%	-1.37%	0.38%	-1.37%
10	Edelweiss ELSS Fund										-0.05%	-0.42%	2.22%	-0.07%	0.42%
11	Escorts Tax Plan	-1.36%	2.10%	3.18%	2.01%	2.15%	-15.05%	-1.80%	1.26%	-12.68%	-1.10%	-2.76%	0.44%	-5.53%	-2.24%
12	Franklin Tax Shield	-7.62%	4.94%	1.51%	7.94%	3.70%	-1.22%	-2.92%	-0.61%	-1.47%	3.15%	0.65%	1.61%	0.02%	0.75%
13	HDFC Long Term Adv		5.22%	4.75%	21.39%	7.97%	6.02%	-2.91%	-2.59%	-4.60%	2.09%	1.24%	1.87%	-0.07%	3.36%
14	HDFC Tax Saver	-23.09%	6.11%	0.40%	5.32%	10.30%	4.55%	-2.52%	-2.11%	1.04%	4.38%	0.47%	1.43%	-1.40%	0.38%
15	HSBC Tax Saver								-2.81%	-3.47%	2.90%	-1.27%	1.19%	1.33%	-0.36%
16	ICICI Pru Right											0.27%	3.84%	1.32%	1.81%
17	ICICI Pru Tax	-24.37%	6.83%	-0.22%	0.56%	12.49%	0.02%	-4.24%	-2.64%	-3.03%	6.86%	-0.08%	2.10%	0.04%	-0.44%
18	IDFC Tax Adv										4.30%	-0.17%	0.39%	1.36%	1.47%
19	IDFC Tax Saver								-1.12%	-7.81%	3.83%	-0.70%	-0.45%	1.03%	-0.87%
20	ING Retire Invest								-2.91%	-6.97%	2.40%	-1.56%	-1.45%	-1.14%	-1.94%
21	ING Tax Savings					2.31%	10.95%	-2.10%	-5.58%	-5.34%	2.56%	1.22%	-1.44%	-0.66%	0.21%
22	JM Tax Gain										-6.95%	-1.11%	-2.57%	0.93%	-1.19%
23	JP Morgan Tax Adv										3.06%	0.66%	-0.01%	-0.57%	0.79%
24	Kotak Tax Saver							-1.30%	-1.44%	-6.23%	1.32%	-0.87%	1.37%	-0.24%	-1.06%
25	LIC Nomura Tax Plan	-9.71%	-0.32%	2.80%	6.71%	-0.97%	-10.46%	-3.84%	-13.97%	-2.56%	-2.94%	-0.21%	-0.23%	-0.55%	-2.79%
26	LNT LT Adv										7.09%	-1.26%	1.36%	-1.16%	1.51%
27	LNT Tax Adv							0.06%	-0.87%	-0.36%	3.57%	1.79%	0.35%	-0.57%	0.57%
28	LNT Tax Saver							-2.03%	-4.40%	-6.64%	-0.70%	-0.90%	-0.78%	-1.62%	-2.44%
29	Quantum Tax Savings										5.26%	1.43%	1.74%	0.42%	2.21%
30	Reliance E linked Savings									1.09%	3.31%	0.64%	3.78%	0.49%	1.86%
31	Reliance Tax Saver							-3.12%	-4.22%	-2.72%	3.48%	0.38%	4.74%	-1.22%	-0.38%
32	Religare Agile									-3.72%	3.33%	-0.73%	-0.82%	0.07%	-0.37%
33	Religare Tax Plan								2.05%	-5.19%	4.53%	0.00%	1.64%	0.36%	0.57%
34	Sahara Tax Gain	-23.92%	2.63%	-0.12%	-1.46%	2.89%	14.96%	-4.00%	0.75%	-3.65%	0.61%	0.44%	2.48%	-1.68%	-0.78%
35	SBI Magnum Tax Gain									-2.59%	1.05%	-1.63%	1.68%	0.11%	-0.28%
36	SBI Tax Adv I									-2.30%	-0.05%	-2.63%	1.59%	0.01%	-0.68%
37	Sundaramn Tax Saver							-1.95%	0.37%	-6.96%	-0.28%	-1.48%	1.76%	0.05%	-1.21%
38	Tata Infra Tax Savings										3.23%	-3.88%	0.63%	-2.70%	-0.68%
39	Tata Tax Adv I							-4.25%	-0.34%	-3.28%	2.26%	0.26%	1.15%	-0.42%	-0.66%
40	Taurus Tax Shield	-9.13%	3.36%	5.54%	-12.96%	-0.87%	2.24%	-6.96%	5.19%	-2.81%	-1.65%	0.32%	-0.99%	0.08%	-1.43%
41	UTI ETSP							-4.43%	-0.71%	-3.11%	1.88%	-0.95%	0.16%	-0.13%	-1.04%
42	UTI LTA I								-3.53%	-2.81%	1.44%	-1.46%	0.48%	-0.55%	-1.07%
43	UTI LTA II									-2.84%	2.79%	-0.69%	0.85%	0.01%	0.02%
	<b>Average</b>	<b>-14.17%</b>	<b>3.86%</b>	<b>2.23%</b>	<b>3.69%</b>	<b>4.44%</b>	<b>1.34%</b>	<b>-3.17%</b>	<b>-1.69%</b>	<b>-4.09%</b>	<b>2.24%</b>	<b>-0.68%</b>	<b>0.97%</b>	<b>-0.26%</b>	<b>-0.20%</b>
<b>Diversified Equity Funds</b>															
1	Birla SL Frontline Equity				6.19%	1.27%	-3.79%	2.08%	0.08%	-2.41%	1.59%	0.06%	0.15%	1.64%	0.69%
2	DSP Black Rock Top 100				7.43%	1.47%	-1.06%	0.53%	0.77%	0.00%	1.34%	0.02%	1.95%	-0.99%	1.15%
3	Franklin Bluechip	-0.57%	4.81%	2.62%	8.25%	1.12%	-4.55%	-0.65%	-0.81%	1.27%	2.20%	0.37%	1.07%	-0.36%	1.14%
4	HDFC Equity Fund	-4.17%	8.79%	2.60%	9.33%	3.16%	5.20%	-0.06%	-1.65%	-1.10%	2.98%	1.92%	1.73%	-0.76%	2.15%
5	HDFC Top 200	-3.07%	4.76%	3.29%	9.79%	3.48%	4.00%	-0.94%	0.45%	1.10%	0.70%	1.35%	1.42%	-0.57%	1.98%
6	ICICI Pru Dynamic Fund				-5.26%	5.82%	-7.41%	1.19%	-1.79%	-3.07%	4.92%	1.06%	2.48%	-0.77%	-0.28%
7	ICICI Pru Discovery Fund						0.00%	-3.91%	-3.44%	-5.48%	7.31%	0.15%	4.03%	1.08%	-0.03%
8	IDFC Premier Equity Fund							-2.39%	5.65%	-3.82%	4.86%	0.52%	2.71%	1.13%	1.24%
9	Reliance Growth	-13.57%	6.15%	6.28%	7.76%	8.58%	-0.27%	0.06%	0.68%	-5.16%	2.77%	-1.50%	1.78%	-0.99%	0.97%
10	Reliance Opportunites Fund						-5.39%	-0.58%	-3.78%	-5.31%	8.43%	0.76%	3.87%	1.54%	-0.06%
11	SBI Magnum Contra							-0.55%	0.72%	-1.42%	0.66%	-2.68%	1.35%	0.61%	-0.19%
12	UTI Opportunities Fund							-6.00%	1.77%	-0.20%	0.58%	0.66%	2.14%	-0.51%	-0.22%
	<b>Average</b>	<b>-5.34%</b>	<b>6.13%</b>	<b>3.70%</b>	<b>6.21%</b>	<b>3.56%</b>	<b>-1.48%</b>	<b>-0.93%</b>	<b>-0.11%</b>	<b>-2.13%</b>	<b>3.19%</b>	<b>0.22%</b>	<b>2.05%</b>	<b>0.09%</b>	<b>0.71%</b>

Source: Computed from Secondary Data

**Chart 4.22**

**Year wise Quarterly Average Jensen's Alpha  
based on NSE Nifty Index for the period 2000-01 to 2012-13**



Source: Based on Table 4.57

**Table 4.58**

Yearwise underperformance of Jensen's Alpha based on NSE Nifty Index of ELSS Funds as against Diversified Equity Funds Category Average														
Particulars	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
Total Number of ELSS Funds	7	8	8	8	9	9	18	25	32	41	43	43	43	
Number of ELSS funds underperforming	6	7	6	5	5	2	17	18	28	27	29	36	29	
% of Funds Underperforming	86%	88%	75%	63%	56%	22%	94%	72%	88%	66%	67%	84%	67%	71%

Source: Computed from Table 4.57



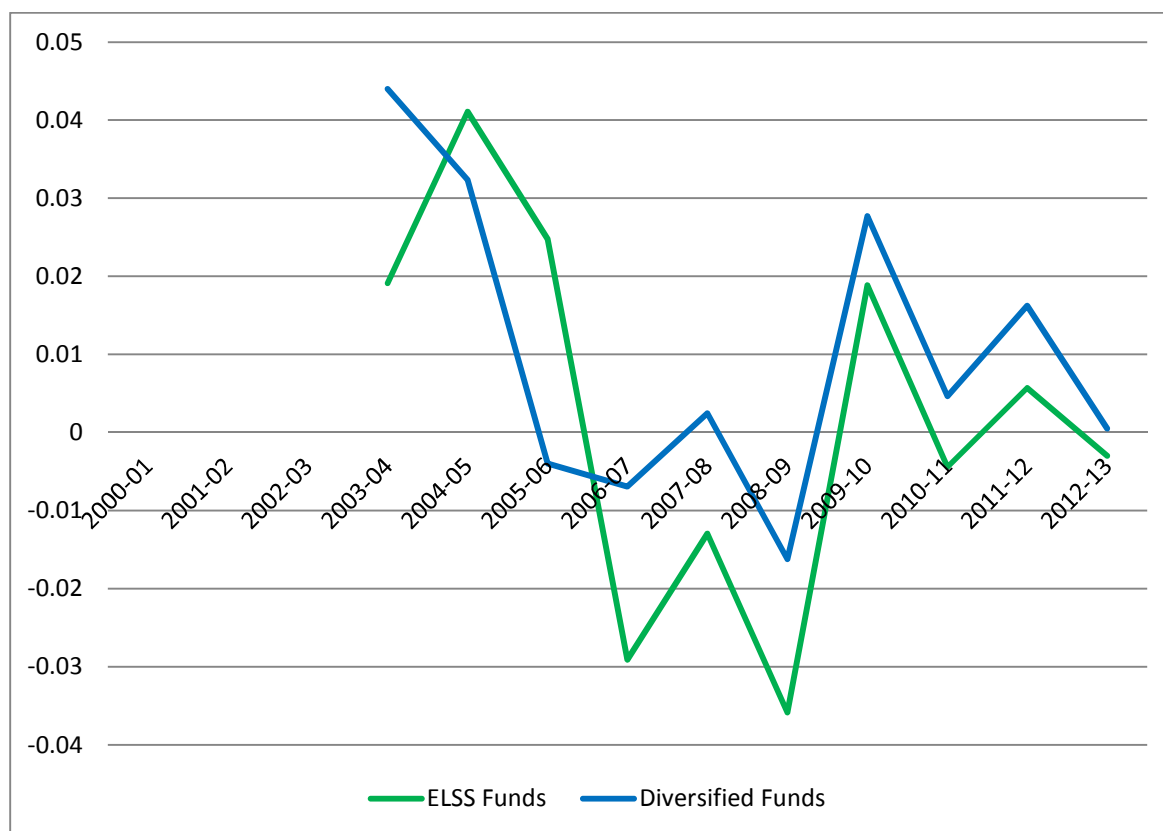
**Table 4.59**

Yearwise Quarterly Average Jensen's Alpha for the period 2000-01 to 2012-13 based on NSE CNX 100 Index															
Sl No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis LT Equity Fund											1.05%	1.27%	1.40%	1.24%
2	Birla SL Tax Plan								-1.65%	-2.19%	0.52%	-0.26%	0.25%	0.55%	-0.46%
3	Birla SL Tax Reilef 96									-3.24%	0.58%	-1.79%	-0.24%	0.62%	-0.82%
4	BNP Tax Advantage							-3.22%	-2.15%	-5.28%	1.03%	-0.89%	2.47%	0.49%	-1.08%
5	BOI AXA ECO										2.75%	-2.91%	-0.60%	-0.46%	-0.31%
6	BOI AXA Tax Advantage										2.70%	-2.98%	-0.66%	-0.55%	-0.37%
7	Can Robeco Equity Tax Saver										2.60%	0.18%	1.37%	0.03%	1.04%
8	DSP Black Rock Tax Saver								1.74%	-5.16%	2.98%	-0.43%	0.67%	0.91%	0.12%
9	DWS Tax Saving							-4.95%	1.71%	-4.29%	2.72%	-2.55%	-1.71%	0.35%	-1.25%
10	Edelweiss ELSS Fund										-0.27%	-0.19%	1.84%	-0.10%	0.32%
11	Escorts Tax Plan				0.68%	1.89%	-13.28%	-1.58%	1.66%	-12.41%	-1.71%	-2.49%	-0.08%	-5.58%	-3.29%
12	Franklin Tax Shield				6.62%	3.43%	-0.13%	-2.72%	-0.26%	-0.83%	2.67%	0.88%	1.29%	-0.01%	1.09%
13	HDFC Long Term Advantage				20.76%	7.68%	5.95%	-2.68%	-2.31%	-4.14%	1.57%	1.50%	1.42%	-0.10%	2.96%
14	HDFC Tax Saver				3.49%	9.96%	5.04%	-2.26%	-1.81%	1.95%	4.03%	0.72%	1.00%	-1.43%	2.07%
15	HSBC Tax Saver								-2.40%	-3.14%	2.57%	-1.02%	0.77%	1.29%	-0.32%
16	ICICI Pru Right											0.48%	3.47%	1.28%	1.74%
17	ICICI Pru Tax				-2.59%	12.14%	0.50%	-3.96%	-2.27%	-2.63%	6.48%	0.15%	1.65%	0.00%	0.95%
18	IDFC Tax Advantage										4.20%	0.10%	0.05%	1.32%	1.42%
19	IDFC Tax Saver								-0.64%	-7.62%	3.66%	-0.46%	-0.75%	1.00%	-0.80%
20	ING Retire Invest								-2.45%	-6.60%	2.18%	-1.36%	-1.83%	-1.19%	-1.87%
21	ING Tax Savings					1.95%	10.73%	-1.77%	-5.24%	-4.93%	2.16%	1.41%	-1.73%	-0.69%	0.21%
22	JM Tax Gain									-6.10%	-1.78%	-2.39%	0.39%	-1.25%	-2.23%
23	JP Morgan Tax Advantage										2.93%	0.90%	-0.36%	-0.60%	0.72%
24	Kotak Tax Saver							-1.00%	-1.06%	-5.69%	0.90%	-0.60%	0.91%	-0.29%	-0.97%
25	LIC Nomura Tax Plan				5.27%	-1.21%	-8.52%	-3.60%	-13.52%	-1.89%	-3.34%	0.02%	-0.67%	-0.58%	-2.80%
26	LNT LT Advantage										7.05%	-1.05%	0.95%	-1.19%	1.44%
27	LNT Tax Advantage							0.29%	-0.54%	0.24%	3.28%	2.00%	-0.01%	-0.61%	0.66%
28	LNT Tax Saver							-1.75%	-4.05%	-6.16%	-1.37%	-0.62%	-1.21%	-1.65%	-2.40%
29	Quantum Tax Savings										5.06%	1.68%	1.32%	0.39%	2.11%
30	Reliance Equity Linked Savings									1.69%	3.11%	0.83%	3.24%	0.44%	1.86%
31	Reliance Tax Saver							-2.79%	-3.83%	-2.18%	3.04%	0.65%	4.21%	-1.27%	-0.31%
32	Religare Agile									-3.25%	3.39%	-0.38%	-1.14%	0.04%	-0.27%
33	Religare Tax Plan								2.44%	-4.58%	4.24%	0.22%	1.31%	0.33%	0.66%
34	Sahara Tax Gain				-3.32%	2.57%	20.40%	-3.75%	1.16%	-3.08%	0.27%	0.66%	2.07%	-1.73%	1.53%
35	SBI Magnum Tax Gain									-1.95%	0.62%	-1.42%	1.27%	0.07%	-0.28%
36	SBI Tax Advantage I									-1.78%	-0.58%	-2.39%	1.10%	-0.04%	-0.74%
37	Sundaramn Tax Saver							-1.66%	0.86%	-6.67%	-0.54%	-1.19%	1.34%	0.00%	-1.12%
38	Tata Infra Tax Savings										2.96%	-3.67%	0.07%	-2.75%	-0.85%
39	Tata Tax Advantage I							-4.04%	0.00%	-2.91%	1.84%	0.49%	0.83%	-0.45%	-0.61%
40	Taurus Tax Shield				-15.63%	-1.45%	1.57%	-6.75%	5.73%	-2.55%	-2.29%	0.61%	-1.32%	0.04%	-2.20%
41	UTI ETSP							-4.17%	-0.32%	-2.66%	1.60%	-0.69%	-0.19%	-0.16%	-0.94%
42	UTI LTA I								-3.13%	-2.19%	0.99%	-1.26%	0.04%	-0.59%	-1.02%
43	UTI LTA II									-2.56%	2.56%	-0.46%	0.48%	-0.02%	0.00%
	<b>Average</b>				<b>1.91%</b>	<b>4.11%</b>	<b>2.48%</b>	<b>-2.91%</b>	<b>-1.29%</b>	<b>-3.59%</b>	<b>1.89%</b>	<b>-0.44%</b>	<b>0.57%</b>	<b>-0.30%</b>	<b>-0.12%</b>
<b>Diversified Equity Funds</b>															
1	Birla SL Frontline Equity				4.92%	0.95%	-2.82%	2.30%	0.44%	-1.85%	1.13%	0.29%	-0.26%	1.61%	0.67%
2	DSP Black Rock Top 100				5.84%	1.14%	0.18%	0.75%	1.13%	0.50%	1.06%	0.23%	1.51%	-1.03%	1.13%
3	Franklin Bluechip				6.76%	0.83%	-3.11%	-0.41%	-0.49%	2.03%	1.69%	0.62%	0.71%	-0.39%	0.82%
4	HDFC Equity Fund				7.62%	2.85%	5.41%	0.14%	-1.32%	-0.40%	2.44%	2.19%	1.21%	-0.80%	1.93%
5	HDFC Top 200				7.87%	3.18%	4.65%	-0.71%	0.79%	1.80%	0.18%	1.59%	0.94%	-0.61%	1.97%
6	ICICI Pru Dynamic Fund				-7.68%	5.46%	-5.64%	1.47%	-1.50%	-2.63%	4.63%	1.19%	1.98%	-0.79%	-0.35%
7	ICICI Pru Discovery Fund						0.53%	-3.66%	-3.11%	-5.22%	6.94%	0.36%	3.47%	1.04%	0.04%
8	IDFC Premier Equity Fund							-2.08%	6.04%	-3.49%	4.41%	0.84%	2.48%	1.08%	1.33%
9	Reliance Growth				5.46%	8.23%	0.49%	0.31%	1.11%	-4.83%	2.22%	-1.28%	1.33%	-1.05%	1.20%
10	Reliance Opportunites Fund						-3.26%	-0.32%	-3.40%	-4.84%	8.15%	1.06%	3.41%	1.49%	0.29%
11	SBI Magnum Contra							-0.32%	1.11%	-0.82%	0.23%	-2.46%	0.87%	0.57%	-0.12%
12	UTI Opportunities Fund							-5.81%	2.17%	0.29%	0.18%	0.93%	1.85%	-0.54%	-0.14%
	<b>Average</b>				<b>4.40%</b>	<b>3.23%</b>	<b>-0.40%</b>	<b>-0.69%</b>	<b>0.25%</b>	<b>-1.62%</b>	<b>2.77%</b>	<b>0.46%</b>	<b>1.63%</b>	<b>0.05%</b>	<b>0.73%</b>

Source: Computed from Secondary Data

**Chart 4.23**

**Year wise Quarterly Average Jensen's Alpha  
based on NSE CNX 100 Index for the period 2000-01 to 2012-13**



Source: Based on Table 4.59

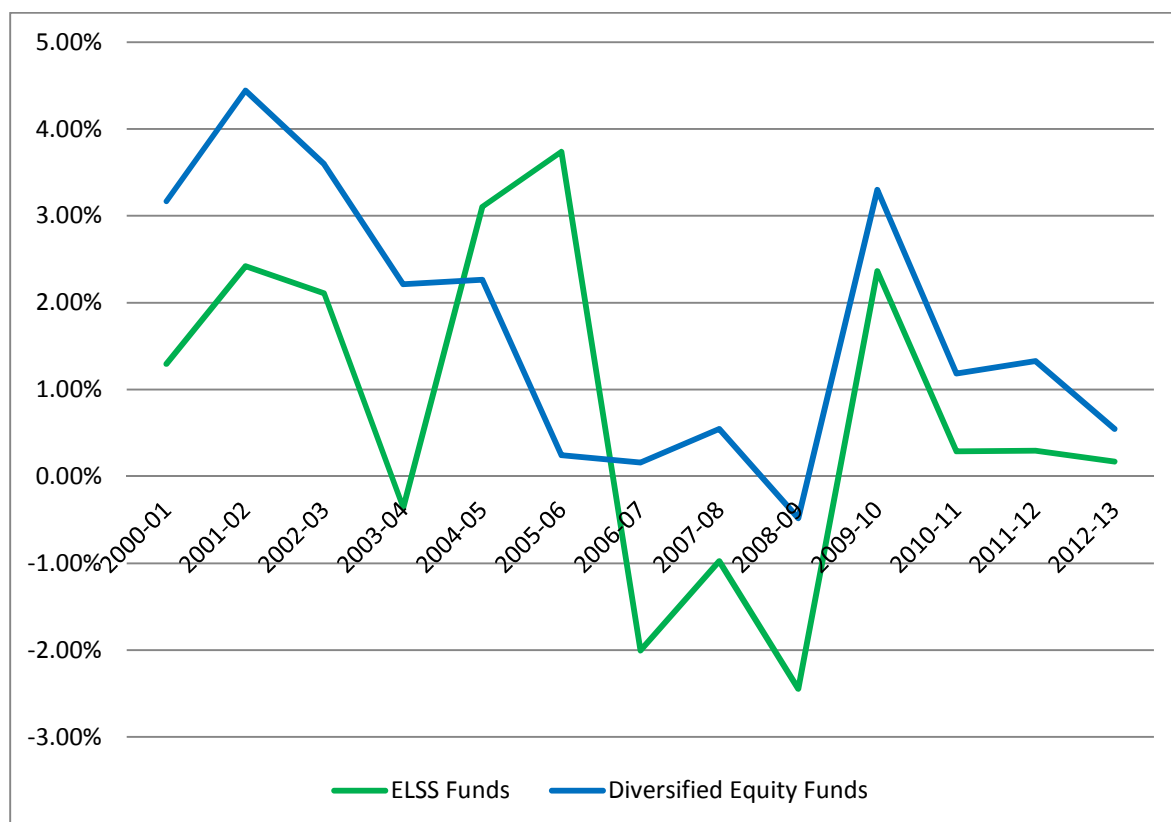
**Table 4.60**

Yearwise Quarterly Average Jensen's Alpha for the period 2000-01 to 2012-13 based on NSE CNX 500 Index															
SI No.	Funds Name	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
<b>ELSS Funds</b>															
1	Axis LT Equity Fund											1.67%	1.07%	1.83%	1.52%
2	Birla SL Tax Plan								-1.31%	-0.85%	0.99%	0.35%	0.00%	1.12%	0.05%
3	Birla SL Tax Reilef 96									-1.77%	1.21%	-1.05%	-0.54%	1.18%	-0.20%
4	BNP Tax Adv							-2.25%	-1.75%	-4.02%	1.51%	-0.22%	2.27%	0.95%	-0.50%
5	BOI AXA ECO										3.27%	-2.12%	-0.85%	-0.05%	0.06%
6	BOI AXA Tax Advantage										3.22%	-2.19%	-0.91%	-0.14%	-0.01%
7	Can Robeco Equity Tax Saver										3.28%	0.85%	1.14%	0.42%	1.42%
8	DSP Black Rock Tax Saver								2.10%	-4.19%	3.53%	0.32%	0.36%	1.47%	0.60%
9	DWS Tax Saving							-4.17%	2.07%	-3.06%	3.17%	-1.68%	-1.94%	0.67%	-0.70%
10	Edelweiss ELSS Fund										0.23%	0.51%	1.58%	0.32%	0.66%
11	Escorts Tax Plan	-4.20%	0.74%	3.03%	0.40%	1.07%	-12.19%	-0.80%	2.03%	-11.68%	-1.33%	-1.62%	-0.43%	-5.00%	-2.31%
12	Franklin Tax Shield	-9.88%	2.89%	1.01%	5.26%	2.61%	0.67%	-1.97%	0.06%	0.35%	3.08%	1.54%	1.07%	0.42%	0.55%
13	HDFC Long Term Adv		4.18%	5.22%	18.55%	6.83%	5.27%	-1.87%	-2.02%	-3.05%	2.13%	2.30%	1.11%	0.21%	3.24%
14	HDFC Tax Saver	12.72%	4.79%	-0.11%	0.76%	8.92%	4.99%	-1.42%	-1.50%	3.49%	4.61%	1.50%	0.70%	-0.95%	2.96%
15	HSBC Tax Saver								-2.09%	-2.25%	3.00%	-0.27%	0.46%	1.80%	0.11%
16	ICICI Pru Right											1.10%	3.21%	1.80%	2.04%
17	ICICI Pru Tax	-3.56%	5.09%	-0.33%	-7.16%	11.07%	0.21%	-2.91%	-2.02%	-1.33%	6.94%	0.83%	1.34%	0.54%	0.67%
18	IDFC Tax Adv										4.66%	0.87%	-0.18%	1.81%	1.79%
19	IDFC Tax Saver								-0.38%	-6.81%	4.15%	0.26%	-0.96%	1.38%	-0.39%
20	ING Retire Invest								-2.14%	-5.80%	2.62%	-0.75%	-2.09%	-0.69%	-1.48%
21	ING Tax Savings					0.88%	10.00%	-0.59%	-4.93%	-3.43%	2.78%	2.04%	-1.93%	-0.32%	0.50%
22	JM Tax Gain									-4.32%	-1.47%	-1.82%	0.01%	-0.47%	-1.62%
23	JP Morgan Tax Adv										3.29%	1.61%	-0.60%	-0.19%	1.03%
24	Kotak Tax Saver							0.02%	-0.76%	-4.56%	1.44%	0.22%	0.59%	0.28%	-0.40%
25	LIC Nomura Tax Plan	8.89%	-0.70%	2.49%	4.18%	-1.93%	-6.75%	-2.80%	-13.22%	-0.65%	-2.74%	0.70%	-0.98%	-0.25%	-1.06%
26	LNT LT Adv										7.44%	-0.21%	0.67%	-0.71%	1.80%
27	LNT Tax Adv							1.16%	-0.24%	1.55%	3.76%	2.68%	-0.26%	-0.16%	1.21%
28	LNT Tax Saver							-0.76%	-3.78%	-5.06%	-0.72%	0.20%	-1.52%	-1.25%	-1.84%
29	Quantum Tax Savings										5.43%	2.47%	1.03%	0.76%	2.42%
30	Reliance E linked Savings									3.13%	3.50%	1.48%	2.86%	0.95%	2.38%
31	Reliance Tax Saver							-1.66%	-3.46%	-1.24%	3.41%	1.50%	3.85%	-0.56%	0.26%
32	Religare Agile									-2.10%	3.41%	0.50%	-1.38%	0.31%	0.15%
33	Religare Tax Plan								2.74%	-3.78%	4.71%	0.92%	1.09%	0.75%	1.07%
34	Sahara Tax Gain	-20.15%	0.87%	-0.68%	-3.83%	1.63%	31.37%	-2.84%	1.45%	-2.19%	0.91%	1.41%	1.79%	-1.15%	0.66%
35	SBI Magnum Tax Gain									-0.60%	1.09%	-0.80%	0.99%	0.55%	0.25%
36	SBI Tax Adv I									-0.35%	0.02%	-1.67%	0.77%	0.53%	-0.14%
37	Sundaramn Tax Saver							-0.69%	1.17%	-6.19%	0.07%	-0.34%	1.04%	0.53%	-0.63%
38	Tata Infra Tax Savings										3.23%	-3.00%	-0.31%	-2.18%	-0.57%
39	Tata Tax Adv I							-3.26%	0.31%	-1.93%	1.16%	0.61%	-0.06%	-0.13%	
40	Taurus Tax Shield	25.25%	1.49%	6.22%	-21.02%	-3.14%	0.06%	-5.98%	6.10%	-1.51%	-1.70%	1.47%	-1.55%	0.55%	0.48%
41	UTI ETSP							-3.27%	0.01%	-1.40%	2.05%	0.07%	-0.43%	0.17%	-0.40%
42	UTI LTA I								-2.86%	-0.83%	1.50%	-0.65%	-0.26%	-0.15%	-0.54%
43	UTI LTA II									-1.76%	2.99%	0.22%	0.23%	0.29%	0.39%
	<b>Average</b>	<b>1.30%</b>	<b>2.42%</b>	<b>2.11%</b>	<b>-0.36%</b>	<b>3.10%</b>	<b>3.74%</b>	<b>-2.00%</b>	<b>-0.98%</b>	<b>-2.44%</b>	<b>2.36%</b>	<b>0.29%</b>	<b>0.30%</b>	<b>0.17%</b>	<b>0.36%</b>
<b>Diversified Equity Funds</b>															
1	Birla SL Frontline Equity				3.59%	-0.02%	-2.34%	3.06%	0.74%	-0.77%	1.65%	0.95%	-0.55%	2.08%	0.84%
2	DSP Black Rock Top 100				4.13%	0.17%	1.20%	1.54%	1.43%	1.64%	1.52%	0.85%	1.21%	-0.52%	1.32%
3	Franklin Bluechip	3.32%	2.79%	1.84%	5.39%	-0.03%	-1.98%	0.44%	-0.17%	3.44%	2.15%	1.30%	0.45%	0.01%	1.46%
4	HDFC Equity Fund	-0.11%	7.09%	2.11%	5.00%	1.89%	5.07%	0.90%	-1.04%	0.84%	3.01%	3.01%	0.86%	-0.31%	2.18%
5	HDFC Top 200	7.95%	3.27%	2.79%	4.69%	2.27%	5.02%	0.10%	1.09%	3.14%	0.78%	2.34%	0.61%	-0.14%	2.61%
6	ICICI Pru Dynamic Fund				-10.23%	4.39%	-4.45%	2.40%	-1.26%	-1.68%	5.01%	1.58%	1.62%	-0.45%	-0.31%
7	ICICI Pru Discovery Fund						0.27%	-2.74%	-2.85%	-4.29%	7.73%	1.04%	3.08%	1.55%	0.47%
8	IDFC Premier Equity Fund							-0.95%	6.36%	-2.40%	4.88%	1.85%	2.36%	1.72%	1.98%
9	Reliance Growth	1.52%	4.62%	7.64%	2.93%	7.19%	0.57%	1.21%	1.40%	-3.84%	2.77%	-0.58%	1.02%	-0.32%	2.01%
10	Reliance Opportunites Fund						-1.15%	0.55%	-3.11%	-3.87%	8.62%	1.98%	3.09%	2.04%	1.02%
11	SBI Magnum Contra							0.47%	1.45%	0.50%	0.77%	-1.78%	0.54%	1.00%	0.42%
12	UTI Opportunites Fund							-5.07%	2.52%	1.50%	0.71%	1.68%	1.64%	-0.09%	0.41%
	<b>Average</b>	<b>3.17%</b>	<b>4.44%</b>	<b>3.59%</b>	<b>2.21%</b>	<b>2.26%</b>	<b>0.25%</b>	<b>0.16%</b>	<b>0.55%</b>	<b>-0.48%</b>	<b>3.30%</b>	<b>1.18%</b>	<b>1.33%</b>	<b>0.55%</b>	<b>1.20%</b>

Source: Computed from Secondary Data

**Chart 4.24**

**Year wise Quarterly Average Jensen's Alpha  
based on NSE CNX 500 Index for the period 2000-01 to 2012-13**



Source: Based on Table 4.60

The study so far has focussed on composite portfolio performance considering aspects of risk and return to evaluate performance. Apart from risk and return a number of other factors are also important in analysing performance of mutual funds like portfolio fund allocation, fund expense ratio and portfolio turnover ratio.

The fund portfolio allocation to equity assets determines the overall risk and return of the portfolio. A percentage of the portfolio, more so in case of an open ended fund, is retained as cash, for liquidity purposes or invested in short term money market securities. This can drag down the overall returns earned by the fund.

ELSS funds although are a type of diversified equity funds, by regulation are required to invest 80 percentage of their corpus in equity and related securities at all times, as against a mandated 65 percentage for diversified equity funds. Table 4.61 shows the actual allocation towards equity assets made by ELSS and Diversified Equity funds for a 5 year period from March 2009 till March 2013.

As can be seen from Table 4.61 the allocation towards equity of ELSS funds and Diversified Equity funds are similar with equity portion being marginally higher for ELSS funds. This implies that both the funds are similar with regard to the risk undertaken on the investment universe.

