Growth and Performance of Mutual funds with Special Reference to Unit Trust of India

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Chithra P.S.

Centre for Development Studies
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I hereby affirm that the research for this dissertation titled ***Growth and Performance of Mutual funds With special reference to Unit Trust of India*** being submitted to Jawaharlal Nehru University for the award of the Degree of Master of Philosophy in Applied Economics, was carried out entirely by me at the Centre for Development Studies, Thiruvananthapuram.

Thiruvananthapuram

Chithra P.S

Chithra.P.S

Certified that this dissertation is the bona fide work of Chithra P.S, and has not been considered for the award of any other degree by any other University.

Supervisors

N Shanta

Shanta.N

Associate Fellow

K K Subramanian

Subramanian K.K

Honarory Fellow

Chandan Mukherjee

Director

Centre For Development Studies

Thiruvananthapuram

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Chapter 1

INTRODUCTION

A country's financial system has a profound influence on its economic development. In this process there is a significant role to the financial institutions that compose of the financial sector and their relationship with real sectors of the economy. As perceived by Guerley and Shaw (1955), the role of financial institution is one of helping to realise the opportunities for savings and real investment in an economy. These institutions play an intermediary role in the sense that they mediate between savers and investors of funds. Among them Mutual Funds (MFs) occupy an important place and play a crucial role in mobilising savings especially from the households and investing them in the capital market.

How effective are MFs in mobilising savings and channelising into investment through the capital market in a country? This is an important question relevant to economic development. For, the link that MFs establish between savings and the capital market is an important factor in the rate of capital formation and economic growth. Needless to say, the effectiveness of MFs in establishing the above link, to a large extent, depends on their performance-based credibility with the savings class in the financial market. Thus viewed, the performance evaluation of MFs in a country at different time periods assumes academic and policy significance.

The significance of the performance evaluation of MFs is all the more relevant in India. The economy is undergoing a process of structural adjustment and liberalisation based economic reforms in major sectors including the financial sector, with a view to transform them into more competitive and efficient to achieve higher rate of economic growth. The present study is a modest attempt at the performance evaluation of the Indian MF industry. The evaluation is done in terms of its efficiency in mobilising savings through various types of MF schemes and channelising the funds into investments in corporate securities and other investment -instruments of varying degrees of risks for providing fair rates of returns to MF scheme investors. In particular an effort is made to do a case study with focus on the evaluation of performance of the Unit Trust of India (UTI), which even today remains the most important player in the MF Industry.

This chapter is divided into two sections. Section I discusses the role of MFs. Here the literature on MFs is reviewed. Section II explains the objectives of the study, methodology followed and the data sources.

Section 1
Role of Mutual Funds

An elaboration of the role of MFs may be useful to sharpen the focus of the present study and to put in proper perspective its significance and to draw a framework for the performance evaluation of MFs industry. We begin with the meaning of the term Mutual funds. According to the dictionary meaning, MF is a "fund that pools the invested funds of others and invests those funds on their behalf, usually in a specific kind of investment, such as money market instruments, municipal bonds or common stock".[1] Thus by definition MF is conceived as performing an intermediary function in the financial sector. The Security and Exchange Board of India (SEBI) defines MF as " a fund established in the form of a trust by sponsor to raise monies by the trusties through the sale of units to the public under one or more schemes for investing in securities in accordance with these regulations".[2] The primary objective of MFs as per the above definition are to mobilise savings by launching various schemes and investing the pooled savings mainly in various instruments of capital and money markets. In the Indian context; MFs are institutions that sell units of their schemes to the public (i.e. mobilise savings) and invest the proceeds in a large number of market securities. They hold a diversified portfolio of bonds, stocks or both (depending on their investment objective), chosen by professionally qualified portfolio managers. They are specialised institutions with professional investment expertise capable of delivering a diversified portfolio to their client investors. They are assumed to have the ability of providing above average returns with safety over long periods to the investors.

Generally, individual investors with limited financial resources to trade in the stock market, are prone to high risk. There is, therefore, an attraction for them to seek MFs as their indirect investors in the capital markets. They see MFs as financial institutions, which provide safety, liquidity and yield to their investments through professional management. In particular, small investors, who generally keep away from the capital markets not only because of the small amount of their savings but also because of the risk involved in such investments, have an attraction to look upon MFs to perform a financial intermediary functions. This is so because MFs provide them a stake in the capital market investments by investing their savings in the

various securities of companies.

Thus viewed, MFs are important financial intermediary institutions, in a country's financial system. They provide the ordinary investors with expert selection and professional monitoring of investments backed by excellent customer service. They help ordinary investors to reduce risks through diversification and at the same time, earn reasonable returns to the investment. The relatively good performance of MFs in managing their portfolio schemes to earn above average rates of returns with safety helps them to establish credibility among the savings class in the household sector. This helps them to mobilise increasing share of household savings and thereby raise the rate of growth of MF business, which in turn means raising the rate of capital and growth in the economy.

As the households contribute the major part of domestic savings in India, the role of MFs is of special significance. MFs create long term investment possibilities by gaining control over the short-term funds of the small savers. They provide diversified and skilled management for the small investors in the field of corporate securities. This is possible for them because aggregate savings of many individuals when invested in different corporate securities are less risky than savings of a single individual. The large size of the aggregate savings of the community enables the MFs to allow the owners of the savings, to retain liquidity individually and finance the long-term investment collectively. MFs, make investment possible from funds that otherwise would remain as unproductive in the household sector. Thus by mobilising the small household sectors savings and channeling them into capital market MFs are playing an important role in the resource mobilisation and thereby economic growth of the country.

In India MFs industry is of recent origin. As a financial intermediary the institution of MFs assumes a significant role in India. This is so because the household contributes a large part of the domestic savings where the MFs have a special role to play. Although Unit Trust of India (UTI) was established as a MF in the public sector in 1964, this western phenomenon became popular in India only in the early nineties when the private sector was allowed to enter into MF business pursuant to the ongoing new economic reforms. Thus MF industry must have seen a major structural change since the nineties with the entry of a number of players and there by increasing degree of competition in the MF business in the country. Has this structural change led to the fast rate of growth of the resource mobilisation by the MFs and its investments in the capital market? In particular how has the structural changes impacted upon the performance of

the UTI, the earliest and even today the largest player in the MF business? Perhaps, attempting the performance evaluation of MFs in general and UTI in particular can shed some light on these and similar intriguing questions. In order to draw the frame work and to detail out the methodology for attempting the performance evaluation of MF industry, we first attempt a brief review of the literature, theoretical as well as empirical, dealing with the performance evaluation of MFs. The review will also help us to sharpen the focus and to delineate the specific objectives of the study.

Review of the Literature

The MF industry has a long history of more than fifty years of existence in the developed countries. This western phenomenon is of recent origin in developing countries. Much of the literature on the subject therefore is occupied by studies carried out in the developed country context and in particular in the context of U.S.A. The Wharton school of Finance and commerce (1962) did a pioneering study on the US MFs for the period 1953-58 and examined issues relating to investment policy, portfolio turnover rate, performance and impact of MFs trading activity on the stock markets. The major finding of the study was that, on an average, the funds had not performed better than the composite markets from which they selected their securities. Since then, much of the literature, theoretical and empirical, on MFs began to focus on performance evaluation. The emergence of Markowitz's portfolio theory, followed by the development of Capital Asset Pricing Model (CAPM) gave a new direction to the evaluation of portfolio performance. Following the CAPM, Jenson (1960), Treynor (1965) and Sharpe (1966) also developed models to evaluate the Portfolio performance.

Broadly, the studies on MFs in the developed country context revolved around two hypotheses: One set of studies concentrated on the "Efficient Market Hypothesis" and the other on the hypothesis of "persistency in performance". By the early 1970's the "Efficient market hypothesis" was the accepted paradigm which assumed, *the history of past stock prices appeared to provide no helpful information in predicting future prices movements*. The studies by Jensen (1968); Sharp (1966) on performance of MFs found that net of expenses, MF performance was inferior to holding an index fund and high expenses lead to law returns. These findings were accepted as axiomatic for 20 years. But later studies challenged the "Efficient market hypothesis" and showed that fund managers have access to enough private information to offset their expenses which showed that high expenses is followed by higher returns (Henrikson, 1984 and Chang and Lewellen, 1984).

Ippolito (1989) tested for efficiency in capital markets when information is costly to obtain. He tested the hypothesis that *if Market is efficient, then MFs should make trades and therefore holds portfolios that earn risk-adjusted returns sufficiently higher than index funds to pay for the extra expenses.* He concluded that MFs, net of all fees and expenses, except load charges, outperformed index funds on a risk-adjusted basis; these results contrasted with the results reported in earlier studies (Jensen, 1968; Sharpe, 1966).

Following Carlson (1970) whose study tested the "persistency in Performance" of MFs many studies have tested the relation between MFs performance and their expense ratio, age and size. Carlson's study finds evidence that funds with above-median returns over the preceding year typically repeat their superior performance. Hendricks, Patel, and Zeckhauser (1993) and Goetzmann and Ibbotson (1994) argue that past mutual fund returns predict future returns and provides strong evidence in favor of "hot hand" phenomenon, that is, MFs which have achieved above average returns continue to enjoy superior performance. This result is inconsistent with the earlier finding of Jensen (1968) and suggests that investors could earn significant excess (risk-adjusted) returns purchasing recently good performing funds.

Burton Malkiel (1995) analysed the predictability of performance by taking all MFs that were in existence during the 21-year period from 1971 through 1991 and found that "Hot hand" (winning followed by winning) occur much more often than a win followed by a loss. He also has also located a "cold hand" phenomenon. That is to say, losing in the initial period is more likely to be followed by a losing in the subsequent period. It is found that persistency was quite strong in the 1970's and for some years in 1980's. Persistency in performance can be predicted on the basis of the time period and the market conditions.

Brown and Goetzmann (1995)'s study also found that the issue of performance persistence is strongly dependent upon the time period of study. Size and age are negatively related to fund disappearance and expense ratio positively related to it. Brown has remarked that reliable results on performance evaluation can be obtained only if the focus of the study is on one type of scheme or one type of institution and evaluation for at least more than five years.

Studies by Volkman and Mark (1995) deviated from previous studies has investigated the relation between persistent performance and four systematic factors: Size, goal, load and

management fee. Results indicated no consistent relation ship.

There are very few analytical literature on MFs in the Indian context largely descriptive, informative and policy oriented in nature. The non-availability of relevant data for carrying out analytical studies partly explains the lacuna. Probably, it could also be due to the fact the mutual funds have gained significant only in recent years. The available literature can be divided into three categories:

I. **Informative and descriptive:** A number of academics, professionals, and journalists have written articles explaining the basic concept of MFs, their characteristics and reviewed the trends in the growth of MFs. A few under this category are Sudeep Ghosh, Vidya Shankar (1990) and Agarwal (1992).

II. **Regulatory issues:** When commercial banks entered into MF operations, there were no regulations. Attention of the scholars, therefore, was drawn to highlight the importance and issues for regulation of MF. Among them, a notable is by Barua, varma and Venkiteswaran (1991). They have shown that the number of players in the market has increased with the opening of the MF business to private sector and it is necessary to introduce appropriate legislation governing the function of MFs. They have emphasised that the regulations should be so designed that it should protect the investors. They have pointed out that the disclosure of NAV are considered essential for both Open and Close ended funds and they have prescribed guidelines for the operation of MFs. They have argued that, if any MF defy the guidelines, the investor who has been affected could approach the trustees and promoters for damages. A recent study by Jayadev (1997) dealing with many aspects of MFs has also reviewed the SEBI regulations to see whether regulation should be strengthened or relaxed in the light his analysis of the performance evaluation.

III. **Performance Evaluation:** one of the recent studies in this category is by Jayadev. The study has attempted the performance evaluation of the selected schemes of various MFs in the private sector and concluded that MFs seem to have not lived upto the expectations of the investors. In particular he found that there is no proper balance between selectivity and diversification. Out of the 62 schemes selected for the study only 33 schemes provided rates of returns in conformity with the linear relationship generally

postulated in theory. Further more than one half of the schemes did not outperform the benchmark portfolio.

In an early study in the category of performance evaluation, Jain (1984) has compared the financial performance of UTI with industrial security market from 1964-80 and concluded that UTI's performance was relatively poor. The reasons attributed for this poor performance was its conservative investment policy of investing more on fixed income securities than on equities.

Barua and others (1991) have made an attempt to evaluate the performance of a specific scheme of UTI viz. `Master share' for the period July 1987 to September 1990. They have used the All Industries All India Equity Index computed by the Economic Times (ET Index) as the market index and evaluated the performance based on NAV and market price of Master share. Sharpe, Treynor, Jensen and Fama decomposition values were used for evaluation. Master share was found to out perform the Benchmark on all measure of performance. But in terms of market price, Mastershare's performance was not very impressive, as it has higher systematic risk and volatility based on the market price.

Gali (1995) has examined large number of mutual fund schemes, (82 schemes in all) and examined their performance using market prices, NAVs and repurchase prices over the period 1987-94. He computed the Sharpe and Jensen measures for the schemes and also compared the returns of schemes directly with the returns from the market indices, namely ET index, BSE Sensex and BSE National Index. When market prices were used the schemes did not perform better than the market indices. Their performance was better when NAVs were used. On the whole Gali found that MF schemes did not outperform the market. As for the consistency of performance, the funds performed better than the market in the years prior to 1991-92.

IV. **(iv) Strategies, Policies and Other Issues:** In this category includes a study by Sadhak (1998). The issues discussed were Marketing strategies of MFs and their investment practices. The study provided information about the growth of MFs industry in a short span of 10 years and prospects for its growth in coming years. It was stressed that there is a need for the deeper research on the MFs in the fields of Investment planning and

Policy, decision making and marketing. On the evaluation of performance he used secondary studies and in particular quoted the studies conducted by Shome, Sujan (1994) and Kale and Uma (1995). The former study had revealed that the average rates of return of MFs were marginally lower than the market return and the later has shown that the MFs outperformed the market.

Panigrahi, (1996) has examined the growth of UTI vis-a-vis other MFs measured in terms of investable funds, schemes,etc for the period, 191-94. The study showed that UTI maintained lower average growth rate in investible funds during 1964-94 against the industrial average. An analysis of the scheme wise distribution of outstanding capital of all public sector MFs revealed that while the share of growth schemes had increased from 4.6% in 1990-91 to 20.9% in 1993-94, that of income scheme had gone down from 89.3% to 62.7%. The findings of the study needs to be used with caution, as the period covered in the study is too short to make a meaningful analysis of the performance evaluation of the MFs.

Apart from the academic studies reviewed above, there are a number of reports on the functioning of UTI. A review of the major reports will help to sharpen the objective of the present study. In 1994, UTI constituted a Social Audit Committee under the chairman ship of Justice M.H.Kania to evaluate the performance of UTI from various dimensions. The committee reported that after 1992, the performance of UTI is poor and the units are quoted much below their NAV in the market. It was also opined that UTI did not enough transparency in respect of its investments.

The Deepak Parekh Committee (1999) carried out a comprehensive review of the functioning of the UTI's US-64 to strengthen the scheme and to recommend measures for sustaining investor confidence. The significance of the report can placed in the context that the UTI had announced in late September 1998 that reserves of its US-64 scheme as of June 30 had turned negative. Badly not only the investors received this but also the market. The timely intervention of the Government only allayed the fears of investors and also put a break to the deepening of the crisis. The Lack of transparencies and disclosure of NAVs coupled with the substantial transformation of debt-equity composition of the portfolio from a 79:21 debt to equity ratio in 1986 to 37:63 in 1998 were the reasons attributed for the crisis in the scheme. Consequent upon this, the interest income as a percentage of total income had fallen from 81.3% in 1990 to 29.3%

in 1998. In order to meet the dividend obligations, the trust had to sold the most liquid scrips. Given the then state of affairs outlined above, the Deepak committee was of the strong opinion that from being a trendsetters in its early years the UTI turned laggard as it failed to adapt, in a timely manner, to the changing external environment.

Now we make a critical assessment of the major studies especially on the performance evaluations reviewed above and in the light underline the relevance of present study. As for the studies on performance evaluation of MFs in India, some of them focussed on some schemes of all MFs. The major thrust appeared to be the case study of UTI. Most Indian studies on MFs have followed the methodology used in US studies. Thus the CAPM is used to measure the systematic risk and for comparing the performance of managed portfolios. The studies have used either BSE SENSEX or BSE NATEX as the benchmark for comparing the returns on MF schemes. The rates of returns on Bank deposits are taken as the returns on risk free asset. The present study has also followed the same line of methodology. Yet, the present study stands at a different footing in the sense it has attempted to plug a major lacuna of the earlier Indian studies on performance evaluation of MFs. To make the point more explicit, most of the earlier studies reviewed above have evaluated the performance for a short period, whereas, a relatively longer period is necessary for an objective assessment. Here it is pertinent and important to recall Brown's (1995), observation that for getting fruitful results on performance evaluation, either the performance of one institution to be evaluated or one type of scheme must be evaluated or the performance should be evaluated for a period of minimum 5 years. The present study by considering a longer period for analysis and by attempting a case study of the largest firm in the MF business viz., the Unit Trust of India, has over come some of the major limitations of the earlier studies and can thus claim to made a more meaningful contribution. The present study can claim to be different from the earlier studies from another dimension. Most of the earlier studies focussed on the performance of MFs either before or immediately after the SEBI regulation of 1993 on the entry of private sector MFs in the market. Hence, they could not capture the impact of competition from the ongoing liberalisation policies on the performance of MFs. Thus viewed the present study can said to be an attempt to comprehend the process of the growth and performance of MFs in general and the UTI in particular in an environment of increasing competition in the Indian economy.

To be more specific, the present study analyse the growth and performance of MFs in general and Unit Trust of India in particular for a longer period ending upto the end of nineties covering

both monopoly and competitive market conditions in the MF business. It thus captures the impacts of structural changes of different market-structure environment in the MFs in general and UTI in particular, using time-tested and widely accepted methodologies for performance evaluation.

Objectives and Methodology

The present study has the following objectives,

- To analyse the role of Mutual funds as mobilisers of savings;
- To examine the performance of UTI against its objectives;
- To evaluate the performance of UTI schemes in comparison with the market returns and risk free returns.

The methodology used for the analysis is detailed at the beginning of chapter. The role of MFs as saving mobilisers can be seen from their share in the total domestic savings and a percentage of MFs shares in the total financial assets.

The performance of UTI is evaluated against its objectives of mobilising savings of the community and channelising the savings into productive investments in a diversified manner to promote the economic growth of the country. The performance evaluation of UTI schemes is analysed in the risk-adjusted return framework.

Data Sources

The study is based on the data mainly collected from the secondary sources such as RBI Bulletin, Reports on Currency and Finance, Annual reports of SEBI and UTI. A time series data on the Net asset values (NAVs) of various schemes of UTI is prepared and used for the computation of returns. The data on the NATEX index values are used as the bench marks for comparison. The anlaysis has also made use of the views of some fund managers of MFs with whom the researcher had detailed discussions during personal interview with them. The interview discussions has influenced the researcher's assessment of the impacts of competitive market environment and the regulation of SEBI on MFs on the growth and performance of MF business.

The scheme of presentation

The study is presented in five chapters. The present introductory chapter has outlined the scope,

objectives and methodology of the study in the light of a brief review of the literature on MFs. Chapter 2 makes an exploration into the structural changes and growth trends in the MF business since the inception of UTI to 1998. In particular it maps out the contours of the changing market conditions from monopoly to competition. Has this evolution in market structure resulted in the enhancement of the role of MFs as a mobiliser of savings? Has the competitive environment led to a buoyancy in the growth? Has the competition has had deferential impacts on different type of institutions especially on the growth performance of the public sector MFs? These questions are examined in the chapter. Chapter 3 and Chapter 4 are devoted to a detailed case study of UTI, the premier and still largest fund manager in the MF business. Has UTI been able to achieve the objectives for which it was set up? An answer to this question is sort in this chapter. Chapter 4 makes a detailed performance evaluation of selected UTI schemes and on that basis reflect upon the ability of funds manager's market timing and selectivity of investment. Are the investors in the UTI schemes provided with return in conformity with the risk involved in the schemes? are return earned infact commensurate with the objectives set at the launching of the schemes? How well the returns adjusted to risk compares with the returns of benchmark portfolios? What factors explain the observed performance in the analysis? These specific and questions tangential to the overall performance of UTI are posed and answered in this chapter. Finally, Chapter 5 summarises the major findings of the study.

Endnotes :-

1.The VNR *Dictionary of Business and Finance*, Van Nostrand, Rein Cold Company, New York, pp.183.

2.Sec.2(m), SEBI (Mutual Funds) Regulations 1993.

Chapter 2

STRUCTURAL CHANGE AND GROWTH TRENDS

Introduction

This chapter analyses structural changes and growth trends in the Indian Mutual Funds Industry since its inception with the establishment of the Unit Trust of India in 1964. The analysis is carried out in a background -setting that maps out the contours of (1) pattern of saving behavior and (2) developments of the financial system during the period of study. The significance of the background-setting arises from the fact that Mutual Funds are set up to play a major role as financial intermediary institution in economic development by mobilising savings especially from the household sector and channelising them into investment through the capital market. When structural changes and growth trends are seen against such a setting, it is hoped that results of the analysis of this chapter will provide an objective assessment of the role of MFs in financial intermediation especially after the introduction of financial sector reforms as a part of the ongoing economic reforms since 1991.

This chapter is organised in three sections. Section I draws the background setting against which the structural changes and growth trends in the indian MF business is analysed by tracing the patterns of savings behavior and developments of the financial system in the Indian economy. It also portrays the characteristics features of MF business. Section II traces the structural changes in terms of the entry of new players Non-UTI public secotr MFs and private sector MFs including foreign firms - in MF business. Section III traces the growth trends in the MF business by looking at the data on the saving mobilised by MFs through various investment schemes. It also locates the factors that influenced the observed growth phases in the MF business.

Section I

The Background-Setting

The portrayal of the background setting may start with some observations on the pattern of savings behavior during the period under review.

Pattern of Savings Behavior

A notable feature of Indian economic development has been the steady growth of the domestic savings (GDS). As a proportion of gross domestic product (GDP) i.e. the gross rate of savings (ratio of GDS to GDP) has moved up from 10.4 percent in 1950-51 to 12.7 percent in 1960-61 and further to 26.2 percent in 1996-97 (see table 2.1). The saving rate has remained above 20 percent of GDP since 1976-77. Another noteworthy feature of savings behavior has been that the growth in GDS has been mainly accounted by the household sector, which has been contributing a substantial share to the total domestic savings. The contribution of the household sector to GDS has generally been growing, though there have been yearly fluctuations in the trends. It has remained always more than 75 percent of GDS through out the eighties and the nineties.

However, there is a disturbing feature in the savings behavior. The share of public sector savings in GDS has been declining over time. Its contribution has declined from 17.2 percent in 1950-51 to 4.5 percent in 1997-98 (See table 2.2). The declining share of Public sector has been compensated by the increasing contribution of the private corporate sector. The latter's share in GDS has increased from 9.13 percent in 1950-51 to 11.49 percent in 1990-91 and further to 16.29 percent in 1997-98.

As the household sector is seen to be the dominant contributor to GDS, a further exploration into its composition is attempted. (See table 2.3). It is revealed that overtime there has been a structural change in the household savings in favor of financial assets. In particular, the share of financial assets in household savings went up significantly from 39.4 percent in 1980-81 to 52.9 percent in 1996-97. As a consequence, there has been a decline in the share of physical assets in the household savings. This structural change in favor of financial assets particularly in the eighties is a reflection of the growing financial deepening through the diversification of the financial institutions in the Indian economy.