Table 4.61

Funds Allocation of Assets into Equity for the period March 2009 to March 2013							
	Funds Name	Equity Allocation					
	ELSS Funds	31 March 2009	31 March 2010	31 March 2011	31 March 2012	31 March 2013	Average
1	Axis LT Equity Fund		79.97%	83.13%	89.58%	89.86%	85.64%
2	Birla SL Tax Plan	89.70%	93.88%	85.39%	97.14%	98.69%	92.96%
3	Birla SL Tax Relief '96	86.93%	97.76%	95.44%	95.25%	98.90%	94.86%
4	BNP Paribas LT Equity Fund	90.85%	98.47%	92.67%	89.77%	90.27%	92.41%
5	BOI AXA Tax Adv Fund-Reg	83.05%	95.18%	95.59%	92.33%	97.10%	92.65%
6	Canara Rob Equity Tax Saver Fund-Reg	87.75%	89.54%	90.25%	90.21%	92.12%	89.97%
7	DSPBR Tax Saver Fund	80.55%	96.12%	95.70%	97.47%	96.81%	93.33%
8	DWS Tax Saving Fund	80.19%	95.60%	89.98%	91.09%	84.62%	88.30%
9	Edelweiss ELSS Fund	85.62%	80.99%	89.66%	92.50%	93.85%	88.52%
10	Escorts Tax	28.96%	94.86%	87.46%	93.69%	65.31%	74.06%
11	Franklin India Taxshield	91.50%	96.89%	93.38%	92.25%	90.57%	92.92%
12	HDFC Long Term Adv Fund	88.64%	97.23%	94.42%	91.78%	90.83%	92.58%
13	HDFC TaxSaver	91.71%	92.23%	86.76%	86.81%	94.36%	90.37%
14	HSBC Tax Saver Equity Fund	79.66%	96.73%	95.92%	98.05%	97.43%	93.56%
15	ICICI Pru R.I.G.H.T Fund		81.18%	97.91%	96.41%	96.71%	93.05%
16	ICICI Pru Tax Plan	94.70%	90.73%	89.63%	94.77%	91.65%	92.30%
17	IDFC Tax Advt(ELSS) Fund	70.43%	83.65%	90.84%	93.40%	96.12%	86.89%
18	IDFC Tax Saver	84.17%	94.97%	96.31%	94.06%	96.96%	93.29%
19	ING Tax Savings Fund	93.28%	95.43%	95.31%	97.87%	95.83%	95.54%
20	JM Tax Gain Fund	69.36%	93.68%	88.92%	94.29%	97.75%	88.80%
21	JPMorgan India Tax Advantage Fund		94.91%	94.45%	94.38%	88.68%	93.10%
22	Kotak Tax Saver Scheme	81.60%	99.02%	92.39%	97.23%	99.14%	93.88%
23	L&T Long Term Advantage Fund		97.71%	94.20%	98.02%	96.06%	96.50%
24	L&T Tax Advt Fund	88.86%	98.77%	93.00%	89.85%	98.32%	93.76%
25	L&T Tax Saver Fund	96.67%	95.48%	95.47%	96.50%	97.01%	96.23%
26	LIC Nomura MF Tax Plan	69.48%	96.01%	92.20%	94.67%	96.53%	89.78%
27	Quantum Tax Saving Fund	58.49%	81.33%	83.23%	83.59%	78.08%	76.94%
28	Reliance ELSS Fund	83.00%	96.53%	85.21%	90.07%	94.79%	89.92%
29	Reliance Tax Saver (ELSS) Fund	73.57%	97.29%	96.62%	99.70%	99.09%	93.26%
30	Religare Invesco AGILE Tax Fund	90.15%	93.37%	93.75%	94.22%	95.96%	93.49%
31	Religare Invesco Tax Plan	88.33%	92.14%	95.72%	94.56%	94.56%	93.06%
32	Sahara Tax Gain Fund	87.00%	96.30%	90.78%	91.77%	91.32%	91.44%
33	SBI Magnum TaxGain'93	80.13%	94.93%	97.82%	97.20%	96.87%	93.39%
34	SBI TAX Advantage Fund-I	85.91%	94.82%	89.13%	95.01%	94.79%	91.93%
35	Sundaram Tax Saver	73.19%	91.64%	94.20%	92.50%	93.09%	88.92%
36	Tata Infrastructure Tax Saving Fund		95.69%	97.31%	97.17%	98.10%	97.07%
37	Tata Tax Advantage Fund-1	82.37%	92.48%	93.26%	87.40%	92.46%	89.59%
38	Taurus Tax Shield Fund	77.74%	92.50%	93.99%	88.46%	95.79%	89.70%
39	UTI ETSP(G)	61.26%	93.13%	92.34%	95.33%	95.84%	87.58%
40	UTI LT Adv Fund-I	78.48%	88.05%	93.24%	89.92%	90.60%	88.06%
41	UTI LT Adv Fund-II	66.49%	95.23%	88.80%	95.98%	90.91%	87.48%
	<b>Average</b>	<b>80.55%</b>	<b>93.23%</b>	<b>92.24%</b>	<b>93.47%</b>	<b>93.51%</b>	<b>90.60%</b>
Diversified Equity Funds							
1	Birla SL Frontline Equity Fund	68.86%	93.22%	94.72%	94.95%	94.41%	89.23%
2	DSPBR Top 100 Equity Fund	71.89%	94.64%	86.49%	87.99%	85.93%	85.39%
3	Franklin India Bluechip Fund	91.16%	92.86%	91.29%	92.56%	91.17%	91.81%
4	HDFC Equity Fund	92.59%	97.97%	94.54%	94.30%	93.04%	94.49%
5	HDFC Top 200 Fund	90.13%	95.85%	94.55%	93.93%	94.00%	93.69%
6	ICICI Pru Dynamic Plan	82.82%	76.72%	84.00%	85.63%	89.98%	83.83%
7	ICICI Pru Value Discovery Fund	91.48%	90.69%	92.47%	90.26%	90.37%	91.05%
8	IDFC Premier Equity Fund	79.74%	93.53%	79.99%	80.05%	85.08%	83.68%
9	Reliance Equity Opportunities Fund	84.97%	97.79%	93.43%	97.22%	97.52%	94.18%
10	Reliance Growth Fund	72.79%	93.12%	95.23%	93.39%	97.86%	90.48%
11	SBI Contra Fund	81.30%	94.68%	96.50%	97.49%	88.72%	91.74%
12	UTI Opportunities Fund	69.90%	88.22%	90.90%	81.67%	95.95%	85.33%
	<b>Average</b>	<b>81.47%</b>	<b>92.44%</b>	<b>91.18%</b>	<b>90.79%</b>	<b>92.00%</b>	<b>89.58%</b>

Source: Compiled from ACE MF Database

The amount of expenses that can be charged to the fund by an AMC, is subject to SEBI mutual fund regulations. Fund expenses lower the returns available to the investor and therefore an important component for portfolio evaluation. Table 4.62 shows the percentage of expenses charged to the fund for the period March 2008 to March 2013. As can be seen, ELSS funds on an average have been charging 25 to 30 basis points higher expenses as compared to Diversified Equity funds.

Portfolio turnover ratio reflects the extent of active management carried out by the fund manager. Active management could lead to higher expense implication. Table 4.63 to 4.65 shows the turnover ratio of funds for years 2010-11, 2011-12 and 2012-13. As can be seen, the turnover ratios have a high fund-wise variability as some fund managers have a dynamic approach to portfolio management as compared to passive approach of others.

Table 4.62

Funds % Expense Ratio for the Years 2007-08 to 2012-13								
	Fund Name	31-Mar-08	31-Mar-09	31-Mar-10	31-Mar-11	31-Mar-12	31-Mar-13	Average
<b>ELSS Funds</b>								
1	Axis LT Equity Fund			2.50	2.50	2.50	2.73	2.56
2	Birla SL Tax Plan	2.44	2.50	2.41	2.42	2.45	2.38	2.43
3	Birla SL Tax Relief '96	2.30	2.29	2.00	1.94	1.97	2.13	2.11
4	BNP Paribas LT Equity Fund	2.46	2.46	0.97	2.50	2.50	2.99	2.31
5	BOI AXA Tax Adv Fund		2.46	2.50	2.50	2.50	2.70	2.53
6	Canara Rob Equity Tax Saver Fund-Reg	1.15	2.50	2.50	2.33	2.32	2.63	2.24
7	DSPBR Tax Saver Fund-Reg	2.29	2.29	2.16	2.08	2.14	1.68	2.11
8	DWS Tax Saving Fund	2.50	2.49	2.50	2.50	2.50	2.70	2.53
9	Edelweiss ELSS Fund		1.25	2.50	2.50	2.46	2.68	2.28
10	Escorts Tax	2.50	2.50	2.50	2.50	2.50	2.50	2.50
11	Franklin India Taxshield	2.32	2.32	2.13	2.11	2.10	2.42	2.23
12	HDFC Long Term Adv Fund	2.16	2.16	2.08	2.06	2.11	2.13	2.12
13	HDFC TaxSaver	2.14	2.14	1.89	1.85	1.85	2.13	2.00
14	HSBC Tax Saver Equity Fund	2.38	2.38	2.33	2.35	2.37	2.55	2.39
15	ICICI Pru R.I.G.H.T Fund			2.50	2.49	2.49	2.57	2.51
16	ICICI Pru Tax Plan	2.17	2.24	2.01	1.98	1.99	2.16	2.09
17	IDFC Tax Advt(ELSS) Fund			2.06	2.49	2.44	2.38	2.34
18	IDFC Tax Saver	2.43	2.50	2.50	2.47	2.23	2.50	2.44
19	ING Tax Savings	2.50	2.50	2.50	2.50	2.50	2.65	2.53
20	JM Tax Gain Fund		2.50	2.50	2.50	2.50	2.88	2.58
21	JPMorgan India Tax Advantage Fund		2.32	2.50	2.50	2.50	2.61	2.49
22	Kotak Tax Saver Scheme	2.36	2.34	2.24	2.22	2.28	2.51	2.33
23	L&T Long Term Advantage Fund		2.50	2.50	2.50	2.50	2.80	2.56
24	L&T Tax Advt Fund	2.10	2.18	2.04	1.99	2.00	2.18	2.08
25	L&T Tax Saver Fund	2.46	2.50	2.50	2.50	2.50	2.65	2.52
26	LIC Nomura MF Tax Plan	2.50	1.52	2.16	2.06	2.21	2.22	2.11
27	Quantum Tax Saving Fund		2.50	2.50	1.50	1.25	1.25	1.80
28	Reliance ELSS Fund		2.40	2.37	2.35	2.41	2.13	2.33
29	Reliance Tax Saver (ELSS) Fund	1.89	1.98	1.89	1.88	1.91	2.13	1.95
30	Religare Invesco AGILE Tax Fund		2.50	2.43	2.45	2.45	2.70	2.51
31	Religare Invesco Tax Plan	2.49	2.50	2.49	2.49	2.48	2.90	2.56
32	Sahara Tax Gain Fund	2.47	2.50	2.50	2.48	2.50	2.70	2.53
33	SBI Magnum TaxGain'93-Reg	1.89	2.50	1.80	1.81	1.81	2.02	1.97
34	SBI TAX Advantage Fund-I		2.50	1.99	2.07	2.50	2.70	2.35
35	Sundaram Tax Saver	2.37	2.25	1.99	1.95	1.96	2.38	2.15
36	Tata Infrastructure Tax Saving Fund		2.50	2.50	2.50	2.50	2.87	2.57
37	Tata Tax Advantage Fund-1	2.32	2.50	2.35	2.39	2.42	2.87	2.48
38	Taurus Tax Shield Fund	2.03	2.50	2.50	2.50	2.50	2.70	2.46
39	UTI ETSP	2.33	2.36	2.27	2.24	2.26	2.27	2.29
40	UTI LT Adv Fund-I	2.20	1.61	1.48	1.41	1.99	2.32	1.84
41	UTI LT Adv Fund-II		2.25	1.77	1.86	2.08	2.35	2.06
	<b>Average</b>	<b>2.26</b>	<b>2.32</b>	<b>2.24</b>	<b>2.25</b>	<b>2.28</b>	<b>2.46</b>	<b>2.31</b>
<b>Diversified Equity Funds</b>								
1	Birla SL Frontline Equity Fund(G)	2.35	2.32	1.93	1.86	1.86	2.13	2.08
2	DSPBR Top 100 Equity Fund-Reg(G)	2.09	2.09	1.87	1.86	1.85	1.68	1.91
3	Franklin India Bluechip Fund(G)	1.96	1.97	1.85	1.83	1.81	2.15	1.93
4	HDFC Equity Fund(G)	1.82	1.82	1.81	1.79	1.78	2.13	1.86
5	HDFC Top 200 Fund(G)	1.90	1.90	1.80	1.78	1.77	2.13	1.88
6	ICICI Pru Dynamic Plan-Reg(G)	1.88	2.04	1.90	1.84	1.82	1.97	1.91
7	ICICI Pru Value Discovery Fund-Reg(G)	2.13	2.38	2.08	1.93	1.92	2.11	2.09
8	IDFC Premier Equity Fund-Reg(G)	2.32	2.19	2.13	2.50	1.88	2.13	2.19
9	Reliance Equity Opportunities Fund(G)	1.86	2.02	1.91	1.85	1.84	2.13	1.94
10	Reliance Growth Fund(G)	1.81	1.77	1.79	1.78	1.80	2.13	1.85
11	SBI Contra Fund-Reg(G)	1.92	1.94	1.91	1.84	1.85	2.07	1.92
12	UTI Opportunities Fund(G)	2.25	2.32	2.03	1.94	1.94	1.85	2.06
	<b>Average</b>	<b>2.02</b>	<b>2.06</b>	<b>1.92</b>	<b>1.90</b>	<b>1.84</b>	<b>2.05</b>	<b>1.97</b>

Source: Compiled from ACE MF Database



**Table 4.63**

Funds Portfolio Turnover Ratio for the period April 2010 to March 2011														
Sl.No.	Fund Name	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Average
	<b>ELSS Funds</b>													
1	Axis LT Equity Fund						1.62			2.45	2.15	1.88	1.57	1.93
2	Birla SL Tax Plan						1.25						0.89	1.07
3	Birla SL Tax Relief '96						0.05						0.07	0.06
4	BNP Paribas LT Equity Fund	0.90	0.66	0.60	0.53	0.53	0.51	0.52	0.52	0.52	0.53	0.54	0.66	0.59
5	BOI AXA Eco			3.48	3.67	3.70	3.69	3.80	4.01	4.30	4.47	4.54	4.44	4.01
6	BOI AXA Tax Adv Fund			3.48	3.67	3.70	3.69	3.80	4.01	4.30	4.47	4.54	4.44	4.01
7	Canara Rob Equity Tax Saver Fund	0.38	0.18	0.24	1.35	1.26	1.09	1.09	1.07	1.10	1.04	0.99	0.91	0.89
8	DSPBR Tax Saver Fund	0.96	0.96	0.96	0.92	0.90	0.85	0.78	0.73	0.73	0.64	0.70	0.67	0.82
9	DWS Tax Saving Fund	1.56	1.45	1.44	1.44	1.41	1.32	1.27	1.28	1.22	1.18	1.10	1.03	1.31
10	Edelweiss ELSS Fund	1.44	1.84	1.84	2.22	2.55	2.40	2.25	3.16	2.99	3.58		3.20	2.50
11	Escorts Tax												0.16	0.16
12	Franklin India Taxshield*	0.97	0.92	0.86	0.83		1.00	0.82	0.84	0.83	0.86	0.92	0.93	0.89
13	HDFC Long Term Adv Fund*	0.19	0.21	0.20	0.14	0.13	0.13	0.13	0.13	0.13	0.16	0.16	0.15	0.15
14	HDFC TaxSaver*	0.27	0.26	0.22	0.20	0.26	0.26	0.25	0.29	0.30	0.31	0.30	0.30	0.27
15	HSBC Tax Saver Equity Fund	1.79	1.69	1.58	1.54	1.47	1.37	1.30	1.26	1.23	1.19	1.15	1.11	1.39
16	ICICI Pru LT Equity Fund	2.11	2.00	1.91	1.80	1.70	1.53	1.41	1.41	1.29	1.21	1.18	1.03	1.55
17	ICICI Pru R.I.G.H.T Fund	0.07	0.09	0.12	0.24	0.27	0.36	0.47	0.49	0.51	0.56	0.58	0.54	0.36
18	IDFC Tax Advt(ELSS)						1.48							1.48
19	IDFC Tax Saver						1.35							1.35
20	ING Tax Savings*	1.79	1.84	1.86	1.76	1.74	1.67	1.64	1.57	1.58	1.56	1.55	1.51	1.67
21	JM Tax Gain Fund	0.17	0.15	0.32	0.21	0.04	0.04	0.10	0.19	0.17	0.03	0.04	0.20	0.14
22	JPMorgan India Tax Advantage Fund	0.84	0.93	0.88	0.86	0.86	0.88	0.84	0.78	0.75	0.80	0.79	0.76	0.83
23	Kotak Tax Saver Scheme*	3.12	3.01	3.07	3.02	2.81	2.57	2.45	2.45	2.39	2.17	2.09	1.97	2.59
24	L&T Long Term Advantage Fund		0.16	0.22	0.31		0.39	0.49		0.81	0.89	0.96		0.53
25	L&T Tax Advt Fund	0.31	0.28	0.25	0.23	0.23	0.20	0.19	0.20	0.17	0.18	0.17	0.17	0.22
26	L&T Tax Saver Fund	0.03	0.16	0.32	0.46	0.57	0.60	0.61	0.74	1.05	1.20	1.40	1.80	0.75
27	LIC Nomura MF Tax Plan													
28	Quantum Tax Saving Fund	0.32	0.34	0.31	0.30	0.29	0.41	0.40	0.38	0.38	0.37	0.35	0.32	0.35
29	Reliance ELSS Fund-I	0.62	0.66	0.66	0.73	0.67	0.66	0.70	0.73	0.73	0.76	0.76	0.80	0.71
30	Reliance Tax Saver (ELSS) Fund	1.54	1.47	1.33	1.12	1.05	1.04	1.02	0.99	0.91	0.86	0.83	0.75	1.08
31	Religare Invesco AGILE Tax Fund						1.50						1.19	1.35
32	Religare Invesco Tax Plan	1.14	1.27	1.25	1.11	0.98	0.78	0.78	0.71	0.74	0.76	0.69	0.72	0.91
33	Sahara Tax Gain Fund*	3.42	3.42	3.24	3.15	3.06	2.98	0.00	0.00	2.12	2.06	1.69	0.00	2.09
34	SBI Magnum TaxGain'93	0.37	0.36	0.37	0.36		0.37		0.43	0.43	0.43	0.43	0.43	0.40
35	SBI Tax Advantage I													
36	Sundaram Tax Saver(G)*	1.77	1.90	1.97	1.71	1.83	1.83	2.02	2.10	2.18	2.18	2.18	2.25	1.99
37	Tata Infrastructure Tax Saving Fund													
38	Tata Tax Advantage Fund-1						1.04						0.25	0.65
39	Taurus Tax Shield Fund						1.36						1.56	1.46
40	UTI LT Adv Fund-I*	0.43	0.41	0.42	0.38	0.35	0.34	0.31	0.31	0.30	0.23	0.20	0.15	0.32
41	UTI LT Adv Fund-II*	0.16	0.16	0.15	0.12	0.10	0.08	0.08	0.08	0.00	0.00	0.04	0.05	0.08
42	UTI LT Equity Fund (Tax Saving)*	0.58	0.62	0.56	0.53	0.47	0.43	0.39	0.40	0.42	0.51	0.55	0.53	0.50
	<b>Average</b>													<b>1.11</b>
	<b>Diversified Funds</b>													
1	Birla SL Frontline Equity Fund						0.69						0.44	0.57
2	DSPBR Top 100 Equity Fund	2.71	2.61	2.60	2.55	2.64	2.69	2.79	2.85	2.81	2.70	2.71	2.77	2.70
3	Franklin India Bluechip Fund	1.06	1.00	0.95	0.90	0.00	1.11	0.91	0.90	0.88	0.84	0.84	0.78	0.85
4	HDFC Equity Fund	0.80	0.68	0.60	0.57	0.57	0.48	0.50	0.47	0.45	0.42	0.43	0.44	0.53
5	HDFC Top 200 Fund	0.54	0.44	0.38	0.36	0.35	0.31	0.32	0.32	0.30	0.26	0.26	0.27	0.34
6	ICICI Pru Dynamic Plan	1.97	2.01	2.00	1.92	1.85	1.71	1.69	1.60	1.54	1.54	1.48	1.31	1.72
7	ICICI Pru Value Discovery Fund	1.36	1.30	1.21	1.08	0.95	0.86	0.79	0.75	0.66	0.62	0.61	0.60	0.90
8	IDFC Premier Equity Fund						1.12							1.12
9	Reliance Equity Opportunities Fund	1.00	1.00	0.93	0.98	0.95	0.94	0.86	0.77	0.78	0.79	0.80	0.79	0.88
10	Reliance Growth Fund	0.45	0.44	0.40	0.42	0.42	0.47	0.50	0.50	0.53	0.53	0.53	0.56	0.48
11	SBI Contra Fund	1.01	0.86	0.92	0.87		0.76		0.67	0.67	0.62	0.56	0.53	0.75
12	UTI Opportunities Fund	1.62	1.60	1.54	1.39	1.37	1.34	1.25	1.11	1.08	1.03	0.98	0.89	1.27
	<b>Average</b>													<b>1.01</b>

Source: Compiled from ACE MF Database

Table 4.64

Funds Portfolio Turnover Ratio for the period April 2011 to March 2012														
Sl.No.	Fund Name	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Average
	<b>ELSS Funds</b>													
1	Axis LT Equity Fund	1.42	1.29	1.21	1.12		0.93	0.93	0.78	0.72	0.75	0.78	0.72	0.97
2	Birla SL Tax Plan						0.93						0.10	0.52
3	Birla SL Tax Relief '96						0.28						0.49	0.39
4	BNP Paribas LT Equity Fund	0.65	0.78	0.85	0.93	1.04	1.21	1.11	1.34	1.43	1.47	1.85	1.87	1.21
5	BOI AXA Eco	4.26	4.04	3.68	3.46	3.16	2.89	2.55	2.07	1.48	1.27	1.12	1.07	2.59
6	BOI AXA Tax Adv Fund	4.26	4.04	3.68	3.46	3.16	2.89	2.55	2.07	1.48	1.27	1.12	1.07	2.59
7	Canara Rob Equity Tax Saver Fund	0.76	0.73	0.65	0.60	0.57	0.58	0.49	0.44	0.36	0.38	0.42	0.45	0.54
8	DSPBR Tax Saver Fund	0.70	0.64	0.64	0.64	0.70	0.81	0.82	0.88	0.99	1.13	1.14	1.35	0.87
9	DWS Tax Saving Fund	1.04	1.04	1.01	0.94	0.77	0.84	0.77	0.75	0.85	0.91	1.01	1.14	0.92
10	Edelweiss ELSS Fund	2.41	2.99	4.11	4.00	3.86	4.05	3.70	3.32	3.61	3.46	4.01	4.16	3.64
11	Escorts Tax													
12	Franklin India Taxshield	0.90	0.91	0.88	0.81	0.00	0.74	0.69	0.65	0.62	0.57	0.54	0.29	0.63
13	HDFC Long Term Adv Fund	0.15	0.11	0.11	0.11	0.12	0.12	0.10	0.11	0.11	0.09	0.09	0.07	0.11
14	HDFC TaxSaver	0.33	0.37	0.36	0.36	0.32	0.30	0.29	0.27	0.25	0.25	0.23	0.25	0.30
15	HSBC Tax Saver Equity Fund	1.06	0.94	0.89	0.89	0.85	0.79	0.69	0.60	0.51	0.48	0.44	0.39	0.71
16	ICICI Pru LT Equity Fund	0.95	0.99	1.06	1.06	1.11	1.18	1.22	1.37	1.38	1.48		1.69	1.23
17	ICICI Pru R.I.G.H.T Fund	0.55	0.58	0.59	0.56	0.61	0.52	0.44	0.51	0.48	0.43	0.48	0.51	0.52
18	IDFC Tax Advt(ELSS)						0.86	0.99	1.11	1.23	1.42		0.98	1.10
19	IDFC Tax Saver							1.02	1.10		1.35		0.81	1.07
20	ING Tax Savings	1.37	1.37	1.32	1.29	0.63	1.38	1.29	1.35	1.43	1.67	1.85	2.03	1.42
21	JM Tax Gain Fund	0.05	0.01	0.01	0.06	0.11		0.04	0.09	0.14	0.09	0.04	0.06	0.06
22	JPMorgan India Tax Advantage Fund	0.76	0.77	0.44	0.80	0.88	0.89	0.96	1.02	1.11	1.17	1.26	1.38	0.95
23	Kotak Tax Saver Scheme	1.91	1.87	1.74	1.55	1.53	1.50	1.49	1.40	1.35	1.27	1.27	1.22	1.51
24	L&T Long Term Advantage Fund	0.12											2.05	1.09
25	L&T Tax Advt Fund	0.19	0.20	0.20	0.20	0.21	0.22	0.20		0.21	0.20	0.20	0.20	0.20
26	L&T Tax Saver Fund	0.29	0.54	0.80	1.06			1.79	1.97	2.19	2.70	2.90	2.97	1.72
27	LIC Nomura MF Tax Plan					0.36		0.42	0.25	0.16	0.16	0.13	0.08	0.22
28	Quantum Tax Saving Fund	0.28	0.23	0.22	0.20	0.18	0.07	0.06	0.05	0.06	0.05	0.08	0.15	0.13
29	Reliance ELSS Fund-I	0.80	0.74	0.75	0.75	0.68	0.63	0.58	0.48	0.53	0.42	0.57	0.57	0.63
30	Reliance Tax Saver (ELSS) Fund	0.81	0.84	0.82	0.82	0.82	0.80	0.74	0.67	0.63	0.61	0.63	0.61	0.73
31	Religare Invesco AGILE Tax Fund						1.82						0.98	1.40
32	Religare Invesco Tax Plan	0.66	0.63	0.60	0.66	0.62	0.26	0.53	0.52	0.52	0.48	0.55	0.51	0.55
33	Sahara Tax Gain Fund		1.58	1.57	1.57	1.66	1.63	1.65	1.59	1.71	1.80	1.86	1.84	1.68
34	SBI Magnum TaxGain'93	0.36	0.38	0.40	0.42			0.43	0.43	0.41	0.40	0.40	0.39	0.40
35	SBI Tax Advantage I													
36	Sundaram Tax Saver(G)	2.21	2.11	2.06	2.00	1.90	0.00	0.00	1.66	1.64	1.51	1.50	1.44	1.50
37	Tata Infrastructure Tax Saving Fund													
38	Tata Tax Advantage Fund-1						0.36						0.22	0.29
39	Taurus Tax Shield Fund						0.92							0.92
40	UTI LT Adv Fund-I	0.10	0.06	0.05	0.04	0.05	0.05	0.05	0.05	0.00	0.09	0.07	0.07	0.06
41	UTI LT Adv Fund-II	0.05	0.06	0.04	0.03	0.03	0.03	0.03	0.03	0.00	0.02	0.00	0.02	0.03
42	UTI LT Equity Fund (Tax Saving)	0.53	0.51	0.49	0.47	0.47	0.46	0.43	0.39	0.36	0.29	0.20	0.21	0.40
	<b>Average</b>													<b>0.92</b>
	<b>Diversified Funds</b>													
1	Birla SL Frontline Equity Fund						0.49						0.94	0.72
2	DSPBR Top 100 Equity Fund	2.75	2.74	2.63	2.53	2.34	2.40	2.22	2.19	2.33	2.56	2.73	2.71	2.51
3	Franklin India Bluechip Fund	0.75	0.79	0.76	0.68	0.00	0.58	0.58	0.56	0.56	0.58	0.65	0.37	0.57
4	HDFC Equity Fund	0.43	0.43	0.42	0.37	0.35	0.36	0.28	0.29	0.28	0.28	0.27	0.29	0.34
5	HDFC Top 200 Fund	0.23	0.25	0.24	0.20	0.18	0.20	0.17	0.17	0.17	0.17	0.18	0.19	0.20
6	ICICI Pru Dynamic Plan	1.27	1.26	1.22	1.17	1.11	1.08	1.07	1.12	1.05	1.02	1.23	1.32	1.16
7	ICICI Pru Value Discovery Fund	0.61	0.57	0.63	0.66	0.68	0.68	0.73	0.73	0.76	0.77	0.75	0.76	0.69
8	IDFC Premier Equity Fund						2.55	3.20	3.65	4.23	5.07		3.26	3.66
9	Reliance Equity Opportunities Fund	0.77	0.75	0.72	0.69	0.70	0.71	0.76	0.81	0.84	0.85	0.84	0.78	0.77
10	Reliance Growth Fund	0.55	0.53	0.47	0.42	0.39	0.38	0.39	0.39	0.50	0.56	0.52	0.58	0.47
11	SBI Contra Fund	0.46	0.50	0.57	0.83			1.03	1.16	1.17	1.29	1.44	1.50	1.00
12	UTI Opportunities Fund	0.80	0.78	0.72	0.67	0.57	0.48	0.55	0.52	0.48	0.43	0.36	0.53	0.58
	<b>Average</b>													<b>1.05</b>

Source: Compiled from ACE MF Database

Table 4.65

Funds Portfolio Turnover Ratio for the period April 2012 to March 2013														
Sl.No.	Fund Name	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Average
<b>ELSS Funds</b>														
1	Axis LT Equity Fund	0.90	0.77	0.88	0.79	0.95	0.77	0.68	0.61	0.54	0.51	0.51	0.53	0.70
2	Birla SL Tax Plan						0.29						0.22	0.26
3	Birla SL Tax Relief '96						0.30						0.21	0.26
4	BNP Paribas LT Equity Fund	1.76	1.80	1.78	1.74	1.77	1.89	1.83	1.70	1.61	1.71	1.45	1.45	1.71
5	BOI AXA Eco	1.07	0.96	0.94	0.81	0.83	0.90	0.93	1.00	1.11	1.16	1.15	1.14	1.00
6	BOI AXA Tax Adv Fund	1.07	0.96	0.94	0.81	0.83	0.90	0.93	1.00	1.11	1.16	1.15	1.14	1.00
7	Canara Rob Equity Tax Saver Fund	0.47	0.48	0.48	0.46	0.41	0.39	0.49	0.56	0.64	0.63	0.72	0.83	0.55
8	DSPBR Tax Saver Fund	1.33	1.33	1.37	1.37	1.31	1.38	1.30	1.27	1.27	1.22	1.17	0.66	1.25
9	DWS Tax Saving Fund	1.18	1.10	1.37	1.50	1.26	1.29	1.36	1.32	2.08	1.27	1.45	1.69	1.41
10	Edelweiss ELSS Fund	3.91	3.69	3.68	3.38	3.19	3.41	3.22	3.23	3.47	3.35	3.06	3.17	3.40
11	Escorts Tax						0.40	0.09	0.06	0.08	0.05	0.13	0.31	0.16
12	Franklin India Taxshield	0.47	0.51	0.34	0.47	0.47	0.51	0.46	0.42	0.42	0.42	0.39	0.21	0.42
13	HDFC Long Term Adv Fund	0.07	0.06	0.09	0.09	0.08	0.10	0.10	0.08	0.08	0.06	0.07	0.06	0.08
14	HDFC TaxSaver	0.19	0.16	0.17	0.21	0.21	0.21	0.22	0.23	0.26	0.32	0.37	0.37	0.24
15	HSBC Tax Saver Equity Fund	0.42	0.41	0.48	0.49	0.51	0.53	0.68	0.68	0.76	0.71	0.71	0.73	0.59
16	ICICI Pru LT Equity Fund	1.80	1.80	1.76	1.86	2.00	2.05	2.07	2.13	2.17	2.26	2.25	2.18	2.03
17	ICICI Pru R.I.G.H.T Fund	0.53	0.48	0.44	0.40	0.41	0.43	0.47	0.41	0.47	0.52	0.46	0.43	0.45
18	IDFC Tax Advt(ELSS)						0.42						1.09	0.76
19	IDFC Tax Saver						0.44						0.64	0.54
20	ING Tax Savings	2.16	2.09	2.35	2.47	2.53	2.53	2.66	2.66	2.79	2.64	2.47	2.23	2.47
21	JM Tax Gain Fund	0.01	0.03	0.03	0.12	0.22	0.18	0.01	0.03	0.07	0.15	0.01	0.01	0.07
22	JPMorgan India Tax Advantage Fund	1.43	1.42	1.46	1.58	1.61	1.66	1.62	1.52	1.40	1.34	1.33	1.28	1.47
23	Kotak Tax Saver Scheme	1.19	1.22	1.21	1.20	1.17	1.11	1.16	0.99	0.89	0.98	0.81	0.82	1.06
24	L&T Long Term Advantage Fund	0.04	1.90	1.89	1.84	1.81	1.83	1.80	1.59	1.60	1.16		0.76	1.47
25	L&T Tax Advt Fund	0.17	0.15	0.15	0.15	0.13	1.83	1.80	0.09	0.20	0.25	0.31	0.33	0.46
26	L&T Tax Saver Fund	2.97	2.62	2.47	2.31	2.17	2.13	1.95	1.75	1.66	1.28	1.10	1.08	1.96
27	LIC Nomura MF Tax Plan	0.06	0.05	0.05	0.04	0.05	0.05	0.06	0.06	0.07	0.16	0.16	0.16	0.08
28	Quantum Tax Saving Fund	0.17	0.16	0.15	0.13	0.16	0.15	0.14	0.13	0.14	0.13	0.14	0.13	0.14
29	Reliance ELSS Fund-I	0.59	0.61	0.60	0.70	0.70	0.74	0.74	0.74	0.76	0.76	0.67	0.63	0.69
30	Reliance Tax Saver (ELSS) Fund	0.51	0.45	0.46	0.46	0.51	0.54	0.48	0.48	0.52	0.56	0.54	0.56	0.51
31	Religare Invesco AGILE Tax Fund					0.44	1.08		1.72				1.72	1.24
32	Religare Invesco Tax Plan	0.51	0.50	0.50	0.46		0.44	0.42	0.48	0.52	0.54	0.51	0.54	0.49
33	Sahara Tax Gain Fund	1.87	2.20	2.40	2.09	1.97	1.86	0.00	1.91	1.83	1.81	2.22	2.22	1.87
34	SBI Magnum TaxGain'93	0.39	0.37	0.36	0.31	0.31	0.29	0.29	0.28	0.28	0.30	0.29	0.28	0.31
35	SBI Tax Advantage I													
36	Sundaram Tax Saver(G)	1.42	1.39	1.38	1.38	1.37	1.33	1.22	1.18	1.09	0.97	0.82	0.83	1.20
37	Tata Infrastructure Tax Saving Fund						1.18						0.22	0.70
38	Tata Tax Advantage Fund-1						1.02						0.32	0.67
39	Taurus Tax Shield Fund						0.85						0.61	0.73
40	UTI LT Adv Fund-I	0.07	0.08	0.08	0.09	0.08	0.08	0.09	0.11	0.12	0.18	0.18	0.18	0.11
41	UTI LT Adv Fund-II	2.38	1.15	1.17	1.20	0.06	0.06	0.58	0.02	0.03	0.07	0.07	0.09	0.57
42	UTI LT Equity Fund (Tax Saving)	0.19	0.23	0.21	0.22	0.20	0.20	0.19	0.21	0.20	0.19	0.16	0.21	0.20
<b>Average</b>														<b>0.86</b>
<b>Diversified Funds</b>														
1	Birla SL Frontline Equity Fund						0.72						0.62	0.67
2	DSPBR Top 100 Equity Fund	2.65	2.65	2.69	2.74	2.77	1.38	2.84	2.72	2.60	2.54	2.39	1.14	2.43
3	Franklin India Bluechip Fund	0.53	0.59	0.37	0.56	0.58	0.62	0.53	0.53	0.52	0.53	0.51	0.25	0.51
4	HDFC Equity Fund	0.28	0.31	0.30	0.31	0.31	0.33	0.34	0.33	0.33	0.33	0.34	0.32	0.32
5	HDFC Top 200 Fund	0.19	0.20	0.21	0.21	0.22	0.22	0.22	0.21	0.18	0.17	0.18	0.17	0.20
6	ICICI Pru Dynamic Plan	1.31	1.28	1.32	1.38	1.38	1.43	1.42	1.39	1.42	1.42	1.38	1.29	1.37
7	ICICI Pru Value Discovery Fund	0.73	0.70	0.63	0.63	0.59	0.56	0.50	0.51	0.50	0.55	0.55	0.49	0.58
8	IDFC Premier Equity Fund						1.60						0.74	1.17
9	Reliance Equity Opportunities Fund	0.74	0.74	0.76	0.81	0.76	0.73	0.70	0.70	0.67	0.68	0.65	0.69	0.72
10	Reliance Growth Fund	0.48	0.51	0.53	0.53	0.51	0.55	0.54	0.54	0.46	0.37	0.35	0.34	0.48
11	SBI Contra Fund	1.55	1.55	1.64	1.27	1.11	1.21	1.16	1.06	1.04	1.02	0.94	0.85	1.20
12	UTI Opportunities Fund	0.59	0.56	0.60	0.63	0.66	0.65	0.62	0.64	0.67	0.67	0.67	0.53	0.62
<b>Average</b>														<b>0.85</b>

Source: Compiled from ACE MF Database

Table 4.66 to 4.71, ranks individual ELSS funds as Outperformer or Underperformer relative to Diversified Equity fund category average based on Absolute Quarterly returns, Total Risk, Sharpe ratio, Sortino ratio , Jensen's alpha (BSE Sensex) and Jensen's Alpha (NSE Nifty) for the years 2000-01 to 2012-13.

**Table 4.66**

Outperformane and Underperformance of ELSS Funds as comaped to Returns of Diversified Equity Fund Category Average													
Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
No. of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12
<b>ELSS Funds</b>													
Axis Long Term Equity											O	O	O
Birla Sunlife Tax Plan								U	U	U	U	U	O
Birls Sunlife Tax Relief 96									U	O	U	U	O
BNP Paribas Tax Adv							U	U	U	U	U	O	O
BOI AXA Eco										O	U	U	U
BOI AXA Tax Adv										O	U	U	U
Canara Robeco Equity Tax Saver										O	U	O	O
DSP Black Rock Tax Saver								O	U	U	U	U	O
DWS Tax Saving							U	O	U	U	U	U	O
Edelweiss ELSS										U	U	O	U
Escorts Tax Plan	O	U	U	U	U	U	U	O	U	U	U	U	U
Franklin India Tax Sheild	O	U	U	U	U	U	U	U	O	U	O	O	U
HDFC Long Term Adv		U	O	O	O	U	U	U	U	O	O	U	U
HDFC Tax Saver	U	O	U	U	O	O	U	U	U	O	O	U	U
HSBC Tax Saver								U	O	U	U	U	O
ICICI Pru Right											U	O	O
ICICI Pru Tax Plan	U	O	U	O	O	U	U	U	U	O	U	U	U
IDFC Tax Adv										U	U	U	O
IDFC Tax Saver								U	U	U	U	U	O
ING Retire Invest								U	U	U	U	U	U
ING Tax Savings					U	O	U	U	U	O	O	U	U
JM Tax Gain									U	U	U	U	U
JP Morgan Tax Advantage										U	O	U	U
Kotak Tax Saver							U	U	U	U	U	U	U
LIC Nomura Tax Plan	U	U	U	U	U	U	U	U	U	U	U	U	U
LNT Long Term Adv										U	U	U	U
LNT Tax Advantage							O	U	O	U	O	U	U
LNT Tax Saver							U	U	U	O	U	U	U
Quantum Tax Savings										U	O	O	O
Reliance Equity Linked Savings									O	U	O	O	O
Reliance Tax Saver							U	U	O	U	O	O	U
Religare Agile									U	U	U	U	O
Religare Tax Plan								O	U	U	U	O	O
Sahara Tax Gain	U	U	U	U	U	U	U	O	O	U	O	O	U
SBI Magnum Tax Gain									U	U	U	U	O
SBI Tax Advantage I									U	U	U	U	U
Sundaram Tax Saver							U	O	O	U	U	U	U
Tata Infra Tax Savings										U	U	U	U
Tata Tax Adv Fund I							U	U	O	U	U	O	U
Taurus Tax Shield	U	U	O	U	U	U	U	O	O	U	O	U	U
UTI ETSP							U	U	U	U	U	U	U
UTI LTA I								U	U	U	U	U	U
UTI LTA II									O	U	U	U	U

Source: Computed from Tables 4.07

**Table 4.67**

Outperformance and Underperformance of ELSS Funds Total Risk compared to Diversified Equity Funds Category Average														
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
	No. of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12
	<b>ELSS Funds</b>													
1	Axis Long Term Equity											0	0	0
2	Birla Sunlife Tax Plan								U	U	0	0	0	U
3	Birls Sunlife Tax Relief 96									U	U	U	U	U
4	BNP Paribas Tax Adv							U	U	U	0	0	0	0
5	BOI AXA Eco										U	U	0	0
6	BOI AXA Tax Adv										U	U	0	0
7	Canara Robeco Equity Tax Saver										U	0	0	0
8	DSP Black Rock Tax Saver								U	0	0	U	U	U
9	DWS Tax Saving							0	U	U	0	U	0	0
10	Edelweiss ELSS										0	0	0	0
11	Escorts Tax Plan	0	0	0	0	0	U	0	U	0	0	U	U	U
12	Franklin India Tax Shield	0	U	0	0	0	0	0	0	U	0	0	0	0
13	HDFC Long Term Adv		0	0	0	0	0	0	0	0	U	U	U	0
14	HDFC Tax Saver	U	0	0	U	U	0	0	0	U	0	U	0	0
15	HSBC Tax Saver								U	0	0	0	0	0
16	ICICI Pru Right											0	0	0
17	ICICI Pru Tax Plan	U	0	0	U	U	U	U	U	U	0	0	U	U
18	IDFC Tax Adv										0	U	0	0
19	IDFC Tax Saver								U	0	0	0	0	0
20	ING Retire Invest								U	0	0	0	0	0
21	ING Tax Savings					U	0	U	U	U	U	0	0	0
22	JM Tax Gain									U	U	0	U	U
23	JP Morgan Tax Advantage										0	0	0	0
24	Kotak Tax Saver							U	U	0	0	U	U	U
25	LIC Nomura Tax Plan	U	0	U	0	0	U	0	U	U	0	0	0	0
26	LNT Long Term Adv										0	U	U	0
27	LNT Tax Advantage							U	0	U	0	0	0	0
28	LNT Tax Saver							U	0	0	U	U	0	0
29	Quantum Tax Savings										0	U	0	0
30	Reliance Equity Linked Savings									U	0	U	U	U
31	Reliance Tax Saver							U	U	0	0	U	U	U
32	Religare Agile									U	0	U	0	0
33	Religare Tax Plan								U	0	0	0	0	0
34	Sahara Tax Gain	0	0	0	U	0	U	U	U	0	U	U	U	U
35	SBI Magnum Tax Gain									U	0	0	0	0
36	SBI Tax Advantage I									U	U	0	U	U
37	Sundaram Tax Saver							U	U	0	0	U	0	U
38	Tata Infra Tax Savings										0	0	U	U
39	Tata Tax Adv Fund I							0	0	0	0	0	0	0
40	Taurus Tax Shield	U	U	U	U	U	U	0	U	0	U	U	0	0
41	UTI ETSP							U	0	U	0	0	0	0
42	UTI LTA I								0	U	0	0	U	0
43	UTI LTA II									0	0	0	0	0

Source: Computed from Table 4.17

**Table 4.68**

Outperformance and Underperformance of ELSS Funds based on Sharpe Ratio of Diversified Equity Funds Category Average														
Sl.No.	Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
	Number of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12
	ELSS Funds													
1	Axis Long Term Equity											O	O	O
2	Birla Sunlife Tax Plan								U	U	U	U	U	O
3	Birls Sunlife Tax Relief 96									U	U	U	U	O
4	BNP Paribas Tax Adv							U	U	U	U	U	O	O
5	BOI AXA Eco										O	U	U	U
6	BOI AXA Tax Adv										U	U	U	U
7	Canara Robeco Equity Tax Saver										O	U	O	U
8	DSP Black Rock Tax Saver								O	U	O	U	U	O
9	DWS Tax Saving							U	O	U	O	U	U	O
10	Edelweiss ELSS										U	U	O	U
11	Escorts Tax Plan	O	U	U	U	U	U	U	O	U	U	U	U	U
12	Franklin India Tax Shield	U	U	U	O	O	O	U	U	O	O	O	O	U
13	HDFC Long Term Adv		O	O	O	O	O	U	U	U	U	O	U	U
14	HDFC Tax Saver	O	O	U	U	O	O	U	U	O	O	O	U	U
15	HSBC Tax Saver								U	U	O	U	U	O
16	ICICI Pru Right											O	O	O
17	ICICI Pru Tax Plan	O	O	U	U	O	U	U	U	U	O	U	U	U
18	IDFC Tax Adv										O	U	U	O
19	IDFC Tax Saver								U	U	O	U	U	O
20	ING Retire Invest								U	U	O	U	U	U
21	ING Tax Savings					U	O	U	U	U	U	O	U	U
22	JM Tax Gain									U	U	U	U	U
23	JP Morgan Tax Advantage										O	O	U	U
24	Kotak Tax Saver							U	U	U	U	U	U	U
25	LIC Nomura Tax Plan	O	U	U	O	U	U	U	U	O	U	U	U	U
26	LNT Long Term Adv										O	U	U	U
27	LNT Tax Advantage							O	U	O	O	O	U	U
28	LNT Tax Saver							U	U	U	U	U	U	U
29	Quantum Tax Savings										O	O	U	O
30	Reliance Equity Linked Savings									O	O	O	O	O
31	Reliance Tax Saver							U	U	U	O	O	O	U
32	Religare Agile									U	O	U	U	O
33	Religare Tax Plan								O	U	O	U	U	O
34	Sahara Tax Gain	U	U	U	U	U	U	U	O	U	U	O	O	U
35	SBI Magnum Tax Gain									U	U	U	U	O
36	SBI Tax Advantage I									O	U	U	U	U
37	Sundaram Tax Saver							U	O	U	U	U	U	U
38	Tata Infra Tax Savings										O	U	U	U
39	Tata Tax Adv Fund I							U	O	U	U	O	U	U
40	Taurus Tax Shield	O	U	O	U	U	U	U	O	U	U	O	U	U
41	UTI ETSP							U	U	U	U	U	U	U
42	UTI LTA I								U	U	U	U	U	U
43	UTI LTA II									U	O	U	U	U

Source: Computed from Table 4.23

**Table 4.69**

Outperformance and Underperformance of ELSS Funds based on Sharpe Ratio of Diversified Equity Funds Category Average														
Sl.No.	Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
	Number of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12
	Name of ELSS Funds													
1	Axis Long Term Equity											U	U	O
2	Birla Sunlife Tax Plan								U	U	U	U	U	O
3	Birls Sunlife Tax Relief 96									U	U	U	U	O
4	BNP Paribas Tax Adv							U	U	U	U	U	O	O
5	BOI AXA Eco										U	U	U	U
6	BOI AXA Tax Adv										U	U	U	U
7	Canara Robeco Equity Tax Saver										O	U	O	O
8	DSP Black Rock Tax Saver								O	U	O	U	U	O
9	DWS Tax Saving							U	O	U	O	U	U	O
10	Edelweiss ELSS										U	U	O	U
11	Escorts Tax Plan	O	U	O	U	U	U	U	O	U	U	U	U	U
12	Franklin India Tax Shield	U	U	U	O	O	O	U	U	O	O	O	U	U
13	HDFC Long Term Adv		O	O	O	O	O	U	U	U	O	O	U	U
14	HDFC Tax Saver	O	O	U	U	O	O	U	U	O	O	O	U	U
15	HSBC Tax Saver								U	O	U	U	O	O
16	ICICI Pru Right											O	O	O
17	ICICI Pru Tax Plan	O	O	U	U	O	U	U	U	O	O	U	U	O
18	IDFC Tax Adv										O	U	U	O
19	IDFC Tax Saver								U	U	O	U	U	O
20	ING Retire Invest								U	U	U	U	U	U
21	ING Tax Savings					U	O	U	U	U	U	O	U	U
22	JM Tax Gain									U	U	U	U	U
23	JP Morgan Tax Advantage											O	U	U
24	Kotak Tax Saver							U	U	U	U	U	U	U
25	LIC Nomura Tax Plan	O	U	U	O	U	U	U	U	U	U	U	U	U
26	LNT Long Term Adv										O	U	U	U
27	LNT Tax Advantage							O	U	O	O	O	U	U
28	LNT Tax Saver							U	U	U	U	U	U	U
29	Quantum Tax Savings										O	O	U	O
30	Reliance Equity Linked Savings									O	U	U	O	O
31	Reliance Tax Saver							U	U	U	O	O	O	U
32	Religare Agile									U	U	U	U	O
33	Religare Tax Plan								O	U	O	U	O	O
34	Sahara Tax Gain	U	U	U	U	U	U	U	O	U	U	U	O	U
35	SBI Magnum Tax Gain									U	U	U	U	O
36	SBI Tax Advantage I									O	U	U	U	U
37	Sundaram Tax Saver							U	O	U	U	U	U	U
38	Tata Infra Tax Savings										O	U	U	U
39	Tata Tax Adv Fund I							U	U	U	O	U	U	U
40	Taurus Tax Shield	O	U	O	U	U	U	U	O	O	U	O	U	O
41	UTI ETSP							U	U	U	U	U	U	U
42	UTI LTA I								U	U	U	U	U	U
43	UTI LTA II									U	O	U	U	U

Source: Computed from Table 4.29



**Table 4.70**

Outperformance/ Underperformance of ELSS Funds Jensen's Alpha (BSE30) with Diversified Equity Funds Category Average														
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
	No. of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12
	ELSS Funds													
1	Axis Long Term Equity											O	U	O
2	Birla Sunlife Tax Plan								U	U	U	U	U	O
3	Birls Sunlife Tax Relief 96									U	U	U	U	O
4	BNP Paribas Tax Advantage							U	U	U	U	U	O	O
5	BOI AXA Eco										U	U	U	U
6	BOI AXA Tax Advantage										U	U	U	U
7	Canara Robeco Equity Tax Sa										U	U	U	U
8	DSP Black Rock Tax Saver								O	U	O	U	U	O
9	DWS Tax Saving							U	O	U	U	U	U	O
10	Edelweiss ELSS										U	U	O	U
11	Escorts Tax Plan	U	U	U	U	U	U	U	O	U	U	U	U	U
12	Franklin India Tax Shield	U	U	U	O	O	O	U	U	O	U	O	U	U
13	HDFC Long Term Adv		U	O	O	O	O	U	U	U	U	O	U	U
14	HDFC Tax Saver	O	O	U	U	O	O	U	U	O	O	O	U	U
15	HSBC Tax Saver								U	U	U	U	U	O
16	ICICI Pru Right											U	O	O
17	ICICI Pru Tax Plan	U	O	U	U	O	U	U	U	U	O	U	O	U
18	IDFC Tax Adv										O	U	U	O
19	IDFC Tax Saver								U	U	U	U	U	U
20	ING Retire Invest								U	U	U	U	U	U
21	ING Tax Savings					U	O	U	U	U	U	O	U	U
22	JM Tax Gain									U	U	U	U	U
23	JP Morgan Tax Advantage										U	O	U	U
24	Kotak Tax Saver							U	U	U	U	U	U	U
25	LIC Nomura Tax Plan	O	U	U	O	U	U	U	U	U	U	U	U	U
26	LNT Long Term Adv										O	U	U	U
27	LNT Tax Advantage							O	U	O	O	O	U	U
28	LNT Tax Saver							U	U	U	U	U	U	U
29	Quantum Tax Savings										O	O	U	O
30	Reliance Equity Linked Saving									O	O	O	O	O
31	Reliance Tax Saver							U	U	U	O	O	O	U
32	Religare Agile									U	O	U	U	U
33	Religare Tax Plan								O	U	O	U	U	O
34	Sahara Tax Gain	U	U	U	U	U	O	U	O	U	U	O	O	U
35	SBI Magnum Tax Gain									U	U	U	U	U
36	SBI Tax Advantage I									O	U	U	U	U
37	Sundaram Tax Saver							U	O	U	U	U	U	U
38	Tata Infra Tax Savings										U	U	U	U
39	Tata Tax Adv Fund I							U	U	U	U	U	U	U
40	Taurus Tax Shield	O	U	O	U	U	U	U	O	U	U	O	U	O
41	UTI ETSP							U	U	U	U	U	U	U
42	UTI LTA I								U	U	U	U	U	U
43	UTI LTA II									U	U	U	U	U

Source: Computed from Table 4.52

**Table 4.71**

Outperformance/ Underperformance of ELSS Funds Jensen's Alpha (NSE Nifty)with Diversified Equity Funds Category Average														
Sl.No.	Fund / Index	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
	No. of Diversified Funds	4	4	4	7	7	9	12	12	12	12	12	12	12
	<b>ELSS Funds</b>													
1	Axis Long Term Equity											O	U	O
2	Birla Sunlife Tax Plan								U	U	U	U	U	O
3	Birls Sunlife Tax Relief 96									U	U	U	U	O
4	BNP Paribas Tax Advantage							U	U	U	U	U	O	O
5	BOI AXA Eco										U	U	U	U
6	BOI AXA Tax Advantage										U	U	U	U
7	Canara Robeco Equity Tax										U	U	U	U
8	DSP Black Rock Tax Saver								O	U	O	U	U	O
9	DWS Tax Saving							U	O	U	U	U	U	O
10	Edelweiss ELSS										U	U	O	U
11	Escorts Tax Plan	U	U	U	U	U	U	U	O	U	U	U	U	U
12	Franklin India Tax Shield	U	U	U	O	O	O	U	U	O	U	O	U	U
13	HDFC Long Term Adv		U	O	O	O	O	U	U	U	U	O	U	U
14	HDFC Tax Saver	O	O	U	U	O	O	U	U	O	O	O	U	U
15	HSBC Tax Saver								U	U	U	U	U	O
16	ICICI Pru Right											U	O	O
17	ICICI Pru Tax Plan	U	O	U	U	O	U	U	U	U	O	U	O	U
18	IDFC Tax Adv										O	U	U	O
19	IDFC Tax Saver								U	U	U	U	U	U
20	ING Retire Invest								U	U	U	U	U	U
21	ING Tax Savings					U	O	U	U	U	U	O	U	U
22	JM Tax Gain									U	U	U	U	U
23	JP Morgan Tax Advantage										U	O	U	U
24	Kotak Tax Saver							U	U	U	U	U	U	U
25	LIC Nomura Tax Plan	O	U	U	O	U	U	U	U	U	U	U	U	U
26	LNT Long Term Adv										O	U	U	U
27	LNT Tax Advantage							O	U	O	O	O	U	U
28	LNT Tax Saver							U	U	U	U	U	U	U
29	Quantum Tax Savings										O	O	U	O
30	Reliance Equity Linked Sav									O	O	O	O	O
31	Reliance Tax Saver							U	U	U	O	O	O	U
32	Religare Agile									U	O	U	U	U
33	Religare Tax Plan								O	U	O	U	U	O
34	Sahara Tax Gain	U	U	U	U	U	O	U	O	U	U	O	O	U
35	SBI Magnum Tax Gain									U	U	U	U	U
36	SBI Tax Advantage I									O	U	U	U	U
37	Sundaram Tax Saver							U	O	U	U	U	U	U
38	Tata Infra Tax Savings										U	U	U	U
39	Tata Tax Adv Fund I							U	U	U	U	U	U	U
40	Taurus Tax Shield	O	U	O	U	U	U	U	O	U	U	O	U	O
41	UTI ETSP							U	U	U	U	U	U	U
42	UTI LTA I								U	U	U	U	U	U
43	UTI LTA II									U	U	U	U	U

Source: Computed from Table 4.57

The statistical properties of the data considered for Investment Performance evaluation is provided below.

**Table 4.72**

**ELSS Funds Data Processing Summary**

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ELSS	294	100.0%	0	0.0%	294	100.0%

Source: Secondary Data

**Table 4.73**

**ELSS Data Descriptive**

			Statistic	Std. Error
ELSS	Mean		.033300	.0054085
	95% Confidence	Lower Bound	.022656	
	Interval for Mean	Upper Bound	.043945	
	5% Trimmed Mean		.032952	
	Median		.019500	
	Variance		.009	
	Std. Deviation		.0927362	
	Minimum		-.2235	
	Maximum		.2596	
	Range		.4831	
	Interquartile Range		.0788	
	Skewness		.249	.142
	Kurtosis		.083	.283

Source: SPSS output of Secondary Data

**Table 4.74**

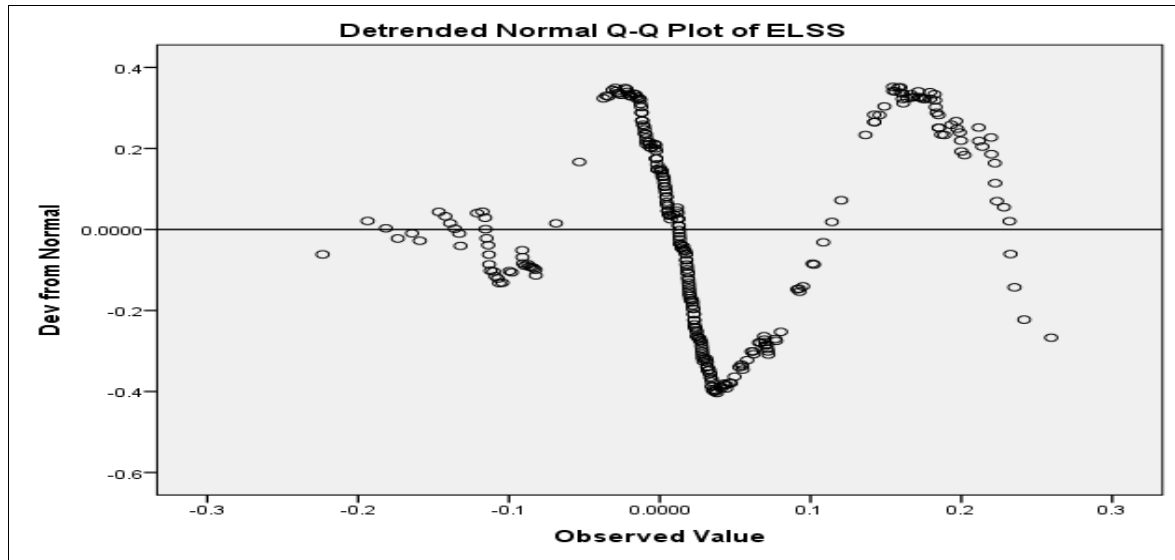
**ELSS Funds Data Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ELSS	.158	294	.000	.943	294	.000

a. Lilliefors Significance Correction

Source: Secondary Data

**Chart 4.25**  
**ELSS Funds Data Normal Q-Q Plot**



Source: SPSS output of Secondary Data

**Table 4.75**  
**Diversified Equity Funds Data Processing Summary**

	Cases					
	Valid		Missing		Total	
	N	%	N	%	N	%
Diversified	119	100%	0	0.0	119	100%

Source: Secondary Data

**Table 4.76**  
**Diversified Equity Funds Data Descriptive**

		Statistic	Std. Error
Diversified	Mean	.033252	.0068593
	95% Confidence Interval for Mean		
	Lower Bound	.019669	
	Upper Bound	.046835	
	5% Trimmed Mean	.027504	
	Median	.000000	
	Variance	.006	
	Std. Deviation	.0748265	
	Minimum	-.1567	
	Maximum	.2948	
	Range	.4515	
	Interquartile Range	.0462	
	Skewness	1.512	.222
	Kurtosis	2.501	.440

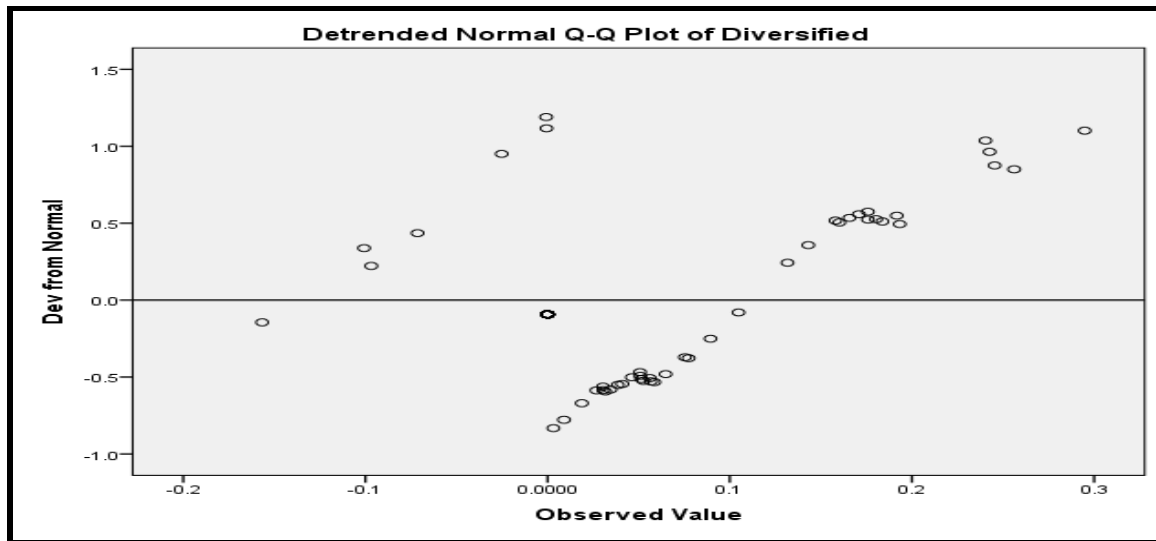
Source: SPSS output of Secondary Data

**Table 4.77**  
**Diversified Equity Funds Data Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Diversified	.335	119	.000	.710	119	.000

- a. Lilliefors Significance Correction  
Source: Secondary Data

**Chart 4.26**  
**Diversified Equity Funds Data Normal Q-Q Plot**



Source: Secondary Data

**Table 4.78****Market Indexes Data Processing Summary**

	Cases					
	Valid		Missing		Total	
	N	%	N	%	N	%
Index	88	100%	0	0%	88	100.0%

Source: Secondary Data

**Table 4.79****Market Indexes Data Descriptive**

		Statistic	Std. Error
Index	Mean	.038378	.0098885
	95% Confidence Interval for Mean		
	Lower Bound	.018724	
	Upper Bound	.058033	
	5% Trimmed Mean	.038256	
	Median	.028650	
	Variance	.009	
	Std. Deviation	.0927625	
	Minimum	-.1327	
	Maximum	.2141	
	Range	.3468	
	Interquartile Range	.0983	
	Skewness	.111	.257
	Kurtosis	-.529	.508

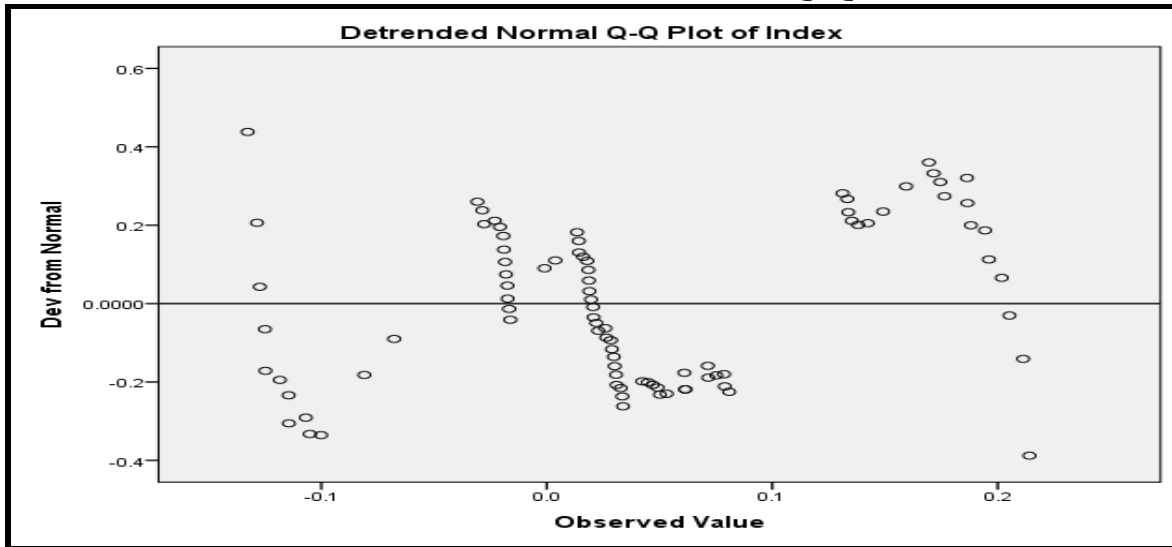
Source: Secondary Data

**Table 4.80****Market Indexes Data Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Index	.111	88	.010	.949	88	.002

- a. Lilliefors Significance Correction  
Source: Secondary Data

**Chart 4.27**  
**Market Indexes Data Normal Q-Q Plot**



Source: Secondary Data

As can be seen from the Normality test results of the returns data of ELSS funds, Diversified Funds and Market Indexes as provided in Table 4.74, 4.77 and 4.80 respectively, the p values are significant, leading to the rejection of the assumption of normality.



The study in evaluating the Investment Performance of ELSS funds, had set the following Hypothesis :

$H_{01a}$  = There is no significant difference in the average Sharpe Ratio of ELSS (Growth) funds and Diversified Equity (Growth) funds.

$H_{1a}$  = There is a significant difference in the average Sharpe Ratio of ELSS (Growth) funds and Diversified Equity (Growth) funds.

$H_{01b}$  = There is no significant difference in the average Sharpe Ratio of ELSS (Growth) funds and Benchmark Market Indexes.

$H_{1b}$  = There is a significant difference in the average Sharpe Ratio of ELSS (Growth) funds and Benchmark Market Indexes.

$H_{02a}$  = There is no significant difference in the average Sortino Ratio of ELSS (Growth) funds and Diversified Equity (Growth) funds.

$H_{2a}$  = There is a significant difference in the average Sortino Ratio of ELSS (Growth) funds and Diversified Equity (Growth) funds.

$H_{02b}$  = There is no significant difference in the average Sortino Ratio of ELSS (Growth) funds and Benchmark Market Indexes.

$H_{2b}$  = There is a significant difference in the average Sortino Ratio of ELSS (Growth) funds and Benchmark Market Indexes.

$H_{03a}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE Sensex.

$H_{3a}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE Sensex.

$H_{03b}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 100 Index.

$H_{3b}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 100 Index .

- $H_{03c}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 200 Index.
- $H_{3c}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 200 Index.
- $H_{03d}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 500 Index.
- $H_{3d}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on BSE 500 Index.
- $H_{03e}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE Nifty.
- $H_{3e}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE Nifty.
- $H_{03f}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE 100 Index.
- $H_{3f}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE 100 Index.
- $H_{03g}$  = There is no significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE 500 Index.
- $H_{3g}$  = There is a significant difference in the average Jensen's Alpha of ELSS (Growth) funds and Diversified Equity (Growth) funds based on NSE 500 Index.

In order to test the hypothesis  $H_{01}$  to  $H_{03}$ , the study has considered the Aspin –Welch-Satterthwaite t-test or also called Welch's- t test, to test the difference between two independent group means, with their variances and sample size being unequal. A two tailed test is adopted with alpha equal to 0.05.

Table 4.81 shows the results of Welch t Test for finding the equality of means of Sharpe Ratio of ELSS funds and Diversified Equity funds. The p value of the test is found significant at 0.05 significance level and the null hypothesis  $H_{01a}$  is rejected. The results of test show that there is a significant difference in the mean Sharpe ratio of ELSS funds and Diversified Equity funds.

**Table 4.81**

**$H_{01a}$  - Hypothesis Testing**

Descriptive – Sharpe Ratio of ELSS Funds and Diversified Equity Funds								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
ELSS Funds	43	-.0337	.21932	.03345	-.1012	.0338	-.62	.50
Diversified Equity Funds	12	.1775	.14790	.04270	.0835	.2715	-.07	.40
Total	55	.0124	.22275	.03004	-.0479	.0726	-.62	.50
Robust Tests of Equality of Means – Sharpe Ratio								
	Statistic <sup>a</sup>	df1	df2	Sig.				
Welch	15.167	1	26.071	.001				

a. Asymptotically F distributed.

Source: Based on Secondary Data –SPSS Output

Table 4.82 shows the results of Welch t Test for finding the equality of means of Sharpe Ratio of ELSS funds and Benchmark Market Indexes. The p value of the test is not significant at 0.05 significance level and the null hypothesis  $H_{01b}$  cannot be rejected. The results of test show that there is no significant difference in the mean Sharpe ratio of ELSS funds and Benchmark Market Indexes.

**Table 4.82**

**$H_{01b}$  - Hypothesis Testing**

Descriptive - Sharpe Ratio of ELSS Funds and Benchmark Market Indexes								
					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
ELSS Funds	43	-.0337	.21932	.03345	-.1012	.0338	-.62	.50
Market Indexes	7	.0686	.11810	.04464	-.0407	.1778	0.00	.33
Total	50	-.0194	.21029	.02974	-.0792	.0404	-.62	.50
Robust Tests of Equality of Means - Sharpe Ratio								
	Statistic <sup>a</sup>	df1	df2		Sig.			
Welch	3.363	1	13.998		.088			
a. Asymptotically F distributed.								

Source: Based on Secondary Data –SPSS Output

Table 4.83 shows the results of Welch t Test for finding the equality of means of Sortino Ratio of ELSS funds and Diversified Equity funds. The p value of the test is found significant at 0.05 significance level and the null hypothesis  $H_{02a}$  is rejected. The results of test show that there is a significant difference in the mean Sortino ratio of ELSS funds and Diversified Equity funds.

**Table 4.83**

**$H_{02a}$  - Hypothesis Testing**

Descriptive- Sortino Ratio of ELSS Funds and Diversified Equity Funds								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
ELSS	43	-.0291	.32631	.04976	-.1295	.0714	-.81	.88
Diversified Equity Funds	12	.2633	.20205	.05833	.1350	.3917	-.08	.55
Total	55	.0347	.32556	.04390	-.0533	.1227	-.81	.88

Robust Test of Equality of Means – Sortino Ratio				
Dependent				
	Statistic <sup>a</sup>	df1	df2	Sig.
Welch	14.545	1	28.840	.001

a. Asymptotically F distributed.

Source : Based on Secondary Data –SPSS Output

Table 4.84 shows the results of Welch t Test for finding the equality of means of Sortino Ratio of ELSS funds and Benchmark Market Indexes. The p value of the test is not significant at 0.05 significance level and the null hypothesis  $H_{02b}$  cannot be rejected. The results of test show that there is no significant difference in the mean Sortino ratio of ELSS funds and Benchmark Market Indexes.