Table 2.1

Growth in Gross domestic savings, Gross domestic products and its components

(Rs.in crores)

Year	GDP [Rs]	GDS [Rs]	Gross household saving	H.Savings in Financial Assets	Col (3) as % of Col (2)	Col (4) as % Col (3)	Col (5) as % of Col (4)
[1]	[2]	[3]	[4]	[5]	[8]	[9]	[10]
1950-51	9366	975	718	82	10.41	73.64	11.42
1960-61	16201	2063	1362	501	12.73	66.02	36.78
1970-71	43163	6783	4873	2110	15.71	71.84	43.30
1971-72	46257	7508	5477	2319	16.23	72.95	42.34
1972-73	51005	7833	5713	2882	15.36	72.94	50.45
1973-74	62007	11432	8562	3578	18.44	74.90	41.79
1974-75	73235	12726	8610	3371	17.38	67.66	39.15
1975-76	78761	14928	10534	5067	18.95	70.57	48.10
1976-77	84894	18030	12698	6651	21.24	70.43	52.38
1977-78	96067	20230	14686	7154	21.06	72.60	48.71
1978-79	104190	24138	17747	9483	23.17	73.52	53.43
1979-80	114356	24698	17379	10249	21.60	70.37	58.97
1980-81	136013	28786	21848	12118	21.16	75.90	55.47
1981-82	159760	31597	21847	13621	19.78	69.14	62.35
1982-83	178132	33774	23044	16097	18.96	68.23	69.85
1983-84	207589	39294	29341	18790	18.93	74.67	64.04
1984-85	231343	42178	31705	23549	18.23	75.17	74.28
1985-86	262243	51933	38158	25562	19.80	73.48	66.99
1986-87	292949	54801	41587	31849	18.71	75.89	76.58
1987-88	333201	69631	56618	36106	20.90	81.31	63.77
1988-89	395782	84668	68248	39958	21.39	80.61	58.55
1989-90	456821	102370	83297	48233	22.41	81.37	57.90
1990-91	535534	129999	109623	58908	24.27	84.33	53.74
1991-92	616799	141251	109359	68077	22.90	77.42	62.25
1992-93	705918	155225	124825	80386	21.99	80.42	64.40
1993-94	810749	183710	149673	109485	22.66	81.47	73.15
1994-95	963492	247087	195403	145382	25.64	79.08	74.40
1995-96	1118964	283003	210417	123381	25.29	74.35	58.64
1996-97	1276974	333816	259543	154200	26.14	77.75	59.41

Notes:
GDS : Gross domstic savings
GDP : Gross domestic product
Source: RBI report various years

Table 2.2

Sector wise distribution of gross domestic savings in India (Rs.in crores)							
	GDS	HHS	PS	Pvt cor sector	Col (3) as % of col(2)	Col (4)as % of col (2)	Col (5) as % of col(2)
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
1970-71	6783	4873	1253	657	71.84	18.47	9.69
1971-72	7508	5477	1278	753	72.95	17.02	10.03
1972-73	7833	5713	1332	788	72.94	17.00	10.06
1973-74	11432	8562	1807	1063	74.90	15.81	9.30
1974-75	12726	8610	2676	1440	67.66	21.03	11.32
1975-76	14928	10534	3339	1055	70.57	22.37	7.07
1976-77	18030	12698	4185	1147	70.43	23.21	6.36
1977-78	20230	14686	4168	1376	72.60	20.60	6.80
1978-79	24138	17747	4780	1611	73.52	19.80	6.67
1979-80	24698	17379	4967	2352	70.37	20.11	9.52
1980-81	28786	21848	4654	2284	75.90	16.17	7.93
1981-82	31597	21847	7254	2496	69.14	22.96	7.90
1982-83	33774	23044	7822	2908	68.23	23.16	8.61
1983-84	39294	29341	6781	3172	74.67	17.26	8.07
1984-85	42178	31705	6526	3947	75.17	15.47	9.36
1985-86	51933	38158	8457	5318	73.48	16.28	10.24
1986-87	54801	41587	8002	5212	75.89	14.60	9.51
1987-88	69631	56618	7223	5790	81.31	10.37	8.32
1988-89	84668	68248	8101	8319	80.61	9.57	9.83
1989-90	102370	83297	7423	11650	81.37	7.25	11.38
1990-91	129999	109623	5436	14940	84.33	4.18	11.49
1991-92	141251	109359	11888	20004	77.42	8.42	14.16
1992-93	155225	124825	10765	19635	80.42	6.94	12.65
1993-94	183710	149673	4557	29480	81.47	2.48	16.05
1994-95	247087	195403	17491	34193	79.08	7.08	13.84
1995-96	283003	210417	25195	47391	74.35	8.90	16.75
1996-97	333816	259543	24728	49545	77.75	7.41	14.84
1997-98*	361518	286231	16400	58887	79.17	4.54	16.29

GDS: Gross domestic savings
HHS : Household savings
PS: ublic sector
Pvt cor sector: Private corporate sector
* Tentative estimates
Source: RBI Report on currency and finance and various years.

TABLE 2.3

Distribution of House hold savings into Financial and Physical assets					(Rs.crores)
Year	House hold Savings			Col(2) as %	Col(3) as %
	Fin Assets	Phy Assets	Total	of Col (4)	of Col (4)
[1]	[2]	[3]	[4]	[5]	[6]
1980-81	8609	13238	21847	39.41	60.59
1985-86	18578	19620	38198	48.64	51.36
1990-91	49640	59923	109563	45.31	54.69
1991-92	62081	47220	109301	56.80	43.20
1992-93	65331	59430	124761	52.36	47.64
1993-94	94625	55156	149781	63.18	36.82
1994-95	120611	86510	207121	58.23	41.77
1995-96	99520	114702	214222	46.46	53.54
1996-97	138021	122899	260920	52.90	47.10

Notes :-
Fin Assets : Financial assets
Phy assets : Physical assets
Source: RBI Report on Currency and Finance various years

To put it differently, some institutional developments must have taken place in the financial sector, which in turn must have been instrumental in shaping the structural changes observed above, in the patterns of savings especially in the household sector. In particular, the growth of financial intermediaries including MFs must have assisted the transfer of household savings to the real sectors of the economy through formation of financial assets and the strengthening of the capital market. In this context, it must be noted that the percentage share of corporate equity and debentures, together with UTI units has increased from 3.7 percent of the total financial assets in 1980-81 to 17.2 percent in 1992-93 (See table 2.4). Plausibly, investors have shown a tendency to move towards more liquid, short-term assets like units of MFs, shares, debentures, etc. with the diversification of saving instruments and the growth of the capital market. These trends must have been conducive to the growth of MFs industry.

Table 2.4

INSTRUMENT-WISE DISTRIBUTION OF HOUSEHOLD ASSETS.

(Rs. Crores)

ITEM	1980-81	1985-86	1990-91p	1991-92	1992-93p	1993-94p	1994-95p	1995-96p	1996-97	1997-98
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Gross Savings	12117	25562	58967	68135	80453	109373	140753	120058	152951	180665
% to GDP	8.9	9.7	11	11	11.4	13.5	14.8	10.9	12.1	12.8
Currency	1625	2220	6251	8157	6562	13367	15916	16525	13553	12532
% to GDP	1.2	0.8	1.2	1.3	0.9	1.7	1.7	1.5	1.1	0.9
	[13.4]	[8.6]	[10.6]	[12]	[8.2]	[12.2]	[11.3]	[13.8]	[8.9]	[6.9]
Bank deposits	5550	10603	18777	17880	29550	36215	53200	34993	58364	82346
% to GDP	4.1	4	3.5	2.9	4.2	4.5	5.6	3.2	4.6	5.8
	[45.8]	[41.5]	[31.8]	[26.2]	[36.7]	[33.2]	[37.8]	[29.1]	[38.2]	[45.6]
Non-bank deposits	378	1423	1286	2218	6035	11654	11547	13198	22377	7775
% to GDP	0.3	0.5	0.2	0.4	0.9	1.4	8.2	11	14.6	0.5
	[3.10]	[5.6]	[2.2]	[3.3]	[7.5]	[10.7]	[8.2]	[11]	[14.6]	[4.3]
Life insurance funds	915	1779	5599	7003	7114	9548	11370	13889	15692	19513
% to GDP	0.7	0.7	1	1.1	1	1.2	1.2	1.3	1.2	1.4
	[7.6]	[7]	[9.5]	[10.3]	[8.8]	[8.7]	[8.1]	[11.6]	[10.3]	[10.8]
providend and pension funds	2122	4188	11155	12500	14817	18223	21691	23563	24373	32668
% to GDP	1.6	1.6	2.1	18.3	18.4	16.7	15.4	19.6	15.9	2.3
	[17.5]	[16.4]	[18.9]	[18.3]	[18.4]	[16.7]	[15.4]	[19.6]	[15.9]	[18.1]
Claims on Government	712	3413	7942	4904	3949	6784	13360	9533	11987	22315
% to GDP	0.5	1.3	1.5	0.8	0.6	0.8	1.4	0.9	0.9	1.6
	[5.9]	[13.4]	[13.5]	[7.2]	[4.9]	[6.2]	[9.5]	7.9[7.9]	[7.8]	[12.4]
Shares and debentures	412	1394	4972	6800	8212	10067	11611	7795	5859	3042
% to GDP	0.3	0.5	0.9	1.1	1.2	1.2	1.2	0.7	0.5	0.2
	[3.4]	[5.5]	[8.4]	[10]	[10.2]	[9.2]	[8.2]	[6.5]	[3.8]	[1.7]
Units of UTI	31	586	3438	9087	5612	4705	3908	262	446	595
% to GDP		0.2	0.6	1.5	0.8	0.6	0.4	0	0	0
	[0.3]	[2.3]	[5.8]	[13.3]	[7.0]	[4.3]	[2.8]	[0.2]	[0.3]	[0.3]

Notes :

% to GDP at current prices

% to financial assets are given in parenthesis

Source:RBI report on currency and Finance.

The growth of MFs has been at the cost of Commercial banks. This is evident from the fact that there has been a decline of the share of the commercial banks for some times in gross household financial assets. The relevant share has declined continuously from 45.8 percent in 1980-81 to 29.1 percent in 1995-96. However, the share of the bank deposits picked up its growth momentum since 1996-97 and reached the level of 45.6 percent in 1997-98. Also, the share of less liquid investments like LIC, PF and Pension funds has increased marginally from 25.1 percent to 27.2 percent during that time. The period (1997-98) has witnessed the decline in the proportion of shares & debentures together with units of UTI. In 1997-98, the relevant proportion was 0.2 percent of the total financial assets. It is noteworthy that the decline in the share of UTI units in the total financial assets has been sharp (0.3 percent) for the period 1997-98.

Developments in the financial system

The role of financial system in capital accumulation is best gauged by certain financial ratios. In particular, by tracing the trends in some key financial ratios it is possible to capture the level of maturity, degree of intermediation, depth of financial markets etc. in an economy. The relationship between financial development and overall economic growth is reflected in the finance ratio (FR), defined as the ratio of total financial issues to national income in a year. The relationship between financial development and the growth of physical investment is captured by the financial interrelation ratio (FIR), defined as the ratio of increase in the stock of financial claims[1] to net capital formation - which indicates the proportion of primary financial issues with respect to capital formation. Another important indicator is the intermediation ratio, (usually defined as the proportion of claims issued by financial transactions to the issues of non-financial sectors), which indicates the importance of financial intermediaries in channelising financial resources. The new issue ratio, another important indicator of financial development, reflects the proportion of primary claims issued by the non-financial institutions to net capital formation (NIR).

The salient features emerging from an examination of the above ratios for the period 1950-51 to 1992-93,[2] (RBI,1994, Rangarajan, 1998) are reproduced in tables 2.5a and 2.5b. It is seen that FR showed a mixed trend in the period. The trend is similar in the case of FIR and NIR. FIR declined significantly from 3.05 percent in 1986-87 to 1.75 percent in 1990-91,

Table 2.5 (a)

Selected indicators of Fianancial Development								(Rs.crores)
Sl No.	Item	1986-97	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93
1	Secondary Issues-							
	Issues of Fis	36442	39879	57443	66635	68598	96895	91361
2	Primary issues-issues							
	of Non Fin sector	55762	50592	77480	97210	95982	111579	122083
	a)Domestic sector	56530	52472	79271	98141	103032	104327	125603
	b)Rest of the world	-768	-1880	-1791	-931	-7050	-72252	-3520
3	Total Issues (1+2)	92204	90471	134923	163845	164580	208474	213444
4	Net capital formation	30270	40700	60535	76839	94167	86440	101339
5	National Income	227427	257961	309286	357931	416495	477868	544935
6	Finance Ratio(3 % 5)	40.5	35.1	43.6	45.8	39.5	43.6	39.2
7	Rate of capital formation							
	(4 as % of5)	13.3	15.8	19.6	21.5	22.6	18.1	18.6
8	Fiancial Interrelation							
	Ratio (Ratio of 3 to 4)	3.05	2.22	2.23	2.13	1.75	2.41	2.11
9	New issue ratio (NIR)							
	Ratio of 2 to 4	1.84	1.24	1.28	1.27	1.02	1.29	1.2
10	Intermediation Ratio							
	(Ratio of 1 to 2)	0.65	0.79	0.74	0.69	0.71	0.87	0.75

Source: Resereve Bank of India,Flow of funds Accounts of the Economy, 1988-89 to 1991-92, and currency and finance ,1993-94.
Currency and finance 1993-94

Table 2.5(b)

Sl No.	Item	50-51	70-71	80-81	91-92	92-93
1	FR	0.75	17.15	33.03	41.3	39.2
2	FIR	0.08	1.18	1.49	2.29	2.11
3	IR	0.27	0.66	0.76	0.79	0.75
4	NIR	0.17	0.71	0.85	1.28	1.2

Source: Rangarajan .C., "Indian Economy: Essays on Money and Finance" UBS Publishers Ltd, (1998).

but increased subsequently to 2.11 percent in 1992-93. This shows the growing intermediation in the economy. And, NIR declined consistently up to 1990-91 but showed an improvement in 1991-92. Similar fluctuations are also noted in respect of IR. This ratio increased consistently after 1989-90. The substantial increase in FR, FIR, NIR and IR in 1991-92 was primarily due to the significant increase in total claims issued by Other Financial Institutions (OFIs) and Rest of the World (ROW). It is plausible to argue that the emergence of "Other Financial Institutions" as dominant players in the Indian financial market reflects the growth of mutual funds in India, during that period.

At this juncture it is relevant to note that the structural changes in terms of the increase in the number of financial institutions have been more striking in the 90s. This coincides with the ongoing economic liberalisation and reforms based on the market-forces in general and the financial sector in particular. The financial sector reforms has opened up the hitherto government-controlled financial system to the operation of private sector and led to the emergence of a number of market-based institutions to play the role of financial intermediation. Naturally, MF industry has also witnessed, as shown elsewhere in this chapter, the entry of private sector MFs with innovative and diversified projects for mobilising savings from the households sector.

The point for emphasis is this: The period under study, especially after the introduction of new economic reforms, has witnessed some basic structural changes in the institutional set-up and the pattern of saving behavior. These developments must have exercised considerable influence on the structural changes and the growth trends in the MF industry. To put it differently, structural changes and growth trends in the MF industry in India has to be seen against the background of the changes observed in the patterns of savings behavior and developments of financial system.

It is against the above background setting that we analyse the structural changes and growth trends in the Indian MF industry. We note that the changes in the patterns of saving behavior of the household sector and the developments in the financial system have been conducive for the entry and diversification of MFs and thus their growth path in the financial system. The analysis against the forgoing background helps us to assess MFs role in resource mobilisation and its channelisation into investment through the capital market. As a prelude to this analysis, we give

below a brief description of the characteristics of MF business in India.

Characteristics of Mutual Fund Business

As stated earlier, Mutual funds are financial institutions, which play a crucial role in mobilising savings and investing them in the capital market. Thus, they establish a link between savings and the capital market. They sell units to the public and invest the proceeds in a large number of market securities. They are expected to reduce risk through diversification and provide the ordinary investors with expert selection and professional monitoring of investment backed by excellent customer service. In general, MFs turn to be an important investment vehicle of risk-averse investors, who want to reap the benefits of buoyant stock markets, but do not have enough time and resources to enter into the capital market.

Organisatinal structure of MFs

Today, MF business is regulated by the Securities and Exchange Board of India (SEBI) primarily in terms of section 14,15,19 and 20 of SEBI (MFs) Regulations 1993. According to these regulations[3] every MF should be constituted as Trust, with an Asset management company and a Custodian: A few lines on each of these forms may be useful for a clear understanding of the MFs business.

According to SEBI regulations, a MF shall be established as a **Trust** under the Indian Trust Act (1882) by an agreement between the sponsoring institution (called the seller) and the trustees of the MF.[4] The Trustee/sponsor shall appoint an **Asset management company** (AMC) as investment manager to the MF. The basic function of the investment manager is to formulate the schemes, mobilise the amount from investors and manage the schemes. AMC should be a corporate entity with a minimum net worth of Rs.5 crores.[5] Every MF will have a **Custodian** who will no way be related to the AMC. The custodian is entrusted with the task of safe keeping of the securities or participating in any clearing system on behalf of the MF to effect deliveries of the securities.

Classification of MF Schemes

All MFs are set up in the organisation structure described above. They offer a variety of schemes to the investors. These schemes can be classified on the basis of (i) Execution and

operation (Functional classification); (ii) Portfolio composition (Investment objectives classification); and (iii) Geographical limits of operation (Geographical classification).

(i) **Execution and operation:-** On the basis of execution and operation, MF schemes can be classified as open-ended schemes and close-ended schemes. SEBI regulations defines open-ended schemes as "a scheme of a MF which is offering units for sale or has outstanding any redeemable units and which doesn't specify any duration for redemption or repurchase of units".[6] Initially, the units are offered through public issue opened for a maximum period of 45 days and after the date of closure, the entry to the investor shall be closed for a few weeks. Thereafter, units are offered for sale and subscription is always open except in the book closure period. Though the first, MF Scheme (US 64) is an open-ended scheme, the open-ended schemes are not very successful in India. In the case of close- ended schemes the corpus of the scheme and the numbers of units are determined in advance. The units are offered to the investors through the public issue, and after the closure, the entry to the investor is closed. The scheme shall have a fixed redemption period, usually between five and ten years. The MF will pay back the unit capital to the investors together with some capital appreciation at the time of redemption. The fund units are listed in the stock exchanges and investors can encash the units at the market price. New investors can join the scheme by purchasing the units from the stock market. The close-ended schemes are more popular in India.

(ii) **Portfolio composition:-** We now turn to describe the main features of MF units classified in terms of the portfolio composition. An understanding of this classification on the above basis is important as the yield (return) of a fund investment depends upon the portfolio composition or investment objective of the schemes. On the basis of investment objectives, the schemes can be classified as:

1.**Income Scheme**: The main objective of this type of scheme is to provide regular and periodical (monthly/quarterly) returns to the investors. Therefore, the fund managers tend to invest a higher proportion of funds in fixed income securities and the remaining smaller proportion in equity shares so that the risk would be less. This is illustrated by the fact that a large proportion (around 70 percent) of assets in Income generating schemes are invested in bonds and debentures: In 1997-98, out of 259 schemes launched 94 are income schemes which mobilised Rs.42613 crores, and formed 43 percent of total resource mobilisation.

2.**Growth Schemes**: The main objective of the growth scheme is capital appreciation. This is achieved by investing in growth-oriented, blue chip shares. Such funds seek to achieve maximum capital appreciation. Hence, the fund managers tend to invest a large proportion of the funds (around 80 to 90 percent) in equities. Growth schemes are usually close-ended schemes and listed in stock exchanges. In 1998, 68 out of 259 schemes belonged to this category and mobilised Rs.15808 crores of rupees, forming 16 percent of total funds mobilised.

3.**Income-cum-Growth Scheme**: This scheme aims at offering regular dividends over the life of the scheme and at the same time capital appreciation at the time of its redemption. This schemes seek to achieve both capital and income growth. In the Income-cum-growth schemes, the investment in equity shares would be more in comparison to income scheme and less in comparison to growth schemes. Out of the total 259 schemes launched in 1998, only 33 Schemes belonged to this category and mobilised Rs.33309 crores forming 34 percent of total resource mobilisation.

4.**Tax Saving Scheme**: The funds under this scheme are invested according to the rules prescribed by the government for Equity Linked Savings Scheme (ELSS). Investment is made for a period of 10 years, though investors can avail themselves of encashment facility after 3 years. Under this scheme there are options for income as well as growth and capital appreciation. There are 61 schemes of this type out of the total 259 schemes in 1998, and they mobilised Rs.5258 crores forming 5.4 percent of total fund mobilisation.

It may be noted that there are other types of schemes also in the MF business. These include Balanced funds (similar to income and growth schemes), Bond funds (more investment on Bonds and less risky), Index funds (similar to equity oriented schemes), Sector (industry) funds (funds invested in the securities of a single industry) and Money market funds (wholly invested in money market instruments). However these types of schemes are not very popular in India.

(iii) **Geographical limits of Operation**

Finally, we may classify the MFs schemes by the geographical limits of their operation

(Geographical classification). On this basis MFs schemes can be classified as Domestic MFs and Offshore MFs. As Domestic MF schemes are launched with the objective of mobilising the savings of Indian citizens, its marketing is limited to India only. On the other hand, Offshore schemes are launched with a view to mobilise the savings in a foreign country for the purpose of investment in Indian securities.

Keeping in view the above information on the nature of MF business and the background, that gives a profile of the pattern of saving behavior and the developments in the financial system we proceed to trace the structural change and growth trends of MF industry in India.

Section II

Structural changes in the MF Industry

We begin the analysis of the structural changes by denoting the very birth of the Indian MF industry with the setting up of UTI in 1964 in the public sector.

Birth of MF: Setting up of UTI

During the 50's the state of depression in the capital market coupled with the inadequate support for new issues from investors, the new as well as the well-established companies, found it difficult to raise fresh capital. In such a context, Shroff committee (1954)[7] suggested the setting up of Units Trusts/Mutual Funds to mobilise the savings of the small investors and direct them into productive channels with a view to fostering industrial growth in the country. In pursuance to the recommendations made by the Shroff Committee, the Unit Trust Of India (UTI) was established in the public sector on Feb 1 1964 by the Government of India under the Unit Trust of India Act of 1963.

The primary objective of UTI is "to encourage savings and investments and participate in income, profits and gains accruing to the corporation from the acquisition, holding management and disposal of securities".[8] The UTI has come out pro-actively with a number of schemes (as detailed elsewhere in the study) for everyone in the family, from the new born child to old and retired individuals, and played a significant role for mobilising household savings. Being the only unit in the MF industry, UTI has enjoyed a state of monopoly until some non-UTI public sector units entered the MF industry in 1987.

Entry of Non-UTI public sector MFs

The record sales of UTI through the equity scheme of Master share in 1986 showed that MF is safer avenues for the small and middle class investors. The good investor response to the UTI schemes and the consequent growth of UTI operation posed a challenge to the functioning of commercial banks. And the banks and insurance companies showed interest to enter the Mutual Funds Industry. The RBI took necessary steps to facilitate the entry of nationalised banks and insurance companies to set up more institutions in the MF industry.[9] Thus a number of nationalised commercial banks and insurance companies entered into MF industry since 1987. With their entry the monopoly of UTI was broken and led to a structural change, marking a move towards creating a competitive environment in the MF industry. This is evident from the fact that as many as 10 players in MF business including UTI (See Table 2.6) were there in the public sector at the beginning of the nineties.

TABLE 2.6

Number and Name of the major Mutual Fund players in the Public sector

Year	Name	Cumulative total
1964	Unit Trust of India	1
1987	SBI MF	
	Can Bank MF	3
1989	LIC MF	
	Ind Bank MF	5
1990	GIC MF	
	Bank of India MF	
	PNB MF	8
1994	IDBI MF	
	Bank of Baroda MF	10

Source: SEBI Annual report 1997-98.

The entry of private sector MFs

As noted earlier, the process of economic reforms introduced since 1991, marked a drastic shift in emphasis from state-controlled and planned economy to a market-led economy in India. The process involved reforms in various sectors including the financial sector. The objectives of the financial sector reforms were to remove entry barriers and permit private sector institutions, both domestic and foreign, and promote an environment of more healthy competition (through prudent regulatory norms) in the financial market. The first private

sector unit (Kothari Prima) entered the MFs industry in 1993 and thereby paved the way for another phase of structural change and the consequent competitive environment in the MFs market. It is interesting to note that as many as 34 Mutual Fund institutions offering a diversified package of schemes have been in operation in 1997-98. (See Table 2.7).

Table 2.7

TOTAL NUMBER OF PLAYERS IN THE MUTUAL FUND MARKET			
Year	Private	Public	Cumulative total
1964-65		1	1
1987-88		2	3
1988-89			
1989-90		2	5
1990-91		3	8
1991-92			
1992-93			
1993-94	5		13
1994-95	6	2	21
1995-96	4		25
1996-97	7		32
1997-98	2		34

Source: SEBI Annual report 1997-98.