**Table 4.84**

**$H_{02b}$  - Hypothesis Testing**

Descriptive - Sortino Ratio of ELSS Funds and Benchmark Market Indexes								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
ELSS Funds	43	-.0291	.32631	.04976	-.1295	.0714	-.81	.88
Market Indexes	7	.0571	.19146	.07237	-.1199	.2342	-.07	.46
Total	50	-.0170	.31092	.04397	-.1054	.0714	-.81	.88
Robust Tests of Equality of Means - Sortino Ratio								
	Statistic <sup>a</sup>		df1	df2	Sig.			
Welch	.964		1	12.613	.345			
a. Asymptotically F distributed.								

Source: Based on Secondary Data –SPSS Output

Table 4.85 shows the results of Welch t Test for finding the equality of means of Jensen's Alpha of ELSS funds and Diversified Equity funds based on BSE Sensex. The p value of the test is found significant at 0.05 significance level and the null hypothesis  $H_{03a}$  is rejected. The results of test show that there is a significant difference in mean Jensen's Alpha of ELSS funds and Diversified Equity funds based on BSE Sensex.

**Table 4.85**

**$H_{03a}$  - Hypothesis Testing**

Descriptive – Jensen’s Alpha (BSE 30 Sensex ) of ELSS Funds and Diversified Equity Funds								
Dependent								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
ELSS	43	.0018	.01316	.00201	-.0023	.0058	-.03	.03
Diversified Equity Funds	12	.0095	.00943	.00272	.0035	.0155	-.01	.03
Total	55	.0035	.01278	.00172	.0000	.0069	-.03	.03
Robust Test of Equality of Means – Jensen’s Alpha ( BSE 30)								
Dependent								
	Statistic <sup>a</sup>	df1	df2	Sig.				
Welch	5.192	1	24.323	.032				
a. Asymptotically F distributed.								

Source: Based on Secondary Data – Compiled from SPSS Output

Table 4.86 shows the results of Welch t Test for finding the equality of means of Jensen's Alpha of ELSS funds and Diversified Equity funds based on BSE 100 Index. The p value of the test is found significant at 0.05 significance level and the null hypothesis  $H_{03b}$  is rejected. The results of test show that there is a significant difference in mean Jensen's Alpha of ELSS funds and Diversified Equity funds based on BSE 100 Index.

**Table 4.86**

**$H_{03b}$  - Hypothesis Testing**

Descriptives - Jensen's Alpha (BSE 100 Index ) of ELSS Funds and Diversified Equity Funds								
Dependent								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
ELSS	43	.003628	.0128582	.0019609	-.000329	.007585	-.0250	.0330
Diversified Equity Funds	12	.011000	.0099727	.0028789	.004664	.017336	-.0050	.0280
Total	55	.005236	.0125815	.0016965	.001835	.008638	-.0250	.0330
Robust Test of Equality of Means – Jensen Alpha ( BSE 100)								
Dependent								
	Statistic <sup>a</sup>	df1	df2	Sig.				
Welch	4.479	1	22.316	.046				
a. Asymptotically F distributed.								

Source: Based on Secondary Data – Compiled from SPSS Output



Table 4.87 shows the results of Welch t Test for finding the equality of means of Jensen's Alpha of ELSS funds and Diversified Equity funds based on BSE 200 Index. The p value of the test is found significant at 0.05 significance level and the null hypothesis  $H_{03b}$  is rejected. The results of test show that there is a significant difference in mean Jensen's Alpha of ELSS funds and Diversified Equity funds based on BSE 200 Index.

**Table 4.87**

**$H_{03c}$  - Hypothesis Testing**

Descriptive – Jensen’s Alpha (BSE 200 Index) of ELSS Funds and Diversified Equity Funds								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
ELSS Funds	43	.003837	.0126113	.0019232	-.000044	.007718	-.0230	.0340
Diversified Equity Funds	12	.012917	.0084257	.0024323	.007563	.018270	.0000	.0270
Total	55	.005818	.0123485	.0016651	.002480	.009156	-.0230	.0340
Robust Test of Equality of Means – Jensen’s Alpha (BSE 200)								
Dependent								
	Statistic <sup>a</sup>	df1	df2	Sig.				
Welch	8.574	1	26.356	.007				
a. Asymptotically F distributed.								

Source: Based on Secondary Data - SPSS Output

Table 4.88 shows the results of Welch t Test for finding the equality of means of Jensen's Alpha of ELSS funds and Diversified Equity funds based on BSE 500 Index. The p value of the test is found significant at 0.05 significance level and the null hypothesis  $H_{03d}$  is rejected. The results of test show that there is a significant difference in mean Jensen's Alpha of ELSS funds and Diversified Equity funds based on BSE 500 Index.

**Table 4.88**

**$H_{03d}$  - Hypothesis Testing**

Descriptive – Jensen's Alpha (BSE 500 Index) of ELSS Funds and Diversified Equity Funds								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
ELSS Funds	43	.004512	.0123681	.0018861	.000705	.008318	-.0230	.0330
Diversified Equity Funds	12	.013167	.0082993	.0023958	.007894	.018440	.0000	.0270
Total	55	.006400	.0120840	.0016294	.003133	.009667	-.0230	.0330

Robust Test of Equality of Means – Jensen's Alpha (BSE 500)				
Dependent				
	Statistic <sup>a</sup>	df1	df2	Sig.
Welch	8.057	1	26.222	.009
a. Asymptotically F distributed.				

S

Source: Based on Secondary Data - SPSS Output

Table 4.89 shows the results of Welch t Test for finding the equality of means of Jensen's Alpha of ELSS funds and Diversified Equity funds based on NSE Nifty Index. The p value of the test is found significant at 0.05 significance level and the null hypothesis  $H_{03e}$  is rejected. The results of test show that there is a significant difference in mean Jensen's Alpha of ELSS funds and Diversified Equity funds based on NSE Nifty Index.

**Table 4.89**

**$H_{03e}$  - Hypothesis Testing**

Descriptive – Jensen's Alpha (NSE Nifty Index ) of ELSS Funds and Diversified Equity Funds								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
ELSS Funds	43	-.002023	.0131900	.0020115	-.006083	.002036	-.0280	.0340
Diversified Equity Funds	12	.007083	.0087121	.0025150	.001548	.012619	-.0030	.0220

Robust Test of Equality of Means – Jensen's Alpha (NSE Nifty )				
Dependent				
	Statistic <sup>a</sup>	df1	df2	Sig.
Welch	7.996	1	26.711	.009

a. Asymptotically F distributed.

Source: Based on Secondary Data - SPSS Output

Table 4.90 shows the results of Welch t Test for finding the equality of means of Jensen's Alpha of ELSS funds and Diversified Equity funds based on NSE CNX 100 Index. The p value of the test is found significant at 0.05 significance level and the null hypothesis  $H_{03f}$  is rejected. The results of test show that there is a significant difference in mean Jensen's Alpha of ELSS funds and Diversified Equity funds based on NSE CNX 100 Index.

**Table 4.90**

**$H_{03f}$  - Hypothesis Testing Descriptive (NSE 100)**

Descriptive - Jensen's Alpha (NSE 100 Index ) of ELSS Funds and Diversified Equity Funds								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
ELSS Funds	43	-.001209	.0141431	.0021568	-.005562	.003143	-.0330	.0300
Diversified Equity Funds	12	.007250	.0080014	.0023098	.002166	.012334	-.0040	.0200
Total	55	.000636	.0134555	.0018143	-.003001	.004274	-.0330	.0300

Robust Test of Equality of Means				
Dependent				
	Statistic <sup>a</sup>	df1	df2	Sig.
Welch	7.165	1	32.144	.012
a. Asymptotically F distributed.				

Source: Based on Secondary Data - SPSS Output

Table 4.91 shows the results of Welch t Test for finding the equality of means of Jensen's Alpha of ELSS funds and Diversified Equity funds based on NSE CNX 500 Index. The p value of the test is found significant at 0.05 significance level and the null hypothesis  $H_{03g}$  is rejected. The results of test show that there is a significant difference in mean Jensen's Alpha of ELSS funds and Diversified Equity funds based on NSE CNX 500 Index.

**Table 4.91**

**$H_{03g}$  - Hypothesis Testing**

Descriptive - Jensen's Alpha (NSE 500 Index ) of ELSS Funds and Diversified Equity Funds								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
ELSS Funds	43	.003581	.0122751	.0018719	-.000196	.007359	-.0230	.0320
Diversified Equity Funds	12	.012000	.0088215	.0025465	.006395	.017605	-.0030	.0260
Total	55	.005418	.0120565	.0016257	.002159	.008678	-.0230	.0320
Robust Test of Equality of Means								
Dependent								
		Statistic <sup>a</sup>	df1	df2		Sig.		
Welch		7.095	1	24.246		.014		
a. Asymptotically F distributed.								

c

Source: Based on Secondary Data - SPSS Output

**Table 4.92****Results Summary of Hypothesis Testing of Secondary Data**

<b>Hypothesis</b>	<b>Statement of Null Hypothesis</b>	<b>Welch's t Test - p Value</b>	<b>Significance at 0.05</b>	<b>Test Result</b>
H01a	No Significant difference in the Mean Sharpe Ratio of ELSS Funds and Diversified Equity Funds	0.001	Significant	Null Hypothesis Rejected
H01b	No Significant difference in the Mean Sharpe Ratio of ELSS Funds and Benchmark Market Indexes	0.088	Not Significant	Null Hypothesis cannot be Rejected
H02a	No Significant difference in the Mean Sortino Ratio of ELSS Funds and Diversified Equity Funds	0.001	Significant	Null Hypothesis Rejected
H02b	No Significant difference in the Mean Sortino Ratio of ELSS Funds and Benchmark Market Indexes	0.345	Not Significant	Null Hypothesis cannot be Rejected
H03a	No Significant difference in the Mean Jensen's Alpha of ELSS Funds and Diversified Equity Funds based on BSE Sensex	0.032	Significant	Null Hypothesis Rejected
H03b	No Significant difference in the Mean Jensen's Alpha of ELSS Funds and Diversified Equity Funds based on BSE 100 Index	0.046	Significant	Null Hypothesis Rejected
H03c	No Significant difference in the Mean Jensen's Alpha of ELSS Funds and Diversified Equity Funds based on BSE 200 Index	0.007	Significant	Null Hypothesis Rejected
H03d	No Significant difference in the Mean Jensen's Alpha of ELSS Funds and Diversified Equity Funds based on BSE 500 Index	0.009	Significant	Null Hypothesis Rejected
H03e	No Significant difference in the Mean Jensen's Alpha of ELSS Funds and Diversified Equity Funds based on NSE Nifty	0.009	Significant	Null Hypothesis Rejected
H03f	No Significant difference in the Mean Jensen's Alpha of ELSS Funds and Diversified Equity Funds based on NSE 100 Index	0.012	Significant	Null Hypothesis Rejected
H03g	No Significant difference in the Mean Jensen's Alpha of ELSS Funds and Diversified Equity Funds based on NSE 500 Index	0.014	Significant	Null Hypothesis Rejected

Source: Based on Secondary Data – Compiled from SPSS Output

As seen from Table 4.92, there is a significant difference in the risk adjusted investment performance of ELSS funds and Diversified Equity funds based on Sharpe, Sortino and Jensen measures. From the mean of Sharpe, Sortino and Jensen measures of ELSS Funds and Diversified Equity Funds it clear that Diversified Equity Funds have a statistically significant higher mean as compared to ELSS Funds. This implies that Diversified Equity Funds have a better risk adjusted return performance as compared to ELSS Funds. On the other hand, there is no significant difference in the risk adjusted investment performance of ELSS funds and Benchmark Market Indexes based on Sharpe and Sortino measures. This implies that the risk adjusted performance of ELSS funds is on par with Benchmark Indexes.

## **Chapter 5**

### **Data Analysis & Discussion – Investor Perception**



## **5.01 Introduction**

ELSS mutual fund is one of the various investment options available for an investor to save tax in the form of a deduction u/s 80C of the Indian Income Tax Act. In the investment spectrum of tax saving schemes, ELSS stands on one extreme as its returns are market driven or in other words fully variable. This also means that the returns can be negative. On the other end of the spectrum, there are a number of investments which are in the nature of debt investments, like Public Provident Fund, Post Office National Savings Certificate, 5 Year Tax Saving Bank Fixed Deposit whose returns are not variable or remain fixed. The returns of these debt investments cannot be negative in nominal terms. There are also other tax savings schemes like traditional Insurance Plans, whose returns although are not fixed, provide positive returns albeit low returns. In this situation, investor's preference for ELSS funds would naturally depend upon their perception towards the risk return characteristics or in other words the risk premium that it could offer.

ELSS funds were introduced by the Government of India in order to encourage small investors to participate in the equity segment of the capital markets and take the advantage of the diversification benefit offered by mutual funds and at the same time create wealth in the long run. ELSS funds have a history of over 22 years in several forms. One of the ways of analysing whether the objective for which ELSS funds were introduced is met is through analysing the investor's perception towards this investment and also its preference when compared to other tax saving investments. So this study has been undertaken in order to understand the investors perception towards ELSS funds and their preference towards it as compared to other tax saving investments.

## **5.02 Data Analysis and Discussion – Investor Perception**

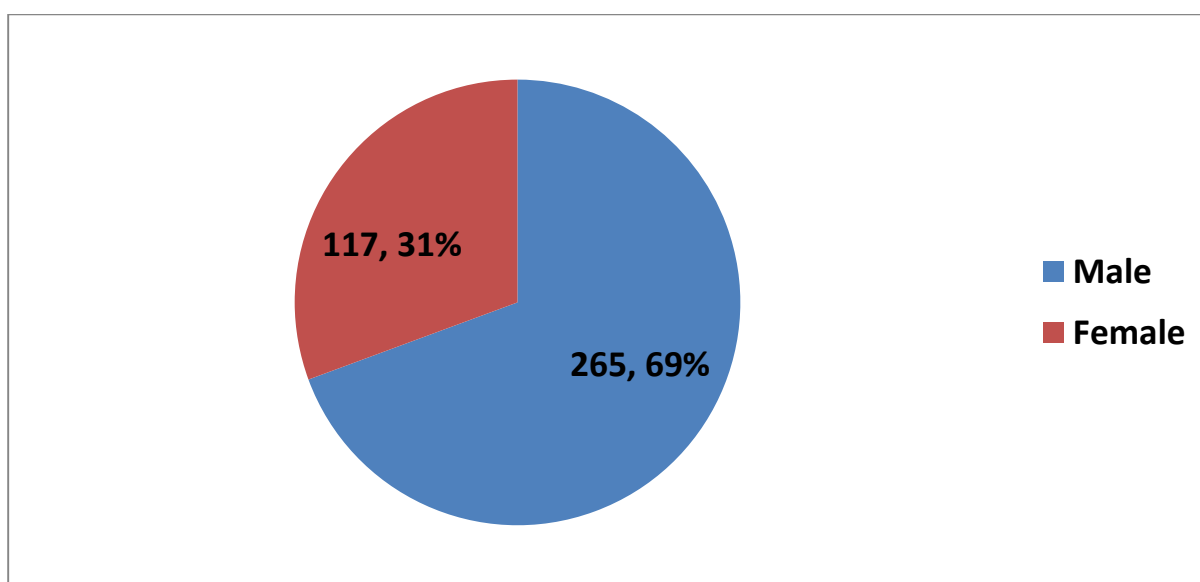
The research questions set out are the following:

- 1) Is the investor perception towards expected returns of ELSS funds the same as Diversified Equity funds?
- 2) Do investors perceive a higher risk in investing in ELSS funds as compared to Diversified Equity funds?
- 3) Do investors have the same preference for ELSS funds as compared to other Tax saving investments?

For the purpose of this study a survey was conducted through a Questionnaire, on investor's residing in the city of Bengaluru and its sub-urban area. The sampling method used is purposive sampling. The sample considered has two segments, investor category and non-investor category. Respondents in investor category are those who have an investment experience in ELSS funds. Respondents in non-investor category are those who have not invested in ELSS funds but have invested in other tax saving investments. The sample size for Investor category is 382 and for Non Investor Category the number of responses collected is 150. The demographic characteristics of the sample data, its descriptive and inferential statistics is provided below.

The total number of respondents in the Investor Category is 382. Of which 265 are male and 117 female respondents. Male respondents constitute 69.4 percentage and female respondents constituted 30.6 percentage of the total sample size (Chart 5.01).

**Chart 5.01**  
**Investor Category Sample Data - Gender**

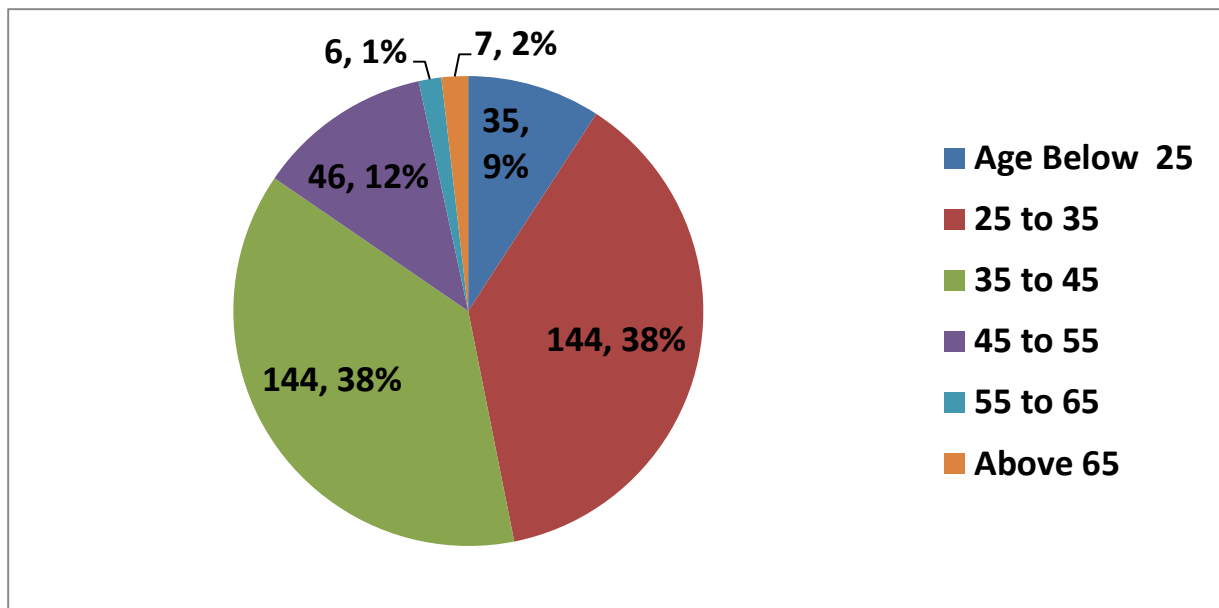


Source: Primary Data – Question 2 of Investor Category Questionnaire

The age of the investor category of respondents is shown in Chart 5.02. The number of respondents in the age group of less than 25 were 9 percentage. The respondents in the age group of 25 to 35 and 35 to 45 were of equal size constituting 38 percentage each. Respondents aged 45 to 55 were 12 percentage, between ages 55 to 65 were 1 percentage and above age 65 were 2 percentage.

**Chart 5.02**

**Investor Category Sample Data - Age**

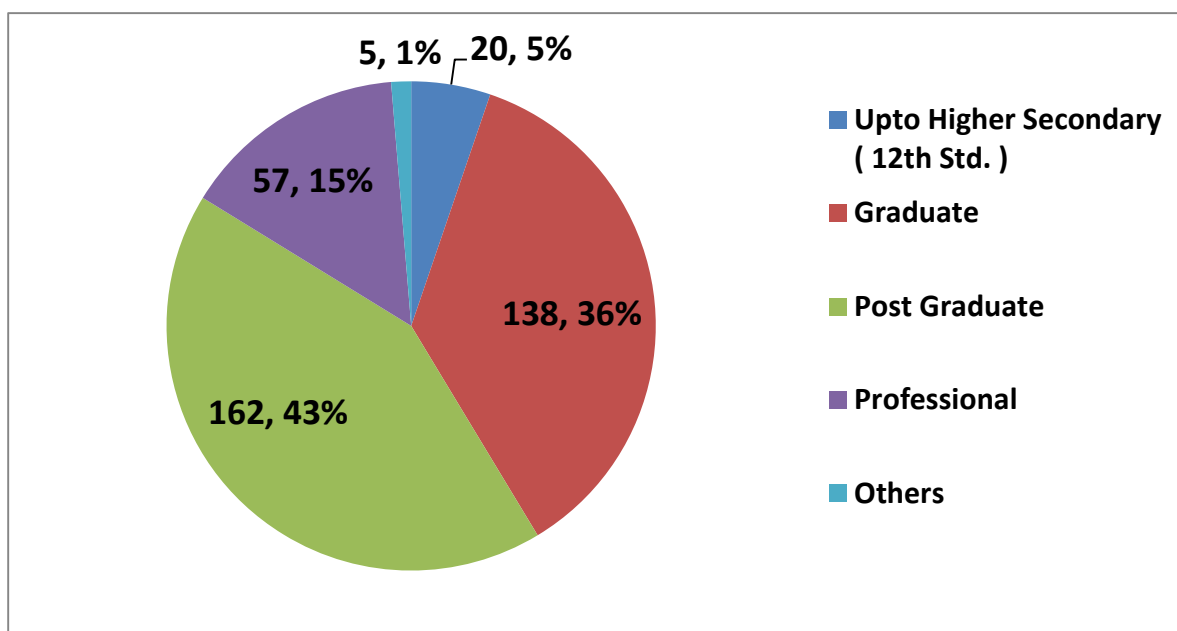


Source: Primary Data – Question 3 of Investor Category Questionnaire

The educational background of the Investor Category of respondents is shown in Chart 5.03. Graduates constituted 36 percentage, Post Graduates 43 percentage, Professionals 15 percentage, Higher Secondary 5 percentage and others were 1 percentage.

**Chart 5.03**

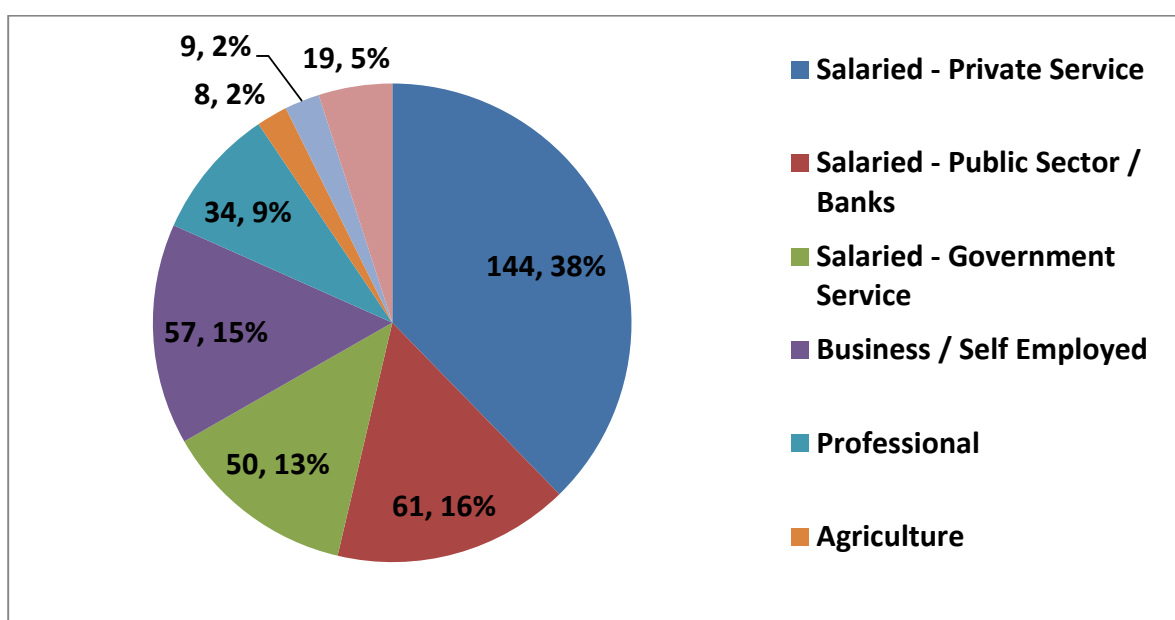
**Investor Category Sample – Educational Background**



Source: Primary Data – Question 4 of Investor Category Questionnaire

The investor category sample had 38 percentage of the respondents were Salaried employees working in private sector and 16 percentage were working in public sector and banks. 13 percentage of the respondents were in Government service, 15 percentage were Self- employed, 9 percentage were professional, 2 percentage were Retired employees and another 2 percentage were into Agriculture. 5 percentage of the respondents fell into others category. The same is shown in Chart 5.04.

**Chart 5.04**  
**Investor Category Sample - Occupation**

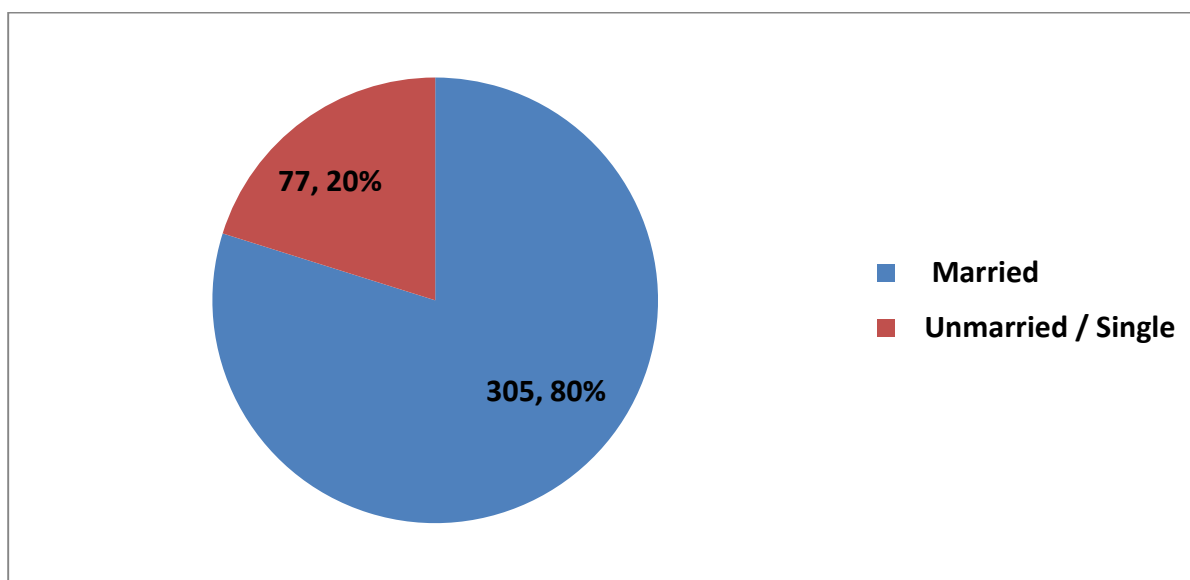


Source : Primary Data – Question 5 of Investor Category Questionnaire

The Investor category of respondents had a marital status of 80 percentage being married respondents and 20 percentage being un- married. (Chart 5.05)

**Chart 5.05**

**Investor Category Sample – Marital Status**

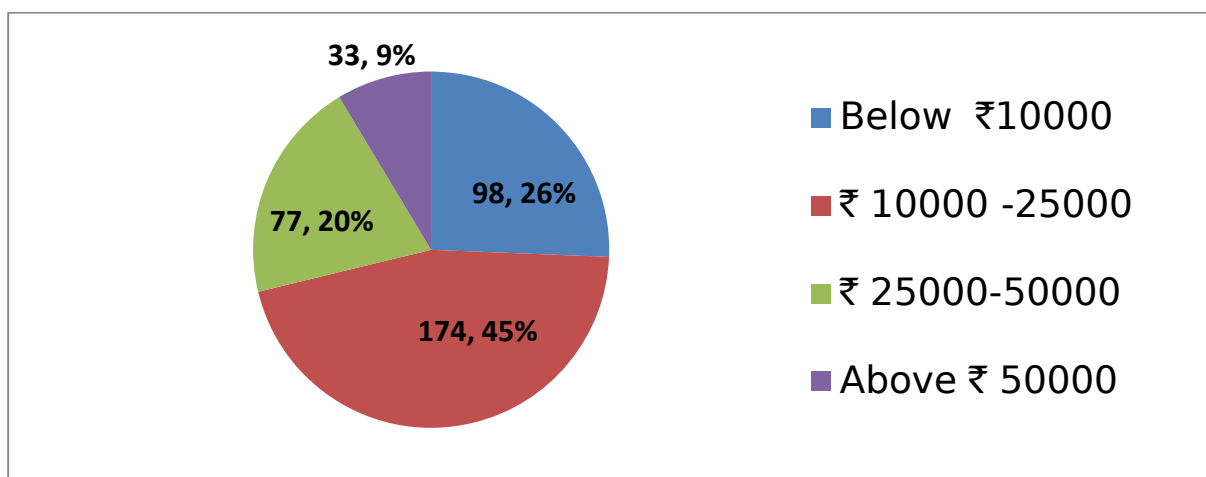


Source: Primary Data – Question 6 of Investor Category Questionnaire

The monthly savings of Investor Category respondents are provided in Chart 5.06. Accordingly we find that 26 percentage of the respondents have a saving of less than ₹ 10000, 45 percentage have savings between ₹10000 and ₹25000, 20 percentage between ₹50000 and 9 percentage have savings above ₹50000.

**Chart 5.06**

**Investor Category Sample – Monthly Savings**

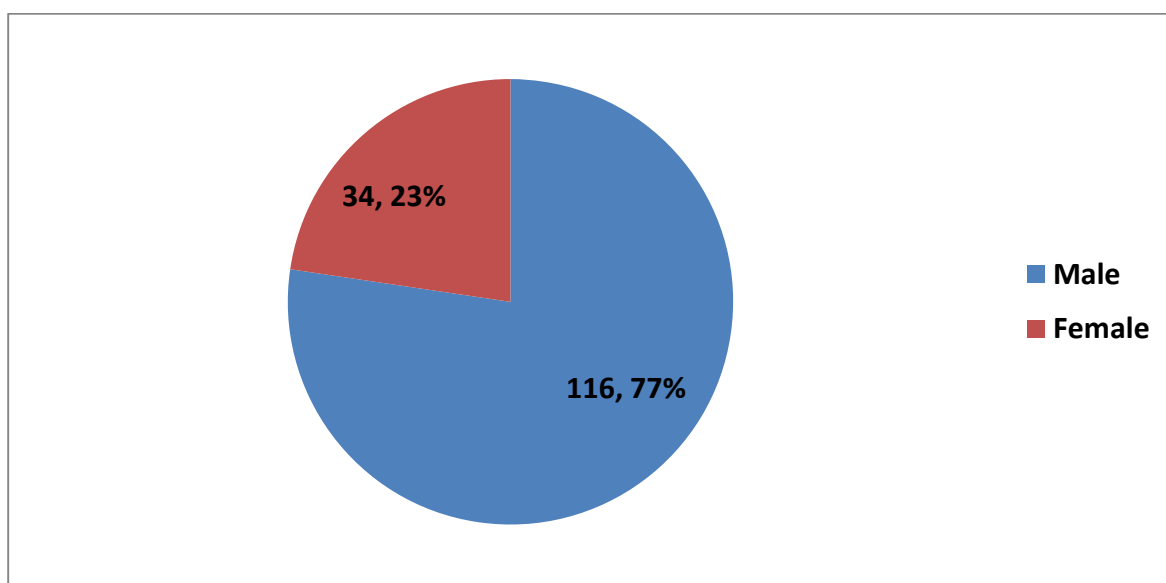


Source: Primary Data – Question 7 of Investor Category Questionnaire

The number of respondents in Non Investor category was 150 of which 77 percentage were male and 23 percentage were female (Chart 5.07).

**Chart 5.07**

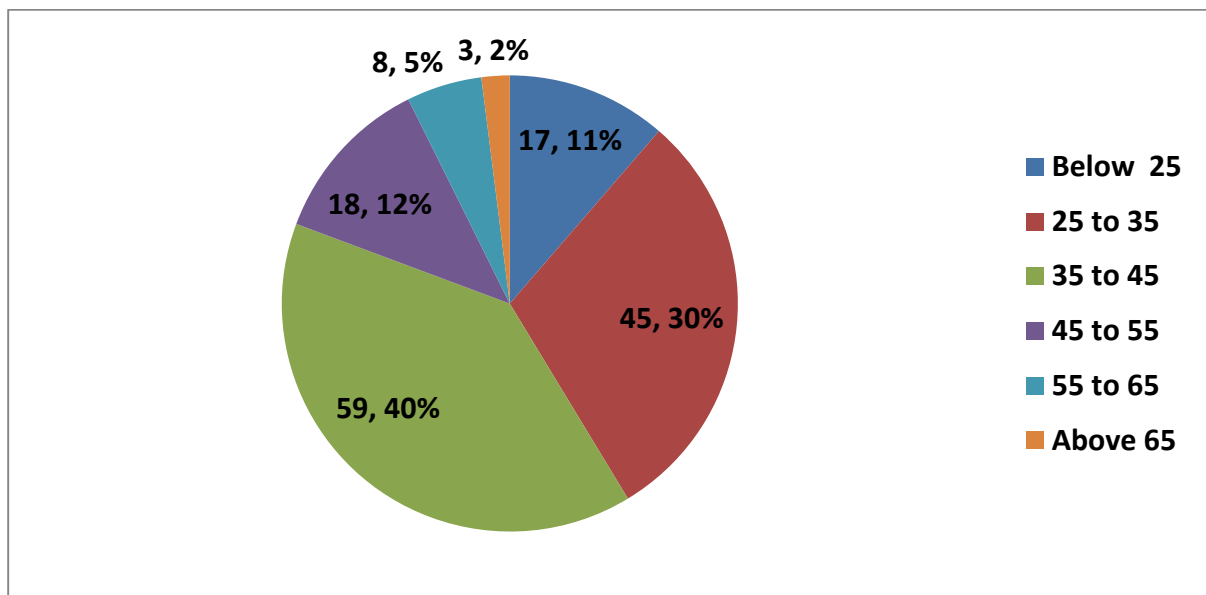
**Non Investor Category Sample - Gender**



Source: Primary Data – Question 2 of Non Investor Category Questionnaire

The age profile of Non Investor Category of respondents is shown in Chart 5.08. Accordingly, 11percentage were below age 25 years, 30 percentage between age 25 to 35, 40 percentage between age 35 to 45, 12 percentage between 45 to 55, 5 percentage between age 55 and 65 and 2 percentage above age 65.

**Chart 5.08**  
**Non Investor Category Sample – Age**



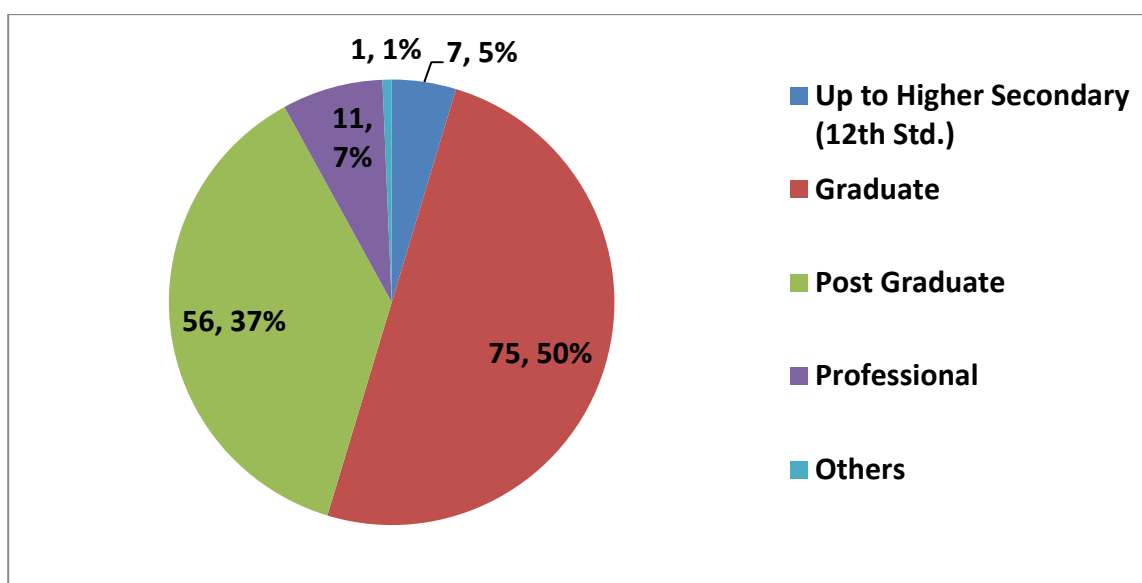
Source: Primary Data – Question 3 of Non Investor Category Questionnaire



The educational background of Non Investor category of respondents is provided in Chart 5.09. Accordingly 50 percentage of the respondents were Graduates, 37 percentage were Post Graduates, 7 percentage were Professional, 5 percentage were Higher Secondary and 1 percentage were others.

**Chart 5.09**

**Non Investor Category Sample – Educational Background**

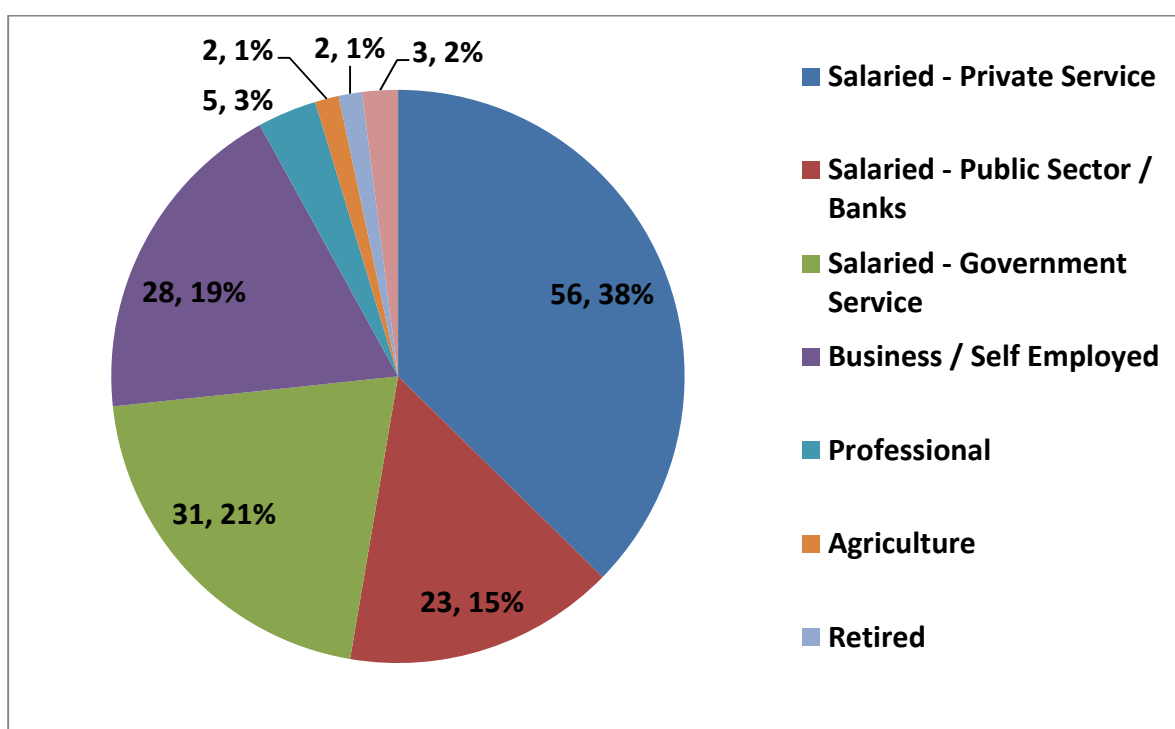


Source: Primary Data – Question 4 of Non Investor Category Questionnaire

The occupational profile of Non Investor category is provided in Chart 5.10. The same shows that 38 percentage of the respondents were Private Sector employees, 15 percentage were employed in Public sector and banks, 19 percentage belonged to business class, 3 percentage were professional, 1 percentage were into Agriculture, 1 percentage were retired and 2 percentage belonged to other category.

**Chart 5.10**

**Non Investor Category Sample – Occupation**

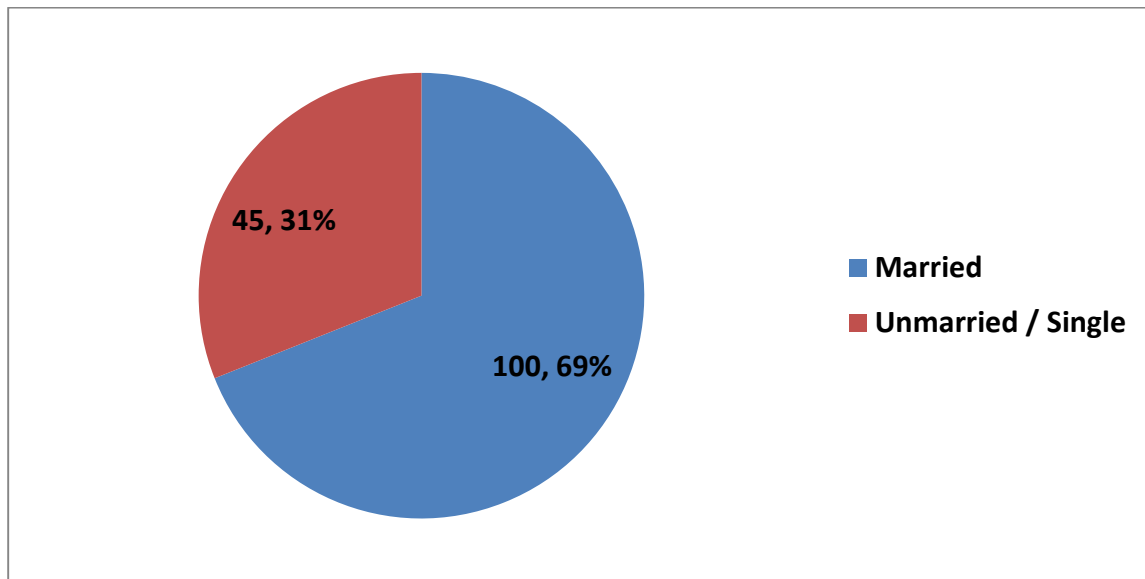


Source: Primary Data – Question 5 of Non Investor Category Questionnaire

The Non Investor category had 69 percentage of respondents who were married and 31percentage of respondents who were unmarried (Chart 5.11).

**Chart 5.11**

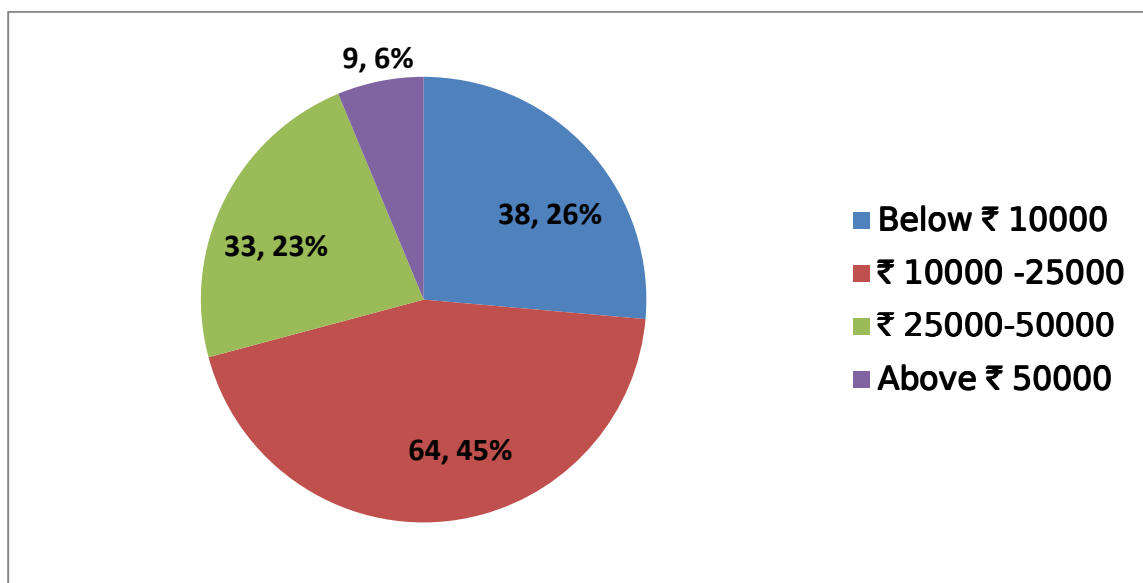
**Non Investor Category – Marital Status**



Source: Primary Data – Question 6 of Non Investor Category Questionnaire

The monthly savings of the Non Investor category is given in Chart 5.12. Accordingly, we find that 26 percentage had a saving below ₹10000, 45 percentage had saving between ₹10000 and ₹25000, 23 percentage has savings between ₹25000 and ₹50000 and 6 percentage had savings above ₹50000.

**Chart 5.12**  
**Non Investor Category Sample – Monthly Savings**

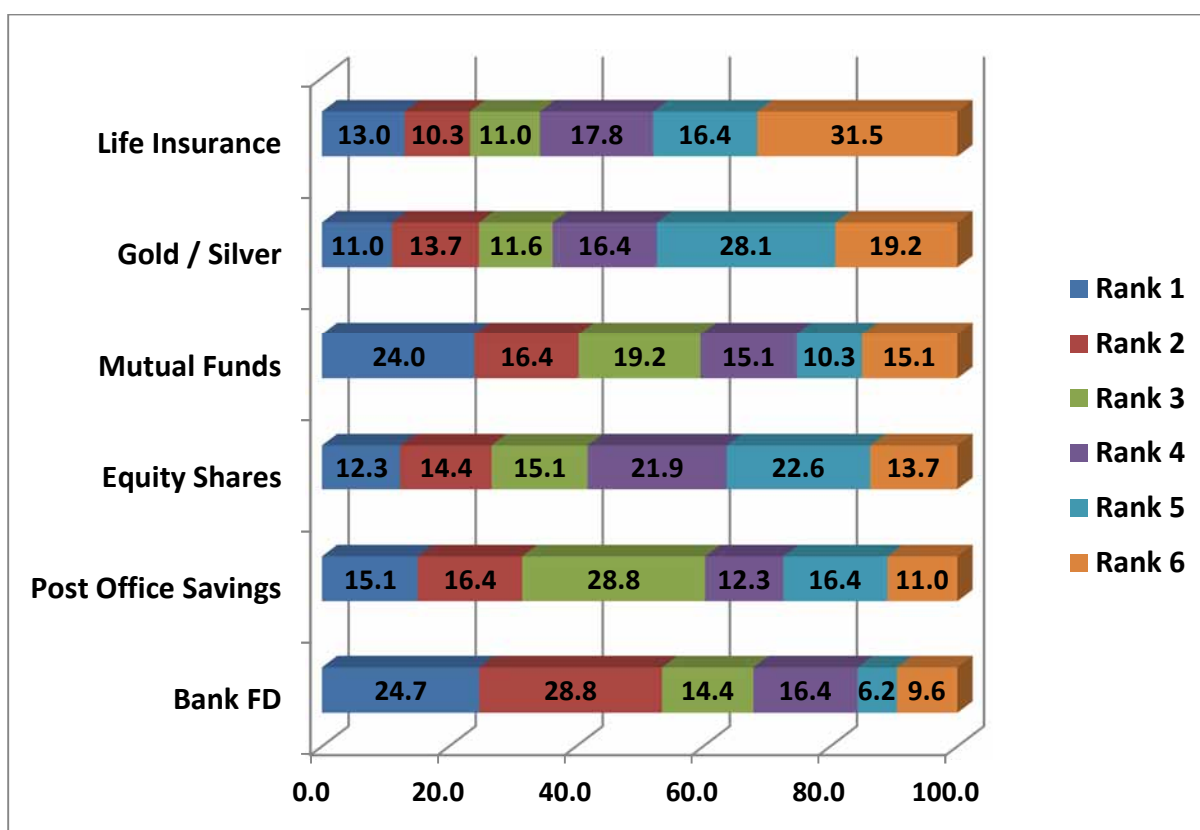


Source: Primary Data – Question 7 of Non Investor Category Questionnaire

The ranking of investor's preference of the Non Investor category, towards various investment products is given in Chart 5.13. It can be seen that 24.7 percentage of the investors have ranked Bank FD's as their first choice followed by 24 percentage for mutual funds. The lowest ranking is provided for life insurance products.

**Chart 5.13**

**Ranking of Investors preference towards Investment Products in Percentage ( Non Investor Category )**

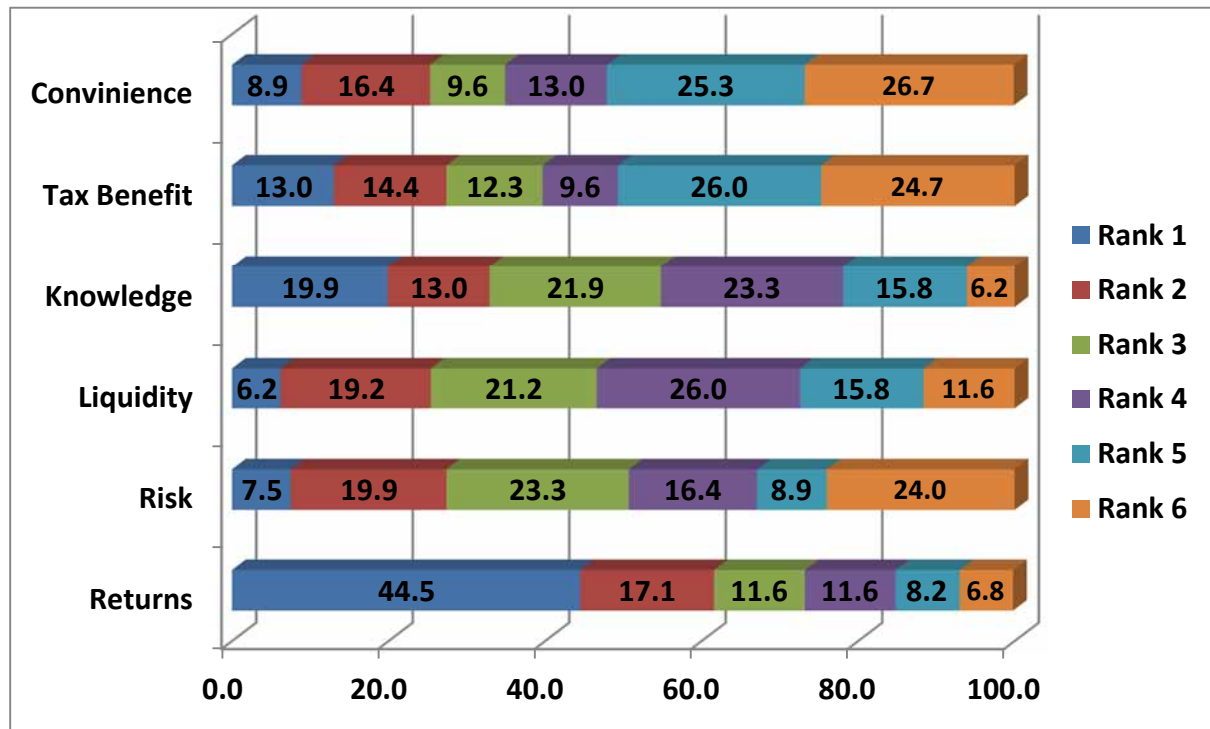


Source: Primary Data – Question 8 of Non Investor Category Questionnaire

The ranking assigned by Non Investors towards the investment attributes of investments in general is provided in Chart 5.14. From the chart it can be seen that investor's look at the returns of an investment in the first place. Returns have been ranked as the first attribute of importance by 44.5 percentage of the respondents followed by 20 percentage for knowledge and then 13 percentage for tax benefit. The lowest importance is provided for convenience, followed by tax benefit and then the risk of the investment.

**Chart 5.14**

**Ranking assigned by Investors to various Investment Attributes in Percentage ( Non Investor Category )**

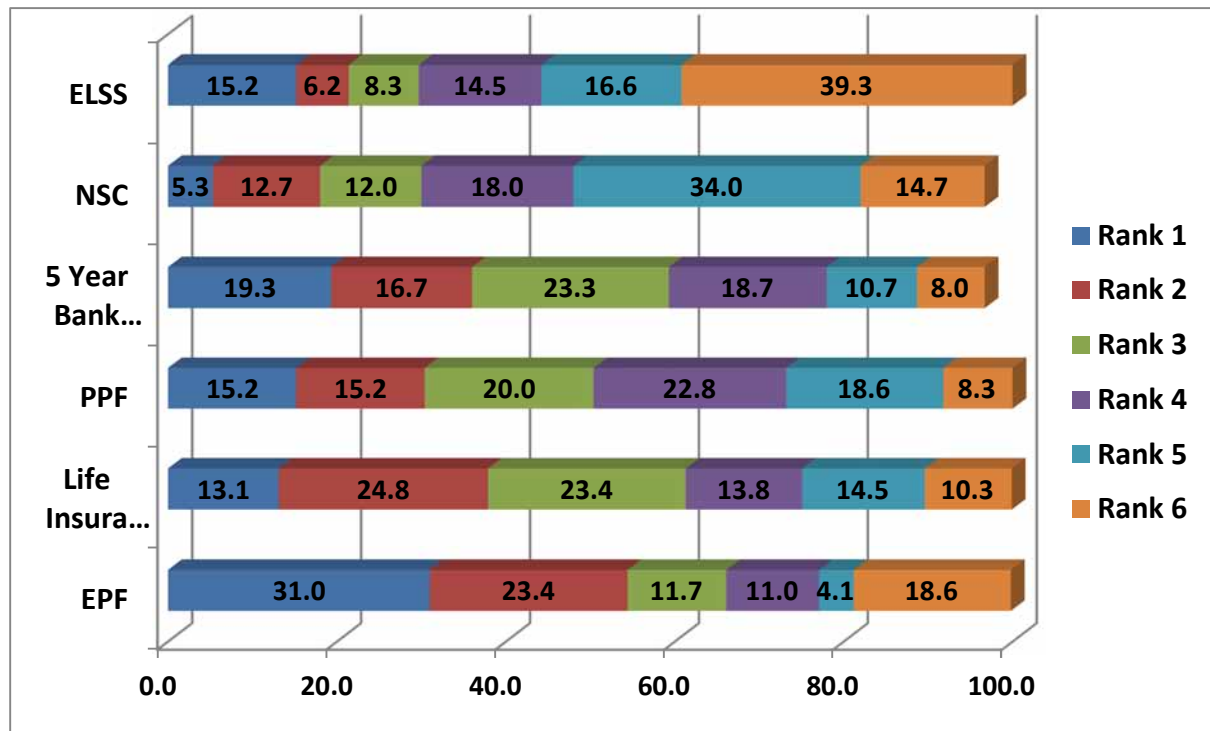


Source: Primary Data – Question 9 of Non Investor Category Questionnaire

The ranking of Non Investor category towards tax saving investments is provided in Chart 5.15. The first preference for tax savings investment is EPF followed by 5 Year Bank FD. The lowest preference for 39.3 percentage of the investors was ELSS funds.

**Chart 5.15**

**Ranking of Investors Preference for Tax Savings Investments in Percentage (Non Investor Category)**

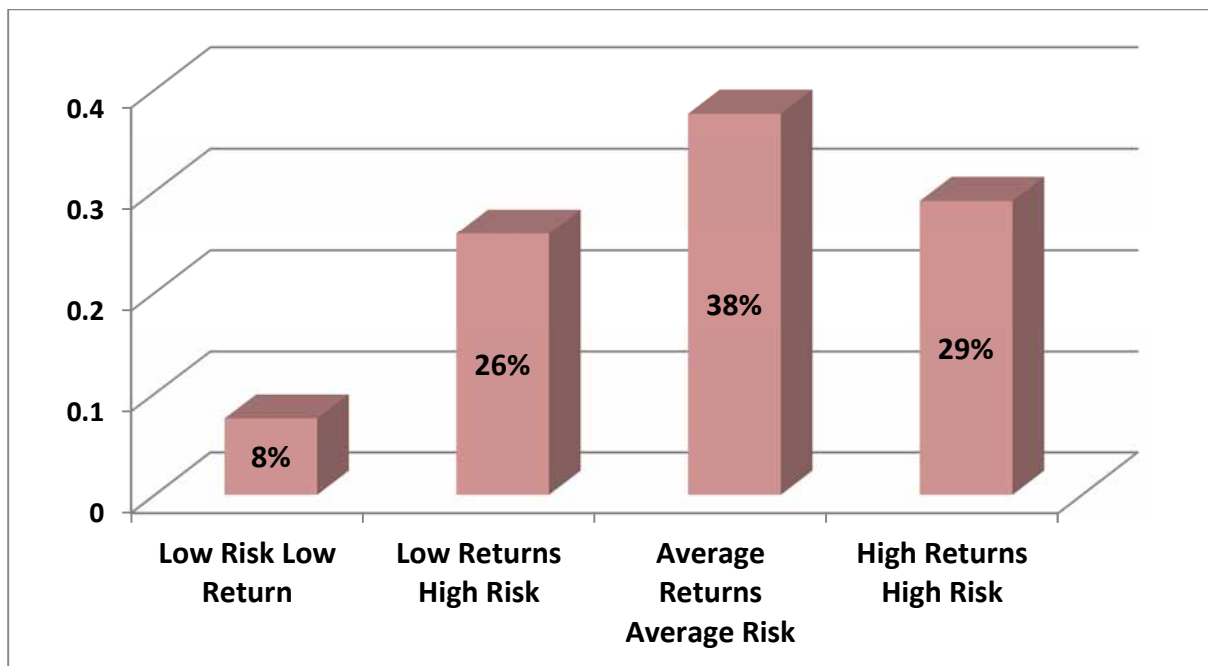


Source: Primary Data – Question 10 of Non Investor Category Questionnaire

The investor perception responses towards ELSS funds category is summarized in Chart 5.16. As can be seen, 38 percentage of the respondents feel that ELSS funds are of Average Return and Risk category. 29 percentage fell that it is high risk and return product.

**Chart 5.16**

**Investors Perception towards ELSS Funds ( Non Investor Category )**

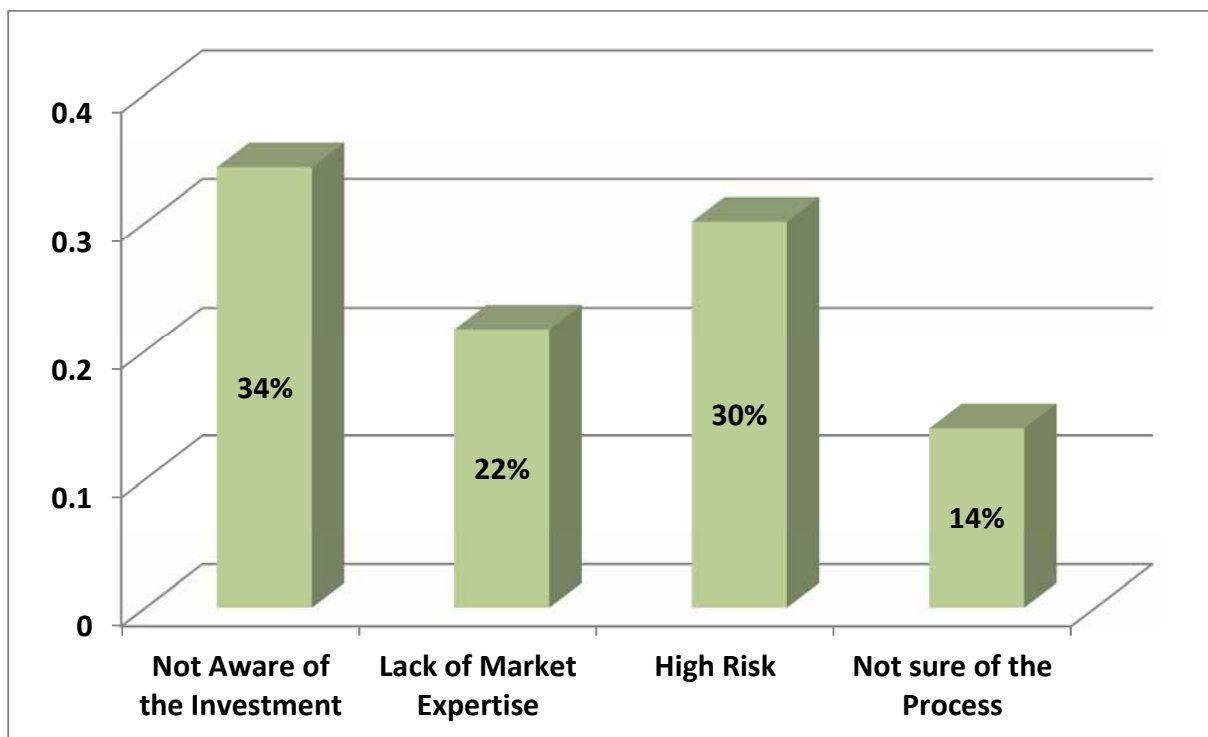


Source: Primary Data – Question 12 of Non Investor Category Questionnaire



Chart 5.17 provides a summary of investor responses for not investing into ELSS funds. 34 percentage of the respondents are not aware of ELSS funds as a tax saving investment. 30 percentage of the investor considered high risk factor for not investing into it.

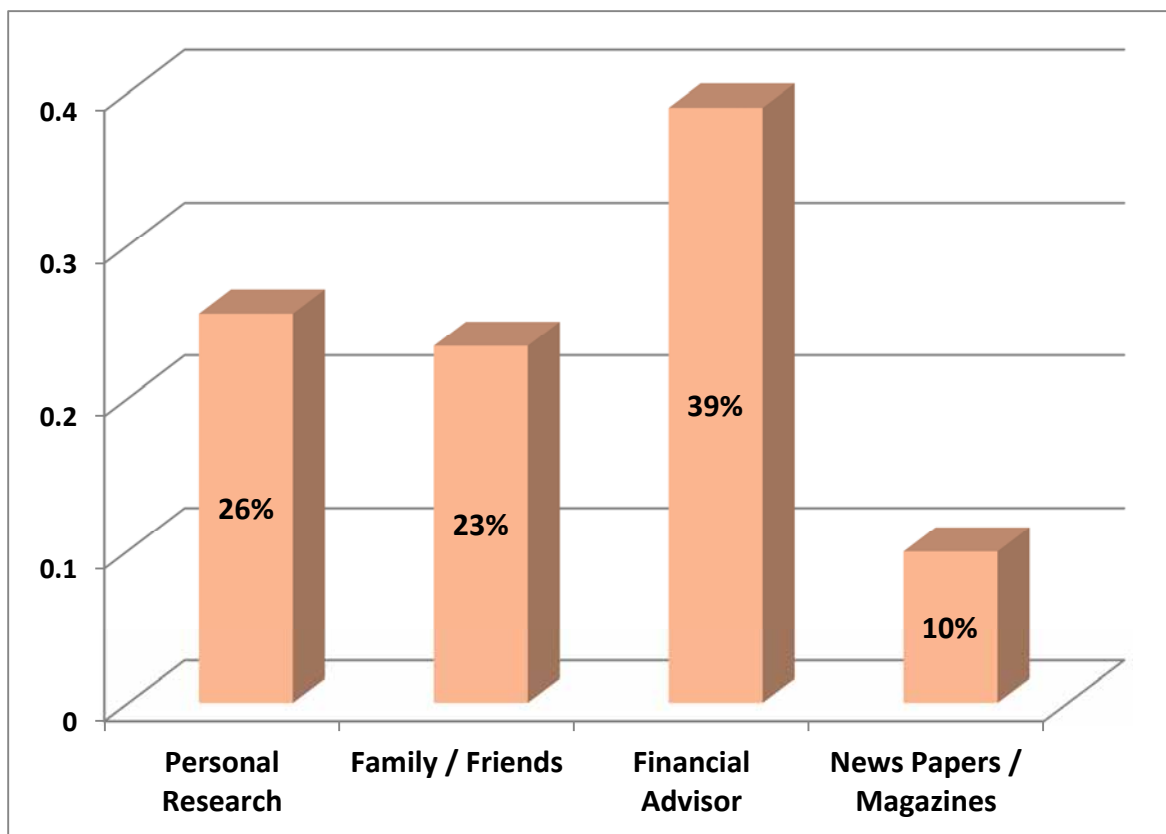
**Chart 5.17**  
**Investor responses for not investing in ELSS Funds**  
**( Non Investor Category )**



Source: Primary Data – Question 13 of Non Investor Category Questionnaire

Chart 5.18 shows us the sources used by Non Investor for decision making towards investment products. 39 percentage of the investors base their decision making on Financial Advisor advise, followed by 26 percentage doing their own personal research followed by 23 percentage taking advise from family and friends. Newspapers and magazines are least preferred by investors.

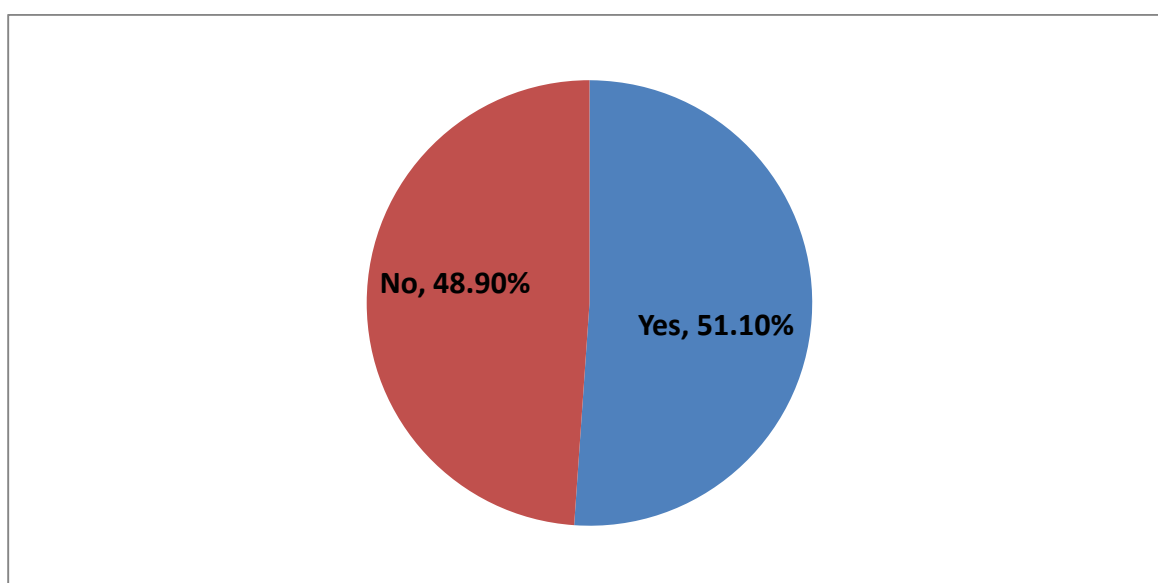
**Chart 5.18**  
**Investor response for Investment Decision Making**  
**( Non Investor Category )**



Source: Primary Data – Question 14 of Non Investor Category Questionnaire

Chart 5.19 shows that 51 percentage of the Non Investors have shown a liking towards ELSS funds and are positive about making investments into it in the future. On the other hand 49 percentage of the investors did not show any interest towards ELSS investments and do not consider it for future investments.

**Chart 5.19**  
**Investors willingness towards ELSS investment in Future**  
**( Non Investor Category )**

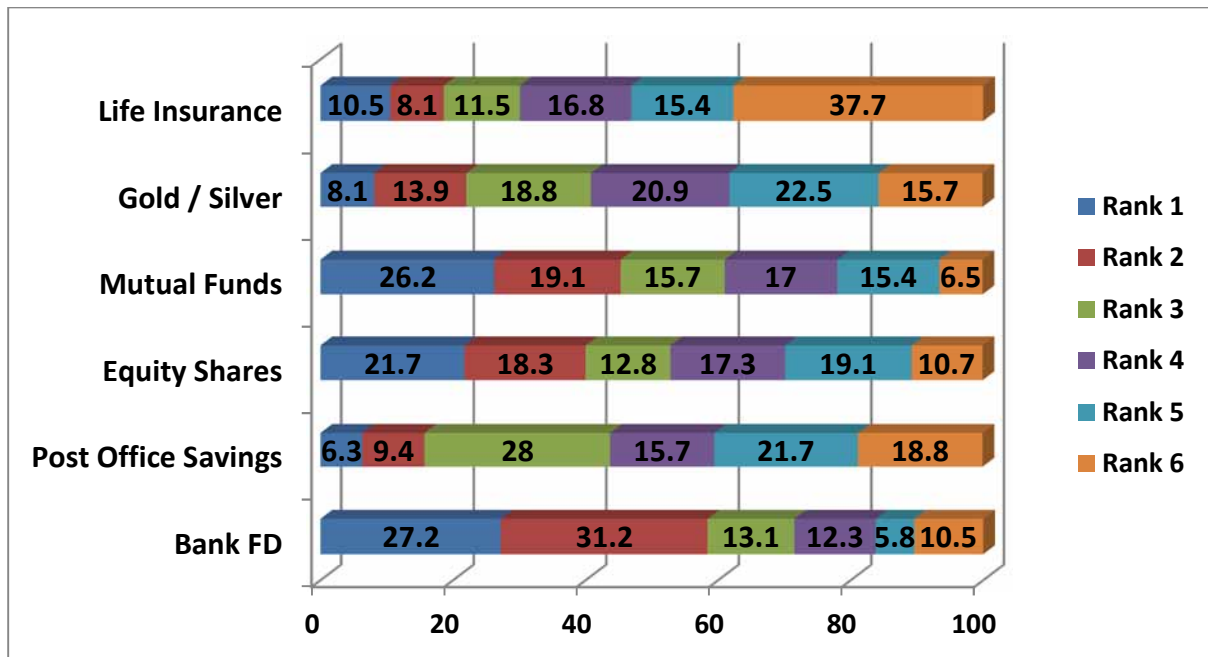


Source: Primary Data – Question 15 of Non Investor Category Questionnaire

Chart 5.20 ranks the investment preferences of the Investor category. As can be seen, 5 Year Bank FD is the most preferred investment vehicle, closely followed by mutual funds. The least interest is shown towards life insurance products.