Ownership pattern of MFs Industry

On the basis of ownership pattern, the structure of MF industry, is now composed of (a) Unit Trust of India; (b) Non-UTI Public sector MFs; and (c) Private Sector MFs. While, there was only one player in Indian MF industry in 1964, the number of players increased to 10 in 1994 and further to 34 comprising 10 Public sector MFs (including UTI) and 24 Private sector MFs.

The relative role of different ownership categories of MFs in the resource mobilisation since 1994-95 is reflected in Table 2.8. It may be stated here that private sector entered into MF business only in 1994. Total resources are defined here to mean the sale of units and the repurchases by the MF institutions. In 1994-95, out of the total resources mobilised 69.21 percent were mopped by UTI, 15.61 percent by Non-UTI public sector MFs and 15.18 percent by Private sector MFs. In 1997-98, the corresponding figures were 79.78 percent (UTI), 2.91 percent (Non-UTI public sector MFs) and 17.31 percent (private sector MFs) respectively.

Table 2.8

RESOURCES MOBILISED BY MUTUAL FUNDS								(Rs. Crores)
Sector	Resources Mobilised				Schemes launched			
	1994-95	1995-96	1996-97	1997-98	1994-95	1995-96	1996-97	1997-98
PS MFs	2143	296	151	332	15	9	4	6
Pvt MFs	2084	312	346	1974	15	13	22	10
UTI	9500	5900	9600	9100	5	8	7	11
Total	13727	6508	10097	11406	35	30	33	27
% of PSMF								
to total	15.61	4.55	1.50	2.91				
% of Pvt MF								
to total	15.18	4.79	3.42	17.31				
% of UTI								
to total	69.21	90.66	95.08	79.78				

Notes : UTI - Unit Trust Of India
PSMF - Non-UTI Public Sector Mutual Funds
Pvt MF - Private Sector Mutual Funds
Source : SEBI Annual Report 1997-98

It may be noted that the market share of UTI has certainly decreased with the entry of private sector MFs and yet UTI continues to play the leading role with more than three fourth of the MFs business. Now an interesting question comes up What has been the impact of the structural changes traced above on the growth of the MF industry?

Section III

Growth Trends in MF Industry

In analysing the growth trends it must be kept in the background that the MF business is open to Private sector in pursuance to the ongoing economic reforms and yet its growth is regulated by Securities and Exchange Board of India (SEBI) under the MF Regulatory Act of 1993. The regulatory measures are intended to ensure the investor protection and healthy growth of the MF industry.

The Growth Path of MFs

The growth path in terms of total resource mobilisation (ie.sales plus repurchase of units) since the establishment of UTI in 1964 is traced in table 2.9 and the values are also plotted on a graph 2.1. Indeed, the values are in current prices and hence have obvious limitation in drawing inferences on the trend growth rates. Nevertheless the picture emerging from the data is one of a steady growth in resources mobilised till 1987. Thereafter resource mobilisations levels witnessed a spurt in growth and moved up very fast until 1992-93. The period then

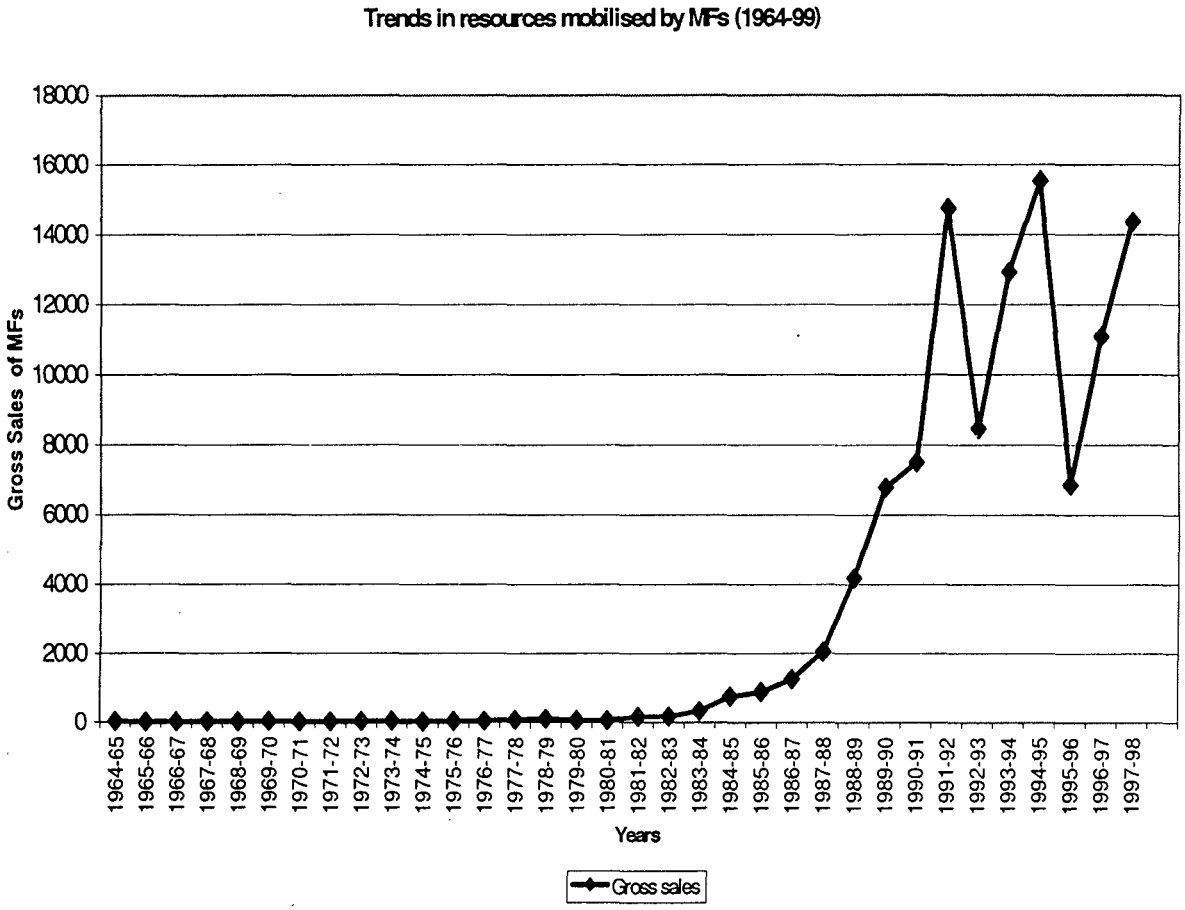
onwards has witnessed fluctuations in the levels of resources mobilised. On the whole the growth path appears to have seen three distinct phases of development.

Table 2.9

Total Resources Mobilised By All Mutal Funds (Rs. Crores)	
[1]	[2]
Years	Gross sales
1964-65	19.14
1965-66	2.15
1966-67	9.24
1967-68	15.34
1968-69	17.16
1969-70	22.83
1970-71	18.00
1971-72	15.11
1972-73	23.17
1973-74	30.64
1974-75	17.24
1975-76	28.97
1976-77	34.59
1977-78	73.27
1978-79	101.53
1979-80	57.85
1980-81	52.10
1981-82	157.37
1982-83	166.90
1983-84	330.16
1984-85	756.19
1985-86	891.75
1986-87	1261.06
1987-88	2059.42
1988-89	4174.71
1989-90	6786.89
1990-91	7508.45
1991-92	14749.85
1992-93	8456.00
1993-94	12928.45
1994-95	15537.46
1995-96	6853.79
1996-97	11088.7
1997-98	14365.1

Source: SEBI and UTI annual reports various years.

Figure - 2.1



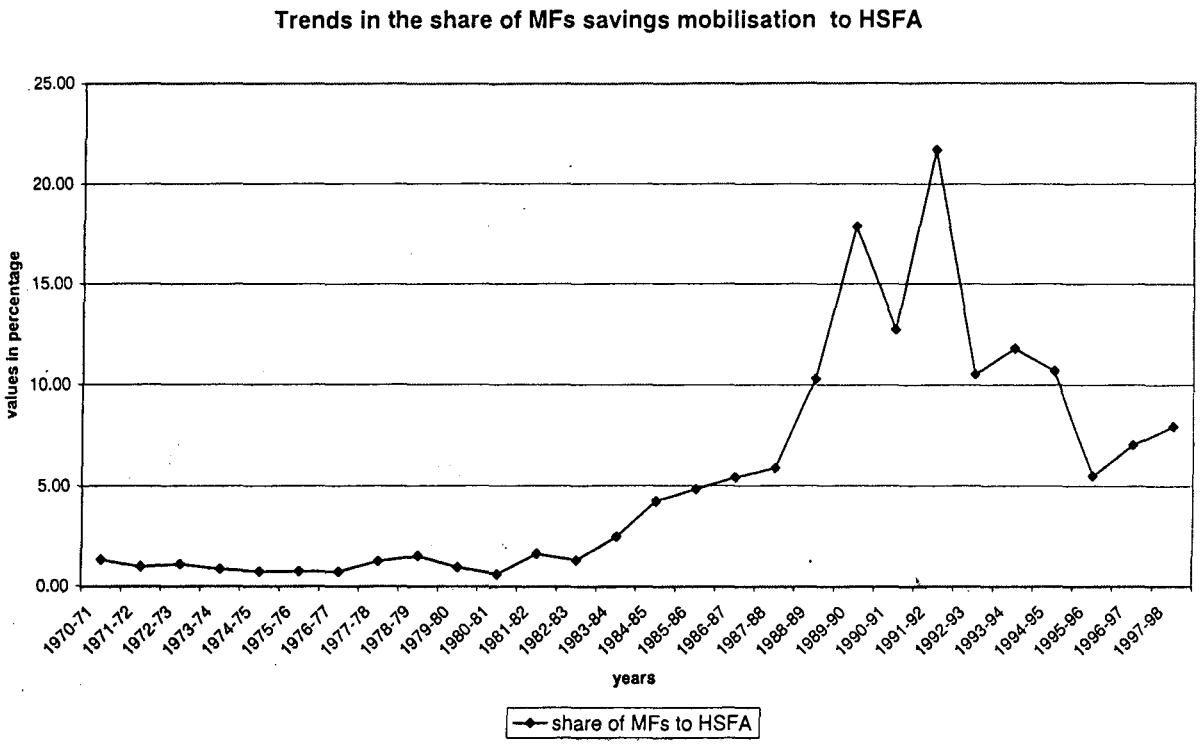
In order to get a more realistic picture of the growth path; the resources (funds) mobilised by MFs may be related to the household savings in financial assets. The resources mobilised by MFs as percentage of household savings in financial assets since 1970-71 shown in the table 2.10 and the values are plotted on a graph 2.2. The emerging picture more or less corresponds to the three phases of growth observed earlier.

Table 2.10

Share Of Mutual Funds To Household Savings In Fiancial Assets			
Years	MF collection	HSFA	Col(2) as % Col (3)
[1]	[2]	[3]	[4]
1970-71	18.0	1371	1.31
1971-72	15.1	1555	0.97
1972-73	23.2	2128	1.09
1973-74	30.6	3612	0.85
1974-75	17.2	2374	0.73
1975-76	29.0	3918	0.74
1976-77	34.6	4852	0.71
1977-78	73.3	5853	1.25
1978-79	101.5	6658	1.52
1979-80	57.9	6081	0.95
1980-81	52.1	8610	0.61
1981-82	157.4	9614	1.64
1982-83	166.9	12739	1.31
1983-84	330.2	13294	2.48
1984-85	756.2	17879	4.23
1985-86	891.8	18538	4.81
1986-87	1261.1	23336	5.40
1987-88	2059.4	35113	5.87
1988-89	4174.7	40516	10.30
1989-90	6786.9	37998	17.86
1990-91	7508.5	58907	12.75
1991-92	14749.9	68077	21.67
1992-93	8456.0	80387	10.52
1993-94	12928.5	109485	11.81
1994-95	15537.5	145381	10.69
1995-96	6853.8	124986	5.48
1996-97	11088.7	157424	7.04
1997-98	14365.1	180665	7.95

Notes: MF Mutual funds
HSFA Household savings in Financial assets
Source: RBI and SEBI various years

Figure - 2.2



The trend growth rate of the total resources mobilised by MFs for the period 1970-71 to 1997-98 has worked out to 30 percent. To the extent that the values on resource mobilisation are in current prices, there is an overestimation of the trend growth rates. To partially overcome this limitation, the trend growth rate of the MFs saving mobilisation to household savings in financial assets for the period 1970-71 to 1997-98 is worked out by using log linear growth rate equation. (Ln(Y)= a+bt+e). To the extent that the primary role of MFs is essentially to mobilise household savings in the form of HSFA (household savings in financial assets), the more relevant parameter is the growth rate in the resources mobilised as a proportion of the Household saving in financial assets. The trend growth rate of 13 percent per year for the period (1970-98) is indeed an impressive record. Thus from whatever angle one may look at it, it is obvious that the MFs industry has achieved commendable growth rate during the period under study. The relevant figures are given in table 2.11.

Table 2.11

Trend growth rate of MFs gross sales and their share in Household savings in Financial assets.

Year	Gross sales of MFs	MFs to HSFA
1970-98	30	13

Notes: MFs Mutual funds
HSFA Household savings in Financial assets
Source: Annual reports of SEBI and RBI

Factors Behind the Growth

It will be interesting to make an exploration into the factors that may have influenced the growth of MF business. An obvious factor must have been the popularity of the MF as an avenue for savings by the Indian households. It is plausible to argue that the growing complexity of the security market makes the individual investors unable to keep track of movements and directions of investment in the capital markets. Therefore, such investors seek MF as an avenue for making their investment with the aim of obtaining above-average returns with security on their investment which MFs are able to promise because of their diversified portfolio, professional competence and scientific investment approach. Thus with a number of schemes (described elsewhere in this chapter) and investor-oriented benefits, MF emerge as a popular investment vehicle for all sections of investors - small, medium and large, `risk averse' and `risk taking' individuals as well as institutions. In particular, this avenue becomes attractive to risk-averse investors who want to reap the benefits of buoyant stock markets, but do not have enough time and resources and expertise to enter it. It stands to reason that MF has become a popular investment avenue among the middle class, whose size has been increasing in India.

Is there empirical evidence in support of the above reasoning? In this context, the major findings of a sample survey of household investors conducted by Gupta (1992)[10] give evidence of an increasing preference of household investors for MF schemes. A significant finding of the Gupta's study is the increasing importance of households especially among the middle class in the ownership of MFs schemes or what can be called as MF products. Based on the survey of 2000 households Gupta has inferred that the ownership incidence of households of the MFs rose from 37 percent in mid-1990 to 65 percent in mid 1992. To generalise, more than one-fourth of the country's middle-class household newly became

owners of units/MF products within a short span of two years.

Gupta's study also revealed that 'the lowest-income class (with household monthly income up to Rs 2500) showed a rise in ownership incidence from 17.9 percent to 31percent. The highest ownership incidence was, however, noted for the income class Rs 5000 to 10,000.'[11] This class showed a rise in ownership incidence from 40.4 to 70.5 percent. In support of his inference Gupta has also noted the annual growth rate of investors in MF units. The annualised growth rate of holders of UTI units during the period of his study was 37.5 percent and for units of new MFs 42 percent. On the whole Gupta's sample survey illustrated that MFs has emerged as one of the most popular investment instrument among the middle class households. It may be recalled that in the back ground setting briefly described in the earlier part of the chapter, we noted the significant share of the household sector in the domestic savings and increasing share of financial assets in household savings. We then argued that these conditions were conducive to the growth of MFs in India during the period under study.

Another study (Sadhak, 1998) has also given empirical evidence of the growing importance of MFs among the households. In that study, the analysis of investor status (reproduced in Table 2.12) indicated that the highest proportion of investors (97 percent) were individuals (including minors) who contributed over 70 percent of the total funds while less than 15 percent comprised corporate and trust investors. The study has also given the occupational background of investors (see Table 13) and indicated that the overwhelming majority of investors (32 percent) were from service class, contributing over 21 percent of the total funds. Next came business-class investors (19.44 percent) with over 18 percent of the investment. The professionals constituted a small proportion (5.18 percent) of the investors as well as of the investment amount (4.81 percent). Agriculturists contributed still lower proportions (1.8 percent of investors and 2.04 percent of investment). Interestingly, housewives constituted 14.98 percent of total investors and 16.64 percent of total investment. Sadhak's study also noted that the most preferred scheme for the service class, business class and professionals was tax-saving schemes, while housewives and investors in other categories preferred income scheme and income-cum-growth (i.e., balanced) schemes.

Table 2.12

OCCUPATIONAL CLASSIFICATION OF MUTUAL FUND INVESTORS IN INDIA								
TYPES OF SCHEMES								
Occupation	INCOME		INCUM-CUM-GROWTH		TAX-SAVING		OVER ALL	
	% of Appl	% of Amt	% of Appl	% of Amt	% of Appl	% of Amt	% of Appl	% of Amt
Professionals	4.24	4.06	6.03	6.03	6.49	6.9	5.18	4.81
Service	20.17	14.11	25.37	18.45	51.5	45.04	32.43	21.63
Business	17.14	14.72	19.41	18.23	22.87	22.87	19.14	18.01
Agriculture	2.62	2.47	3.56	4.37	0.3	0.3	1.77	2.04
Housewives	22.43	20.71	21.18	20.66	3.15	3.15	14.98	16.64
Others	33.40	43.93	24.45	32.26	15.69	15.69	16.2	31.87
	100.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Sadhak "Mutual Funds in India Maraketing Strategies and Investment Practices"
Response Publications, (1997)

Table 2.13

STATUS OF MUTUAL FUND INVESTORS IN INDIA								
TYPES OF SCHEMES								
STATUS	INCOME		INCUM-CUM-GROWTH		TAX-SAVING		OVER ALL	
	% of Appl	% of Amt	% of Appl	% of Amt	% of Appl	% of Amt	% of Appl	% of Amt
Individual	98.14	89.48	98.92	27.57	95.5	94.48	97.33	70.02
HUF	1.07	1.33	0.34	0.12	3.73	4.26	1.89	1.43
Corporates	0.11	1.58	0.47	65.4	0.74	0.72	0.37	22.31
Trusts etc.	0.61	4.25	0.19	6.7	0.0@.	0.54	0.35	4.46
Not stated	0.07	3.36	0.08	0.21	0.01	0.0@	0.06	1.78
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Notes @ indicate insignificant percentage. Corporates include company and body corporates.
Trustes include societies, associations etc
Source: Sadhak "Mutual Funds in India Maraketing Strategies and Investment Practices"
Response Publications, (1997)

From the above account, it has become clear that individual investors, basically small investors with service and business backgrounds, constitute the major market segment for the MFs industry. And the most preferred scheme was the monthly income scheme, which provided assured returns to the investors with security. The characteristic features of the patterns of saving/investment as described in the background setting of the study and illustrated by the survey findings of some individual studies cited above can to some extent explain the fast growth observed in the MF business. It is also relevant to note the development in the financial system described in the background setting and attribute the growth of the MF business to the entry of non-UTI public sector MFs and private sector MF units and there by the structural changes that took place in the industry during the period under study especially since late eighties. The last point also induces us to hypothesis a strong association between pattern of structural changes and growth path of the MF industry.

Phases in the growth of MF industry

We revert to the discussion on the growth path of the MF industry and note that there were three phases of growth in resource mobilisation during the period under study. These three phases broadly covere the periods (1) 1964-87 (2) 1987-93 (3) 1993-98. These phases also coincide with the three stages observed earlier in the structural changes in terms of the entry of players in the MFs industry. Thus viewed, the three growth phases can be distinguished as follows:

Phase I: Steady growth path (1964-87) coinciding with the Monopoly of Unit Trust of India in structure;

Phase II: Accelerated growth path (1987-93) coinciding with the breaking away of UTI's monopoly; and

Phase III: Fluctuating growth path (1993-98) coinciding with the competitive market structure.

The characteristic features of the each of these three phases are described below.

Phase I: Steady growth path (1964-87) coinciding with the Monopoly of Unit Trust of India in structure

This phase was marked by the monopoly operations of UTI. The first decade of UTI's operations (1964-74) was the formative period. The first scheme launched by UTI was US 64. Due to the immense popularity of the scheme, UTI launched its reinvestment plan in 1966-67. Another popular scheme, ULIP, was launched in 1971. By the end of June 1974, there were 6 lakh unit holders with UTI. The unit capital aggregated to Rs.152 crores and the investible funds Rs 172 crores. The second decade of UTI's operation (1974-84) was one of consolidation and expansion. In this period UTI was delinked from RBI. The period was marked by the introduction of open-ended growth funds. Six new schemes were introduced during 1981-84. By the end of June 1984, Unit holders numbered was 17 lakhs and the investible funds crossed Rs 1000 crores. During the period 1984-87, innovative and widely accepted schemes like children's Gift growth fund (1986) and Master share (1987) were launched. The first Indian Offshore Fund, India Fund, was launched in Aug 1986. By the end of June 1987, Unit holding accounts were 29.79 lakhs in number, the aggregate unit capital of UTI was worth Rs 3726 crores, and the investible funds totaled over 4563 crores. This period witnessed an annual averaged growth rate of 40.98 percent in the resource mobilisation. In terms of the share of MFs resources to household savings in financial assets the annual growth averaged is 19.4 percent for the period 1970-71. (See table 2.14 (a) and 2.14 (b). The resources mobilised by UTI, non-UTI public sector MFs and private sector MFs and the annual growth rate of each with the averaged annual growth rate for three phases are given. The values of the annual growth rate of resources mobilised by MFs are plotted on a graph. see graph 2.3)

Table 2.14 (a)

RESOURCES MOBILISED MFS 1964-99 (Rs In Crores)									
Years	Gross sales of UTI	PSMF	Pvt MF	MF collection	HSF	Annual gr	Annaul gr	Annual gr	Annual gr
						of MFs	of UTI	of PS MFs	of PvtS MFs
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
1970-71	18			18	1371				
1971-72	15.11			15.1	1555	-16.1	-16.1		
1972-73	23.17			23.2	2128	53.3	53.3		
1973-74	30.64			30.6	3612	32.2	32.2		
1974-75	17.24			17.2	2374	-43.7	-43.7		
1975-76	28.97			29.0	3918	68.0	68.0		
1976-77	34.59			34.6	4852	19.4	19.4		
1977-78	73.27			73.3	5853	111.8	111.8		
1978-79	101.53			101.5	6658	38.6	38.6		
1979-80	57.85			57.9	6081	-43.0	-43.0		
1980-81	52.10			52.1	8610	-9.9	-9.9		
1981-82	157.37			157.4	9614	202.1	202.1		
1982-83	166.90			166.9	12739	6.1	6.1		
1983-84	330.16			330.2	13294	97.8	97.8		
1984-85	756.19			756.2	17879	129.0	129.0		
1985-86	891.75			891.8	18538	17.9	17.9		
1986-87	1261.06			1261.1	23336	41.4	41.4		
1987-88	2059.42			2059.4	35113	63.3	63.3		
1988-89	3855.01	319.70		4174.7	40516	102.7	87.2		
1989-90	5583.59	1203.30		6786.9	37998	62.6	44.8	276.4	
1990-91	4552.95	2955.50		7508.5	58907	10.6	-18.5	145.6	
1991-92	12182.35	2567.50		14749.9	68077	96.4	167.6	-13.1	
1992-93	6492.00	1964.00		8456.0	80387	-42.7	-46.7	-23.5	
1993-94	10982.25	386.70	1559.5	12928.5	109485	52.9	69.2	-80.3	
1994-95	12873.86	1341.80	1321.8	15537.5	145381	20.2	17.2	247.0	-15.2
1995-96	6372.69	348.10	133	6853.8	124986	-55.9	-50.5	-74.1	-89.9
1996-97	10027.00	186.80	874.9	11088.7	157424	61.8	57.3	-46.3	557.8
1997-98	13179.00	528.40	657.7	14365.1	180665	29.5	31.4	182.9	-24.8

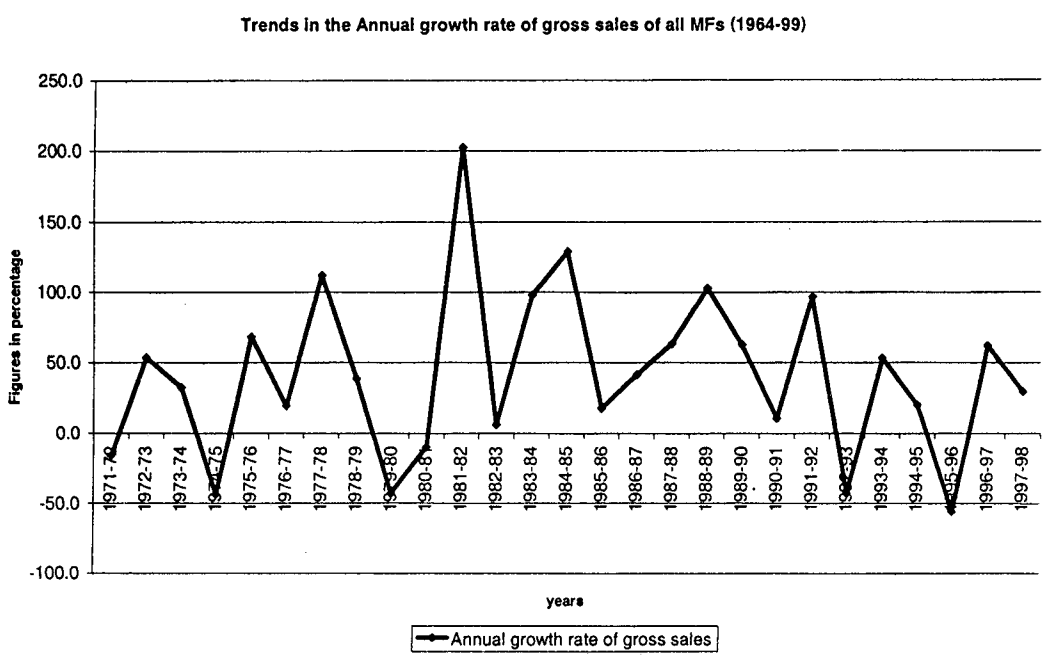
Notes:
UTI : Unit Trust of India
PS MF : Public Sector Mutual Funds
Pvt S MF : Private Sector Mutual funds]
HSF:House hold savings in financial assets
Source: RBI , UTI and SEBI Reports

Table 2.14 (b)

Avereaged Annual Growth Rates (Figures In Percentage)			
	1970-87	1987-93	1993-98
[1]	[2]	[3]	[4]
Gross sales of MFs	40.98	45.94	13.91
HS in FA	19.41	18.46	14.87
MF to HSFA	22.62	23.47	-4.21

Notes:
MFs: Mutual funds
HS in FA: Household savings in financial assets
MF to HSFA : share of MFs to House hold savings in financial assets

Figure - 2.3



Phase II: Accelerated growth path (1987-93) coinciding with the breaking away of UTI's monopoly

This phase was marked by the entry of non-UTI public sector MFs paving the way for competition in the market. Many public sector financial institutions established MFs in India. Those, who have entered the market included major financial institutions like Industrial and Development Bank of India (IDBI), Life Insurance Corporation of India (LIC), General Insurance corporation of India (GIC), State Bank of India (SBI) , Punjab National bank (PNB), Canara Bank, Bank of India (BOI) and Bank of Baroda (BOB), Bank of Madurai (BOM). The new entrants came to the market with new schemes. Their entry widened the scope of the MF market. The entry of non-UTI public Sector MFs created waves in the market, which attracted more small investors. The mobilisation of MFs went up from Rs.2059.4 crores in 1988 to Rs.6786.9 crores in 1990.

With the entry of 3 more MFs in the market,(BOIMF, GICMF and PNBMF) in 1991-92, the fund collections increased to Rs 14,749.9 crores (1991-92). Still UTI remained as the major player in the market though its share declined from 87.9 percent in 1988-89 to 84 percent in 1991-92.

It must be noted that, before 1989, there were no regulatory guidelines for the MFs industry in India. The first guidelines for setting up of Regulation were issued by RBI in October 1989, they were applicable only to MFs floated by the Banks. The Government of India issued comprehensive guidelines in June 1990, making all MFs mandatory (excluding UTI) to be regulated by SEBI.[12] Since UTI was not under the purview of SEBI, it was not prohibited from launching the schemes and UTI's collections went upto Rs.12182.35 crores in 1991-92. The total collections of all MFs stood at Rs.8456 crores in 1992-93.

On the whole this second phase witnessed an acceleration in growth of resources (savings) mobilised by MFs. The annual growth rate of resource mobilisation by MFs averaged 46 percent as compared to the 41 percent of the first phase. This acceleration growth rate is evidenced from the data on more than one indicators of savings mobilisation (see table 14) in different growth phases.

Phase III: Fluctuating growth path (1993-98) coinciding with the Competitive market structure

The third phase as stated earlier was marked by the opening of MFs market to private sector in 1993. The private mutual funds had distinctive operational advantages. For example, starting of MFs was easier for them because the needed infrastructure was already created by Public Sector MFs. Besides, most of the private sector MFs are floated by large industrial concerns in association with foreign AMCs facilitating access to latest technology and management strategies. The first private MF was Madras based Kothari Poineer MF. It launched the open-ended prima fund in November 1993. During the year 1993-94, 5 private sector MFs (Kothari Poineer MF, ICICI MF, 20th century MF, Morgan Stanley MF and Taurus MF) launched 7 schemes and mobilised an amount of Rs.1,559.6 crores during 1993-94, the first year of their operation. Six more private sector MFs (Apple MF, JM MF, Sriram MF, CRBMF, Alliance MF and Birla MF) entered the market and all private sector MFs together mobilised Rs.1326.8 crores in 1994-95. The fund collection witnessed a steep fall to the level Rs.133 crores in 1995-96. In the succeeding years there was some marginal improvement. Yet resources mobilised by them didn't reach the levels of the initial years. During this phase (1993-98), the aggregate resources mobilised by all MFs (UTI, non-UTI public sector MFs and private sector MFs) were indeed higher than the earlier two periods. However, there were fluctuations in the annual rate of growth. The average annual rate of growth of MFs resource mobilisation by MFs during the third phase as a whole was 14 percent. This clearly was lower than the achievement of the earlier two phases when it was 41 percent in the First phase and 46 percent in the second phase. The data on the growth rate of all indicators considered (table 14(b)) clearly vouched for the fluctuating and slow growth path (1997-98).

To conclude, the discussion in the chapter, we note that the pattern of savings behavior and developments of the financial system were conducive for the growth of MF business in India, during the period under review. We also learn from the analysis that the structural changes during that period has led to more and more competitive market conditions in the MF business. All these inturn, have influenced the growth performance of MFs interms of their role of mobilisation of funds from the public which they could use to support cooperate financing activities and there by the economic growth. More specifically the analysis have

highlighted the fact that the overall rate of growth of the MF business since 1993-94, when a number of private sector MFs entered in the business, is not better than the earlier phases. This findings tends to suggest that the competitive market conditions emerging as a result of the entry and proliferation of the private sector firms has not led to a higher rate of growth of MFs business. Strangely, the period that marked the private sector entry is found to be a fluctuating and slow growing phase! It is also intriguing to find that the UTI's performance interms of the rate of growth in resource mobilisation is relatively low as compared to the its own record in the earlier periods and also relative to the performance of non-UTI public sector and private sector MFs in the 1990's, when a more competitive environment emerged in the structure of MFs business. Ofcourse, the analysis has underlined the emergence of MFs as the strong financial intermediaries and playing a very important role in giving a new direction to the flow of household savings into the capital market and the dominant role played by UTI in this process. However, the recent trends in the growth of resource mobilisation especially by UTI, revealed by the analysis in this chapter are disturbing. This calls for a detailed case study with focus on UTI's performance evaluation. This is done in ensuing two chapters.

Endnotes:-

1. Each sector of an economy borrows from other sectors by accepting their claims. Financial claims issued in the economy are classified into primary issues and secondary issues. Claims issued by non-financial sectors or the ultimate borrower (which include households, private corporate business, the Government and the "rest of the world") are called primary issues, where as claims issued by financial intermediaries (such as banks and other financial institutions) are termed secondary issues.

2.. Reserve Bank of India, Flow of Funds Accounts of the Indian Economy, 1988-89 to 1991-92, and Currency and Finance, 1993-94 and Rangarajan.

3. Regulations 14,15,19,20 of SEBI (Mutual Funds) Regulations 1993.

4.SEBI regulations 17 describes obligations of the trustees and schedule III of the regulations covers the contents of the trust deed.

5. SEBI regulation 24 specifies the obligations of AMC and Schedule IV covers the contents of investment managment agreement.

6. Sec.2(1) SEBI (Mutual Funds) Regulations 1993.

7. Committee on Finance for Private Sector in India, Government of India, 1954, p.96.

8..Unit Trust of India act of 1963

9. Guidelines for undertaking Mutual fund Business and Bnaks, RBI, DBOD No.(FSC) BC 1/c, 469-89, July 7, 1989, RBI Bulletin, July 1989, p.607.

10. Gupta, L.C., Mutual Funds and Asset Preference, (Delhi: Society for Capital Market Research and Development, 1994).

11. Gupta.L.C., op.cit.

12.. (1) SEBI has prohibited MFs from launching any scheme with an assured income, arguably the most popular among the Indian investor; (2) According to MF regulation 1993, (SEBI), Indian MFs were to form (AMCs) pending which they could not launch any scheme.

Chapter 3

UNIT TRUST OF INDIA: PERFORMANCE EVALUATION BY OBJECTIVES

Introduction

In the previous chapter we observed three periods of structural changes, which coincided with three phases in the growth path of Indian MF industry during the 35 years of its operation since its inception in 1964. The structural changes were oriented towards making the industry more and more competitive by increasing the number of players in the MF business. The initial monopoly position of UTI was broken with the entry of non-UTI public sector MFs since 1987 and a more competitive market emerged with the entry of many private sector MFs since 1993 in response to the ongoing economic reforms. We also observed that the growth record of the MF industry in resource mobilisation was commendable for the period of 35 years as a whole, but the growth path witnessed three phase, with the third phase since 1993 witnessing wide fluctuations in the annual growth rates and relative decline in the average annual growth rates as compared to the earlier two phases in resource mobilisation. As this picture is a reflection of the sum total of the performance of individual MFs, our analysis in the previous chapter leaves an interesting question to ponder. How has the emergence of the competitive environment affected the performance of individual MFs? This is the question we pursue in the rest of the study.

An exploration into this question may require a detailed performance evaluation of all the MFs. For obvious reason, this is too ambitious an aim for the present study to carry out. Perhaps, the viable alternative lies in a detailed case study of a particular MF. In this connection it is useful to repeat and recall the citation of Brown to the effect that reliable results on performance evaluation can be obtained only if the focus of the study is on a particular institution or particular type of schemes and the period of evaluation is at least more than 5 years. We, therefore, opted to carry out a detailed analysis of performance evaluation of a particular MF as a case study. The Unit Trust of India (UTI) is chosen for the case study for reasons explained later.

There are two dimensions to an analysis of performance evaluation. First, the performance of a MF can be evaluated against the objectives for which that institution is set up. In other words, to what extent the institution under study has been able to achieve its set objectives? Second, by

undertaking a risk-adjusted performance evaluation of the major schemes of the MF institution. This will enable us to know how far the MF is meeting the aspirations of the investors by providing them assured returns with security which is what would help it to establish its credibility among the saving class and thereby meet more fully its macro objectives of increasing and widening savings mobilisation and channelising it into investment in the capital market. Thus viewed, both these dimensions are interrelated. The rest of the present study is devoted to performance evaluation of UTI in these two inter related dimensions. This chapter deals with the first and the one that follows deals with the second dimension.

This chapter is divided into two sections. Section 1 discusses the rational for taking UTI as the case study. The salient features of UTI and its operational efficiency are also examined in this section. Section 2 seeks an answer to the question of whether UTI has achieved the objectives for which it has set up?

Section I

The choice of UTI for the case study: The rationale

The choice of UTI for the case study is guided by the following considerations: UTI is the oldest MF and thus has had the benefit of operating under different market conditions, initially charecterised with the exclusive state monopoly, then competition from non-UTI public sector MFs and then stiffer competition from the private sector MFs. The case study on UTI therefore has the advantage of reflecting upon the influence of different market conditions on the performance of MFs.

UTI is a monolithic institution: Even after the entry of other MFs, UTI now possesses more than 75% of the total resources mobilised by the MF industry. Being the largest institution, UTI has the resources to organise managerial expertise and to offer more diversified packages of schemes, now numbering about 165, to the investors. Therefore, the case study on UTI can be expected to capture more fully the dynamics of the MF business.

UTI was set up as a public sector undertaking under an act of the Parliament viz. UTI Act of 1963. Therefore, it enjoyed the patronage and protection from the Government unlike the other MFs. At the same time it may have had the disadvantages generally associated with the working of public sector units. Therefore a study on UTI will also help us to know whether the performance of a MF has stands to benefit or suffer when organised as a Government institution.

Last but not the least, there will be some degree of novelty to the study by taking up UTI for the detailed performance evaluation. Because there are not many studies on UTI especially dealing with its performance during the stiffer competitive phase when the industry was thrown open to private sector units.

Salient features of Organisation structure and operations of UTI

Before proceeding with the performance evaluation of the UTI, it may be useful to keep in mind the salient features of the organisational structure of UTI. Based on the information provided in the Annual report 1991-92, it can be inferred that, presently, UTI has a functional structure. Its structure is organised along with functional lines like Investments, Marketing operations, Research, Personnel and Administration, and Finance and Accounts. UTI's organisation structure does not seem to have evolved with the growth, both in volumes and in diversity, of its business. UTI's present structure is functionally oriented and not product oriented. A functional structure is inconsistent with its size and the dynamic and volatile nature of its operating environment. A product-oriented structure would enable it to respond faster to the volatile changes in its market environment. Research studies have shown that organisations operating in more complex environments (UTI's present and emerging environments are far more complex than it was in its earlier day) need higher degrees of decentralisation; those diversified in many markets (like UTI) need divisionalised (typically product market based) instead of functional structures.

At the outset, it must be noted that some of the features of the UTI are unique to itself and hence the operational conditions have some distinguishing features as compared to other MFs. While SEBI regulated all MFs, UTI was excepted from these regulations till 1994.[1] Since then SEBI has brought UTI also under its purview. Now all the MFs are operating in the same level field.

Hence now UTI faces similar market conditions in its operations like other MFs.

As sited earlier, UTI is set up under an Act of parliament and hence its operations are to be in conformity with the regulations framed along with the Act. Two major regulations affecting its operations are the following: (1) the investment by the UTI in any one company should not exceed 5% of the value of the securities issued and outstanding of such a company are acquired; (2) Not more than 5% of the investible funds should be invested in the initial issues of securities of new industrial undertakings. These stipulations are obviously intended to ensure a reasonable diversification of the investment portfolio and the emphasis is on securing a reasonably high current income as opposed to capital appreciation to protect the investors. As the UTI is required to follow these regulations, the investment policy of the UTI has to be in conformity with the objective of "flexible unit trust". This means by regulation it should normally have in its portfolio a balanced proportion of safe and liquid securities as well as growth stocks. This implies that there should be perfect match between investment policy and objectives of the schemes.

Although UTI is set up as a Government undertaking it is formed as a joint venture in which the country's important financial institutions from both the public and private sectors have co-operated. Hence, UTI has the benefit of support and assistance from these large financial institutions.

Usually, in the unit trusts of other countries, management of the trust is separated from the trusteeship of the assets of the trust. In variance to this practice, UTI combines the management and trustees function in one body viz. the board of trustees. Therefore, a co-ordinate and centralised managerial decision-making are possible in the operations of UTI.

Notwithstanding these conditions unique to UTI, its operations as in the case of other MFs basically consists of purchasing the securities, holding them for a specified period, and then selling them at an appropriate time. In this process, the fund earns certain income in the form of interest, dividend, and capital gains, and incurs certain expenditure on transactions, management fee and research expenses. More over, there may be capital losses on the sale of securities. The surplus so arrived out of these operations in a specific account period are either reinvested or

distributed to the investors as dividends. How efficiently the above mentioned basic operations are carried has a bearing on the salient features, organisational structure and operational conditions of UTI. Taking into consideration, the salient features of and operational conditions an evaluation of the operational performance of the UTI is attempted below.

UTI's operational performance: An evaluation

The main operations of the UTI as stated earlier is the sale of units under various schemes, which are formulated within the parameters of Unit Trust of India Act and the General Regulations. The schemes so formulated fall under two broad categories viz. (1) open-ended schemes and (2) close-ended schemes. These schemes can be further grouped as (a) income schemes and (b) growth schemes. The various schemes of the UTI as in 1998-99 under the above categories are listed in table 3.1.

Table 3.1

TYPES OF SCHEMES OF UTI											
WIDE VARIETY OF SCHEMES:	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
1.No.of schemes/plans open for subscription	13	13	13	18	21	19	22	27	30	34	40
2.No.of schemes/plans in operation	28	30	36	43	51	59	59	66	73	79	88
of which open end	8	8	8	9	11	21	20	22	23	28	35
of which closed end	20	22	28	34	40	38	39	44	50	51	53

Source: UTI annual reports

The difference between the sale price and the repurchase price of the units of the schemes listed in the table constitutes the net resources mobilised by the UTI. The price at which the Trust sells the units is known as sale price and the price at which the Trust buys back the units is called the repurchase price. The Trust fixes the sale and repurchases prices under the various schemes from time to time and notified them to the public. These prices are also relevant in the computation of Net Asset Value (NAV), which is of more interest to the investor. NAV is calculated by determining the value of the plan's assets and subtracting the liabilities of the plan taking into consideration the accruals and provisions.

Efficiency of the UTI's operation obviously has its moorings on the cost of its operations. These costs consist of gross cost, gross expenditure and salary cost. The ratios of these costs to investible funds are used as measures of operational efficiency. Generally, a ratio higher than 1 percent is considered as low efficiency and lower than 1 percent as high efficiency. The relevant ratios for the last 10 years of UTI's operations are shown in table 3.2. It is seen that gross cost and salary cost as a proportion to the investible funds of the UTI have always remained below 1 percent. Also the operating cost except for one year (1998-99) has remained below the cut off point of 1 percent indicating a high efficiency.

Table 3.2

MEASURES OF OPERATIONAL EFFICIENCY											
Item	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Investible Funds (Rs.crores)	1835	17651	21377	31806	38977	51709	59619	56620	57125	60979	63548
Gross cost (as % to investible funds)	0.54	0.56	0.56	0.91	0.68	0.62	0.79	0.8	0.83	0.97	1.01
Operating cost	0.50	0.49	0.43	0.83	0.6	0.54	0.65	0.7	0.75	0.86	0.8
Salary cost	0.04	0.03	0.05	0.03	0.04	0.03	0.03	0.06	0.06	0.06	0.08

Source: UTI annual reports various years

Looked at in this way UTI may appear to have a good performance record in operations during the competitive phase. But the performance of an institution of the stature of UTI, which is set

up to tap the small savers savings and provide them the benefit of the growing industrial prosperity of the country by investing the savings in the capital market, can be judged to be operating efficiently only if it is able to achieve the objectives for which it has set up. Therefore, we turn to make a detailed analysis of performance evaluation of the UTI against its objectives.

Section II

UTI's Objectives and performance

According to the UTI Act of 1963, "the primary objective of the UTI is to encourage and mobilise savings of the community and channel them into productive corporate investment so as to promote the growth and diversification of the country's economy". Therefore, the basic objectives of the Unit Trust of India as in the case of other MFs are: (a) saving mobilisation, (b) investment of the resources in a diversified manner. The performance evaluation of the UTI then boils down to making an empirical assessment of the extent to which each of these objectives have been fulfilled during its 35 years of operations in general and its competitive phase since 1993 in particular.

Saving mobilisation

UTI's performance in terms of fulfilling its objective of saving mobilisation can be judged by considering the growth of its gross sales, repurchases and net sales of the units of the different projects. As already explained else where, net sales are arrived at by subtracting repurchases from gross sales. It gives a picture of the real resources mobilised by the UTI. If the rate of repurchases is high it shows the lack of confidence of the investing public in UTI.[2] Under the performance of resource mobilisation, the value of the out standing unit capital, that is to say, the aggregate of the face vale of the units sold under a unit scheme, and out standing for the time being will come under consideration. Then the ratios of repurchases and net sales to outstanding unit capital are an important variable for consideration.

Time series data and the annual average growth rates for the period of 35 years as a whole on the indicators, which measure the performance of saving mobilisation, are given in table 3 and the values are plotted in graph 3.1 and 3.2. A significant observation is the negative annual average growth rates in the ratio of net sales to unit capital and a high value of repurchases to outstanding

unit capital. Indeed, the absolute values of these indicators being in current prices there are limitations for drawing any definite inference. Yet, it is interesting to note that the movements in all the indicators have shown a steady growth till 1987 except the ratio of net sales. During this period, it must be noted that the UTI was a monopoly. However, during the period between 1987 and 1993 the above performance indicators showed a different trend of high rate of growth but marked with fluctuations. Interestingly, this was a period when the UTI had to face competition from non-UTI public sector MFs. What is however disturbing is the observation that the net sales marked a sharp declining trend due to the increase in the repurchases of units. Also it is disturbing to note that the ratio of repurchases to unit capital has shown a rising trend where as the ratio of net sales to unit capital showed a declining trend. This is suggestive of the relative decline in the confidence of investors on the UTI. Does the increasing competition tend to erode the confidence in the government institution? This may be an embarrassing question to the UTI.

Table 3.3

ANNUAL GROWTH RATE OF SELECTED PEFORMANCE INDICATORS						
Years	AGR of GS	AGR of RP	AGR of NS	AGR of UC	AGR % of RP to UC	AGR % of of NS to UC
[1]	[2]	[3]	[4]	[5]	[6]	[7]
1964-65						
1965-66	-88.77	77585.71	-94.45	5.71	73387.55	-94.75
1966-67	329.77	83.13	582.26	36.62	34.05	399.40
1967-68	66.02	-38.78	94.81	52.16	-59.77	28.03
1968-69	11.86	37.05	9.69	37.63	-0.42	-20.30
1969-70	33.04	21.98	34.24	36.72	-10.78	-1.81
1970-71	-21.16	56.50	-28.77	19.11	31.39	-40.20
1971-72	-16.06	-18.50	-15.53	13.55	-28.22	-25.61
1972-73	53.34	14.23	61.47	19.28	-4.24	35.37
1973-74	32.24	23.91	33.47	21.58	1.91	9.77
1974-75	-43.73	453.26	-111.57	-2.05	464.82	-111.81
1975-76	68.04	-46.22	-677.56	12.09	-52.02	-615.27
1976-77	19.40	-26.67	47.39	15.91	-36.73	27.16
1977-78	111.82	39.73	133.62	32.09	5.78	76.86
1978-79	38.57	-15.69	48.38	36.05	-38.03	9.06
1979-80	-43.02	47.57	-52.33	12.50	31.18	-57.62
1980-81	-9.94	12.97	-17.22	8.82	3.81	-23.93
1981-82	202.05	72.92	258.11	30.59	32.42	174.22
1982-83	6.06	-43.34	16.41	27.27	-55.48	-8.53
1983-84	97.82	1.88	107.61	44.48	-29.49	43.69
1984-85	129.04	379.10	116.52	72.06	178.45	25.84
1985-86	17.93	8.91	18.93	47.18	-26.00	-19.20
1986-87	41.41	47.74	40.77	44.07	2.55	-2.29
1987-88	63.31	140.45	55.10	46.25	64.40	6.05
1988-89	87.19	169.10	73.67	63.41	64.68	6.28
1989-90	44.84	34.49	47.49	50.38	-10.57	-1.93
1990-91	-18.46	2.39	-23.32	22.53	-16.44	-37.42
1991-92	118.18	180.14	103.73	85.30	80.91	75.69
1992-93	-46.71	-35.81	-50.21	23.51	-48.03	-59.68
1993-94	69.17	4.46	95.91	28.22	-18.53	52.80
1994-95	17.22	272.42	-39.03	23.26	202.15	-50.53
1995-96	-50.50	3.46	-123.15	-8.38	12.91	-125.27
1996-97	57.34	23.76	-144.72	6.56	16.16	-141.97
1997-98	31.44	19.73	226.41	6.77	12.14	205.71
1998-99	44.00	43.06	49.73	10.33	29.67	35.71

Continued table 3....