**Chart 5.20**

**Ranking of Investors preference towards Investment Products in Percentage ( Investor Category )**

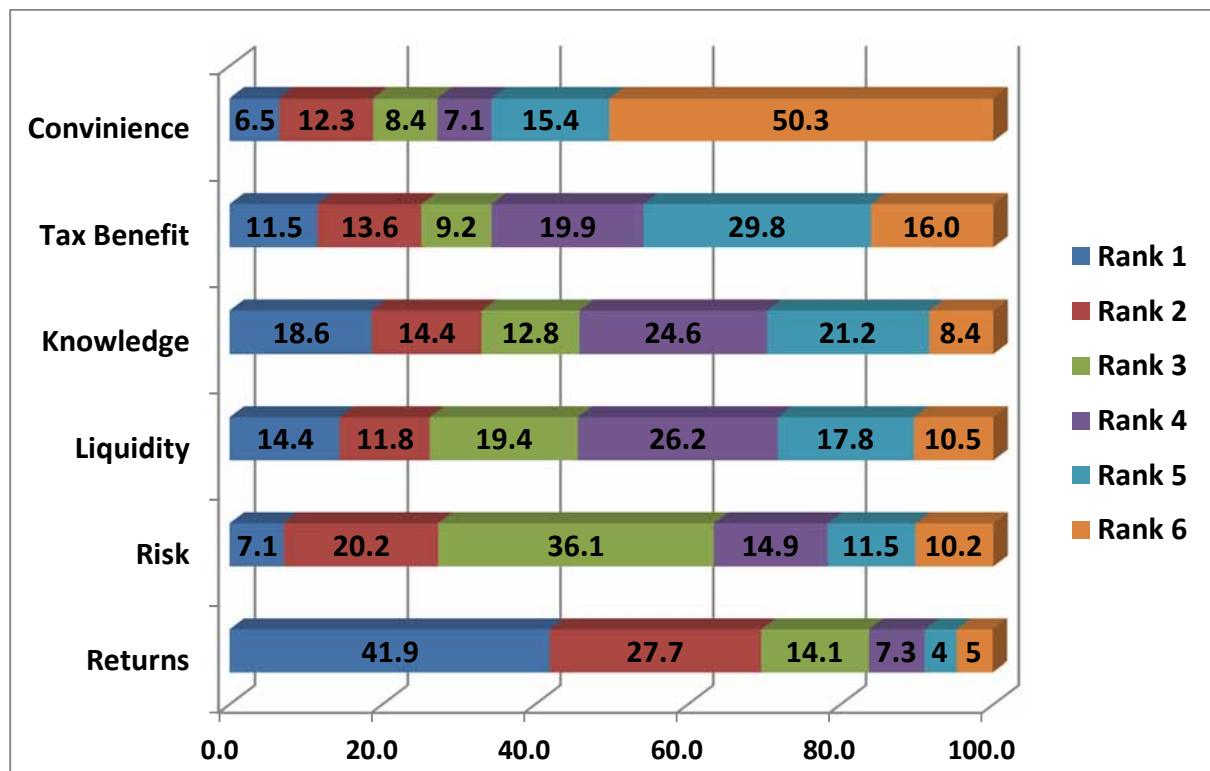


Source: Primary Data – Question 8 of Investor Category Questionnaire

The ranking of respondents in Investor category, towards various investment attributes is provided in Chart 5.21. It can be seen from the chart that highest importance is given to returns, followed by knowledge about the product. The least importance is given to convenience and flexibility.

**Chart 5.21**

**Ranking assigned by Investors to various Investment Attributes in Percentage ( Investor Category )**

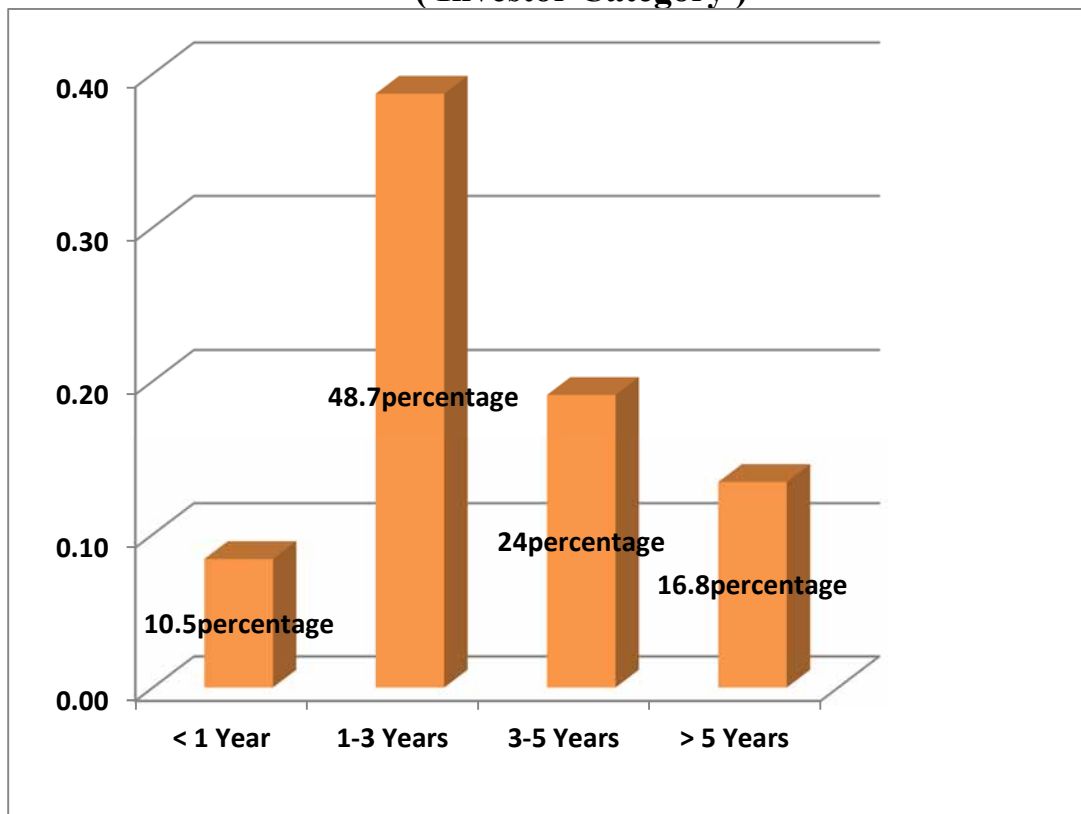


Source: Primary Data – Question 9 of Non Investor Category Questionnaire

Chart 5.22 shows the time for which the respondents in the Investor category have been investing in ELSS funds. 49 percentage of the investors have invested only for the last 1 to 3 years in ELSS funds. 24 percentage have been investing for the last 3 to 5 years.

**Chart 5.22**

**Length of investment experience in ELSS Funds  
( Investor Category )**

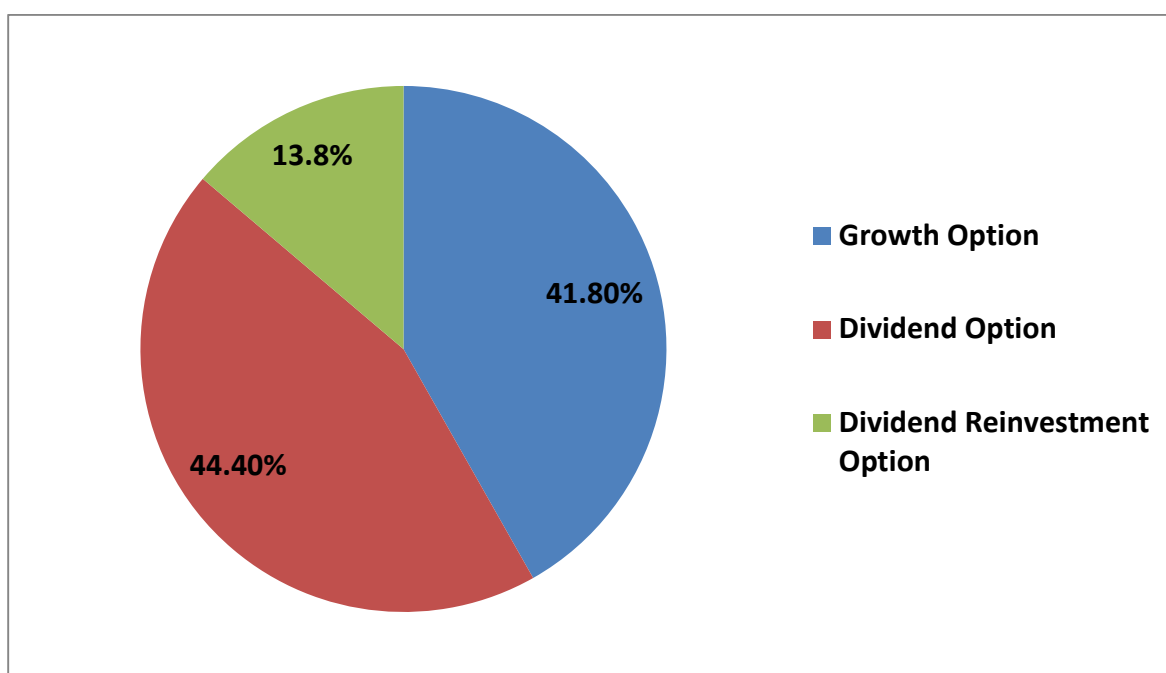


Source: Primary Data – Question 11 of Investor Category Questionnaire

As can be seen from Chart 5.23, 44 percentage of the investors have chosen the Dividend payment option while investing in ELSS funds very closely followed by 42 percentage in growth option. The higher allocation to dividend option is due to the cash flow consideration.

**Chart 5.23**

**Investment Option chosen by Investors for ELSS Funds  
(Investor Category)**

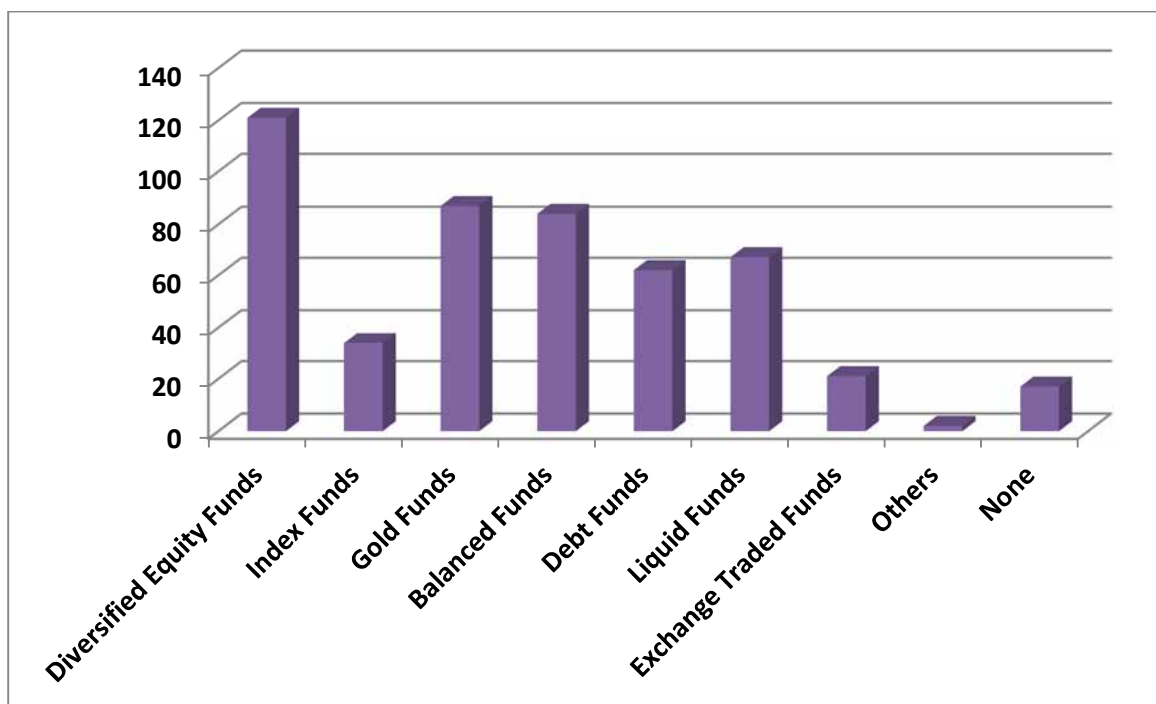


Source: Primary Data – Question 12 of Investor Category Questionnaire

Many of the respondents in the Investor category have also invested in Diversified Equity funds followed by gold funds and balanced funds. The same is shown in Chart 5.24.

**Chart 5.24**

**Other Mutual Funds Schemes invested into apart from  
ELSS Funds (Investor Category)**

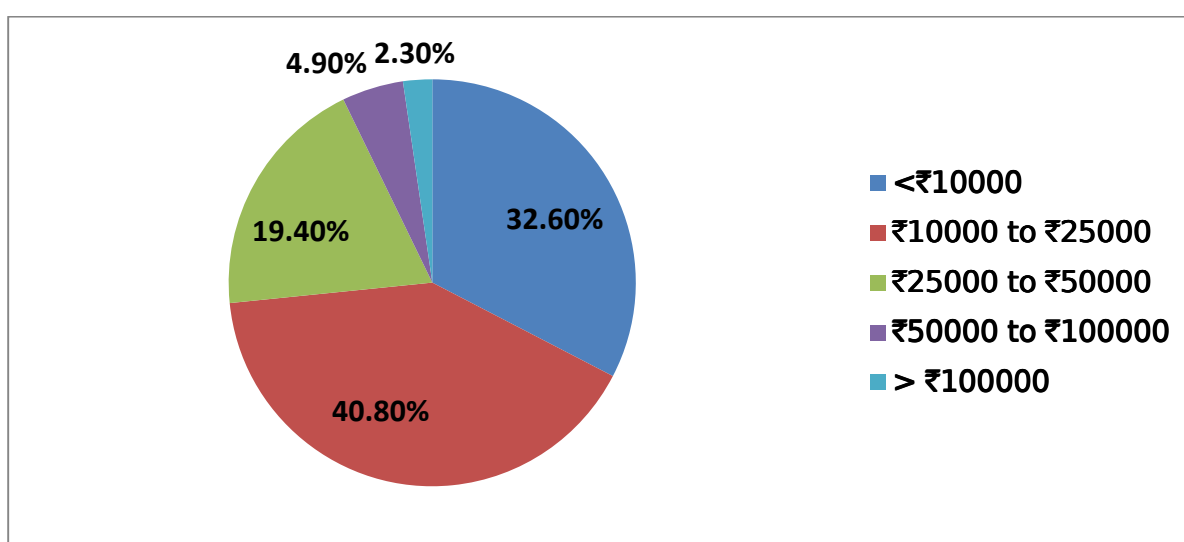


Source: Primary Data – Question 13 of Investor Category Questionnaire



The ticket size of annual investment into ELSS funds is gauged from Chart 5.25. 41 percentage of the investors have been investing between ₹10000 to ₹25000 annually into ELSS funds and another 33 percentage of respondents below ₹ 10000 a year. Chart 5.25 shows the annual investment of the Investor category into ELSS funds.

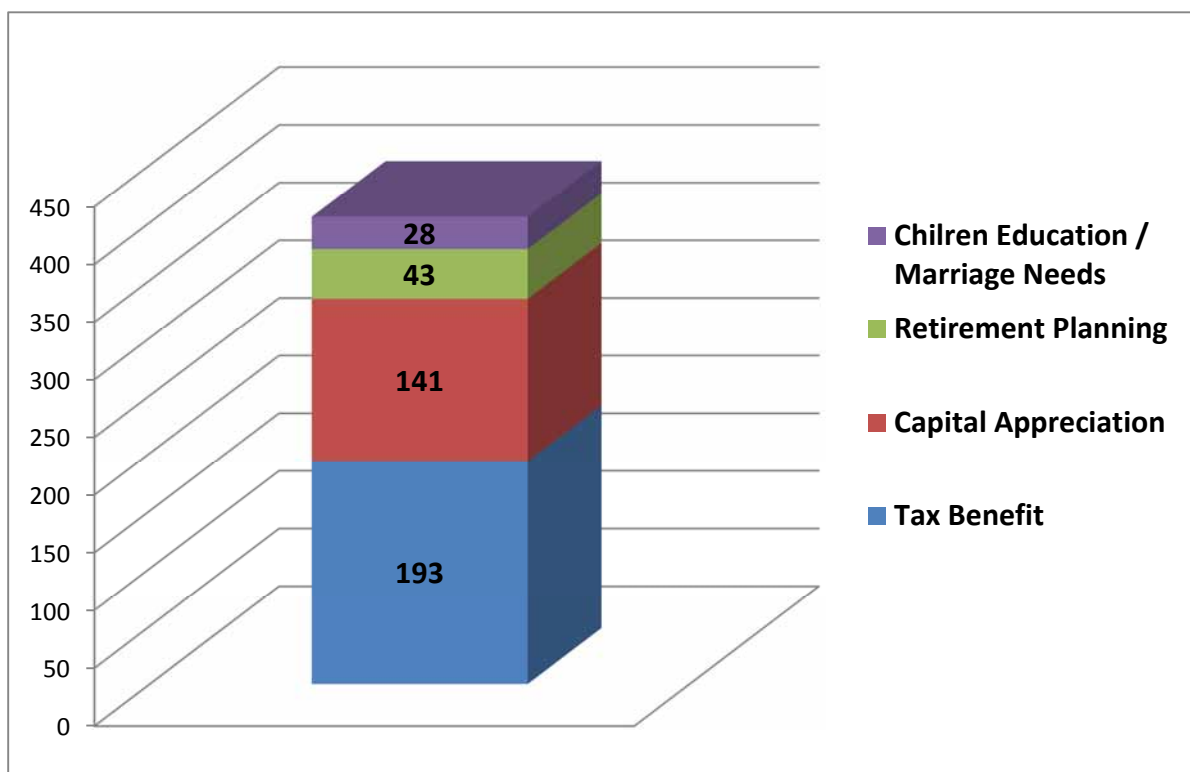
**Chart 5.25**  
**Annual Investment into ELSS Funds by Investors**  
**( Investor Category )**



Source: Primary Data – Question 14 of Investor Category Questionnaire

As can be seen from Chart 5.26, many of the respondents only viewed ELSS funds as a tax saving scheme. They have not assigned any objective beyond tax saving for mutual fund investments. This is followed by the objective of capital appreciation. Very few investors felt that ELSS funds could meet their retirement planning or children education planning goals.

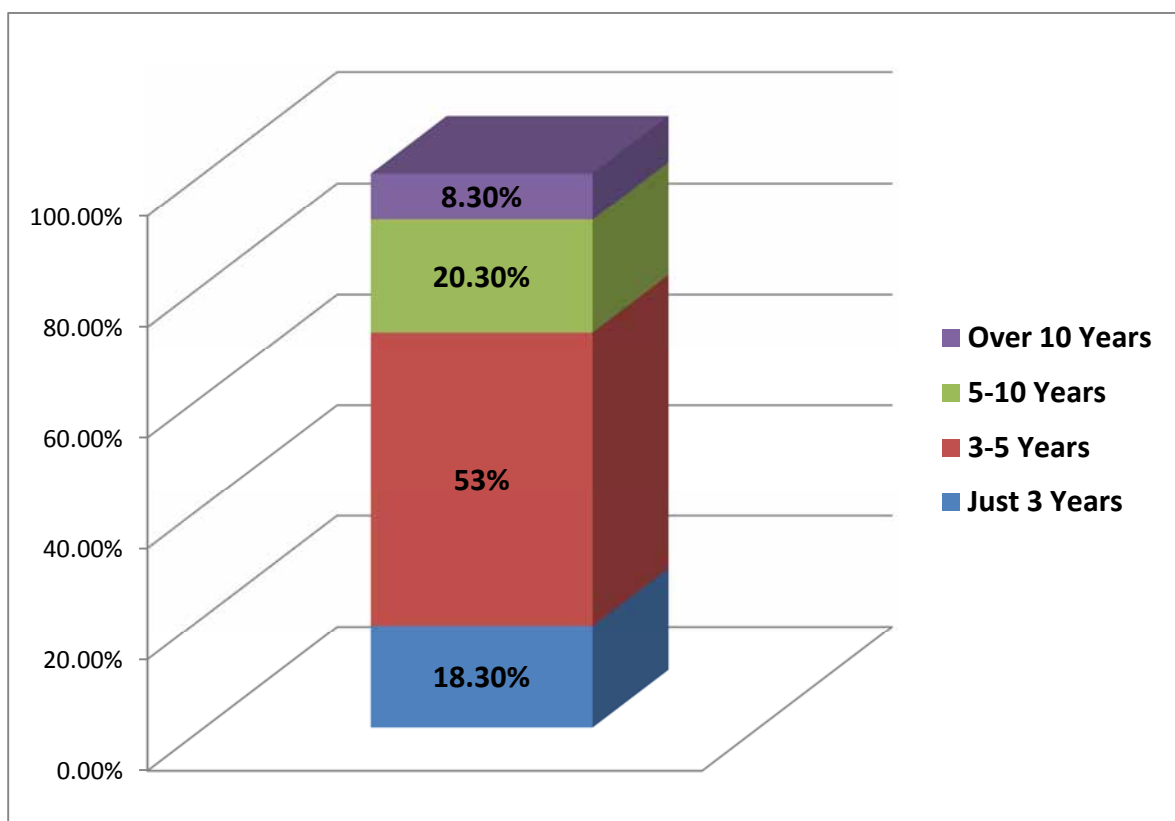
**Chart 5.26**  
**Objectives met by ELSS Investment ( Investor Category )**



Source: Primary Data – Question 15 of Investor Category Questionnaire  
#Multiple Response Question

The respondent's period of holding their ELSS investments is gauged from Chart 5.27. Accordingly 53 percentage of the respondents have shown willingness to hold on to the investment for 3 to 5 years. 20 percentage of the respondents are willing to hold the investment between 5 to 10 years.

**Chart 5.27**  
**Time Horizon for holding ELSS Investment**  
**( Investor Category )**



Source: Primary Data – Question 16 of Investor Category Questionnaire

A cross tabulation of occupation and period of ELSS holding is provided in Table 5.01. As per the table, Public Sector salaried employees, Govt. salaried employees and Businessmen and even Retirees, have a higher holding period of 3 to 5 years.

**Table 5.01**

**Cross Tabulation of Occupation and Time Horizon of ELSS Investment  
(Investor Category)**

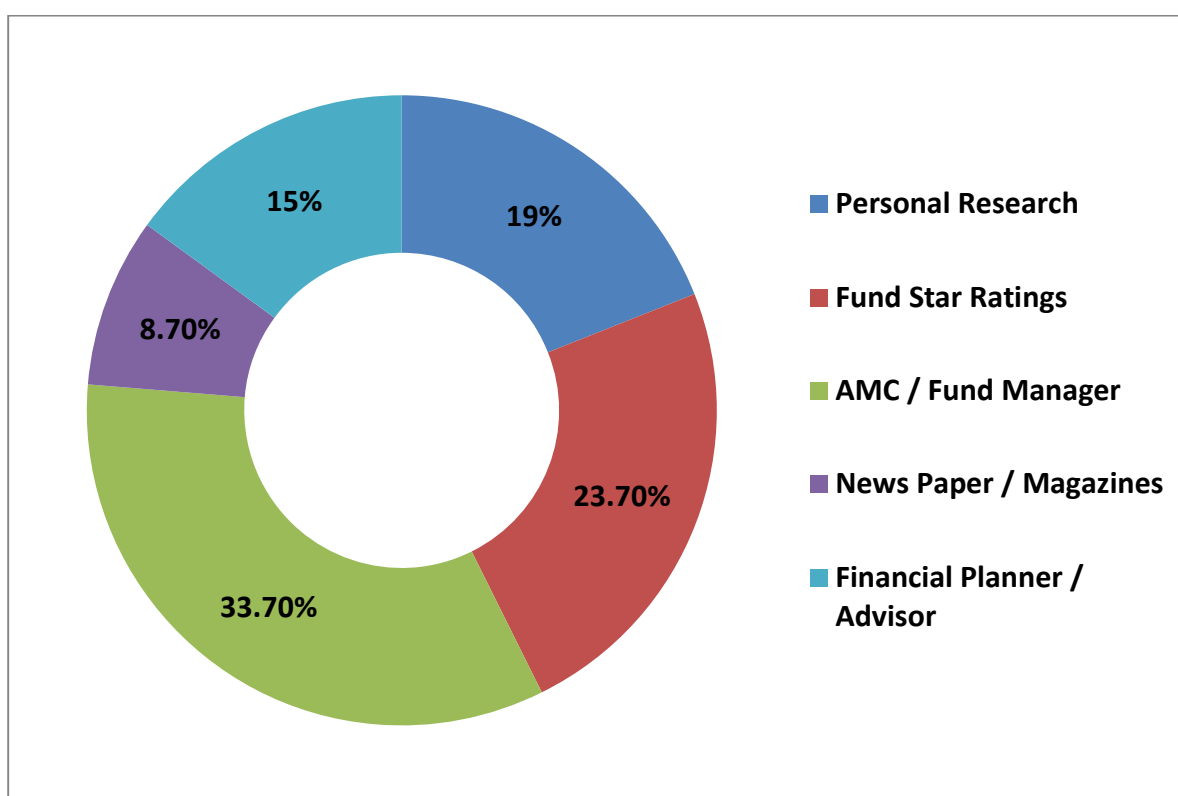
<b>Occupation</b>	<b>Time Horizon of Investment</b>			
	<b>Just 3 Years</b>	<b>3 - 5 Years</b>	<b>5-10 Years</b>	<b>Over 10 Years</b>
Salaried - Private Service	34%	35%	18%	13%
Salaried - Public Sector / Banks	14%	66%	16%	4%
Salaried - Government Service	10%	80%	8%	3%
Business / Self Employed	8%	62%	26%	4%
Professional	4%	38%	38%	19%
Agriculture	0%	43%	43%	14%
Retired	11%	78%	11%	0%
Others	22%	33%	33%	11%

Source: Based on Primary Data Question No. 5 and 16 of Investor Category Questionnaire

The investor's basis for fund selection is depicted in Chart 5.28. Almost 34 percentage of the investors simply based their selection on AMC/ Fund Manager followed by 24 percentage on fund star ratings. 19 percentage of the respondents do their own research to decide on the investment. 15 percentage of the investors relied on financial planner and financial advisors.

**Chart 5.28**

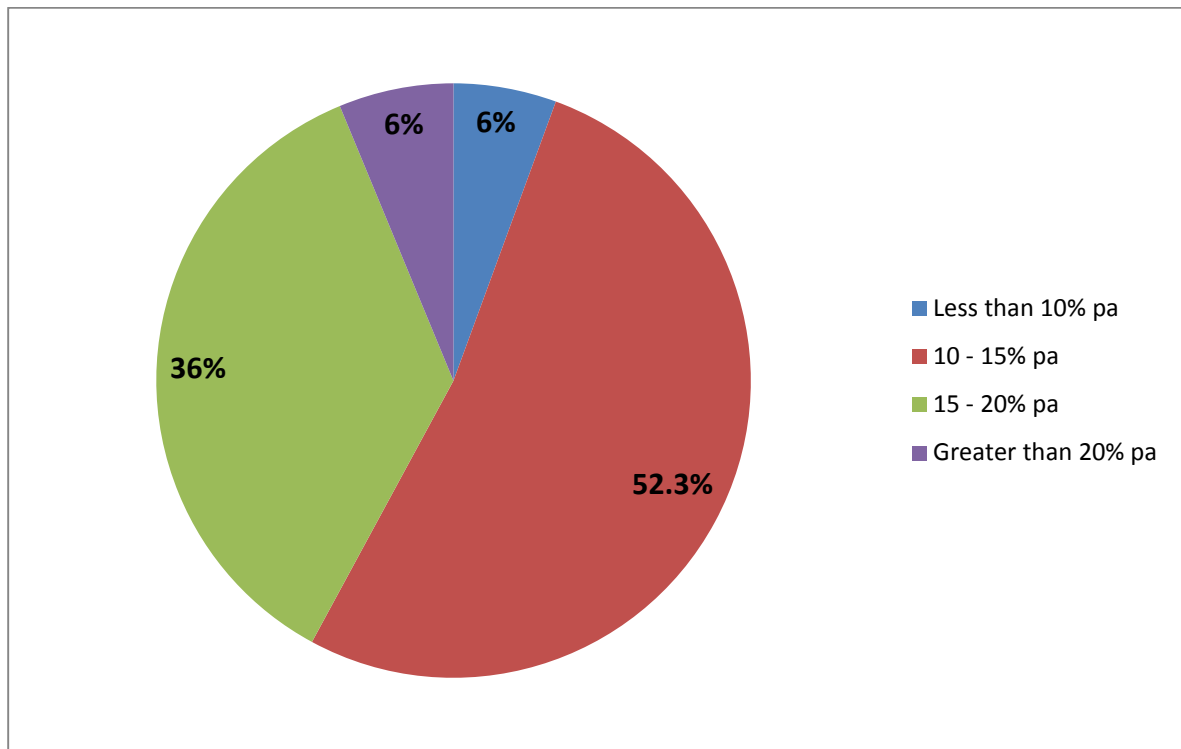
**Basis of selection of ELSS Funds by Investors ( Investor Category )**



Source: Primary Data – Question 17 of Investor Category Questionnaire

**Chart 5.29**

**Investor Expectation of Average Annual Returns from ELSS Funds  
( Investor Category )**

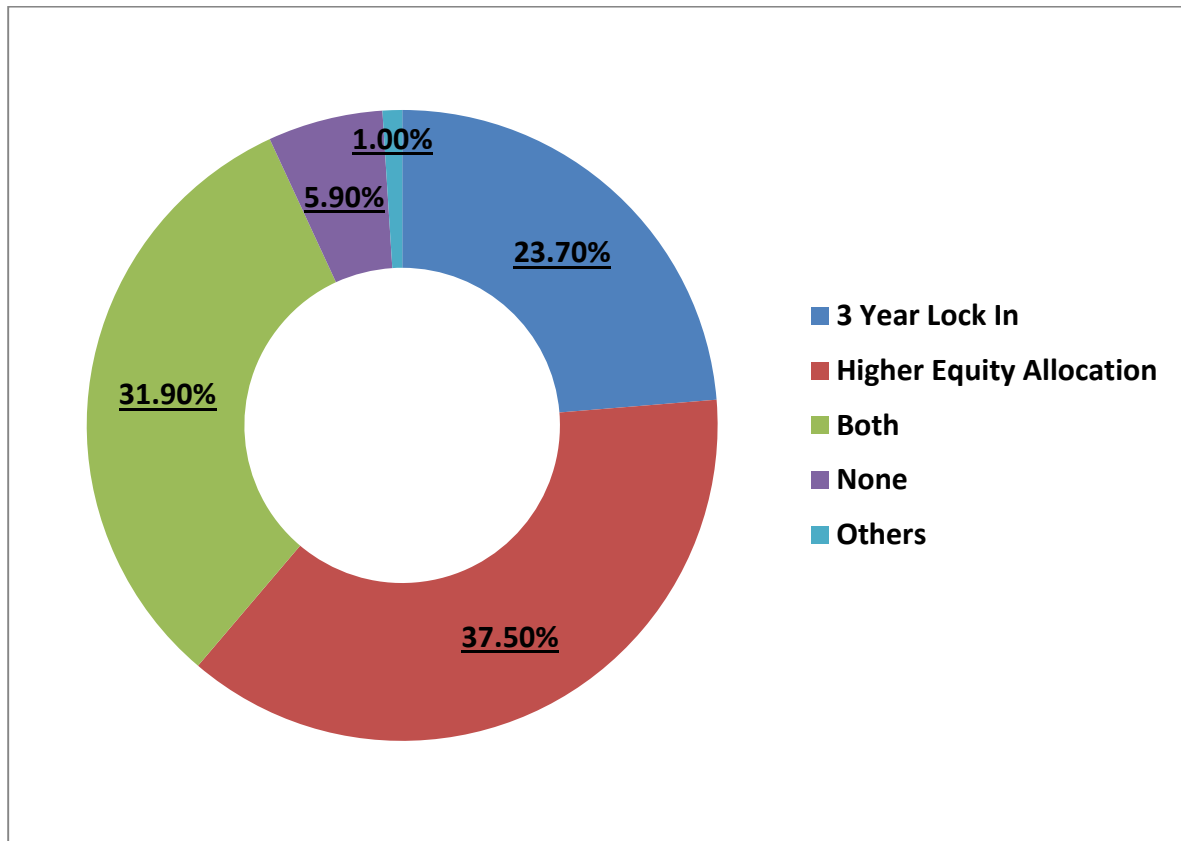


Source: Primary Data – Question 20 of Investor Category Questionnaire

As can be made out from Chart 5.29, 52.3 percentage of respondents expect returns ranging between 10 percentage to 15 percentage from ELSS funds. 36 percentage expect a return ranging between 15 to 20 percentage.

**Chart 5.30**

**Additional Risk Factors perceived in ELSS Funds as compared to Diversified Equity Funds ( Investor Category )**



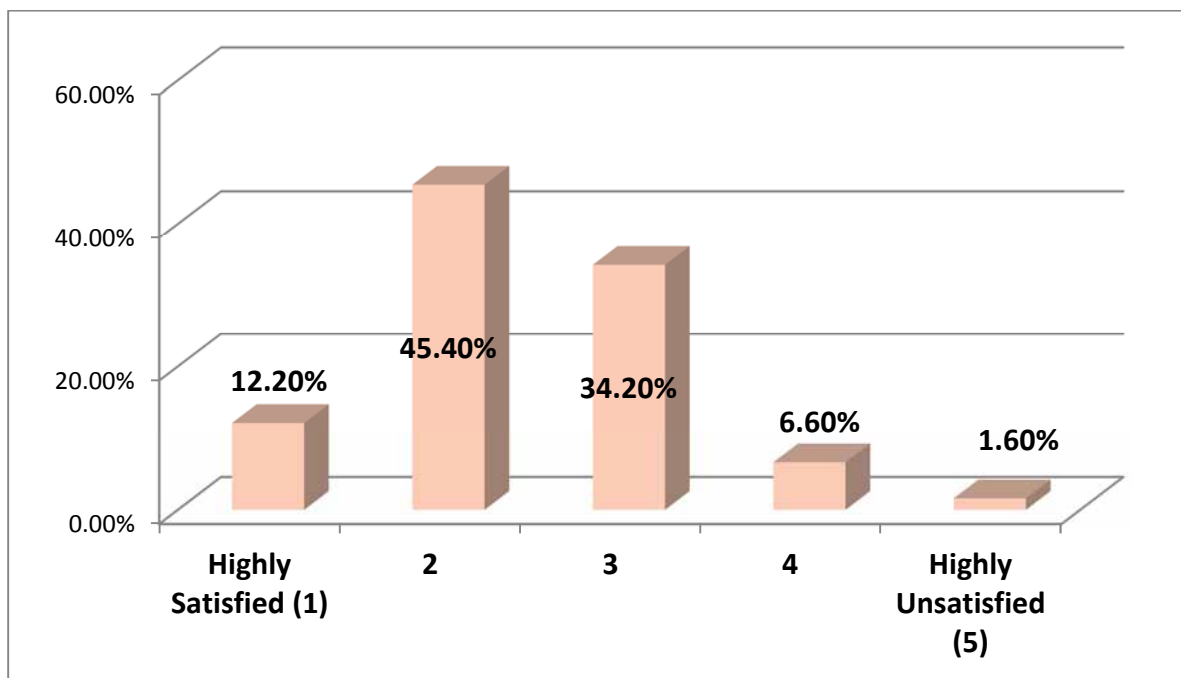
Source: Primary Data – Question 22 of Investor Category Questionnaire

As can be seen in Chart 5.30 higher allocation of ELSS funds into equity is considered as an additional risk factor by 37.5 percentage of the investors as compared to diversified equity funds. 24 percentage of the investors feel that the 3 year lock in period is an additional risk of ELSS funds.