ANNUAL AVERAGE GROWTH RATES (In Percentage)				
	1964-99	1966-87	1987-93	1993-99
GS	42.73	53.55	41.39	28.11
RP	58.31	52.94	81.79	61.15
NS	29.89	33.37	34.41	10.86
UC	27.82	29.41	48.57	11.13
%Rp to UC	25.33	21.20	22.49	42.42
% of NS to UC	-5.12	-4.63	-1.84	-3.92

Notes:
AGR GS Annual growth rate of gross sales
AGR RP Annual growth rate of repurchases
AGR NS Annual growth rate of net sales
AGR UC Annual growth rate of unit capital
AGR ratio of RP to UC Annul growth of ratio of repurchases to unit capital
AGR ratio of NS to UC Annual growth rate of net sales to unit capital
Source: UTI Annual reports various years

Figure - 3.1

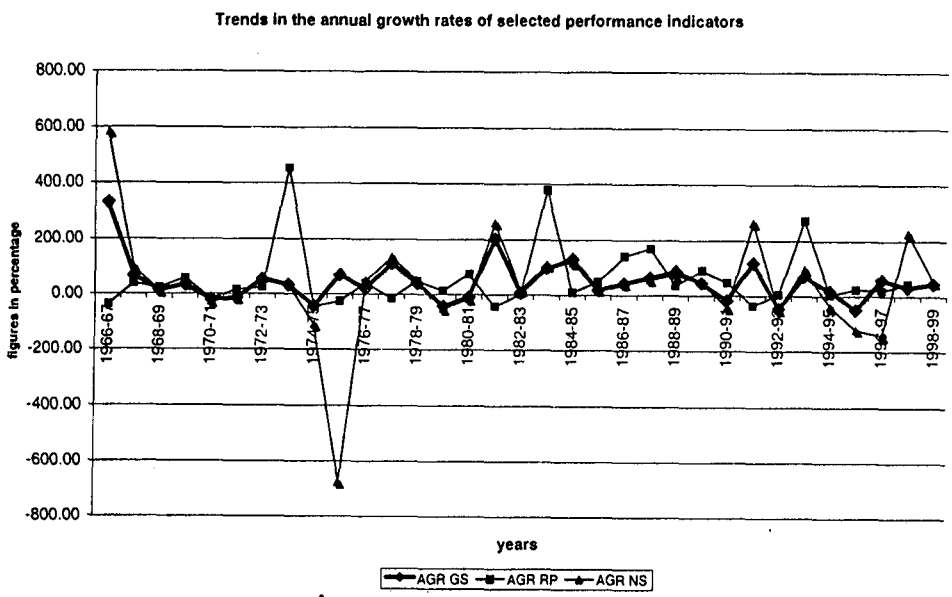
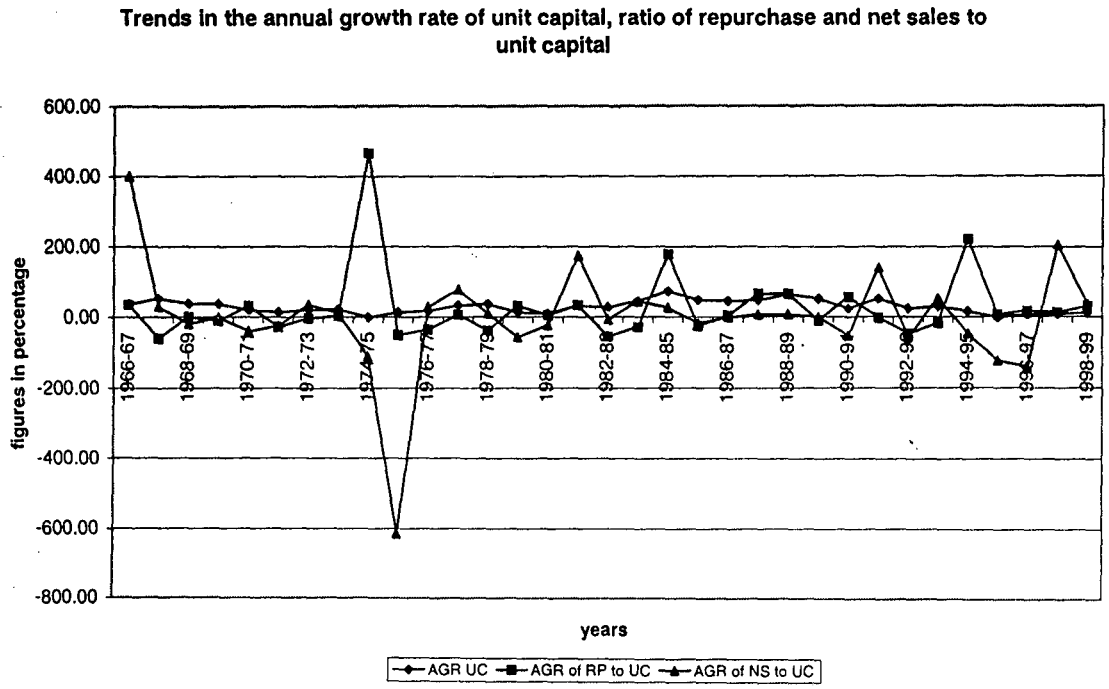


Figure - 3.2



The average annual growth rate of these indicators for the three growth phases viz., 1964-87, 1987-93, 1993-99, which coincide with the phase of structural changes, are given in table 3. It is seen that during the third phase (fully competitive phase) the average annual growth rate witnessed a sharp decline in all the indicators except the repurchases as compared to the earlier periods. It is significant to note that the ratio of net sales to unit capital has recorded a negative growth rate (-3.92)! The average growth rates in all the performance indicators suggest the relatively poor operational performance of the UTI when it is faced stiff competition from the private sector.

During the first period (1964-65 to 1987-88), the number of schemes under the operation of UTI is 17. UTI mobilised savings of Rs.1261.06 crores in this period. It is also seen that the UTI's role as mobiliser of resources increased substantially since 1980-81. The sizeable resource mobilisation can be attributable to two factors. First, the number of schemes under the operation of UTI has increased consequentially from 2 to 17. Second, UTI's geographical coverage and market strategy are changed from 1981 onwards. Going by these facts we can infer that the UTI

has been able to mobilise substantial amount of savings in absolute terms.

Our analysis in the previous chapter has underlined a relative declining performance of UTI. When we looked into the ratio of UTI's resources to the Household savings in financial assets, it has declined from 7% in 1992-93 to 0.3% in 1997-98. The relatively insignificant role of UTI in resource mobilisation needs an explanation. The main reasons traited for the relatively insignificant contribution of the UTI in savings mobilisation of the household sector are two. First, units of the Trust are not preferred by a large number of marginal savers who don't stand to benefit from fiscal concessions; and second, high income savers resort to invest its units only to the extent they benefit from the tax concessions offered.

When the rates of growth were found for these indicators for the period 1987-93, it is found that though there was an increase in the number of schemes launched and the investment policy was shifted from fixed income securities to equities, there was not a significant increase in the resources mobilised by UTI. When the MF market was more widened with the entry of private sector MFs, UTI's growth rate in gross sales declined to 28.11 percent Where as for these periods there was an increase in the growth rate of repurchases from 52.94 percent in 1964-87 to 81.79 percent in 1987-93. In the period 1993-99 it was 61.15 percent which is much higher than the rate of growth of gross sales. The increasing growth rate of repurchases shows the lack of confidence of the investor public on the UTI, which has affected the integrity and credibility.

To get a more convincing picture of UTI's resource mobilisation, the growth of Unit capital is taken. The ratio of repurchases and net sales to unit capital are also found. The increasing ratio of repurchases to unit capital shows that UTI's role as saving mobilisers has declined and each year though their sales has increased the increase in repurchases has contributed to a negative net sales and this has led to a negative ratio of net sales to unit capital also.

Ratio of repurchases to unit capital shows a rising trend where as the ratio of net sales to unit capital shows a declining trend. This gives the lack of confidence of the investing public on the UTI's schemes, which induces them to withdraw their money from the UTI. To some extent this is quite understandable because a good proportion of the units must have reached redemption. That in itself cannot explain the relation of repurchase to net sales. Certainly, these numbers do

signify that the confidence of investor public on UTI is declining.

To summarise the highlighting point of the analysis is that, there is an increase in the gross sales mobilised by UTI. However, the net sales of UTI showed a declining trend. When its resource mobilisation is related to Household savings and household savings in financial assets, we got a depressing picture of the UTI. Because the Gross Domestic savings as well as the household saving has shown a increasing trend in after 1970 (explained in detail in the previous chapter) But recently the share of UTI to both household savings and household savings in financial assets (in which the UTI possessed a high share) has declined. This shows that in recent years its role as savings mobiliser has been affected. This may be due to the competition from non-UTI public sector MFs and private sector MFs. It could also be due to the fact that UTI has been brought under SEBI regulation, which must have made it to change its operations from what it was pursuing earlier. What ever may be the reason there is no escape from the conclusion that there is a mismatch between performance achievements in savings mobilisation of the UTI.

UTI's investments of resources

The second objective of the UTI is to channelise the savings mobilised through the sale of units of different projects into investment in industrial securities through the capital market, thereby helping capital formation in the industrial sector of the economy. The aim of our analysis therefore is to provide an over-view of the investment operations of UTI and in particular to trace the trends in the share of its investment funds in corporate securities. This analysis will give us a picture of UTI's investment portfolios and the extent to which it has been meeting its second objective of diversified investment.

As stated earlier, UTI was set up to mop the savings of the small investors and invest them in the industrial securities market. UTI's investment decisions are guided by the consideration of safety of capital and growing returns, it has been investing in both variable-income yielding securities (equities) and fixed-income yielding securities (preference shares, debentures and other investments comprising of treasury bills, bridge finance, fixed deposits, sale of funds in the call money market, etc) in accordance with its investment policies and strategies followed from time to time. Needless to say UTI's investment policy and decision making on portfolios have a strong bearing on the flow of its resources to different investment channels and consequently on the

provision of returns to units holders. The investment policy of the Trust is examined.

Investment policy of UTI: Conceptually, investment policy may be regarded as a verbalised version of a definite course of action to be pursued by a mutual fund in regard to its investments. Thus investment policy determines the deployment of funds of UTI's particular schemes. MFs mainly operate on the basis of two basic principles viz. diversification and optimisation of portfolio returns regarding their investment.

Thus a question arises: how the optimum level of diversification can be achieved by a MF? According to Evan and Archer (1968) the bulk of diversification is achieved with only a few stocks, calling into question the economic justification for holding more than about 10 randomly selected stocks in portfolio. Tole (1982) puts the optimal number between 25 and 40. Statman (1987) prescribed the number somewhere between 30 and 40 if an investment option on risk-free asset is available. Edward S.O'Neal (1997) on diversification shows that the desired effect of diversification can be achieved by investing in 10 to 40 stocks. As against these norms Indian mutual funds are generally seen to hold a large number of stocks. Perhaps, there may be an exception to this general trend in the sense that some private domestic and foreign MFs are hold relatively smaller number of stocks.

Now we look at UTI's investments in the corporate sector. This can be viewed from two angles: (1) annual purchases of securities and, (2) holding of corporate securities. UTI's annual purchase of corporate securities shows the intensity of the flow of funds to finance the corporate sector growth. We analyse UTI's deployment of investment funds in the corporate sector for the whole period of 35 years of operation. The analysis is significant as it enables us to map the number of companies in its investment portfolio and the quantum of industrial finance that it contributes to the private corporate sector.

The share of UTI's investment in corporate securities in its total investible funds in each year during the whole period of 35 years is shown in table 3.4 and the corresponding values are plotted on graph 3.3. The share has remained above 70% during the long 35-year period except for 6 years. For the period as a whole the share averaged more than three fourth (78%) of its total investable fund per year. This indeed is an impressive record of UTI as a provider of corporate

finance. Values of the percentage share of UTI in the corporate securities are given in graph 3.4.

Table 3.4

SECURITY WISE INVESTMENT OF UNIT TRUST OF INDIA			
Year	Total IF	I.C.S.	C/B
[1]	[2]	[3]	[4]
1964-65	24.67	21.5	87.15
1970-71	105.14	91.1	86.65
1971-72	119.26	10391.12	87.13
1972-73	141.96	12368.97	87.13
1973-74	172.09	14749.83	85.71
1974-75	169.95	15191.83	89.39
1975-76	176.66	15655.61	88.62
1976-77	206.84	17080.85	82.58
1977-78	279.91	21513.88	76.86
1978-79	393.7	25429.08	64.59
1979-80	455.3	34880.53	76.61
1980-81	513.97	412.6	80.28
1981-82	870.24	66347.1	76.24
1982-83	1261.33	102306.5	81.11
1983-84	2209.61	173343.9	78.45
1984-85	3218.34	230561.9	71.64
1985-86	4563.68	326303.1	71.50
1986-87	6738.81	452848	67.20
1987-88	11834.65	861562.5	72.80
1988-89	11834.65	739665.6	62.50
1989-90	17650.9	9759.3	55.29
1990-91	21376.48	12761.76	59.70
1991-92	31805.69	21375.57	67.21
1992-93	38976.81	31735.04	81.42
1993-94	51708.88	40587.99	78.49
1994-95	59618.64	47749.86	80.09
1995-96	56620.07	48253	85.22
1996-97	57125.46	48887.11	85.58
1997-98	60978.91	54406.3	89.22

Notes: Investible funds and investment in corporate sector is in Rs.crores.
Share of corporate sector to investible funds is in percentage
Source: UTI various annual reports.

Figure - 3.3

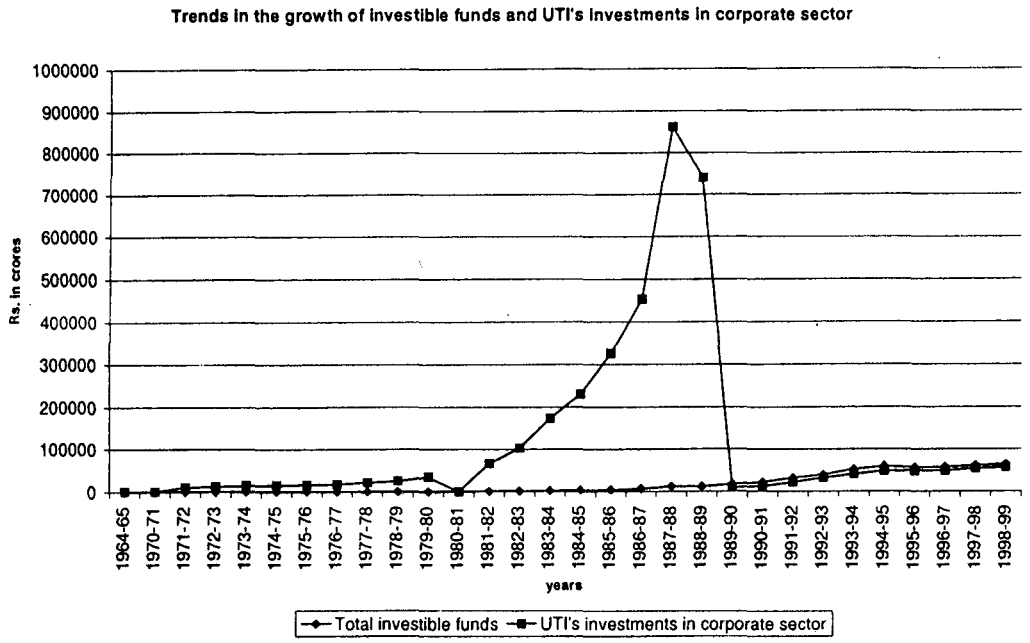
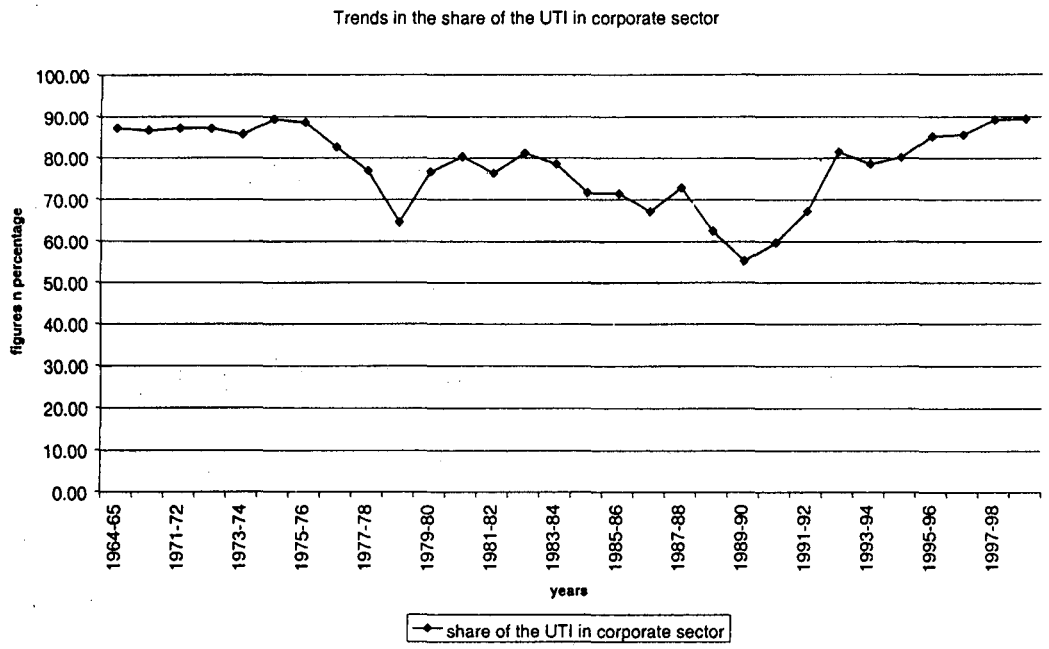


Figure - 3.4



Industry wise investment

An industry wise analysis of UTI's holdings of industrial securities is carried out to reflect upon UTI's investment strategies in terms of the type of industries chosen for investment. This has implication for the returns that UTI provides to the unit holders. It may be noted here that during the last few years, number of industries and firms demonstrating their ability to withstand the competition in the context of the globalisation of the Indian economy and show a positive growth have been few. This obviously restricts on the investment choice to select stocks. Here it is the ability of the fund managers to pick up the right stocks at the right time that decides the performance of the Mutual funds. Therefore by analysing the industry-wise investment of UTI we can see whether it has invested in the top performers of the given periods. This will illustrate whether UTI's investment decision making tallies with the investment objectives and it is investing in the high returns yielding stocks.

As it would be difficult to predict all the top performers of a period for investment, an index is created based on the inclusion of the top performing stocks in the fund's portfolio.[3] A table showing the 10 top performers for the last 4 years is given table 3.5 If UTI has not invested in these, it shows that UTI's market timing and predictability are in reasonable limits to provide its unit holders' high returns.

Table 3.5

Top 10 of the 100 top performers

April-june 1996	July-sep 1996	Oct-Dec 1996
swaraj Mazda L	Zenith LTd.	Oswal Agro Mil
Boehringer Man	F A L industri	Hindusthan Zinc
IVP Ltd.	Eicher Ltd.	Sttelage Indus
Precot Mill Ltd	Godrej Food L	Rema Newsprint
Hindusthan Powe	Majestic Auto	I D L industri
Tata Timken	Parry Agro Ind	Best & Crompto
Cabot Inida	Soundcraft Ind	Savita Chemica
Good year Inida	Anagram Finance	Blue dart Expr

T V S Srichakr	Hitech Drillin	Safari Industr
Exide Industri	I T C Agro-tec	Gujarat Ambuja

Jan-Mar 1997	**Apr-Jun 1997**	**July-sept 1997**
Montari Indust	Ambuja Cement	Best&Crompto
Govind Rubber	Tata Infotech	Wipro Ltd.
Skumar Synfa	Infosys Techno	TVS Electron
Khaitan Chemic	Satyam computers	Tata Elxsi
Mrinal Dyeing	Balrampur chin	Shree digvijay
Modipan LTd	pond'S (India)	D S Q Software
Soundcrat Ind	Oil & Natural	Soundcraft Ind
Vicrant Tyres	ITC Agro-Tec	Satyam Compute
Spic Organics	BOC India	Merind Ltd
Bat India Ltd	Hero Honda Mot	Steelage indus

Oct-Dec 1997	**Jan-Mar 1998**	**April-june 1998**
Pearl Engineer	Sharp Industri	Ambuja Cement
Raasi Cement	H C L Infosyst	D S Q software
Kothari global	Zee Telefilms	Ponni Sugars &
Q S T Ltd	computech Inte	Wipro Ltd.
Wimco Ltd.	pentafour Soft	Fujistu Icim L
B P L Ltd.	Philips India	Carbon Everflo
Nedungadi Bank	Merind Ltd.	National Plywo
Zenith LTd.	Modern Dairies	Malwa Cotton S
Upper Ganges S	D S Q software	H C L Ifosyst
Govind Rubber	Fujistu Icim L	Himachal Futur

July-sep 1998	**Oct-Dec 1998**	**Jan-Mar 1999**
Sri Vishu cement	Petron Enginee	Unifex Cables
Tri-star Soya	Narmada Cement	Panataloon Fash
Geep Industria	Voltas Ltd.	Fujitsu Icim L
MCdowell & co	Modistone	National Radio

Punjab Anand L	Zudiac Clothin	Onida Saka Ltd
V S T industri	Tata S S L Ltd.	Vindhya Telèfi
Tata Elxsi (In)	Fedders Lyoyd	Birla Ericsson
Unichem Labaro	Sai service	T V S Electron
Fujitsu Icim L	Punjab Nationa	Global Tele-Sy
Bausch & Lomb	Titan Industri	Silvrline Ind

M.S.Narasimhan and S.Vijayalakshmi, (1999) "Performance analysis of Mutual funds in India: An empirical evaluation of diversification and timing performance",(IFMR, Madras).

It is found that the UTI has not invested in the top performers. More strangely funds mobilised from none of the UTI's major schemes like UGS 2000, UTI Master share, UTI Master Growth'93, UTI Master Plus '91, UTI Master Gain'92, UTI primary Equity Fund, UTI Unit Scheme 64 are seen not to have been invested in the top performers. In contrast some private sector MFs (e.g. Alliance 95, Kothari prima) and non-UTI public sector MFs (SBI MF, IDBI MF) are major subscribers in the top performing companies. This illustrates the relatively poor track record of the UTI with respect to timing ability and predictability pattern in the investment strategies.

It seems that the UTI has mainly invested in the traditional industries, which have not been good performers after the introduction of new economic reforms. This would imply that the UTI's diversification of Investment might not have been optimal enough to provide high returns to its unit holders in large number of its projects. Viewed in that sense the UTI can not said to have met well its objective of diversification of portfolio.

UTI's Investment: Type of securities

we now examine the investment decisions of the UTI with respect to type of securities it has selected to invest in. This is done by looking into the compositions of the security holdings of the UTI: its holdings in equities, preference shares and debentures. This analysis will give some idea of the `risk element' in the UTI's investment pattern. The result of the analysis will throw light on the mismatch if there is any between UTI's investment policy decisions. The analysis, apart from being useful in assessing UTI's role in the industrial securities market, this would also

throw light on the institutional development of the share market in India.

The security-wise investment of the UTI

The holding of different type of securities can be examined from 2 angles:

(a) Percentage share of each security in the total investment, and (b) percentage share of each security in each schemes.

The First will help us to know whether UTI is following a risk bearing policy or a risk free policy. Second will help us to know the risk element in each scheme.

A significant trend is noted in the investment of UTI in type of corporate securities. Time series data on the security-wise investment of the UTI is given in table 3.6 and the values are plotted on a graph (See graph 3.5). It is discernable from the graph that the experience during 1964-65 to 1998-99 points out, certain salient features of the UTI's investment in securities.

Table 3.6

SECURITY-WISE DISBURSEMENT OF UTI (Figures In Percentage)						
Years	Equities	Pshares	Debentures	Others	Total FI securities	Col(6)/col(2)
[1]	[2]	[3]	[4]	[5]	[6]	[7]
1964-65	38.70	7.8	37.8	15.70	61.30	1.58
1965-66	41.31	9.65	42.08	6.96	58.69	1.42
1966-67	41.42	11.83	41.12	5.63	58.58	1.41
1967-68	38.4	15.81	40.86	4.93	61.60	1.60
1968-69	36.7	14.22	41.13	7.95	63.30	1.72
1969-70	35.78	13.52	42.16	8.54	64.22	1.79
1970-71	37.72	12.44	38.89	10.95	62.28	1.65
1971-72	37.42	11.66	35.12	15.80	62.58	1.67
1972-73	42.78	10.47	33.88	12.87	57.22	1.34
1973-74	45.27	9.52	30.93	14.28	54.73	1.21
1974-75	48.13	9.64	31.62	10.61	51.87	1.08
1975-76	49.6	8.74	30.23	11.43	50.40	1.02
1976-77	46.6	7.36	28.61	17.43	53.40	1.15
1977-78	38.97	5	22.99	33.04	61.03	1.57
1978-79	28.88	4.14	20.6	46.38	71.12	2.46
1979-80	27.15	3.39	24.05	45.41	72.85	2.68
1980-81	24.79	3	26.4	45.81	75.21	3.03
1981-82	22.42	2.01	28.75	46.82	77.58	3.46
1982-83	20.78	1.39	33.19	44.64	79.22	3.81
1983-84	17.03	0.94	38.68	43.35	82.97	4.87
1984-85	12.63	0.47	37.6	49.30	87.37	6.92
1985-86	11.52	0.32	40.85	47.31	88.48	7.68
1986-87	13.6	0.32	40.85	45.23	86.40	6.35
1987-88	16.9	0.2	41.3	41.60	83.10	4.92
1988-89	20.5	0.3	45.3	33.90	79.50	3.88
1989-90	22.4	2	28.7	46.90	77.60	3.46
1990-91	19.8	0.1	21.3	58.80	80.20	4.05
1991-92	27.86	0.07	19.45	52.62	72.14	2.59
1992-93	38.28	0.05	22.63	39.04	61.72	1.61
1993-94	49.02	0	16.04	34.94	50.98	1.04
1994-95	53.71	0	18.31	27.98	46.29	0.86
1995-96	46.47	0.02	24.47	29.04	53.53	1.15
1996-97	48.87	0.07	28.38	22.68	51.13	1.05
1997-98	52.41	0.04	31.04	16.51	47.59	0.91
1998-99	54.89	0.2	30.92	13.99	45.11	0.82

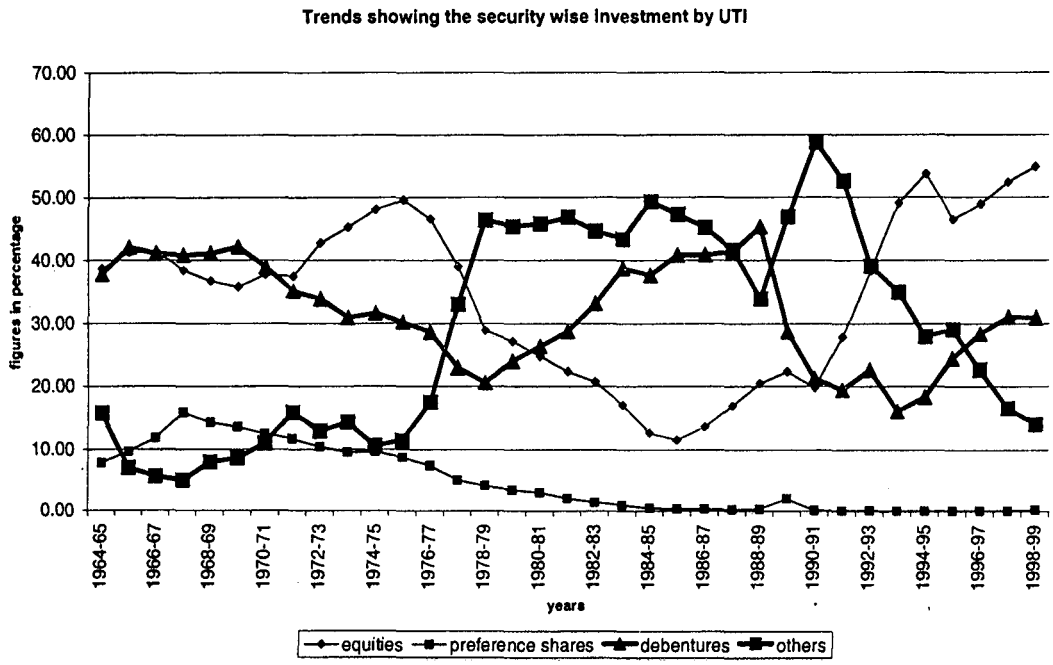
Notes:

Fixed income yielding securities - Preference shares, debentures and 'other investments comprising of treasury bills, bridge finance, fixed deposits, sale of funds in the call money market and so on.

Col (7) is the share of fixed income securities to variable income securities

Source: Various annual reports of UTI

Figure - 3.5



(1) For the period 1964-78, UTI was investing more on the fixed-income securities. It's investment in equities on an average for this period was above 40 percent of the total investment. More than 35 percent was invested in debentures. During this period the investment was more favorable to fixed income securities. But we can say that the UTI followed more or less a balanced portfolio in the sense that 60 percent in fixed income securities and 40 percent in equities.

(2) For the period 1978-93, the share of UTI's investment in fixed income securities was very high. It followed a conservative investment policy, which invested more than 80 percent of the proceeds in the fixed income securities. On an average more than 50 percent was invested in debentures and the investment in equities was as low as 20 percent. Hence, during this period the UTI followed a policy to cater the needs of those investors whose aim was capital appreciation and steady returns with low risk.

(3) From 1993 onwards there is a structural change in the composition of securities in UTI's investment portfolio has occurred in favor of equities. Now more than fifty percent of investment is on equities. This shows UTI's investment policy has shifted from a conservative, rigid policy to a flexible one. This suggests that the investment in equity shares is rising. The implication of such increased equity investment is that the UTI is spreading the equity culture, which is desirable. But the investments are exposed to high risk, as the huge equity portfolio tempts the managers to indulge in speculation and short sales in the absence of an explicit investment policy. The ratio of fixed income securities to variable income securities is given in Graph 3.6. It shows that over the years, the ratio of fixed income securities to variable income has declined, which implies that UTI's investment policy has become relatively risky.

It will be interesting to see if there is any co-relation between the structural changes in the investment policy with respect to type of securities and the different growth phases in the resource mobilisation observed earlier. Now a central question for examination emerges: has the structural change in the investment policy coincided with the different growth phases? To seek an answer to this question the simple average of the share of variable income securities and fixed income securities for the three growth phases have been worked out in table 3.7.

Figure - 3.6

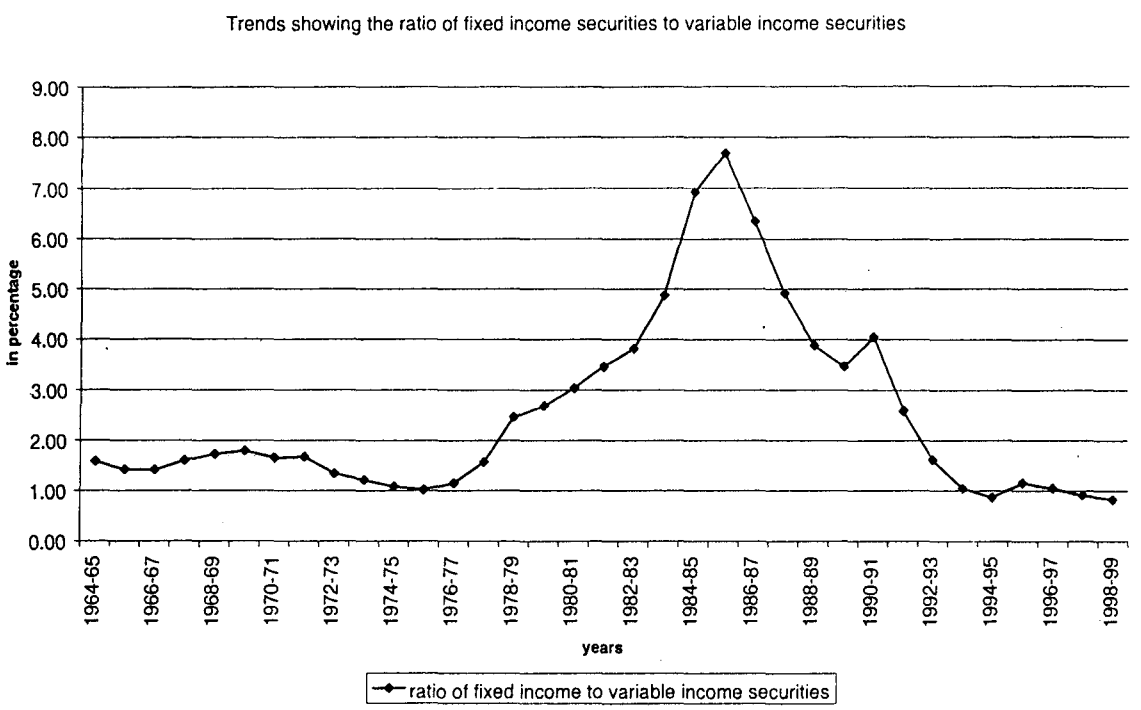


Table 3.7

Security wise disbursement of UTI (Averaged annual rates) (Figures in Percentage)

Year	Equities	F I Securities
1964-87	32.94	67.06
1987-93	24.29	75.71
1993-99	50.90	49.11

Notes: Fixed income securities - preference shares, debentures and 'other investments'. comprising of treasury bills, bridge finance, fixed deposits, sale of funds in the call money market and so on.
Source: UTI annual reports various years.

During the first phase (1964-87), UTI's investment policy was in favor of fixed income securities which accounted for 67 percent of the total investment leaving the remaining 33 percent for variable income securities. It is interesting to find that in this period UTI achieved steady growth in saving mobilisation. In the second phase (1987-93) UTI's investment was more in fixed income securities (76 percent) and less in variable income securities (24 percent) and the interesting fact is that during this phase UTI achieved a faster rate of growth. The third phase (1993-99) was characterised by the fluctuation in the annual rate of growth and relative decline in the averaged annual growth in saving mobilisation. During this period the share of variable income securities was 51 percent of the total investment and that of fixed income securities was 49 percent. May be this shift in the investment policy in favor of variable income securities might have reflected in the relative decline in the rate of growth of the saving mobilisation.

An analysis of the scheme-wise investment in different type of securities are also carried out to get a picture of the risk element in the scheme and also to see the portfolio management of the UTI. The analysis is confined to the period beginning from 1990's, as fluctuation in the growth trend was more visible during that period. The security wise disbursements of the schemes of UTI, from 1991 are given in table 3.8. In this study only schemes with specific objective are analysed. Schemes, which have welfare objectives, and those schemes, which are started after 1995, are excluded from study. (The rational for selection of the schemes are given elsewhere).

Table 3.8

DEPLOYMENT OF THE FUNDS OF UTI						(FIGURES IN PERCENTAGE)	
	1991-92	92-93	93-94	94-95	95-96	96-97	97-98
US 64							
Equities	27.38	33.47	39.46	50.57	66.17	65.7	69.64
P shares	0.2	0.16	0.12	0.13	0.14	0.13	0.1
Debentures	34.11	33.47	23	17.49	17.82	19.14	17
Others	38.31	32.9	37.42	31.81	15.87	15.03	13.26
Total	100	100	100	100	100	100	100
C.Securities	87.22	90.55	76.9	76.82	86.77	87.09	90.42
US 71							
Equities	4.05	3.81	7.56	17.61	14.83	69.64	34.8
P.Shares	0.04	0.03		0.02	0.03	0.1	
Debentures	24.55	29	35.86	32	38.07	17	42.97
Others	71.36	67.16	56.58	50.37	47.07	13.26	22.23
Total	100	100	100	100	100	100	100
C.Securities	62.21	78.27	84.88	80.37	78.87	90.42	90.9
MEP91							
Equities	91.81	95.41	96.49	98.49	99.25	99.47	99.53
P Shares							
Debentures	3.42	3.66	3.51	1.51	0.75	0.53	0.47
Others	4.77	0.93	0	0	0	0	0
Total	100	100	100	100	100	100	100
C.Securities	95.23	99.07	100	100	100	100	100
MEP 92							
Equities	78.15	93.07	99.24	99.45	93.77	98.92	99.88
P Shares							
Debentures	0.71	6.47	0.75	0.55	6.06	0.09	0.12
Others	21.14	0.46	0.01	0	0.17	0.99	0
Total	100	100	100	100	100	100	100
C.Securities	78.87	99.54	99.99	100	94.31	99.01	100
MEP 93							
Equities		79.19	97.45	97.05	95.31	99.61	99.57
P Shares							
Debentures		0.92	1.85	0.59	2.56	0.39	0.43
Others		19.89	0.7	2.36	2.13	0	0
Total		100	100	100	100	100	100
C.Securities		80.1	99.29	97.63	97.87	100	100
Master Growth							
Equities		90.62	98.1	98.97	98.41	99.72	99.99
P Shares							
Debentures		0.5	0.69	0.9	0.35	0.02	0.01
Others		8.88	1.21	0.13	1.24	0.26	0
Total		100	100	100	100	100	100
C.Securities		91.12	98.79	99.87	98.77	99.74	100

Grand Master							
Equities		63.23	91.75	98	92.12		
P Shares							
Debentures		0.3	4.09	0.86	0.96		
Others		36.47	4.16	1.14	6.92		
Total		100	100	100	100		
C.Securities		63.53	95.84	98.86	93.08		
Master Share							
Equities	77.45	86.62	94.61	90.81	92.2	99.35	99.43
P Shares							
Debentures	5.89	5.97	2.43	0.63	0.56	0.63	0.57
Others	16.66	7.41	2.96	8.56	7.24	0.02	0
Total	100	100	100	100	100	100	100
C.Securities	83.34	92.59	97.44	91.44	92.75	99.95	100
UGS 2000							
Equities			94.67	93.78	99.91	95.24	100
P Shares							
Debentures			2.88	1.15	0.09	0.03	
Others			2.45	5.07	0	4.73	0
Total			100	100	100	100	100
C.Securities			97.55	94.93	100	95.27	100
UGS 5000							
Equities	92.06	96.91	95.92	99.43	99.57	99.72	99.79
P Shares							
Debentures	1.77	2.5	2.9	0.54	0.03	0.2	0.21
Others	6.17	0.59	1.18	0.03	0.4	0.08	0
Total	100	100	100	100	100	100	100
C.Securities	93.83	99.42	98.81	100	99.63	99.96	100
US 92							
Equities			94.88	96.57	96.18	100	100
P Shares							
Debentures			2.2	1.19	1.15		
Others			2.92	2.24	2.67	0	0
Total							
C.Securities			97.07	97.76	97.33		
IISFUS	(Till 96-97, this scheme was open ended.)						
Equities	6.06	11.49	6.06	11.49	10.89	13.3	3.11
P Shares							
Debentures	53	49.26	53	49.26	62.43	55.09	8.57
Others	40.94	39.25	40.94	39.25	26.68	31.61	88.32
Total	100	100	100	100	100	100	100
C.Securities	96.93	89.12	96.93	89.12	98.71	89.32	100

Notes C.Securities Corporate Securities
Source: UTI annual reports various years

It is found that except sector specific schemes and U.S.71, in all schemes more than 90 percent of the deployable resources of the scheme is invested in equities. It is worth while to note that in the beginning of 90's only 27 percent of deployable funds were invested in equities, which has spouted to 70 percent in 1998. In the case of monthly equity plans viz. MEP91, MEP92, MEP93, 99 percent is invested in equities in 1998. In the case of Master share, Master growth, Grand master, UGS 2000, UGS 5000, US 92 the share of equities is 100 percent. It is seen that, only in sector specific schemes, IISFUS and US 71 the share of equities was less, which accounted for 3 percent and 35 percent respectively. Accordingly, in these schemes fixed income securities accounted for a larger share 97 percent and 35 percent respectively.

Thus the study of UTI's investment policy and portfolio management shows that it has invested more on variable income securities (especially from 1993 onwards) which necessitates a vigilant watch on the stock market operation and the frequent reversal of stocks. In this absence of the above strategy, will lead to low returns, which will affect UTI's credibility and integrity. In order to understand whether high risk bearing schemes provides high returns and UTI through the shift in their investment policy has been able to provide the investors high returns, a more detailed study of the schemes are required. A risk-adjusted performance evaluation is necessary to reflect upon these questions. The next is an attempt in this direction.

Endnotes:-

1. The high powered committee on financial sector reforms headed by Sri M.Narasimham recommended equality of treatment between various Mutual Funds including the Unit Trust.

2.Records and Statistics: UTI", the Eastern Economics, vol60, Jan-March, 1973, pp.253.

3.M.S.Narasimhan and S.Vijayalakshmi, (1998) "Performance analysis of Mutual funds in India: An empirical evaluation of diversification and timing performance".

Chapter 4

PERFORMANCE EVALUATION OF UTI's SCHEMES

Introduction

This chapter attempts an evaluation of UTI's performance in providing its unit holders returns in relation to risk involved in selected schemes as compared to the benchmark portfolios. The idea is to assess the ability of the fund managers in selecting scrips and diversifying the portfolios so as to provide a fair rate of return to the investors in UTI schemes. It also enquiries as to whether or not the returns provided are in conformity with the objectives set by UTI at the launching of the schemes.

This chapter is organised in two sections. Section one elaborates the issues involve in the analysis and details out the methodology use. It also outlines the sample procedure and list out UTI schemes selected for the analysis. In section two the empirical findings of the performance of evaluation of UTI's schemes are reported and there is also an attempt towards explaining the observed findings.

Section I

Issues for analysis

To begin with, the issues involved in the analysis are elaborated. The evaluation aims to compare the returns provided by UTI to the investors through the active management of its fund with the returns that those investors could have obtained if they had chosen one or more alternative random portfolios for investment. To the investor, UTI is one among the alternative investment outlets available and hence the returns from UTI need to be compared with the alternative outlets, which are generally called the Benchmark portfolios or market portfolios. Such an evaluation obviously should take into account the risk and uncertainties associated with the returns. If a scheme has high risk it is expected to provide high returns. Similarly, a low return is only expected from low-risk schemes. These are so because risk and returns in principle move in the same direction i.e. there is a linear relationship between risk and return.

Does this proposition stand good in practice in the outcome of UTI's operational performance? This is an issue for empirical analysis.

It may be noted that UTI declares the objectives of each scheme in relation to its risk and return at the time of launching of the schemes. The investment objectives of each scheme are set on the basis of the anticipated return in relation to the risk involved. For instance, UTI's growth schemes (e.g. Master share scheme) are launched on an understanding implicitly conveyed to the investors that these schemes involve high risk and accordingly, high returns in principle. And therefore, it would be instructive to examine whether or not UTI fund managers have infact been able to provide high returns to the investors. It may also be recognised that UTI is only one among the alternative outlets for investors and hence they expect returns that compare well with the alternative sources. Therefore, there is also the important issue of the relative performance of UTI as compared to the benchmark portfolios.

In short, this chapter deals with the empirical analysis of three main issues connected with the performance evaluation. First, is there any linear relationship between risk and return in relation to UTI schemes? Second, is risk and return of each schemes are in tune with the objectives set by UTI? Third, how does UTI perform in providing returns in relations to risk as compared to benchmark portfolios? The Risk-adjusted performance evaluation is used as a framework for analysing the above types of issues.[1]

Detailed Methodology

The main thrust of our analysis is on the estimation of the returns of UTI schemes or what can be called a managed portfolio, as compared with the returns of the benchmark portfolios. Generally, stock exchange index is taken as the benchmark.

Benchmark portfolio

In analysing the Indian situation, there is an option of making the choice of benchmark from Bombay Stock Exchange Sensitive Index (SENSEX), Bombay Stock Exchange National Index (NATEX), etc. The present study has selected NATEX as the benchmark because it is a more broad based index as compared with SENSEX. Besides NATEX is a value-weighted portfolio consisting of 100 companies and the data are available from 1983-84 onwards.

The performance evaluation is also made by comparing the return on UTI's schemes with Bank rates, which can be considered as the returns on the risk-free investment. A risk free asset is one in which the investor knows the terminal value of the asset (and thus the rates of return) at the very beginning of the investment. As there is no uncertainty about the terminal value of the asset, the standard deviation of risk-free asset by definition is zero; that is to say, the risk on such an assets is zero.

Thus viewed, all types of corporate securities have an element of default risk. Therefore, the corporate securities cannot be considered as risk-free asset. Although the Government securities have some risk-free attributes, they cannot be treated as risk-free asset in our analysis. For, Government securities have different maturity periods - very short period of 90 to 180 days and very long period of 10 years to 20 years- and cannot be considered as risk-free securities for the purpose of our study. In the study therefore, the bank deposits are taken as proxies for risk-free assets.[2] And, the returns of UTI's schemes are compared with the bank rates of interest in order to ascertain whether UTI's schemes involving risk are, infact, providing returns higher than the investments in risk-free assets.

Computation of rates of return

The methodology adopted in the study is to compute the monthly return for UTI's schemes by taking the month end Net Asset Value (NAVs) since the commencement till the redemption and in the case of the schemes, which are still in operation, till July 31st 1999.

The returns are calculated as follows:

$$Rpt = Ln\ (NAVt/NAVt\text{-}1)$$

where,

Rpt is return of MF scheme on the basis of NAV for `t' period.

`t' and `t-1' indicate month end and month beginning respectively.

t=1,2,3,.....n.

Ln is the natural logarithm to the base `e'

The average return on the portfolio is determined as:

$$ARp = \sum_{t=1}^{n} Rpt/n$$

Where,

ARp is average return on the scheme. It is also called as Average return on the Portfolio.

As stated earlier return on investment has a relationship with the risk of that scheme. Generally, risk may be of two type viz. (1) systematic risk and (2) unsystematic risk. The systematic risk is that portion of an investment's total risk, which cannot be avoided by combining it with other investments in a diversified portfolio. This element of risk is not avoidable because it is due to factors affecting the returns of many investments. The remaining portion of an investment's total risk is related to factors that are unique to the specific investment. This is called, unsystematic risk.

When investment in a particular fund is a part of a well-diversified portfolio, then the investor is concerned about the systematic risk. On the other hand, when the investment in a particular fund is a part of undiversified portfolio, then what would bother an investor is the total risk, including systematic and unsystematic risk.

The total risk can be measured by taking the standard deviation of the returns.

$$P= \{1/n \Sigma (Rpt-Arp)^2 \} 1/2$$

Where,

P is total risk of the scheme portfolio.

The logarithmic standard deviation is to be expressed in percentage terms.

Capital Asset Pricing Model (CAPM)

The optimal strategy to reduce risk is holding of a diversified portfolio. Markowitz's portfolio theory,[3] followed by the development of Capital Asset Pricing Model (CAPM) specified the implication of the diversification strategy and further elaborated in the works of Treynor (1961),[4] Sharpe (1964),[5] and Mossin [6]. According to CAPM, the expected return from an investment is a linear function of the expected return on the market portfolio. The estimable form of CAPM is:

$$Rpt = a + \beta p\ Rmt + ep$$

Where,

Rpt is the return on MF scheme,

Rmt is the return on market index (NATEX in the study)

Ep is the error term,

a is the constant term, and

ß is the systematic risk.

Under CAPM, each investment has a beta value, which measures the systematic risk of that investment. In an investment with a beta value of one, the average systematic risk and expected return equal the expected return and risk from the market portfolio.

The potential advantage of MF investment to the investor is diversification of the portfolio. In principle, diversification reduces the risk, and improves the performance in terms of returns. It can be measured by regressing Mutual fund returns with market returns using CAPM model. Here, the value of co-efficient of determination (R^2) indicates the degree of diversification. A low R^2 implies that the fund has further scope for diversification. Diversification reduces the unique risk of the portfolio.

The performance of a portfolio can be examined by comparing its performance with that of a portfolio of similar risk. There are several methods for measuring the performance of managed portfolios (MF schemes). The risk adjusted performance evaluation framework is one that is generally used for this purpose. Here the rate of return of managed portfolio (UTI schemes in our case) is compared with benchmark or market portfolio (in our case NATEX returns). In analysing the risk-adjusted performance we have used two measures viz.
(1) Traynor ratio, (2) Sharp ratio.

Treynor Ratio

Jack Treynor (1965) has developed a composite measure of portfolio performance (including risks). He has contended that there are two components of risk, viz. risk produced by general market fluctuations (systematic risk) and risk associated with particular securities in the portfolio (unsystematic risk). To identify the systematic risk Treynor has introduced the characteristic line to define the relationship between the rates of returns for a portfolio over time and the rates of return of an appropriate market portfolio. The slope (beta coefficient) of the characteristic line is used to measure relative volatility. The deviation from the characteristic line is used to measure the unique returns to the fund relative to the market. A higher correlation of the fund with the market would mean less unique risk and better diversification of portfolio. Therefore, the

Treynor measure (T) based on the systematic risk of the portfolio (beta) shows the rates of returns above risk-free rates during a given period of time.