The satisfaction of the investors from the return performance of ELSS funds is shown in Chart 5.31. It can be seen from the chart that 45 percentage of the investors are moderately satisfied with the return performance with another 34 percentage neither totally satisfied nor dissatisfied.

**Chart 5.31**

**Rating of Satisfaction of ELSS Funds Return performance**

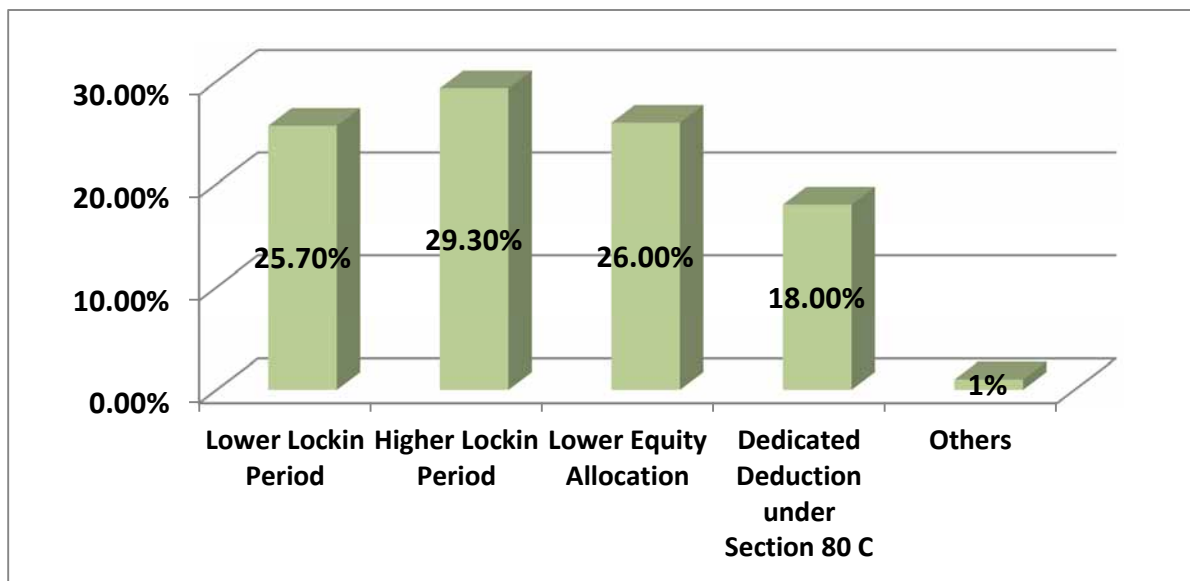


Source: Primary Data – Question 24 of Investor Category Questionnaire



The changes that investors expect to see in the ELSS fund regulations in the future is shown in Chart 5.32. Accordingly, 29 percentage of the investors wish to have a higher lock for ELSS funds as against the current 3 years , followed by 25 percentage expecting the equity allocation to be lowered from the present and another 26 percentage hoping to see a lower lock in period than the existing 3 years. As can be red from Table 5.02, Private salaried employees prefer a lower lock in period. However Govt. service and Public Sector salaried respondents preferred a higher lock in period. This difference can be attributed to the job security and cash flow considerations.

**Chart 5.32**  
**Expectation of Investors with regard to changes in**  
**ELSS Regulations**  
**( Investor Category )**



Source: Primary Data – Question 25 of Investor Category Questionnaire

**Table 5.02**

**Cross Tabulation of  
Occupation and ELSS Regulatory change Expectation**

<b>Occupation</b>	<b>Lower Lock In Period</b>	<b>Higher Lock In Period</b>	<b>Lower Equity Allocation</b>	<b>Dedicated Deduction U/s 80 C</b>	<b>Any Other</b>
Salaried - Private Service	43%	16%	14%	25%	3%
Salaried - Public Sector / Banks	17%	39%	22%	22%	0%
Salaried - Government Service	15%	49%	32%	5%	0%
Business / Self Employed	21%	31%	33%	15%	0%
Professional	13%	23%	47%	17%	0%
Agriculture	0%	29%	71%	0%	0%
Retired	11%	33%	33%	22%	0%
Others	40%	40%	10%	10%	0%

Source: Based on Primary Data Question No. 5 and 25 of Investor Category Questionnaire

This study on Investor's Perception towards ELSS mutual funds had set the following hypotheses:

$H_{04a}$  = There is no significant difference in the Investors perception of risk in case of ELSS Funds as compared to Diversified Equity funds.

$H_{4a}$  = There is a significant difference in the Investors perception of risk in case of ELSS Funds as compared to Diversified Equity funds.

$H_{04b}$  = There is no significant difference in the Investors expectation of returns in case of ELSS Funds as compared to Diversified Equity funds.

$H_{4b}$  = There is significant difference in the Investors expectation of returns in case of ELSS Funds as compared to Diversified Equity funds.

$H_{05}$  = There is no significant difference in the Investors preference towards ELSS funds as compared to other Tax saving investments.

$H_5$  = There is a significant difference in the Investors preference towards ELSS funds as compared to other Tax saving investments.

The above hypotheses and other related hypotheses are tested in the following section.

**Table 5.03**

**Hypothesis Testing of Non Investor Category towards Preference for Mutual Funds and ELSS Funds based on Demographic Profile**

Test No.	Null Hypothesis	Test	Sig. Mutual Funds	Decision	Sig. ELSS Funds	Decision	Remarks
1	Distribution is the same across categories of <b>Gender</b>	Independent-Samples Mann-Whitney U Test	0.017	Reject Null Hypothesis	0.176	Retain Null Hypothesis	Preference for Mutual Funds is more in Males than Females
2	Distribution is the same across categories of <b>Age</b>	Independent-Samples Kruskal-Wallis Test	0.014	Reject Null Hypothesis	0.244	Retain Null Hypothesis	Preference for Mutual Funds is more in Younger Population
3	Distribution is the same across categories of <b>Educational Qualification</b>	Independent-Samples Kruskal-Wallis Test	0.034	Reject Null Hypothesis	0.146	Retain Null Hypothesis	Preference for Mutual Funds is more in Post Graduates and Graduates
4	Distribution is the same across categories of <b>Occupation</b>	Independent-Samples Kruskal-Wallis Test	0.000	Reject Null Hypothesis	0.147	Retain Null Hypothesis	Preference for Mutual Funds is more in Salaried and Business
5	Distribution is the same across categories of <b>Marital Status</b>	Independent-Samples Mann-Whitney U Test	0.636	Retain Null Hypothesis	0.568	Retain Null Hypothesis	
6	Distribution is the same across categories of <b>Monthly Average Savings</b>	Independent-Samples Kruskal-Wallis Test	0.305	Retain Null Hypothesis	0.001	Reject Null Hypothesis	Preference for ELSS Funds is more in High Savings Group

Significance Level .05

Source: Based on Primary Data – Question No. 2 to 7 and Question No. 8 and 10 of Non- Investor Questionnaire

Table 5.03 shows the hypothesis test conducted on non -investor category, to test the influence of demographic characteristics and investor's preference for Mutual funds and ELSS funds.

With regard to Gender, the preference for mutual funds is more in males than female respondents. However the preference of males and females is the same for preference towards ELSS funds.

With regard to Age, younger population had a higher preference for mutual funds as compared to older population. However the preference of younger and older population is the same for preference towards ELSS funds.

With regard to Educational Qualification, Graduates and Post Graduates exhibited a higher preference for mutual funds as compared to others. However the preference towards ELSS funds is same across the spectrum of educational qualifications.

With regard to Occupation, Salaried class and Business class have a higher preference for mutual fund investments as compared to others. However the preference towards ELSS funds is the same across the spectrum of occupations.

With regard to marital status, the preference is the same for mutual funds and ELSS funds across married and un- married respondents.

With regard to Monthly average savings, high savers have a higher preference for ELSS funds as compared to low savers. However the preference for mutual funds is the same across the spectrum of savers.

**Table 5.04**

**Hypothesis Testing for Preference of Investments between Investor and Non-Investor Categories**

Test No.	Null Hypothesis	Test	Sig.	Decision	Remarks
1	Distribution of <b>Bank FD</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.958	Retain Null Hypothesis	
2	Distribution of <b>Post Office Savings</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.006	<b>Reject Null Hypothesis</b>	Preference is more in case of Non Investor Category
3	Distribution of <b>Equity Shares</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.047	<b>Reject Null Hypothesis</b>	Preference is more in case of Investor Category
4	Distribution of <b>Mutual Funds</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.427	Retain Null Hypothesis	
5	Distribution of <b>Gold / Silver</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.354	Retain Null Hypothesis	
6	Distribution of <b>Life Insurance</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.813	Retain Null Hypothesis	

Significance Level .05

Source: Based on Primary Data – Question No. 8 of the Questionnaire of both categories

Table 5.04 shows the hypothesis testing to understand if there is a difference in preference for investment alternatives, between investor and non- investor categories of respondents.

As can be seen form the table, there is no significant difference in the preference for Bank FD, Mutual Funds, Gold/ Silver and Life Insurance between the two categories of respondents. However in case of Post Office savings, non- investor category exhibited a higher preference and in case of Equity shares, investor category exhibited a higher preference.

**Table 5.05**

### Hypothesis Testing for Preference of Investments between Urban and Semi Urban Investors

Test No	Null Hypothesis	Test	Sig.	Decision	Remarks
1	Distribution of <b>Bank FD</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.000	Reject Null Hypothesis	Preference is more in Semi Urban
2	Distribution of <b>Post Office Savings</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.000	Reject Null Hypothesis	Preference is more in Semi Urban
3	Distribution of <b>Equity Shares</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.009	Reject Null Hypothesis	Preference with Semi urban is lesser as compared to Urban
4	Distribution of <b>Mutual Funds</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.670	Retain Null Hypothesis	
5	Distribution of <b>Gold/ Silver</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.000	Reject Null Hypothesis	Preference is lesser in Semi urban
6	Distribution of <b>Life Insurance</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.000	Reject Null Hypothesis	Preference is lesser in Semi urban

Significance Level .05

Source: Based on Primary Data – Question No. 8 of the Questionnaire of Investor category

Table 5.05 shows the results of hypothesis testing done to understand if there is a difference in preference for investment alternatives, between urban and semi urban categories of investor respondents.

As can be seen from the table, there is no significant difference in the preference for mutual funds between the two categories. In case of Bank FD and Post Office savings there is a higher preference in case of semi urban respondents. However in case of Equity Shares, Gold/ Silver and Life Insurance, semi urban investors have shown a lesser preference.

**Table 5.06**

**Hypothesis Testing of Investor Attitude towards Investment Attributes  
between Investor and Non Investor Categories**

Test No.	Null Hypothesis	Test	Sig.	Decision	Remarks
1	Distribution of <b>Returns</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.196	Retain Null Hypothesis	
2	Distribution of <b>Risk</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.037	<b>Reject Null Hypothesis</b>	This attribute is of lesser importance for Investor than Non Investor
3	Distribution of <b>Liquidity</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.471	Retain Null Hypothesis	
4	Distribution of <b>Knowledge</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.361	Retain Null Hypothesis	
5	Distribution of <b>Tax Benefit</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.402	Retain Null Hypothesis	
6	Distribution of <b>Convenience</b> is the same across Investor and Non Investor Categories	Independent-Samples Kolmogorov -Smirnov Test	0.000	<b>Reject Null Hypothesis</b>	This attribute is of lesser importance for Investor than Non Investor

Significance Level .05

Source: Based on Primary Data – Question No. 9 of the Questionnaire of both categories

Table 5.06 shows the hypothesis testing done to understand if there is a difference in investor attitude towards investment attributes between investor and non- investor categories of respondents.

As can be seen from the table, there is no significant difference in the investor's attitude towards attributes like returns, liquidity, knowledge and tax benefit. However with regard to risk and convenience of investment, there is a significant difference as these two attributes are of lesser importance to investor category.



**Table 5.07**

**Hypothesis Testing of Investor Attitude towards Investment Attributes  
between Urban and Semi Urban Investors**

Test No	Null Hypothesis	Test	Sig.	Decision	Remarks
1	Distribution of <b>Returns</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.000	Reject Null Hypothesis	Returns are given more importance by Semi Urban
2	Distribution of <b>Risk</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.001	Reject Null Hypothesis	Risk is given more importance by Semi Urban
3	Distribution of <b>Liquidity</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.778	Retain Null Hypothesis	
4	Distribution of <b>Knowledge of the Investment Product</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.030	Reject Null Hypothesis	Preference for Knowledge of Investment is more in Urban than Semi Urban
5	Distribution of <b>Tax Benefit</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.440	Retain Null Hypothesis	
6	Distribution of <b>Convenience / Flexibility</b> is the same across Urban and Semi Urban Investors	Independent - Samples Kolmogorov - Smirnov Test	0.186	Retain Null Hypothesis	

Significance Level .05

Source: Based on Primary Data – Question No. 9 of the Questionnaire of Investor Category

Table 5.07 shows the hypothesis testing to understand if there is a difference in investor attitude towards investment attributes between urban and semi urban categories of investor respondents.

As can be seen from the table, there is no significant difference in the investor's attitude towards attributes like liquidity, convenience and tax benefit. However with regard to returns, risk and knowledge of the investment, there is a significant difference as these attributes are of higher importance to semi urban category of investors.

**Table 5.08**

**Hypothesis Testing of preference for Tax Saving Investments between  
Urban and Semi Urban Investors**

Test No.	Null Hypothesis	Test	Sig.	Decision	Remarks
1	Distribution of <b>ELSS</b> is the same across Urban and Semi Urban Investors	Independent - Samples Mann- Whitney U Test	0.000	<b>Reject Null Hypothesis</b>	<b>Preference is lesser in Semi Urban</b>
2	Distribution of <b>5 Year Bank FD</b> is the same across Urban and Semi Urban Investors	Independent - Samples Mann- Whitney U Test	0.601	Retain Null Hypothesis	
3	Distribution of <b>National Savings Certificate ( NSC )</b> is the same across Urban and Semi Urban Investors	Independent - Samples Mann- Whitney U Test	0.000	<b>Reject Null Hypothesis</b>	<b>Preference is Higher in Semi Urban</b>
4	Distribution of <b>Public Provident Fund ( PPF )</b> is the same across Urban and Semi Urban Investors	Independent - Samples Mann- Whitney U Test	0.061	Retain Null Hypothesis	
5	Distribution of <b>Life Insurance</b> is the same across Urban and Semi Urban Investors	Independent - Samples Mann- Whitney U Test	0.588	Retain Null Hypothesis	
6	Distribution of <b>National Pension Scheme</b> is the same across Urban and Semi Urban Investors	Independent - Samples Mann- Whitney U Test	0.161	Retain Null Hypothesis	

Significance Level .05

Source: Based on Primary Data – Question No. 23 of the Questionnaire of Investor Category

Table 5.08 shows the hypothesis test done to understand if there is a difference in the preference of tax saving investment alternatives between urban and semi urban categories of investor respondents.

As can be seen from the table, there is no significant difference in the preference of 5 Year Bank FD, Public Provident Fund, Life Insurance and National Pension Scheme. However in case of ELSS funds, there is a significant difference as its preference among semi urban investors is less. Similarly in case of National Savings Certificate, there is again a significant difference as it is more preferred by semi urban investors than urban investors.

**Table 5.09**

**Hypothesis Testing for Preference of Non Investors Category towards  
various Tax Saving Investments**

Test No.	Null Hypothesis	Test	Sig.	Decision	Remarks
1	Distribution of EPF / Life Insurance/ PPF / 5 Year Bank FD / NSC / ELSS Funds are the same	Related Samples Friedman's Two-Way Analysis of Variance by Ranks	0.000	<b>Reject Null Hypothesis</b>	Preference is highest for 5 Year Bank FD and least for ELSS Funds

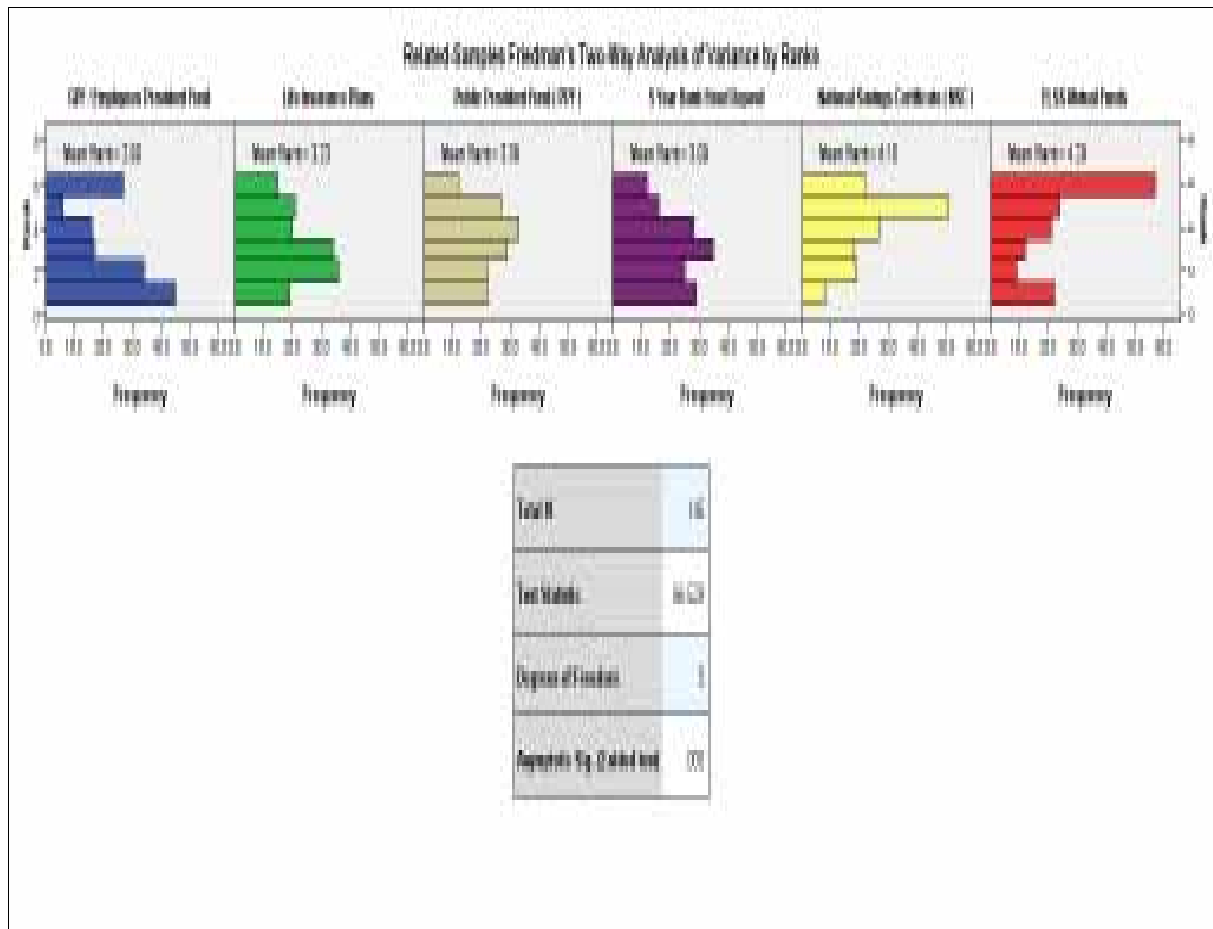
Significance Level .05

Source: Based on Primary Data – Question No. 10 of the Non Investor Questionnaire

Table 5.09 shows the result of hypothesis test done to study if non investors have the same kind of preference towards various tax saving investments. The test results reject the null hypothesis of equal preference. From the data as can be seen from Chart 5.33, there is highest preference for a 5 year FD and least preference for ELSS funds among non - investor category of respondents.

**Chart 5.33**

**Hypothesis Test Output for Preference of Non Investors Category towards various Tax Saving Investments**



Source: Table No. 5.04.

# As per Questionnaire High preference is to be given Rank is 1

**Table 5.10**

**Hypothesis Testing of Investor Category of their Perception towards risk in ELSS Funds and Diversified Equity Funds**

Test No.	Null Hypothesis	Test	Sig.	Decision	Remarks
1	Distribution of score towards Perception of Risk towards ELSS Funds and Diversified Equity Funds is the same	Independent Samples Mann Whitney U Test	0.000	<b>Reject Null Hypothesis</b>	Mean Rank is lesser in case of ELSS Funds than Diversified Equity Funds

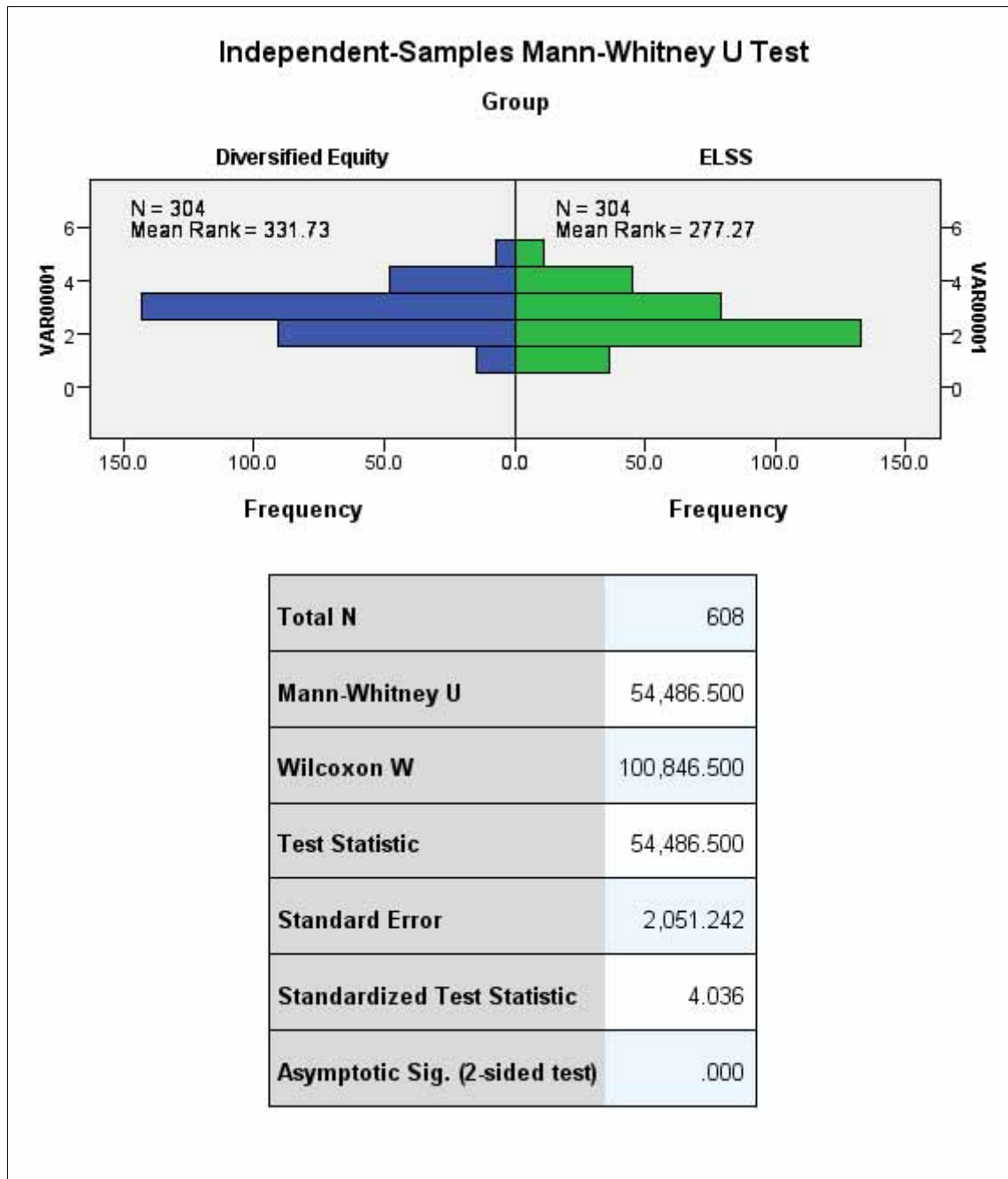
Significance Level .05

Source : Based on Primary Data – Question No. 18 and 19 of the Investor Questionnaire

Table 5.10 shows the hypothesis test result to know if investors have the same perception of risk in case of both ELSS funds and Diversified Equity funds. The results reject the null hypothesis of no difference. This implies that there is a significant difference in perception of investors towards risk of both ELSS and Diversified Equity funds. The results as shown in Chart 5.34 reveal that investors have a lesser perception of risk in case of ELSS funds (as seen from a lower mean rank) compared to Diversified Equity funds. This may be attributed to the tax benefit being received by the investors immediately upon investing into ELSS funds.

**Chart 5.34**

**Hypothesis Test Output for Investor Category Perception towards risk in ELSS Funds and Diversified Equity Funds**



Source –Table 5.05

# As per the Questionnaire, Least Risky is to be Ranked 1

**Table 5.11****Hypothesis Testing of Investor Category expectation of Annual Average Returns from ELSS Funds and Diversified Equity Funds**

Test No.	Null Hypothesis	Test	Sig.	Decision
1	Distribution of Expectation of of Average Annual Returns from ELSS Funds and Diversified Equity Funds is the same	Independent Samples Kolmogorov-Smirnov Test	0.593	<b>Retain Null Hypothesis</b>

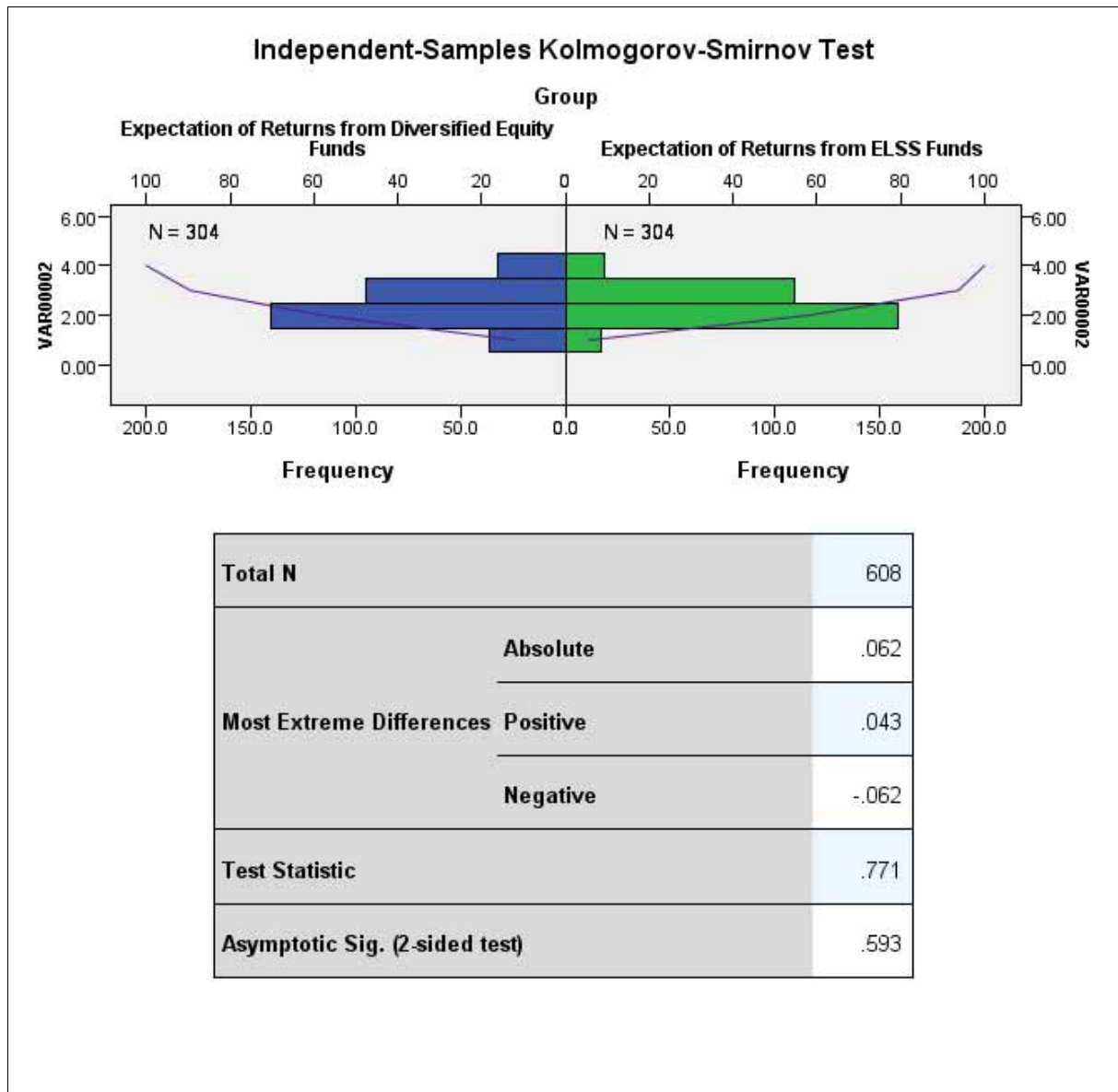
Significance Level .05

Source : Based on Primary Data – Question No. 20 and 21 of the Investor Questionnaire

Table 5.11 shows the hypothesis test result to know if investors have the same expectation of return from ELSS funds as compared to Diversified Equity funds. The results indicate no significant difference in expectation. The null hypothesis is retained. It implies that there is no significant difference in the expectation of returns of investors from ELSS funds as compared to Diversified Equity funds. The test output is shown in Chart 5.35.

**Chart 5.35**

**Hypothesis Testing Output for Investor Category expectation of Annual Average Returns from ELSS Funds and Diversified Equity Funds**



Source: Table 5.06



**Table 5.12**

**Hypothesis Testing of Investor Category towards their Preference for  
Tax Saving Investments**

Test No.	Null Hypothesis	Test	Sig.	Decision
1	Category of <b>ELSS</b> occurs with equal probabilities	One Sample Chi-Square Test	0.000	<b>Reject Null Hypothesis</b>
2	Category of <b>5 Year FD</b> occurs with equal probabilities	One Sample Chi-Square Test	0.000	<b>Reject Null Hypothesis</b>
3	Category of <b>NSC</b> occurs with equal probabilities	One Sample Chi-Square Test	0.000	<b>Reject Null Hypothesis</b>
4	Category of <b>PPF</b> occurs with equal probabilities	One Sample Chi-Square Test	0.000	<b>Reject Null Hypothesis</b>
5	Category of <b>Life Insurance</b> occurs with equal probabilities	One Sample Chi-Square Test	0.000	<b>Reject Null Hypothesis</b>
6	Category of <b>NPS</b> occurs with equal probabilities	One Sample Chi-Square Test	0.000	<b>Reject Null Hypothesis</b>

Significance Level .05

Source : Based on Primary Data – Question No. 23 of the Investor Questionnaire

**Table 5.13**

**Hypothesis Testing of Investor Category towards their Preference for  
Tax Saving Investments**

Test No.	Test	Ranks		
1	Friedman Test		Mean Rank	Asymp. Sig.
		ELSS Funds	3.32	0.000
		5 Year Bank FD	4.08	
		National Savings Certificate ( NSC )	3.26	
		Public Provident Fund	3.20	
		Life Insurance Plans	3.71	
		National Pension Scheme ( NPS )	3.44	

Significance Level .05

Source: Based on Primary Data – Question No. 23 of the Investor Questionnaire

Table 5.12 shows the result of hypothesis test done to study if investors category have the same kind of preference towards various tax saving investments. The test results reject the null hypothesis of equal preference. From the data as can be seen from Table 5.13, there is highest preference is for a 5 year Bank FD, followed by Life Insurance, National Pension Scheme and then ELSS funds. This means that ELSS stands 4<sup>th</sup> in the order of preference as among the 6 listed investment alternatives. As can be seen from Table 5.14 most of the investors across

occupations, prefer to utilize ELSS funds, for filling only between 10 percentage to 20 percentage of their Sec. 80C tax deduction benefit and the balance is apportioned among other tax saving alternatives.

**Table No. 5.14**

Cross Tabulation of Occupation and ELSS Investment																
Occupation / Investment %	5.00	10.00	15.00	17.00	20.00	25.00	30.00	40.00	45.00	50.00	60.00	65.00	70.00	75.00	80.00	100.00
Salaried - Private Service	3.0%	21.2%	3.0%	1.0%	23.2%	5.1%	13.1%	11.1%	1.0%	5.1%	3.0%		3.0%	2.0%	5.1%	
Salaried - Public Sector / Banks	1.8%	28.6%	3.6%		10.7%	7.1%	16.1%	8.9%		7.1%		1.8%	3.6%	1.8%		8.9%
Salaried - Government Service	2.5%	62.5%	5.0%		20.0%	5.0%	2.5%			2.5%						
Business / Self Employed	2.0%	30.0%	10.0%		16.0%	6.0%	8.0%	12.0%		6.0%	6.0%	4.0%				
Professional		46.4%			17.9%		21.4%	7.1%		7.1%						
Agriculture		71.4%			14.3%		14.3%									
Retired		55.6%			22.2%		22.2%									
Others					85.7%					14.3%						

Source: Based on Primary Data Question No. 23 of Investor Category

## **Chapter 6**

# **Findings, Conclusions and Suggestions**

## 6.01 Introduction

Mutual funds are one of the important means of deploying the savings of household investors. Mutual Funds supplement the financial system in its efficiency by providing a wide range of investment alternatives with an array of risk return characteristics. The range includes low risk – return products which invest into debt securities to high risk –return products which invest into equity securities. Traditionally, the Indian household sector savings is skewed towards debt investments mainly constituted by bank deposits. The householder's interest towards equity instruments has been quite low. As equity capital is essential for industrial development and in turn the nation's economic growth, a number of measures have been taken by the Government from time to time, to induce household investors to invest into equity markets. One such measure was the launch of Equity Linked Savings Scheme (ELSS) mutual funds.