Thus, the Treynor ratio measures the relationship between fund's additional return over risk free return (Rp-Rf) and fund's volatility (market risk) measured by beta (b). This is called as reward to volatility ratio (RVOL) which can be expressed as:

$$RVOLp = \frac{ARp-Arf}{ß}$$

Where,

ARp is the average return on the portfolio (fund),

ARf is the average risk free return,

ß is the systematic risk of the portfolio.

The benchmark for comparison with this measure of performance is

(ARm-ARf)

here,

ARm is average return on market portfolio (benchmark).

As the beta of the market portfolio shall always be one, the denominator is always one. If the RVOL is greater than the benchmark (Rm-Rf) comparison, it can be inferred that the portfolio (Fund) has out performed the market; other wise, it has not.

Sharpe Ratio

Sharpe (1966) has developed a composite performance measure (called Sharpe ratio) in order to evaluate mutual funds following the Capital Market Line (CML). Sharpe ratio indicates the relationship between the portfolio's additional return over risk-free return and total risk of the portfolio measured in terms of standard deviation. This ratio is referred to variability ratio (RVARp). The Sharpe Measure is shown as follows:

$$RVARp = \frac{ARp-Arf}{\sigma p}$$

The bench mark for comparison is,

$$RVARm = \frac{ARm-ARf}{\sigma m}$$

If RVARp is greater than the bench mark comparison, the portfolio lies above the ex-post CML, indicating the fund's superior performance over the market.

It may be noted that the above stated two measures do not capture the same aspects of performance. To that extent they are not alternative measures of the same aspects of the phenomenon. There are differences among the attributes, which these ratios respectively indicate. The Traynor measure uses the systematic risk for evaluating the risk-return trade-off unlike the Sharpe measure, which uses total risk. To illustrate, a fund which may have outperformed according to the Treynor ratio may indicate inferior performance according to Sharpe ratio. (Thus each measure rank performance differently). The reason for this is that the managed portfolio may have a relatively large amount of unique risk. Such risk would not be a factor in determining the value of the Treynor ratio. However, such risk is included in the Sharpe ratio (in denominator), since this measure is based on standard deviation. Thus, a fund with a low degree of market risk could have a high Treynor ratio and a low Sharpe ratio. Accordingly, Treynor ratio must have indicated that the fund has outperformed the market, while at the same time Sharpe indicated that it did not perform as well as the market. If the objective is to select a fund, which offers the best risk-return trade off, then the Sharpe or Treynor measures are more suitable. The investor can change his own risk level by lending or borrowing at the risk-less rate. The ability of the fund manager in security selection and diversification of the portfolio can be measured by Sharpe's differential return. Differential returns are computed by applying the following equation:

$$ARp-\{ARf+[(ARm-ARf)\ \sigma_p)/\ \sigma_m]\}$$

Fama's decomposition Measure

Fama (1962) has suggested the decomposition of the portfolio performance into four components to find out where the management has gone wrong. Fama's decomposition measures are:

The Risk-free return ARf

The impact of Systematic risk (ARm-ARf) ß

The impact of Imperfect diversification ($\sigma p/\sigma m$-ß)(ARm-ARf)

The net superior returns due to selectivity (Arp-Arf)-($\sigma p/\sigma m$)(ARm-Arf)

Sample Selection

The study has used the methodology detailed above for carrying out the performance evaluation

of a selected number of UTI schemes. At present UTI has 88 schemes spread over 4 categories viz. Growth, Income, Income-cum-growth and Tax planning. Given the time element and resource constraint, the present study has not ventured to evaluate the performance of all UTI schemes; instead, it has opted for the selection of 17 schemes falling in all the four categories. The selection is based on the purposive sampling method. The procedure adopted in the study for the sample selection excludes some types of schemes and selects the residual schemes for performance evaluation. In the selection procedure, schemes with specific investment objectives like (children's gift plan), schemes with welfare objectives (like CRTS) and schemes launched after 1995 are excluded. In all, 44 schemes are there in the first two categories. The second category has 20 schemes. Out of the 22 schemes, five schemes belong to fixed monthly income schemes and are excluded. After applying the above exclusion principle, 17 UTI schemes are selected for the performance evaluation in the manner described earlier. List of the schemes selected and period of study are given in table 4.1.

Table 4.1

SCHEMES	CATEGORY	PERIOD OF STUDY	NO: OF OBSERVATIONS
[1]	[2]	[3]	[4]
Master share	Growth (c)	1-1-1987 to July 1999	139
UGS 2000	Growth (c)	5-6-1992 to July 1999	85
UGS 5000	Growth (c)	17-7-1992 to July 1999	84
Master gain 91	Growth (c)	7-8-1992 to 3-6-1998	71
Master gain 92	Growth (c)	3-12-1993 to July 1999	69
Master growth	Growth (c)	1-10-1993 to July 1999	70
MEP 91	Tax-planning (c)	7-8-1992 to July 1999	84
MEP 92	Tax-planning (c)	5-3-1993 to July 1999	77
MEP 93	Tax-planning (c)	5-11-1993 to July 1999	69
MEP 94	Tax-planning (c)	7-10-1994 to July 1999	57
MEP 95	Tax-planning (c)	5-1-1996 to July 1999	43
Master plus	Growth (c)	7-8-1992 to July 1999	85
US 92	Growth (c)	5-11-1992 to July 1999	69
US 95	income (O)	7-7-1995 to July 1999	48
P E F	Growth (O)	4-8-1995 to July 1999	48
IISFUS 95	Income-Growth (c)	4-10-1996 to July 1999	34
Grand master	Growth (c)	10-11-1993 to July 1999	68

Notes : (o) Open ended schemes (c) Close ended schemes
Source: Annual reports of UTI

Needless to say, the inferences drawn in the study are based on the empirical findings in respect of the 17 UTI schemes. Therefore, some caution has to be exercised in drawing generalised conclusion. Besides, the methodology used in the study itself has some limitations as it is essentially based on CAPM. It may be noted here that the inefficiency of the usual market proxies and the testability of CAPM, has led researchers to explore alternative asset pricing theories like Arbitrage Pricing Theory (APT). However, the empirical use of APT has been limited to the context of US only. In other words, the use of alternative theories is still at an experimental stage. The traditional measures of Traynor and Sharpe measures continue as the popular models in the academic research.

Yet a limitation that needs particular mention is that the Sharp ratio based on Capital market line (CML) has the stipulation that only the efficient portfolios can be on the CML but not the inefficient ones. Hence, it is assumed that, a managed portfolio (MFs) is an efficient portfolio.

The present analysis has also limitations arising from the data source of the benchmark viz., BSE-NATEX, which can generate a downward bias in the estimated betas and upward bias in the alphas[7]. Notwithstanding the limitations of the types mentioned above, the findings of the analysis carried out here can be used to understand the contours, of the performance of UTI, still the major player in the Indian MF market.

Section II
Results of Empirical Analysis

We begin the description of the results of our empirical analysis by drawing the profile of the rate of return and the degree of risk of the selected 17 schemes.

Pattern of risk and return

The average (mean) rate of return of the 17 schemes worked out to be 0.33 percent per month. The frequency distribution of the schemes in the different ranges of return (see table 4.2) indicates that less than one half of the total selected schemes (8 out 17) provided rate of return higher than the average rate of return. Again most of them are in the class interval closer to the

average that is to say 0.34 percent to 0.67 percent and only one scheme in the highest-class interval i.e., 2.38 to 2.71 percent.

Table 4.2

RISK AND RETURN				
Risk	1 to 6.8	6.9 to 13.7	13.8 to 20.4	Total
Return				
<0	2	2		4
0 to 0.33	3	2		5
0.34 to 0.67	3	2		5
0.68 to 1.01	2			2
1.02 to 1.35				
>1.36			1	1
Total	10	6	1	17

Notes:
Risk and return are expressed in percentage
The average (mean) return is 0.33% and risk is 6.9%

As for the risk, around 40 percent of the schemes (7 out of 17) fall in the ranges of above average (mean) risk (6.9 percent). To put it differently, a larger proportion of the schemes (60 percent) was in lower risk categories. Apparently, there does not seem to be a one to one correspondence in the relationship between risk and return. This takes us to examine the empirical validity of the linear relationship between risk and return postulated in the literature.

The average values of the rates of return and risk are used as the cut-off points for classifying the schemes as low and high with respect to return and risk. We here classified the schemes in terms of the relationship between risk and return in the following typology:

A. High risk-High return;

B. Low risk-Low return;

C. High risk-Low return; and

D. Low risk-High return.

The distribution of the selected samples in the above typologies is shown in table 4.3.

Table 4.3

CLASSIFICATION OF SCHEMES ON THE BASIS OF RISK AND RETURN		
A. High risk-High return		
Schemes	Return	Risk
Master share*	2.58	17.04
Master plus*	0.5	7.3
Master growth*	0.43	6.9
B.Low risk-Low return		
Schemes	Return	Risk
MEP 91*	0.07	6.8
MEP 93*	0.03	6.2
MEP 94*	-0.15	5.7
US 92*	0.2	6.4
IISFUS 95*	-0.21	2.4
C.Highrisk-Low return		
Schemes	Return	Risk
UGS 2000	-0.7	9.1
UGS 5000	0.31	7.0
Master gain 91	-0.35	7.1
MEP 92	0.01	6.9
D.Low risk-High return		
Schemes	Return	Risk
MEP 95	0.37	6.2
Grand master	0.65	6.7
Master gain 92	0.52	6.5
US 95	0.72	1.7
Primary equity fund	0.55	6.7

* indicates schemes having linearity in risk and return
Source: Annual reports of UTI

Linear relationship between risk and return

From the information given in table 4.3 the linear relationship between risk and return is clearly seen in eight schemes only. Three schemes with high risk provided high return and five schemes with low risk provided low return. That is out of the total selected 17 schemes, less than one half of the selected schemes has provided returns in keeping with the postulated linear ship between return and risk. Majority of the schemes (9 out of 17) did not show a one to one correspondence between the degree of risk and level of return. Four schemes with high risk provided low returns and five schemes with low risk provided high return. Overall, the empirical findings of our analysis do not clearly testify to the validity of linear relationship between risk and return in

UTI's investment operations.

Conformity of returns with investment objectives

This leads us to ponder a related question: Whether the risk and return involved in UTI's schemes have been infact in conformity with the investment objectives stated in the offer documents of the schemes? This requires us to see whether the returns and risk of the schemes move in tandem with the investment objectives of the schemes. To throw some light on this issue the offer documents of the schemes have been analysed. As explained elsewhere, schemes mainly fall under four categories viz. Growth schemes, Income schemes, Income cum Growth schemes and Tax planning schemes. Growth and Tax planning schemes have high risk because they invest on an average more than 70 percent on equity shares. Hence, they are expected to provide high returns. As the objective of the income scheme is to provide steady income to the investors, the risk involved (and hence returns too) in the schemes will be relatively less than the growth schemes. Incomes cum Growth schemes have lower risk as compared to growth schemes and high risk as compared to income schemes.

The risk and return of the selected schemes under various categories are shown in table 4.4. Out of the selected 17 schemes eight belong to the Growth scheme category. Five schemes in this category have provided below average return with above average risk. In these schemes return has not moved in relation to risk in conformity with the set objectives that is to say high risk but returns were low. Some of the Growth schemes have (e.g. UGS 2000, Master Gain 92) provided negative returns with high risk of 9.10 percent and 7 percent respectively. In the Growth schemes category only Master share has provided high return (2.58 percent) by taking highest risk (17 percent). Grandmaster and Master gain 92 belonging to the Growth scheme category have provided high return by taking low risk which showed that the investment decision made in these schemes are not in parity with the set objectives of the schemes. It seems that in the case of growth schemes, actual return with risk do not seems to have move in tune with the objectives of that type of investment.

Table 4.4

SCHEME [1]	ARP [2]	STD P [3]	CATEGORIE [4]
Master share	2.58	17.04	Growth (c)
UGS 2000	-0.70	9.10	Growth (c)
UGS 5000	0.31	7.00	Growth (c)
Master gain 91	-0.35	7.1	Growth (c)
Master gain 92	0.52	6.5	Growth (c)
Master growth	0.43	6.9	Growth (c)
MEP 91	0.07	6.8	Tax-planning (c)
MEP 92	0.01	6.9	Tax-planning (c)
MEP 93	0.03	6.2	Tax-planning (c)
MEP 94	-0.15	5.7	Tax-planning (c)
MEP 95	0.37	6.2	Tax-planning (c)
Master plus	0.5	7.3	Growth (c)
US 92	0.2	6.4	Growth (c)
US 95	0.72	1.7	income (O)
P E F	0.55	6.7	Growth (O)
IISFUS 95	-0.21	2.4	Income-Growth (c)
Grand master	0.65	6.7	Growth (c)
Average (mean)	0.3	6.9	

Notes :-
(o) Open ended schemes (c) Close ended schemes
Arp average return on the portfolio
Stdp standard deviation the portfolio
Source: Annual reports of UTI

The findings are more or less similar with respect to Tax planning schemes. Out of the five schemes in the sample, none of them have met the investment objectives. Contrary to their investment objectives, three of them have taken low risk and provided low return and one provided low return with high risk. MEP 95 with low risk provided above average return. Hence, in the Tax planning schemes also a disparity discerned between the set investment objectives and the actual outcome of the investment decisions.

In variance with the above, the solitary income scheme (US 95) in our sample, appears to have had its return with risk in parity to its set objectives. This is evident from the fact that with low risks it provided has above average return. This scheme has turn to be a low risk scheme with high return as suggested in the offer documents.

IISFUS 95, which belonged to the Income cum Growth scheme category in the selected sample, has both risk and return not conformity with its investment objective. The offer document has stated that the IISFUS 95 will have risk and return higher than the income schemes. But in fact it provided a negative return of -0.07% with a low risk of 2.4%. Thus, except two schemes - one in the Growth scheme category and another in the Income scheme category - have has returns in conformity with their investment objectives.

It can be concluded from the above analysis that actual risk taken and returns proved in UTI schemes are not always in conformity with the stated investment objectives and that investment objectives are to be taken only as indicative by the investor.

Measurement of risks and diversification

The discussion so far has been related to total risk. As stated earlier risk can be of two type viz. systematic risk and non-systematic risk (unique risk of the portfolio). Systematic risk in the portfolio provides the sensitivity of the portfolio in comparison with the market portfolio. We have used the Capital Asset Pricing Model (CAPM) to estimate the systematic risk as well as the diversification of each scheme in the study. This is done by fitting a regression model, ($R_{pt} = a + \beta R_{mt} + e_p$) using the data on market returns and UTI returns. The non-systematic risk is estimated by taking the square of the systematic risk and subtracting it from the variance of the market and variance of UTI scheme. The values of the measures representing the systematic risk and diversification of each scheme are presented in table 4.5. Generally, high systematic risk reflects high diversification and consequently high returns on the portfolio. In the selected schemes the average systematic risk (beta) is 0.73, non-systematic risk is 0.005 and diversification (R2) is 0.51. However, fourteen schemes have an aggressive beta ranging from 0.7 to 1.26. Out of these, seven schemes with high systematic risk have provided high return whereas seven schemes had provided low return. Two schemes provided low return with low systematic risk and one scheme with low systematic risk has provided high return. Our finding of high systematic risk accompanied by low returns and low systematic risk with high return in the case of the selected UTI schemes do not lend support to the preposition that high systematic risk always accompanied with high return.

Table 4.5

MEASURES OF THE RISK OF THE SELECTED SCHEMES		
Schemes	Systematic risk	Diversification
[1]	[2]	[3]
Master share	1.29	0.84
UGS 2000	0.78	0.31
UGS 5000	0.34	0.1
Master gain 91	0.85	0.65
Master gain 92	0.82	0.61
Master growth	0.85	0.6
MEP 91	0.75	0.66
MEP 92	0.85	0.63
MEP 93	0.093	0.66
MEP 94	0.85	0.55
MEP 95	0.88	0.63
Master plus	0.79	0.54
US 92	0.7	0.71
US 95	0.79	0.12
P E F	0.82	0.63
IISFUS 95	0.93	0.06
Grand master	0.094	0.45
Average	0.73	0.51

Source: Annual reports of UTI

The non-systematic risk of the portfolio should always be low because it is that portion of the portfolio, which is unique to that portfolio. The non-systematic risk of the selected schemes varied between 0.004 to 0.006. These findings suggest that in general UTI schemes have very low unique risk. This implies that UTI schemes have a proper portfolio diversification, for relatively higher rate of return.

On an examination of the diversification (R^2) aspects of the schemes, it is found that twelve out of the total seventeen schemes have diversified the risk with more than an average R^2 value (0.51). Two schemes viz. UGS 2000 and US 95 have provided high return with low total risk and low diversification. Eight schemes provided below average return with high risk and high diversification. It is clear from the above analysis that UTI schemes have not been able to provide high returns even after high diversification.

In such a context, our finding of a relatively lower rate of return to UTI schemes must have been

due to reasons other than inefficient portfolio diversification. Perhaps a host of reasons can be offered to explain our observed phenomenon of the falling rate of return on UTIs schemes.

Liberalization, Competition and UTIs performance

In the present context of the ongoing economic reforms based on the liberalization policy in the Indian economy, there is an immediate temptation to ask the following question towards seeking an explanation to our finding on the performance evaluation of UTI. Are the low returns on UTI schemes even after high degree of diversification due to the stiff competition from the other MFs? Towards seeking an answer to this question we have carried out the performance evaluation of UTI schemes separately for two periods viz., before and after 1995, the first period is taken to represent the near monopoly condition and the second, competitive environment for UTI's operations. Our objective is to evaluate the performance of schemes when UTI is exposed to competitive market conditions, with the entry of private sector into MF business on the introduction of the ongoing new economic reforms into the financial sector of the Indian economy. Although the MF business was opened to the private sector in 1992, the year 1995 was taken as the cut off point for dividing UTI's operation into the two periods of analysis, as the new firms must have taken some time to settle in the business. In April 1995 there were as many as 14 MFs and therefore the new entrants must have injected a competitive environment in the MF business since the mid nineties.

We have presented in Table 4.6, the results of our analysis of returns, total risk, systematic risk and diversification of UTI scheme before and after 1995 April. The analysis uncovered many interesting results. To illustrate, the Master share, which provided the highest rate of return among UTI scheme during the first period provided has negative returns in the second period when there was the competition from other MFs. The systematic risk of the scheme during the second period is found to be higher than the first period. This indicates a proper portfolio diversification. Yet, the scheme has earned negative returns only. A similar situation is seen in the case of MEP 91 and Mastergain 92. In Slight variance with the above situation, the schemes US 92, MEP 93 and UGS 5000 have provided negative returns during both before and after the competition phase. Only one scheme viz. Grandmaster has provided positive returns during both the periods. The foregoing results of our analysis suggest that the competition from the entry of new firms since the opening up of the MF business to the private sector as part of the overall

economic liberalisation policy has affected unfavourably the performance of UTI.

Table 4.6

PERFORMANCE OF SCHEMES BEFORE AND AFTER COMPETITION					
Schemes	Before 1995	After 1995	Schemes	Before 1995	After 1995
Master Share			Master gain 92		
Arp	2.56	-0.84	Arp	0.42	-0.11
SDp	8.31	7.01	SDp	6.4	6.8
ARM	1.59	-0.01	ARM	-0.46	-0.86
SDm	7.88	6.3	SDm	6.3	6.1
Systematic risk	0.81	0.82	Systematic risk	0.79	0.87
Non-systematic risk	0.013	0.005	Non-systematic risk	0.008	0.002
R2	0.59	0.54	R2	0.6	0.64
UGS 2000			US 92		
Arp	-0.23	-0.6	Arp	-0.7	
SDp	8.9	7.6	SDp	5.6	6.5
ARM	-0.01	-0.5	ARM	6.2	-0.5
SDm	6.2	6.3	SDm	-0.9	6.3
Systematic risk	0.67	0.87	Systematic risk	0.75	0.89
Non-systematic risk	0.01	0.002	Non-systematic risk	0.003	0.007
R2	0.17	0.52	R2	0.76	0.74
UGS 5000			Grand master		
Arp	-0.5	0.05	Arp	0.3	0.42
SDp	6.4	6	SDp	6.5	7.02
ARM	-0.5	-0.8	ARM	-0.4	-0.4
SDm	6.1	6	SDm	6.7	6.2
Systematic risk	0.85	0.071	Systematic risk	0.68	0.77
Non-systematic risk	0.004	0.004	Non-systematic risk	0.008	0.007
R2	0.49	0.005	R2	0.45	0.45
MEP 91			MEP 92		
Arp	0.11	-0.68	Arp	-1.22	-0.17
SDp	6.4	6.5	SDp	6.3	6.2
ARM	-0.5	-0.5	ARM	-0.98	-0.55
SDm	6.2	6.2	SDm	6.2	6.3
Systematic risk	0.83	0.88	Systematic risk	1.03	0.81
Non-systematic risk	0.0002	0.004	Non-systematic risk	0.001	0.003
R2	0.6	0.6	R2	0.6	0.66
MEP 93			Master gain 91		
Arp	-0.9	0.16	Arp	-0.8	-1.02
SDp	6.3	6.2	SDp	6.6	6.2
ARM	-0.02	-0.5	ARM	-1.2	-1.1
SDm	6.4	6.3	SDm	7.2	6.4
Systematic risk	0.74	0.82	Systematic risk	0.85	0.86
Non-systematic risk	0.009	0.006	Non-systematic risk	0.001	0.004
R2	0.62	0.69	R2	0.55	0.78

Notes:
Arp Average returns on portfolio
Arm Average returns on market
Std p Standard deviation of portfolio
Std m Standard deviation of market
R2 Diversification
Source: Annual reports of UTI

Fund managers' market timing and selectivity of Scrips

Among the various factors that can explain our finding of the poor rate of return on UTI schemes despite high degree of diversification, an important issue that needs a detailed probe is the ability of UTI fund managers to make right choice with regard to market timing and selectivity of scrips? One can reflect upon their ability by using Sharpe's differential measures as well as Fama's decomposition. (This is done in later part of the study).

Before proceeding in that direction, we may note some features of the return on UTI schemes with the risk involved along with the returns and risk of market and risk free asset's returns in order to reflect upon a preliminary idea on the ability of UTI's fund managers. For this purpose,the launching period of UTI's schemes and returns on the market for the same period are taken. The same methodology is taken in the case of risk free assets also. These are shown in table 4.7. It is observed that, among the selected UTI schemes four provided negative returns. Two schemes (UGS 2000 and IISFUS 95) have provided returns lower than the market. In the other fifteen schemes, UTI provided better returns than the market. This may be on account of the negative performance of NATEX during the period, under consideration. Here it is interesting to that in the case of the comparison of the relative rates of return of Master share with the market return (NATEX) for the longer period of Jan 1988 to July 1999 the market returns found to be positive though still it remaining lower than the returns on master share. Since all MFs are seen to provide better results than the market and are competing with each other's to beat the market, a slight increase in the returns compared with the market cannot be considered to be a great achievement. In this context it is interesting to note that a study on the performance of Alliance Mutual Fund (1998), a private MF, also has shown its performance to be better than the market.[8]

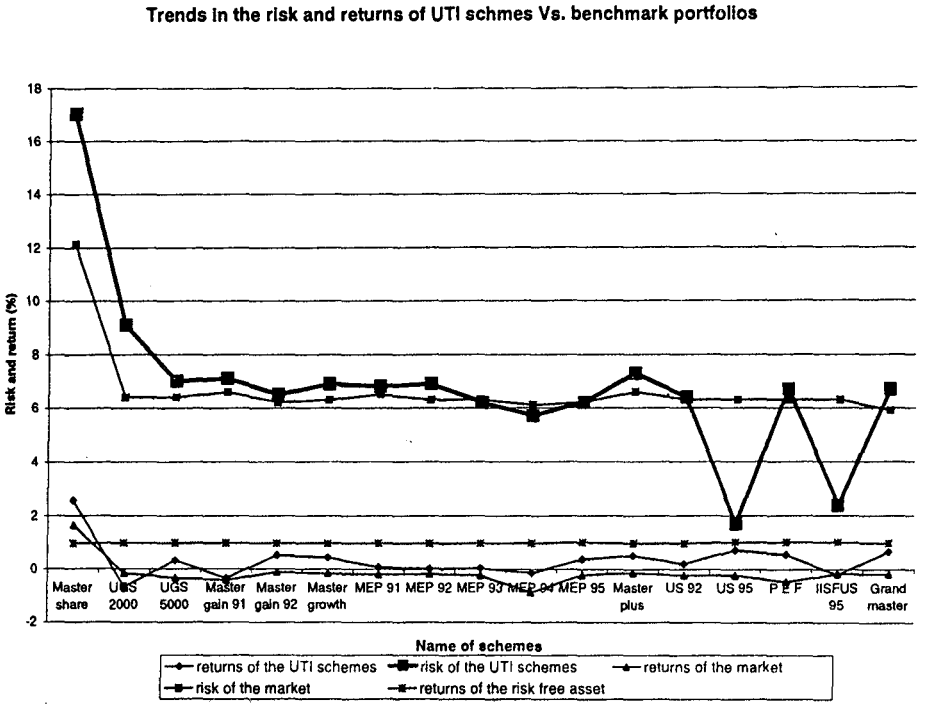
Table 4.7

RISK AND RETURN : MUTUAL FUND SCHEME VS. BENCH-MARK PORTFOLIOS					
Scheme	Arp	Std p	Arm	Std m	Arf
[1]	[2]	[3]	[4]	[5]	[6]
Master share	2.58	17.04	1.65	12.14	0.95
UGS 2000	-0.70	9.10	-0.17	6.4	0.97
UGS 5000	0.31	7.00	-0.35	6.4	0.97
Master gain 91	-0.35	7.1	-0.44	6.6	0.97
Master gain 92	0.52	6.5	-0.13	6.2	0.97
Master growth	0.43	6.9	-0.17	6.3	0.97
MEP 91	0.07	6.8	-0.21	6.5	0.97
MEP 92	0.01	6.9	-0.19	6.3	0.97
MEP 93	0.03	6.2	-0.24	6.3	0.97
MEP 94	-0.15	5.7	-0.89	6.1	0.98
MEP 95	0.37	6.2	-0.22	6.2	1.01
Master plus	0.5	7.3	-0.15	6.6	0.97
US 92	0.2	6.4	-0.24	6.3	0.97
US 95	0.72	1.7	-0.24	6.3	1.01
P E F	0.55	6.7	-0.48	6.3	1.01
IISFUS 95	-0.21	2.4	-0.18	6.3	1.01
Grand master	0.65	6.7	-0.19	5.9	0.97
Average (mean)	0.3	6.9	-0.2	6.7	0.98

Notes:
Arp Average returns on portfolio
Arp Average returns on portfolio
Arm Average returns on market
Std p Standard deviation of portfolio
Std m Standard deviation of market
Arf Average returns on risk free asset
Source: Annual reports of UTI

Turning to the comparison of the UTI returns with that of a risk free asset (see table 4.7) it is seen that the returns on UTI's schemes are lower than the return on risk free asset except one scheme (Mastershare).[9] On plotting the relevant parameters on a graph (see graph 4.1), the returns on the risk free asset are found to be more or less stable for the entire period. It can be discerned from the graph that, the risk free assets have out performed both the market and UTI schemes.

Figure - 4.1



Risk Adjusted Performance Evaluation

Now we move on to the comparative performance analysis in terms of Treynor and Sharp ratios, within the risk adjusted performance framework. When the returns on UTI were compared with market returns, it is seen that UTI schemes have performed better than the market in terms of Traynor measure. However, the performance of market is found better than that of UTI schemes in terms of Sharpe measure, at least for some of the schemes. (Results of Sharpe ratio and Trynor ratio is given in table 4.8, as worked out by using the detailed methodology in the section 1 of this chapter.) This leads us to explore the reason for their relatively poor performance of UTI schemes.

Table 4.8

Sharpe Ratios of Mutual fund Schemes (Reward to variability (Sharpe) Ratio)			Treynor Ratios of Mutual Fund Schemes		
[1]	[2]	[3]	[1]	[2]	[3]
Scheme	RVARp	RVARm	Schemes	RVOLp	RVOLm
Master share	0.10	0.06	Master share	1.26	0.70
UGS 2000	-0.18	-0.18	UGS 2000	-2.14	-1.14
UGS 5000	-0.09	-0.21	UGS 5000	-1.95	-1.32
Master gain 91	-0.19	-0.21	Master gain 91	-1.56	-1.41
Master gain 92	-0.07	-0.18	Master gain 92	-0.54	-1.10
Master growth	-0.08	-0.18	Master growth	-0.63	-1.14
Grand master	-0.13	-0.18	Grand master	-1.20	-1.18
MEP 91	-0.14	-0.18	MEP 91	-1.12	-1.16
MEP 92	-0.15	-0.19	MEP 92	-10.06	-1.21
MEP 93	-0.20	-0.31	MEP 93	-1.33	-1.87
MEP 94	-0.10	-0.20	MEP 94	-0.73	-1.23
MEP 95	-0.06	-0.17	MEP 95	-0.60	-1.12
US 92	-0.12	-0.19	US 92	-1.09	-1.21
US 95	-0.17	-0.20	US 95	-0.37	-1.25
Master plus	-0.07	-0.24	Master plus	-0.56	-1.49
PEF	-0.51	-0.19	PEF	-1.32	-1.19
IISFUS 95	-0.05	0.00	IISFUS 95	-3.36	-0.02

Notes:
RVARp Reward to variability ratio on the portfolio
RVARm Reward to variability ratio on the market
RVOLp Reward to volatility ratio of the portfolio
Source: Annual reports of UTI

The differential performance among the MFs can be attributed to various reasons. Using Sharpe's differential return measure we can see whether the relatively better performance of a particular scheme is due to better selectivity and predictability of that scheme compared to the poorly performing schemes. This measure also helps us to gauge the actual return achieved as compared to the expected returns on the portfolio. The results of our analysis of expected returns and actual returns in terms of Sharpe's differential returns are given in table 4.9. Only for ten schemes Sharpe's differential returns are positive implying that they are able to provide returns higher than the expected returns. In other schemes the actual returns less than the expected returns and there by indicate a poor performance record. Further, what is important to

see at what degree of risk these schemes provide the high returns. Our analysis has shown that only 3 schemes are able to provide high return with a high risk. In other words, three schemes, with high risk, as shown, have provided high returns.

Table 4.9

SHARPE DIFFERENTIAL RETURNS OF MUTUAL FUND SCHEMES			
Schemes	Expected	Actual	Sharp's differential
	Returns	Return	Return
[1]	[2]	[3]	[4]
Master share	1.93	2.58	0.65
UGS 2000	1.41	-0.70	-0.05
UGS 5000	0.25	0.31	0.78
Master gain 91	0.45	-0.35	-0.20
Master gain 92	0.50	0.52	0.70
Master growth	0.38	0.43	0.71
MEP 91	0.03	0.07	0.33
MEP 92	0.08	0.01	-0.31
MEP 93	0.04	0.03	-0.25
MEP 94	0.08	-0.15	-0.62
MEP 95	0.37	0.37	0.59
Master plus	0.45	0.5	0.77
US 92	0.19	0.2	0.46
US 95	0.93	0.72	-0.05
P E F	0.52	0.55	1.12
IISFUS 95	0.55	-0.21	-0.77
Grand master	0.61	0.65	1.00

Source: Annual reports of UTI

Broadly, the results of our empirical analysis, in terms of sharpe ratio, point out towards the relatively poor record of UTI's performance. One of the purposes of performance evaluation is to identify the shortcomings and suggest a direction for corrective measures. It is therefore relevant for our analysis to turn to that direction. For this purpose we worked out Fama's decomposition measures, which are helpful in identifying the impact of diversification, systematic risk and selectivity on the fund returns. The results are presented in table 4.10. Only two schemes Master share and Grandmaster have higher returns due to impact of systematic risk, selectivity and diversification. For UGS 2000 and IISFUS 95 the negative returns can be attributable to the

systematic risk, imperfect diversification and poor selectivity. For UGS 5000, Master gain 92, Master growth, MEP 95 and PEF the excess returns are attributable to a poor selectivity of scrips. Poor performance of seven schemes, for which, the actual returns are lower than the expected returns, is due to imperfect diversification, impact of systematic risk (beta) and poor market selectivity. Thus it can be said that, as a whole the forecasting of UTI's fund managers is poor. This endorses our earlier observation (see chapter 3) that UTI has not by and large invested its funds in the winner scrips. On the whole the evidence, advanced by our analysis, tend to portray a poor record of fund manager's ability in market timing and investing in right scrips and thus UTI's operational performance.

Table 4. 10

FAMA'S DECOMPOSITION RESULTS					
Schemes	Scheme Return	Risk free Return	Returns due to systematic risk	Returns due to diversification	Returns due to selectivity
[1]	[2]	[3]	[4]	[5]	[6]
Master share	2.58	0.95	0.90	0.08	0.65
UGS 2000	-0.70	0.97	-0.89	-0.73	-0.05
UGS 5000	0.31	0.97	-0.45	-1.00	0.78
Master gain 91	-0.35	0.97	-1.20	-0.32	-0.20
Master gain 92	0.52	0.97	-0.90	-0.25	0.70
Master growth	0.43	0.97	-0.97	-0.28	0.71
MEP 91	0.07	0.97	-0.89	-0.35	0.33
MEP 92	0.01	0.97	-0.98	-0.28	-0.31
MEP 93	0.03	0.97	-0.11	-1.07	-0.25
MEP 94	-0.15	0.98	-1.59	-0.16	-0.62
MEP 95	0.37	1.01	-1.08	-0.15	0.59
Master plus	0.5	0.97	-0.89	-0.35	0.77
US 92	0.2	0.97	-0.84	-0.38	0.46
US 95	0.72	1.01	-0.99	0.65	-0.05
P E F	0.55	1.01	-1.22	-0.36	1.12
IISFUS 95	-0.21	1.01	-1.11	-0.66	-0.77
Grand master	0.65	0.97	-0.11	1.20	1.00

Source: Annual reports of UTI

Towards explaining UTI's poor performance

Generally, MF managers adopt investment strategies, on the basis of two principles - active management and passive management. An actively managed fund invests in specific stocks, and is continuously restructured to capitalise on opportunities. Passively managed funds invest on a

predetermined guideline and the portfolio is not restructured frequently. From our above analysis and earlier findings we can say that to some extent UTI schemes are passively managed. UTI has invested almost in similar stocks for the schemes under study and has not frequently reversed the stocks. In striking contrast, the investment strategies of the private sector MFs like Alliance '95, K P blue chip, are seen focused investments in selected winner scrips, thus they have earned better returns and also profited from capital appreciation.[10]

As a result of the passive investment strategy adopted by the UTI's fund manager,it is found that, the top twenty five companies of UTI's investment has remained same for all the schemes. That is to say, these twenty-five companies have received investment from all UTI's schemes. Naturally, all schemes despite the difference in the degree of risks have received same rate of return. In the case of Master equity plans this repeating investments in same companies is striking. When looked into the co-efficient of determination (R^2) of the poorly performing schemes it is found that all most all schemes which have provided low returns have a low R2. UGS 2000, which provided a negative return (-0.70 percent) with a high risk of (9.1%), has a R2 of 31 percent. UGS 5000 which also ranked in the low return with high risk quarter has a R2 of 10 percent. Thus, there is no escape from drawing the conclusion that UTI's schemes have not provided the unit holders a return in parity with the assumed risk. These are some intriguing questions.

Is the poor performance due to the poor choice of securities for investment in the portfolio by the investment department or Is it due to delays in execution by the market operations department in a highly volatile market or was it both?

The answer to the first question can be partly found in our earlier finding that UTI has not invested in top performing scrips. Besides our analysis has also found that the funds managers are lacking the ability in market timing and selectivity.

The answer to the second question lies in our finding of the flaws in the functional structure of UTI, as stated in chapter 3. It is also relevant to recall the Deepak parekh committe report on US 64 scheme, has pointed out that the functional structure of UTI impose a number of limitations on its functioning and has made recommendations for the restructuring of the UTI. In this

context, it may be noted that, the statutory auditors of UTI have remarked that the internal control systems and procedures (which are closely linked to the structure of the organisation) of UTI suffer from a major inadequacy in the form of lack of adequate separation of back up function from market operations.[11] Under its present structure, each of the departments would primarily seek to maximise their performance (of mobilising funds or generating returns or reducing cost of operations) individually rather than maximising the overall performance. The market operations department, for example, would choose to bunch the execution of the transactions required by the investment department with a view to achieving efficiency in its operations or reducing costs. In the process it could affect the returns generated. The bunching of transactions for execution (while maximising the performance of the market operation department) could result in UTI realising lower prices on its sales, or paying higher prices on its purchases, affecting its overall performance. Apart from the impact of the same on its overall performance, such an act could affect the performance of its various products (schemes) differently. Maximisation of individual product performance is crucial from the point of view of investors. The inability of UTI to pin point the responsibilities for the disastrous performance of some of its schemes (e.g. Master gain 91) and the inefficiencies in the process of managing its multiple schemes could penalise investors. Adding to this, UTI also follows certain unhealthy practices, for example if there is discrepancies in one scheme and if it is indeterminable, they will load the entire loss due on that account exclusively on the investors of some other schemes.[12] Such a situation emerges, because UTI's existing structure does not facilitate it to identify unambiguously its product wise performance. It looks strange that UTI has not restructured its initially set functionally organised structure into a product based structure which perhaps is what is needed when a MF opts for the expansions of its operations through the introduction of a variety of a large number of schemes.

Perhaps, both factors discussed above viz. the fund manager's poor market timing and selectivity and the inefficiently organised structure of UTI may have contributed to the poor performance record of the UTI. Also there may be other factors that need to be accounted for in explaining the performance behavior. What ever be the causes the findings emerging from our empirical analysis of the performance of the selected UTI schemes are disturbing and reflects poorly on the over all performance of UTI, still the largest fund manager in the Indian MF industry.

Endnotes: -

[1]...The same methodology was adopted by M Jayadev in "Investment policy and Performance of Mutual funds" Kanishka publications, 1998.

2. The rate on Bank deposits of three years and above are taken as the risk free rate. Natural logarithms of the above rates are considered as risk free rate. The equivalent monthly returns are obtained as follows:

Rft = (1 + Annual rate)1/12 - 1

3. Harry Markowitz, M., "Portfolio selection, The journal of Finance, Vol. VIII, No. 1, (March 1952), pp.77-91.

4.... Jack L. Treynor, "How to Rate Management of Investment Funds", Harward Business Review, 43, No.1, (January-February 1965), pp.63-75.

5.... William F.Sharpe, "mutual Fund performance", Journal of Business, 39, No.1, (January 1966), pp.119-138.

6. Mossin Jan., Equilibrium in a Capital Asset Market", Econometrica, 34, No.4, (October 1966), pp. 768-83.

7 Shaw, Ajay, Thomas, Susan, "Performance Evaluation of Professional Portfolio Management in India",CMIE 10th April, 1994.

8. Both Traynor and Sharpe ratios were used to measure the performance and it was seen that Alliance performed better than the market in terms of both measures.

9. Another study (Jayadev, 1998) has also reported similar results. Out of sixty-two schemes studied by him eighteen schemes were not providing returns higher than the risk free assets.

10. "India's Best fund manager": Financial express - Value Research Mutual Fund Guide, 2000, February 2000.

11. UTI Annual report, 1991-92d,pp A-4

12. UTI Annual report, 1991-91 b, Note 3, Schedule L, PP-65.

Chapter 5

SUMMARY AND CONCLUSIONS

In India, Mutual Funds appear to have recorded an impressive growth during the last decade. Their number increased from three in 1988 to thirty four in 1998, with the gross sales mobilised rising from Rs 4174 crores in 1988 to over Rs 14365.1 crores in 1998. Although the Indian investors were familiar with the MF business ever since UTI was established as a Govt monopoly unit in 1964, it was the permission granted in 1987 to the public sector banks, commercial banks and the financial institutions to set up MFs that gave momentum to the growth of MF business. It is with the Government's liberalisation policy of 1991, which *inter-alia* permitted portfolio investments by foreign institutional investors, and the financial sector reforms, the private sector firms started their entry into the MF business since 1993. This gave further impetus to the industry's growth. Today, three different types of players operate in the Indian MF industry viz., UTI, non-UTI public sector MFs and private sector MFs, though UTI remains the largest player. The structural changes that took place since 1987 must have made the MF industry more and more competitive paving way for its increasing importance in savings (resources) mobilisation from the public and deployment of the funds for the corporate sectors' financial activities and thus to the economic growth of the country.

However, the growth of Indian MF industry did not appear to be smooth. The extreme volatility of the stock market in a liberalised economy did reflect in the Net Asset Values (NAV) of the various MF units which in turn and accompanied by many other factors led to wide fluctuations in resource mobilisation. In 1996-97, the level of resources mobilisation was at a six-year low record. In particular, the resource mobilisation by UTI, the major player, suffered serious set backs at times much so that the gross sales of its units net of repurchase reached to the level of crores in 1998. Besides, some UTI schemes performed badly enough in terms of their NAVs to raise public concerns.

The forgoing background underlined the significance to undertake a study of the growth and performance of MFs in general and a detailed case study of the performance evaluation of UTI, the leader in the industry. Our analysis in the preceding chapters uncovered some disturbing trends and raised certain intriguing questions on the organisation and conduct of MF business

especially of UTI in a competitive market in the newly liberalised Indian economy. We now conclude our study by presenting an integrated summary of the major findings.

We analysed the structural changes and growth trends in the MFs industry for a period of over thirty-five years and since 1964 and supplemented the analysis with a detailed case study of UTI. More specifically, we examined the (1) role of MFs as mobilisers of savings (2) performance of UTI by its objective and (3) risk-adjusted performance evaluation of UTI schemes. The major sources of data were the annual reports of SEBI, UTI and other MFs, offer documents and NAVs of schemes announced by the Fund from time to time and the BSENATEX as a benchmark for comparison. In addition to this, discussions with the managers some MFs proved useful as a source in forming our views about the status of SEBI regulations, current problems of MF industry, process of investment decision and organisational problems. The accepted methodology used by the previous studies like Captial Asset Pricing model, Sharp ratio and Treynor ratio were adopted by us for the performance evaluation of selected UTI schemes. For explaining the observed performance of UTI, Sharp's differential returns and Fama's decomposition measures were used.

Our analysis showed that MF industry went through some basic structural changes and three growth phases during the period under study. The first phase (1964-87) coinciding with the monopoly market condition for UTI was characterised by a steady growth in resource mobilisation. The second phase (1987-93) coinciding with breaking away of UTI's monopoly on the entry of non-UTI PTI public sector MFs witnessed acceleration in growth rate. The third phase (1994-98) coinciding with the entry of private sector firms and the consequent competitive market conditions recorded a stupendous increase in the gross sales mobilised by MFs but with wide fluctuations. Towards the close of the third phase, it was found that the share of MFs in (1) gross household savings and (2) household savings in financial assets declined. The decline in net mobilisation was found relatively sharp in the case of UTI.

The performance evaluation of UTI against its objectives revealed that its role as a saving mobiliser considerably declined in significance over time especially when the number of players increased in the market. It was found that the average annual growth rate of net sales of UTI was negative in the period (-3.92). The disturbing picture could partly be due to the fact that many of its older schemes reached the maturity periods. Yet the fact that the quantum of new subscription to the schemes was not good enough to compensate the loss of funds due to repurchase did not

speak well of UTI's performance-based credibility with the investors as an avenue for savings mobilisation.

On the whole, the analysis of growth trends revealed that the fund collection by the MFs and in particular by the biggest player UTI, could not keep pace with the growth in gross household saving in the Indian economy. In other words, the MFs were unable to take full advantage of the growth in the financial market keeping in line with the macro-economic development and GDP growth in the country in the new economic regime. The study pointed out towards the vast potential for MFs to tap the growing savings market. But the finding of a sluggish growth in the fund mobilisation after an initial euphoria of success inspite of the well-framed regulatory norms, an expanding savings market and inducements to competition, raised some intriguing questions on the performance of MFs in today's competitive environment. Indeed, the wide volatility and uncertainty in the stock market could have an adverse impact on the MFs' resource mobilisation. However, the reasons could be far deeper. Perhaps, the MFs in India were wrongly promoted as an alternative to equity investing and some MFs were selling their products like deposits in the bank, and thereby created high expectations in the minds of the investors. Moreover, a fluctuating market belied these expectations and led to erosion in the investors' credibility. Certainly, a passive approach of some MFs in managing investors' fund compounded by the lack of adequate market research contributed towards low returns of some schemes which must have showed up the Indian MF industry in a bad light in its performance of the role of savings (resource) mobiliser in a growing economy.

The detailed case study of the role of UTI, still the biggest player in MF business, as the channelise of investment highlighted that more than 80 percent of the investment fund went to the corporate sector. The composition of its portfolio investment showed a bias in favour of the variable income securities especially the equities. However, the UTI has invested in the winner stocks. The analysis of the scheme wise deployment of funds showed that in the case of some growth and tax saving schemes, the entire funds deployed continuously in old economy stocks. In the absence of frequent reversal of stocks, good selectivity and market timing, the above strategy was germane to have resulted in low returns.

Did the investment strategy pursued by UTI help the provision of reasonable average returns in relation to the risk of the schemes? The performance evaluation of the selected number or UTI schemes showed some perturbing trends. It emerged that as against the general principle, there

was no linearity in the risk and return relationship in UTI schemes. Moreover, risk and returns were not in conformity with the objectives set by UTI at the launch of the schemes. The comparison of the returns of UTI schemes in the risk adjusted performance framework with the bench-mark portfolio (viz.BSENATEX) showed some promising results In terms of Treynor measure: All the selected schemes except two were found earning better returns than the market portfolio, when only systematic risk was considered contrast the performance was not satisfactory in terms of the sharpe measure as the returns in the large number of cases were found lesser than the market, when the total risk was taken into consideration. However, the performance evaluation analysis revealed that on all schemes except one were lesser than the risk-free returns.

On the whole, the performance evaluation did not portray a good performance record of UTI schemes in providing return in relation to risk involved. The attempt towards explaining the unsatisfactory performance in providing the returns to investment with the help of Sharpe differential ratio and Fama's decomposition measure located the poor market timing and selectivity of the fund managers as the major constraints. Further exploration into the issue also pointed out towards the drawback of the functionally oriented organisation-structure of UTI. The comparison of the rates of return on UTI-schemes during the two periods, before and after 1995, revealed the lower and declining trends in the returns in the second period and suggested that the poor performance could be the outcome of UTI's inability to face stiff competition from the private sector. Thus a complex set of factors contributed to the unsatisfactory performance of UTI schemes concerning their provisions of low returns.

To conclude, we venture to draw some generalisations in the light of the types of the problems unravelled by the study at the macro level at the MF industry's growth and at the micro level the case study of UTI performance evaluation. In general, the performance of MFs needs much to be desired and calls for corrective actions for the sustained growth of the industry. This should be based on the lessons drawn from a more comprehensive study of the micro-level performance of several MFs especially in the private sector. The present study identifies this as an important area for further research that could help policy formulation. For some private sector MFs (e.g. Kothari Poineer, Alliance MF, Birla MF and also non-UTI public sector MFs like SBIMF) are said to be performing well in recent years by following a policy of diversification of risk by selecting few well performing stock instead of following the conventional policy of wide-spread diversification. The fund managers' market strategy marked by proper selectivity and timing

based on a clear understanding of the market conditions and potentials and investors' preferences is a source of their successful performance.

In any case, the very recent trends in the fund mobilisation by some MFs show a revival of investors' interest in Mutual Fund as an attractive avenue between highly volatile stock market and safe bank deposit for earning reasonable returns. The badly performing MFs can take a cue from the successful ones and improve their performance to take advantage of the growing household savings market in the country today. Perhaps the old ones like UTI may redefine their role with a shift in the focus on the investors than more fund collection. Their fund management strategy also needs a change from a passive to an active approach with trained forecasting ability to identify the changes and volatility in the market environment. The product range offered may redesign to meet the needs of the riskaverse as well as risktaking type of investors. Indeed, investor education in both rural and semi-urban area is also a key to the growth of MFs industry. No doubt, the SEBI has been playing a useful role in the regulation of the MF industry but a more supportive role is called for to increase investor confidence and steer the growth with less volatility of the mutual fund business. In short, the reforms of the types suggested above in the structure, strategy and the style of the functioning of MFs, in a competitive market environment, if properly monitored, should enable them to cope with the emerging challenges of mobilising the growing savings market and investing in a volatile capital market to provide reasonable returns to the investors and to meet the financial requirements of the corporate sector for capital accumulation and there by contributes to the growth of the Indian economy.

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