Investments into equity market could be made directly by investing into equity shares of companies or indirectly by investing through mutual funds. Investments through mutual funds provide the investor with an added advantage of instant diversification of the portfolio which is difficult to achieve for a small investor through direct investments. In order to provide this diversification benefit to the small investor and at the same time, to channelize a part of householder's savings into equity markets, the ELSS funds were introduced in the year 1991. ELSS funds are a type of equity mutual funds, which provide an incentive to the investor in the form of reduced Income Tax obligation, depending upon the investment made into the fund during the year, subject to certain limits. In other words, ELSS funds are a type of tax saving investments.

There are number of other investments too, which provide similar tax benefit to the investor, as provided by ELSS for the amount invested. In the spectrum of tax saving investments, ELSS stands at one extreme with highest amount of variability in returns to the investor, as compared to some which have a very low variability or some others with no variability in returns. That being the case, investor's preference towards ELSS funds, purely depends upon the investment performance of ELSS funds and the perception that investors hold towards this investment. Therefore this study had this twin objective of

analysing the investment performance of ELSS funds and investor perception and preference towards ELSS funds.

## **6.02 Findings**

The findings of the study as against the objectives set forth for the study is provided below.

### **Related to Objective 1**

- The average of quarterly returns of ELSS funds was 3.29 percentage as against 5.66 percentage of Diversified Equity funds.
- Only 34 percentage of the ELSS funds could outperform the Diversified Equity funds category quarterly average returns.
- On absolute return basis, ELSS funds have underperformed the Diversified Equity funds category by 1.31 percentage per quarter.
- The returns earned by an investor through a quarterly SIP investment over 13 years in ELSS funds on an average, would have been 12.65 percentage pa, as against 21.30 percentage in case of Diversified Equity funds.
- The rolling 3 year CAGR for ELSS funds showed a highest return of 59.61 percentage pa for the period 2003-06 and lowest of -17.99 percentage for the period 2000-03. The same for Diversified Equity funds was 77.17 percentage and -7.24 percentage.
- The quarterly average of Standard Deviation of ELSS funds was 10.92 percentage as against 12.02 percentage for Diversified Equity funds.
- 56 percentage of the ELSS funds have undertaken a lesser standard deviation as compared to the average of Diversified Equity funds.
- In absolute terms, ELSS funds have on an average undertaken 0.56 percentage lower risk per quarter as compared to Diversified Equity funds.
- The quarterly CV of ELSS funds was 10.38 as against -6.16 for Diversified Equity funds.
- The quarterly average Sharpe ratio of ELSS funds for the period was -0.03 as against 0.18 for Diversified Equity funds.
- Only 39 percentage of the ELSS funds could outperform the quarterly Sharpe ratio of Diversified Equity funds category average.

- On absolute terms, ELSS funds have underperformed Diversified Equity funds to the extent of 0.10 in terms of quarterly average Sharpe ratio.
- The Sortino ratio of ELSS funds based on quarterly average returns was -0.03 for ELSS funds as against 0.26 for Diversified Equity funds.
- Only 36 percentage of the ELSS funds could outperform the Diversified Equity funds category quarterly average Sortino ratio.
- In absolute terms, ELSS funds have underperformed the Diversified Equity funds, to the extent of 0.15 in terms of quarterly average Sortino ratio.
- The average Beta of ELSS funds based on BSE Sensex, BSE 100 Index, BSE 200 Index, BSE 500 Index is 1.05, 0.98, 0.95 and 0.92 respectively, as against 1.11, 1.04, 1.01 and 0.98 for Diversified Equity funds.
- The average Beta of ELSS funds based on NSE Nifty, NSE CNX 100 and NSE CNX 500 is 1.03, 0.99 and 0.94 respectively as against 1.10, 1.06 and 1.00 for Diversified Equity funds.
- The R Squared of ELSS funds based on BSE Sensex, BSE 100, BSE 200 and BSE 500 were 0.90, 0.93, 0.93 and 0.93 as against 0.91, 0.95, 0.95 and 0.96 for Diversified Equity funds.
- The R Squared of ELSS funds based on NSE Nifty, NSE CNX 100 and NSE CNX 500 is 0.91, 0.93 and 0.93 respectively as against 0.91, 0.95 and 0.96 for Diversified Equity funds.
- The quarterly average of Treynor's ratio for ELSS funds based on BSE Sensex, BSE 100, BSE 200 and BSE 500 is -0.0214, -0.0108, -0.0378 and -0.0185 respectively, as against 0.0296, -0.0035, 0.0353 and 0.0366 for Diversified Equity funds.
- The quarterly average of Treynor's ratio for ELSS funds based on NSE Nifty, NSE 100 and NSE 500 is 0.0109, 0.0212 and 0.0089 respectively as against 0.0247, 0.0348 and 0.0327 for Diversified Equity funds.
- The quarterly average of Jensen's Alpha for ELSS funds based on BSE Sensex, BSE 100, BSE 200 and BSE 500 is 0.17, 0.36, 0.39 and 0.44 respectively, as against 0.94, 1.11, 1.29 and 1.32 for Diversified Equity funds.
- The quarterly average of Jensen's Alpha for ELSS funds based on NSE Nifty, NSE CNX 100 and NSE CNX is -0.20, -0.12 and 0.36 respectively, as against 0.71, 0.73 and 1.20 for Diversified Equity funds.

- 74 percentage of the ELSS funds underperformed the Jensen's alpha of Diversified Equity funds category average based on BSE Sensex.
- 71 percentage of the ELSS funds underperformed the Jensen's alpha of Diversified Equity funds category average based on NSE Nifty.
- The null hypothesis of no difference in the risk adjusted performance of ELSS funds based on Sharpe, Sortino and Jensen measures as against Diversified Equity funds was tested using Welch's t – test and the p value was found significant at alpha equal to .05 and the null hypotheses is rejected.

## **Related to Objective 2**

- The average of quarterly returns of ELSS funds was 3.29 percentage as against 3.90 percentage for Market Indexes.
- 55 percentage of the ELSS funds could outperform the Market Indexes category quarterly average returns.
- On absolute return basis, ELSS funds have underperformed the Market Indexes category by 0.02 percentage per quarter.
- The returns earned by an investor through a quarterly SIP investment over 13 years in ELSS funds on an average, would have been 12.65 percentage pa, as against 13.51 percentage in case of Market Indexes.
- The rolling 3 year CAGR for ELSS funds showed a highest return of 59.61 percentage pa, for the period 2003-06 and lowest of -17.99 percentage for the period 2000-03. The same for Market Indexes was 56.52 percentage and -17.27 percentage.
- The quarterly average of Standard Deviation of ELSS funds was 10.92 percentage as against 11.25 percentage for Market Indexes.
- 44 percentage of the ELSS funds have undertaken a lesser standard deviation as compared to the average of Market Indexes.
- In absolute terms, ELSS funds have on an average undertaken 0.07 percentage lower risk per quarter as compared to Market Indexes.
- The quarterly CV of ELSS funds was 10.38 as against -0.31 for Market Indexes.
- The quarterly average Sharpe ratio of ELSS funds for the period was -0.03 as against 0.07 for Market Indexes.

- 55 percentage of the ELSS funds could outperform the quarterly Sharpe ratio of Market Indexes category average.
- On absolute terms, ELSS funds underperformed by 0.01 in terms of quarterly average Sharpe ratio as compared to Market Indexes.
- The Sortino ratio of ELSS funds based on quarterly average returns was -0.03 for ELSS funds as against 0.06 for Market Indexes.
- 53 percentage of the ELSS funds could outperform the Market Indexes category quarterly average Sortino ratio.
- In absolute terms, ELSS funds have underperformed the Market Indexes, to the extent of 0.01 in terms of quarterly Sortino ratio.
- The null hypothesis of no difference in the risk adjusted performance of ELSS funds based on Sharpe and Sortino measures as against Benchmark Market Indexes was tested using Welch's t – test and the p value was not found significant at alpha equal to .05 and the null hypotheses is retained.

### **Related to Objective 3**

- The funds allocation to equity assets of ELSS funds for the years March 2009, March 2010, March 2011, March 2012 and March 2013 is 80.55 percentage, 93.23 percentage, 92.24 percentage, 93.47 percentage, 93.51 percentage and 90.60 percentage respectively as against 81.47 percentage, 92.44 percentage, 91.18 percentage, 90.79 percentage, 92 percentage and 89.58 percentage for Diversified Equity funds.
- The funds expense ratio for ELSS funds for the year ended March 2008, March 2009, March 2010, March 2011, March 2012 and March 2013 was 2.26, 2.32, 2.24, 2.25, 2.28, 2.46 and 2.31 percentage respectively, as against 2.02, 2.06, 1.92, 1.90, 1.84, 2.05 and 1.97 percentage for Diversified Equity funds.
- The average portfolio turnover ratio of ELSS funds for the Years 2010-11, 2011-12 and 2012-13 was 1.11, 0.92 and 0.86 respectively as against 1.01, 1.05 and 0.85 for Diversified Equity funds.



- The findings relating to investment performance are broadly in line with Kaur (2012), Bahl & Rani (2012), and Santhi & Gurunathan ( 2012).

#### **Related to Objective 4**

- Investor's assigned the highest importance to expected returns of the investment. 41.9 percentage of the investor category and 44.5 percentage of the non- investor category have ranked returns of the investment as the most important attribute of an investment.
- Investor's assign medium importance to the risk of the investment. 7.5 percentage of non- investors gave the highest importance to risk and 24 percentage of them gave it the least importance. Similarly 7.1 percentage of the investor category ranked it to be most important and 10.2 percentage gave it the least importance.
- The null hypothesis of investors perception towards risk in ELSS funds being equal to Diversified Equity funds was tested at a significance level of .05 using Mann Whitney U Test. The p value was found significant leading to the rejection of the null hypothesis. The mean ranks of the test showed that investors perceived lesser risk in ELSS funds as compared to Diversified Equity funds.
- The null hypothesis of investors expectation of average annual returns from ELSS funds being equal to Diversified Equity funds was tested at a significance level of .05 using Kolmogorov-Smirnov Test and the p value was found not significant. The null hypothesis is retained. This means that investor's expectation of returns from ELSS funds is the same as the expectation of Diversified Equity funds.
- The findings with regard to investor perception are in line with the findings of Santhi & Gurunathan ( 2011), Murugan (2012), Vyas(2012), Agarwal & Jain (2013).

## **Related to Objective 5**

- The respondents (24.7 percentage) in the non-investor category have preference for Bank FD as an investment product, closely followed by mutual funds (24 percentage). With regard to investor category, 27.2 percentage of the investors preferred Bank FD followed by 26.2 percentage for mutual funds.
- The respondents (31 percentage) in the non-investor category have preference for EPF as tax saving investment followed by 5 Year Bank FD (19.3 percentage). 39.3 percentage of this category have shown the least interest in ELSS funds.
- The preference of non-investor category and investor category towards mutual funds and ELSS funds as investment alternatives, was tested based on demographic factors of the respondents using Mann-Whitney U Test and Kruskal-Wallis Test. The null hypotheses being that the investors have the same preference for Mutual Funds and ELSS funds. In case of demographic factors like gender, age, educational qualification and occupation, the p value was significant at a level of .05 and therefore the null hypotheses were rejected. However in case of marital status and monthly average savings, the p value was not significant and therefore the null hypotheses was retained. The tests showed that males had more preference for mutual funds than females. Mutual funds were more favoured investment choice of younger population. Similarly the acceptability of mutual funds was high with post graduates and graduates. On the same lines those employed in private sector and those in business, had a higher preference for mutual funds.
- The preference for mutual funds as an investment product was tested between investor and non-investor categories using Kolmogorov-Smirnov Test. The null hypothesis being that there is no difference in the preference towards mutual funds between investor and non-investor category. The p value at a significance level of .05 was found insignificant and therefore the null hypothesis is retained. This showed that both types of respondents had the same preference for mutual funds.

- The preference of non -investor category towards tax saving investments was tested using Friedman's Test. The null hypothesis being that investors have the same preference towards ELSS funds as compared to other tax saving schemes. The test showed a significant p value at a significance level of .05 and therefore the null hypothesis is rejected. The test showed that respondent's preferences were not the same. They had a highest preference for 5 Year Bank FD and least preference for ELSS funds.
- The preference of investor category towards tax saving investments was tested using one sample Chi Square test as well as Friedman Test. The null hypothesis being that investors have the same preference towards ELSS funds as compared to other tax saving investments. Both the tests showed a significant p value at a level of .05 leading to the rejection of the null hypothesis. As per the mean rank, it can be stated that investors have a higher preference for 5 year Bank FD, followed by Life Insurance plans, National Pension Scheme and then ELSS funds.

## **6.03 Conclusions**

### **Investor's perspective**

- The results of the study show that ELSS funds as a category have clearly underperformed the Diversified Equity funds on a risk adjusted basis. This indicates that ELSS funds provided lesser risk premium for a unit of risk undertaken, be it total risk, downside risk or market risk as compared to Diversified Equity funds.
- The study has found that the performance of ELSS funds as a category was significantly on par with market indexes on a risk adjusted basis. This means that ELSS funds provided a similar risk premium per unit of risk undertaken in terms of total risk and downside risk as compared to Market Indexes.

- The additional risks involved with ELSS investment as compared to Diversified Equity funds, can be viewed in terms of allocation of funds to equity. The study had found that ELSS over time had a marginally higher allocation to equity as compared to Diversified Equity funds. However the difference is not substantial and therefore does not pose any additional risk to the investor in terms of total risk undertaken.
- The additional risk involved with ELSS investment as compared to Diversified Equity funds, could also arise due to higher portfolio turnover ratio. The study has found that the average turnover ratio of ELSS funds and Diversified Equity funds as a category is not different and therefore does not pose any additional risk to the investor.
- Additional risk to an investor could stem from higher expense ratio charged by the fund. The study reveals that the average fund expense ratio of ELSS category has been consistently higher than Diversified Equity funds category. This poses an additional risk to the investor as his returns from the fund, gets lowered to the extent of additional fund expenses charged.

### **Asset Management Company Perspective**

- The study has found that the awareness of ELSS funds as a tax saving investment option is not high. Although investors are aware of mutual funds and have shown preference for investing into it, a good section of the investors are not aware of the ELSS category of mutual funds.
- The study found that most investors perceive ELSS funds as average risk –return product. The perception of it being a high risk –return product exists, but comparatively to a lesser extent.
- The non- investors in ELSS have shown least preference for investing into ELSS funds as compared to other tax saving schemes. However investors of ELSS, although do not assign the highest preference, however have assigned a medium preference towards it.

- The study clearly shows that investors do not perceive a higher risk investing into ELSS funds as compared to Diversified Equity funds. Investors perceived a lesser a risk investing into ELSS funds.
- The study shows that investors to a great extent are satisfied with the return performance of ELSS funds.
- Investors focus on returns performance and tax benefit while investing into ELSS funds. Asset Management Company and Fund Manager are other factors that influence their selection of a particular fund, followed by star ratings of the fund.

### **Government and Regulations perspective**

- The study shows that the 3 year rolling returns of ELSS funds has been positive for most of the periods with huge volatility in the returns earned. The returns earned for this period is purely dependent upon the market conditions. A good number of investors are happy with the existing lock in period of 3 years and also willing to remain invested into equity for a period of up to 5 years.
- In reality, the distinction between ELSS funds and Diversified Equity funds does not exist. This is clear from the equity allocation pattern, where both ELSS and Diversified Equity funds invested a similar portion of the AUM into equity securities. Investors perceive a higher risk from Diversified Equity funds rather than from ELSS funds.

## 6.04 Suggestions

### Investors

- Investors irrespective of their demographic profiles, in order to have asset allocation across asset classes and to enhance the returns of their portfolio, need to invest a part of their tax saving investment into ELSS funds.
- Equity investments are meant for long term wealth creation and more so with ELSS funds. Investors should hold on to the investment for a minimum period of 5 years, higher the better.
- Equity investments need to be looked at as means of wealth creation and not means of providing current income at regular intervals. Investors while investing into ELSS funds need to opt for either Growth plan or Dividend reinvestment plan and not Dividend plan.
- ELSS fund need not always be looked purely as a tax saving investment. It can be used as a means for long term wealth creation to meet financial objectives like retirement fund creation or children education fund creation etc.
- Apart from focussing on returns and tax savings, investors should also focus on the risks inherent in the investment and thereby choose investments on risk adjusted after tax performance basis.
- The reliance of investors on family and friends for seeking investment advice needs to be given up in favour of personal research or in favour of financial planners and advisors. This would make the investment complement the financial goals of the investor.

## **Asset Management Companies**

- The performance of ELSS funds as a category has been low as compared to Diversified Equity funds and Market indexes. Even individual funds showed high variability in performance over time. There was no consistency in performance of individual funds. The only factor that can be attributed to this underperformance seems to be the low AUM of ELSS funds and its consequential disinterest in managing the money efficiently by the fund manager. This needs to be corrected.
- The fund expense ratio charged towards ELSS funds has been higher as compared to Diversified Equity funds, although the portfolio turnover ratio for both types of funds is the same. This does not seem to be justifiable. The fund expense ratio of ELSS funds should be charged on par with Diversified Equity funds.
- In the marketing campaigns, more focus can be placed on younger population, private sector employees and business / self -employed investors. Similarly efforts should be made to tap investments from low savings category of investors as the penetration in this group is less.
- Investor education is very essential for penetration of mutual funds across investor categories. Investor education programs need to be held so that the awareness for ELSS funds as a tax saving alternative emerges.
- Fund distribution network needs to be strengthened as awareness of ELSS funds as a tax saving investment, can be brought out only through personal interaction. Distributors can also help in cross selling other mutual fund products to customers . The investors acceptance of news- paper and magazine information is less and therefore reliance on this mode may be reduced.

## **Government / Regulator**

- As investors awareness with regard to ELSS funds has been low, and that investor's preference for the advisor community is high, it is very important to reenergise the fund distributor / advisor category by providing them adequate incentives so that ELSS as a tax saving investment option becomes more popular.
- As a number of ELSS funds have a very low AUM, it is difficult to bring about fund manager interest into managing these funds. Similarly the distinction between ELSS funds and Diversified Equity funds does not exist in from the fund management perspective. Therefore it is prudent to allow tax benefit to all investments up to the eligible amount, for investments made into Diversified Equity funds also subject to lock in period.
- As equity investments are meant for long term capital appreciation, the Dividend pay-out option in ELSS funds can be reconsidered. Tax saving funds can have Growth option and Dividend reinvestment option. This would reduce the liquidity burden on the fund and bring about consistency in performance.
- All tax saving investments under section 80C of the Income Tax Act, have a lock in period of 5 years except for ELSS funds, which have a lock in period of 3 years. In order to induce the investors to invest into ELSS funds, and make it a preferable investment, this lock in period can to be maintained at 3 years.
- At present the mandated allocation of AUM to equity for ELSS funds is 80 percentage. On the other hand, Diversified Equity funds have a mandated allocation of 65 percentage into equity. Although the mandated allocation to equity is 65 percentage in Diversified Equity funds, still, in order to enhance the return performance, fund managers have been investing on an average 90 percentage of their corpus into equity, which is almost the same as in case of ELSS funds. Therefore in order to provide the necessary flexibility to the fund manager, with regard to the asset allocation decision,



the mandated allocation of equity for ELSS funds can to be brought down to 65 percentage and made on par with Diversified Equity funds.

### **6.05 Scope for further research**

This study has been limited to the understanding of investment performance and investors perception with regard to ELSS mutual funds. The study has considered for the purpose of analysing the investment performance a sample of diversified equity schemes and market indexes for performance benchmarking. Similarly the study for understanding the investor perception and preference for ELSS funds considered sample respondents residing in Bengaluru and it sub urban area. However there is ample scope for further research in this area which are as follows:

- Performance attribution of ELSS funds in comparison with Diversified Equity funds.
- Performance persistence of ELSS funds in comparison with Diversified Equity funds.
- Impact on fund ratings on investment performance and investor perception.
- Creating a model for ELSS benchmarking
- Impact of mutual fund distribution channels on fund inflows
- Impact of financial advisors on investors perception towards mutual funds

## 6.06 Conclusion

This study had the prime objective of analysing the investment performance of ELSS funds and investors perception towards it. The study in order to analyse the investment performance of ELSS funds considered data pertaining to the period 2000-01 to 2012-13. The study concluded that ELSS funds as a category has on an average underperformed the sample Diversified Equity funds category average and performed on par with Market indexes category average, for this period. The performances of individual ELSS funds were inconsistent during this period. The study did not find any other additional risk factors specific to ELSS funds as compared to investing in Diversified Equity funds except for a higher expense ratio.

Investor's perception and preference towards ELSS funds too were studied through a survey, taking sample respondents from Bengaluru and its sub urban area. Investor's perception of risk was lower in case of ELSS funds as compared to Diversified Equity funds. However there was no significant difference in their return expectation. Respondents, who have never invested in ELSS funds earlier, had least preference to ELSS funds as compared to other tax saving investments. Respondents who have invested in ELSS funds earlier had a medium preference for ELSS funds. There has been a positive response from non- investors, towards considering ELSS funds as an investment option in the future.

The success of ELSS funds as a category depends upon the understanding of the investment by investors. Understanding of the investment starts with awareness and ends with investment experience. Mutual fund distributors and advisors can play a vital role in enabling this at a faster pace. Asset Management Companies and Regulator need to work hand in glove in achieving this objective for the benefit of all stake holders.

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# LIST OF PUBLICATIONS

1. Krishna Kumar Kadambat *et al.*, Investment Performance of Equity Linked Savings Schemes (ELSS ) Of Indian Mutual Funds. *International Journal of Recent Scientific Research Vol. 6, Issue, 5, pp.4076-4083, May, 2015*
2. Krishna Kumar Kadambat *et al.*, Fund Manager's Performance in Equity Linked Savings Schemes (ELSS) of Indian Mutual Funds. *International Journal of Multidisciplinary Research Review Vol. 1, Issue, 3, pp.83-96, May, 2015*

# Glossary

## **Alpha**

It is the amount of excess returns earned which is not attributed to the market.

## **Asset Management Company**

It is an entity which floats and manages the assets of a mutual fund.

## **Assets under Management (AUM)**

It is the market value of the assets owned by a fund.

## **Balanced Funds**

It is type of mutual fund which invests in both equity and debt securities.

## **Benchmark**

It is something against which performance can be compared.

## **Beta**

It is an indicator of systemic risk involved in an asset.

## **Business Risk**

It is a type of un-systemic risk caused by variability of returns of a business due to multi-various factors.

## **Close ended Fund**

It is a type of mutual fund with a prefixed tenure and which restricts subscription and redemption.

## **Compounded Annual Growth Rate (CAGR)**

It is the compounded annual returns earned by a fund.

## **Credit Risk**

It is a type of un-systemic risk caused by the default of the borrowing entity to repay the principal or interest on time.

## **Debt Mutual Fund**

It is a type of mutual fund which invests a substantial portion of its assets in interest earning securities.

## **Diversification**

It is the process of reducing risk by investing in a wide range of securities.

**Diversified Equity Funds**

It is a mutual fund which invests its assets in equity shares and related securities of a wide range of industries and sectors.

**Dividend Option**

It is a strategy to enable receipt of gains as and when made by the fund.

**Entry Load**

It is the amount of charges to be paid by the investor while investing into a fund.

**Equity Linked Savings Scheme (ELSS)**

It is a type of Diversified Equity Fund which provided tax benefit for the amount invested in a financial year.

**Equity Mutual Fund**

It is a type of mutual fund which invests a substantial portion of the assets in equity shares and related securities.

**Exit Load**

It is the amount of charges to be paid by the investor while exiting out of a fund.

**Ex post Return**

It is the amount of past returns earned on an asset for a particular period of time.

**Exchange Traded Fund (ETF)**

It is a type of mutual fund which can be bought (post issue) and sold only through a stock exchange.

**Financial Year**

It is the period of 12 months starting from 1<sup>st</sup> April and ending on 31<sup>st</sup> March.

**Gilt Funds**

It is a type of debt mutual fund which invests its asset in Government Securities.

**Growth Funds**

It represents equity funds.

**Growth Option**

It is a strategy to create long term capital appreciation.

**Income Funds**

It represents debt funds.

**Jensen's Alpha**

It is the amount of excess returns earned by a fund, attributed to the ability of the fund manager.

**Liquid Funds**

It is a type of mutual fund which invests its assets in money market instruments.

**Liquidity Risk**

It is a type of un-systemic risk caused by the inability of the asset being converted into cash without loss of time and value.

**Lock in Period**

It is the amount of time during which the invested amount cannot be withdrawn.

**Market Index**

It is a barometer of the market represented by a portfolio of stocks.

**Mutual Funds**

It is a type of collective investment which pools money from a number of investors and invests them into securities based on the objective.

**Net Asset Value (NAV)**

It is market value of a unit in a mutual fund derived from dividing the net assets by the total units of the fund.

**Open ended Funds**

It is a type of mutual fund with no fixed tenure and is open for continuous subscription and redemption.

**Portfolio**

It is a collection of assets.

**Sharpe Ratio**

It is the amount of risk premium earned by the asset for undertaking a unit of total risk.

**Sector Funds**

It is a type of equity mutual fund which invests its assets in equity shares and related securities of one particular industry or sector.

**Sortino Ratio**

It is the amount of risk premium earned by the asset for undertaking a unit of down side risk.

**Systematic Investment Plan (SIP)**

It is the strategy of investing a fixed amount of money into a fund at regular intervals over a period of time.

**Systemic Risk**

It is that risk which is caused by macro factors and cannot be eliminated by diversification.

**Systematic Transfer Plan**

It is the strategy of transferring fixed amount of money from one fund to another at regular intervals over a period of time.

**Systematic Withdrawal Plan (SWP)**

It is the strategy of withdrawing from a fund a fixed amount of money at regular intervals over a period of time.

**Tax Deduction**

It is a tax incentive which allows the eligible amount to be deducted from the total income for the year.

**Tax Exemption**

It is tax incentive provided on the returns earned on specified assets on which there is no implication of tax.

**Tax Rebate**

It is a tax incentive in the form of allowance given on the amount of tax payable.

**Treynor Ratio**

It is the amount of risk premium earned by the asset for undertaking a unit of market risk.

**Un-systemic Risk**

It is that risk which is caused by micro factors and the effect of which can be eliminated by diversification.



## **Questionnaire – Non Investor Category**

## Welcome to My Survey

**I am K.Krishna Kumar a Research Scholar from ICFAI University, Jharkhand. I am doing a research on ELSS Mutual Funds. In this regard, I would be glad, if you could kindly fill the enclosed Questionnaire. The data provided would not be used for any commercial purpose.**

1. Name

2. Sex

- ☐ Male
- ☐ Female

3. Age

- ☐ Below 25
- ☐ 25 to 35
- ☐ 35 to 45
- ☐ 45 to 55
- ☐ 55 to 65
- ☐ Above 65

4. Educational Qualification

- ☐ Upto Higher Secondary ( 12th Std. )
- ☐ Graduate
- ☐ Post Graduate
- ☐ Professional
- ☐ Others

## 5. Occupation

- ☐ Salaried - Private Service
- ☐ Salaried - Public Sector / Banks
- ☐ Salaried - Government Service
- ☐ Business / Self Employed
- ☐ Professional
- ☐ Agriculture
- ☐ Retired
- ☐ Others \_\_\_\_\_

## 6. Marital Status

- ☐ Married
- ☐ Unmarried / Single

## 7. Monthly Average Savings

- ☐ Below Rs 10000
- ☐ Rs 10000 -25000
- ☐ Rs 25000-50000
- ☐ Above Rs 50000

## 8. Rank the following investments in the order of your Investment Preference ( Rank 1 = Highest )

<input type="text"/>	Bank Fixed Deposits
<input type="text"/>	Post Office Savings
<input type="text"/>	Equity Shares
<input type="text"/>	Mutual Funds
<input type="text"/>	Gold / Silver
<input type="text"/>	Life Insurance

## 9. Rank the following Investment Attributes in the order of their Importance ( Rank 1 = Highest )

<input type="text"/>	Returns
<input type="text"/>	Risk
<input type="text"/>	Liquidity
<input type="text"/>	Knowledge of the Investment Product
<input type="text"/>	Tax Benefit
<input type="text"/>	Convenience / Flexibility

10. Rank the following Tax Saving Investments ( Income Tax u/s 80 C ) in the order of your preference ( Rank 1 = Highest )

<input type="text"/>	GPF / Employees Provident Fund
<input type="text"/>	Life Insurance Plans
<input type="text"/>	Public Provident Fund ( PPF )
<input type="text"/>	5 Year Bank Fixed Deposit
<input type="text"/>	National Savings Certificate ( NSC )
<input type="text"/>	ELSS Mutual Funds

11. Have you heard of Tax Saving ELSS Mutual Funds earlier ?

☐ Yes

☐ No

12. If Yes, What is your perception with regard to ELSS Mutual Funds ?

☐ Low Returns & Low Risk

☐ Low Returns & High Risk

☐ Average Returns & Average Risk

☐ High Returns & High Risk

13. Why have you not invested in a ELSS Mutual Fund ?

☐ Not Aware of the Investment

☐ Lack of Market / Investment Expertise

☐ High Risk Involved

☐ Not sure of the Process of Investing

14. How do you normally take your Investment Decisions ?

☐ Based on Personal Research

☐ Based on Recommendations of Friends / Family Members

☐ Based on Recommendations of Financial Advisor

☐ Based on Recommendations given by News Papers / Magazines

15. Would you like to Invest in ELSS Mutual Funds for saving Tax in the Future ?

☐ Yes ☐ No

## **Questionnaire – Investor Category**



I

**I am K.Krishna Kumar a Research Scholar from ICFAI University, Jharkhand. I am doing a research on ELSS Mutual Funds. In this regard, I would be glad, if you could kindly fill the enclosed Questionnaire. The data provided would not be used for any commercial purpose.**

1. Name

2. Sex

- ☐ Male
- ☐ Female

3. Age

- ☐ Below 25
- ☐ 25 to 35
- ☐ 35 to 45
- ☐ 45 to 55
- ☐ 55 to 65
- ☐ Above 65

4. Educational Qualification

- ☐ Upto Higher Secondary ( 12th Std. )
- ☐ Graduate
- ☐ Post Graduate
- ☐ Professional
- ☐ Others

## 5. Occupation

- ☐ Salaried - Private Service
- ☐ Salaried - Public Sector / Banks
- ☐ Salaried - Government Service
- ☐ Business / Self Employed
- ☐ Professional
- ☐ Agriculture
- ☐ Retired
- ☐ Others \_\_\_\_\_

## 6. Marital Status

- ☐ Married
- ☐ Unmarried / Single

## 7. Monthly Average Savings

- ☐ Below Rs 10000
- ☐ Rs 10000 -25000
- ☐ Rs 25000-50000
- ☐ Above Rs 50000

## 8. Rank the following investments in the order of your Investment Preference

<input type="text"/>	Bank Fixed Deposits
<input type="text"/>	Post Office Savings
<input type="text"/>	Equity Shares
<input type="text"/>	Mutual Funds
<input type="text"/>	Gold / Silver
<input type="text"/>	Life Insurance

## 9. Rank the following Investment Attributes in the order of their Importance

<input type="text"/>	Returns
<input type="text"/>	Risk
<input type="text"/>	Liquidity
<input type="text"/>	Knowledge of the Investment Product
<input type="text"/>	Tax Benefit
<input type="text"/>	Convenience / Flexibility

10. Have you ever invested in an Equity Linked Savings Scheme ( ELSS ) Mutual Fund ?

☐ Yes

☐ No

11. How long have you been investing in Equity Linked Savings Scheme ( ELSS ) ?

- ☐ Less than 1 Year
- ☐ 1 - 3 Years
- ☐ 3 - 5 Years
- ☐ More than 5 Years

12. Which Investment Plan Option do you choose while investing in ELSS ?

- ☐ Growth Option
- ☐ Dividend Option
- ☐ Dividend Reinvestment Option

13. Which other Mutual Funds schemes have you Invested in ?

- ☐ Diversified Equity Funds
- ☐ Index Funds
- ☐ Gold Funds
- ☐ Balanced Funds
- ☐ Debt Funds
- ☐ Liquid Funds
- ☐ Exchange Traded Funds ( ETF's)
- ☐ Others\_\_\_\_\_
- ☐ None

14. How much do you invest Annually in ELSS Funds ?

- ☐ Less than Rs 10000
- ☐ Rs 10000 - Rs 25000
- ☐ Rs 25000 - Rs 50000
- ☐ Rs 50000 - Rs 100000
- ☐ Above Rs 100000

15. What Investment Objectives do you think can be met by investing in ELSS Funds ?

- ☐ Tax Benefit
- ☐ Capital Appreciation
- ☐ Retirement Planning Needs
- ☐ Children Education / Marriage Needs

16. How long will you remain invested in ELSS Funds ?

- ☐ Just 3 Years
- ☐ 3 - 5 Years
- ☐ 5-10 Years
- ☐ Over 10 Years

17. On what basis do you select the ELSS funds for Investment ?

- ☐ Personal Research
- ☐ Fund Star Ratings ( Value Research / Crisil Ratings etc. )
- ☐ Asset Management Company / Fund Manager
- ☐ News Paper / Magazine Recommendations
- ☐ Financial Planner / Advisor Recommendation

18. What is your perception of Risk with regard to ELSS Funds

Least Risky Highly Risky

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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19. What is your Perception of Risk with regard to Diversified Equity Funds

Least Risky Highly Risky

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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20. What is your expectation of Average Annual Returns from ELSS Funds ?

- ☐ Less than 10% pa
- ☐ 10 - 15% pa
- ☐ 15 - 20% pa
- ☐ Greater than 20% pa

21. What is your expectation of Average Annual Returns from Diversified Equity Funds ?

- ☐ Less than 10% pa
- ☐ 10 - 15% pa
- ☐ 15 - 20% pa
- ☐ Greater than 20% pa



22. What do you consider are the additional risk factors in ELSS Funds as compared to Diversified Equity Funds ?

- ☐ 3 Year Lock In Period
- ☐ Higher Equity Allocation
- ☐ Both
- ☐ None
- ☐ Others \_\_\_\_\_

23. How will you allocate an amount of Rs 100 in the below given Tax Saving Investments ?

ELSS

5 Year Bank FD

National Savings  
Certificate ( NSC )

Public Provident Fund

Insurance Plans

National Pension Scheme  
( NPS )

24. How do you rate your satisfaction with regard to the Returns performance of ELSS Funds ?

Highly Satisfied

Highly Unsatisfied

☐ ☐ ☐ ☐ ☐

25. What changes would you like to see in the ELSS Fund Regulations ?

- ☐ Lower Lock In Period
- ☐ Higher Lock In Period
- ☐ Lower Equity Allocation
- ☐ Dedicated Deduction U/s 80 C for ELSS
- ☐ Any Other \_\_\_\_\_