

**MANAGEMENT SPONSORED
MINOR RESEARCH PROJECT**

On

MUTUAL FUND ANALYSIS

WITH REFERENCE TO HDFC BANK

By

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Department of Commerce



Submitted to

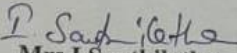
The Research Committee

HINDU COLLEGE, GUNTUR

December - 2021

DECLARATION

I hereby declare that the Management, **Hindu College, Guntur** sponsored Minor Research Project report titled **ON MUTUAL FUND ANALYSIS** comprises of our own and original work. It has not been submitted fully or partially to any other institution or organization and is not published.

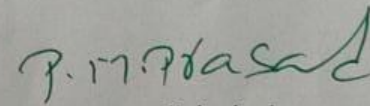

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CERTIFICATE

Certified that this is a genuine and bonafide work done by Mrs.I.Santhilatha,
Lecturer in Commerce. This is the Minor Research Project titled **ON MUTUAL
FUND ANALYSIS** sanctioned by **Management, Hindu College - Guntur.**



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Mrs.I.Santhilatha

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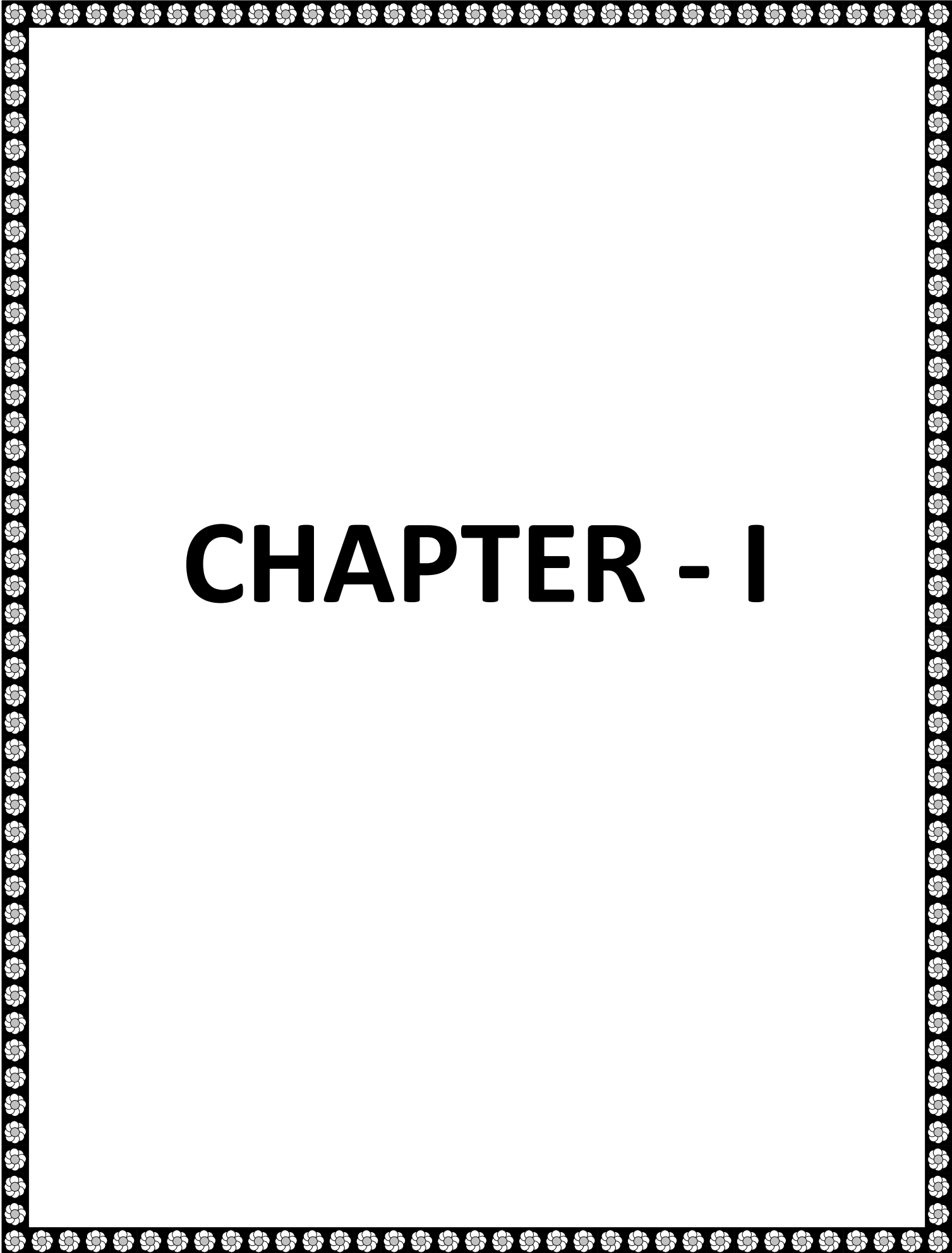
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CHAPTER - I

INTRODUCTION

A Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal. The money thus collected is invested by the fund manager in different types of securities depending upon the objective of the scheme. These could range from shares to debentures to money market instruments. The income earned through these investments and the capital appreciation realized by the scheme is shared by its unit holders in proportion to the number of units owned by them (pro rata). Thus a Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed portfolio at a relatively low cost. Anybody with an invisible surplus of as little as a few thousand rupees can invest in Mutual Funds. Each Mutual Fund scheme has a defined investment objective and strategy. A mutual fund is the ideal investment vehicle for today's complex and modern financial scenario.

Markets for equity shares, bonds and other fixed income instruments, real estate, derivatives and other assets have become mature and information driven. Price changes in these assets are driven by global events occurring in faraway places. A typical individual is unlikely to have the knowledge, skills, inclination and time to keep track of events, understand their implications and act speedily. An individual also finds it difficult to keep track of ownership of his assets, investments, brokerage dues and bank transactions etc. A mutual fund is the ideal investment vehicle for today's complex and modern financial scenario. Markets for equity shares, bonds and other fixed income instruments, real estate, derivatives and other assets have become mature and information driven. Price changes in these assets are driven by global events occurring in faraway places. A typical individual is unlikely to have the knowledge, skills, inclination and time to keep

track of events, understand their implications and act speedily. An individual also finds it difficult to keep track of ownership of his assets, investments, brokerage dues and bank transactions etc. A draft offer document is to be prepared at the time of launching the fund. Typically, it pre specifies the investment objectives of the fund, the risk associated, the costs involved in the process and the broad rules for entry into and exit from the fund and other areas of operation. In India, as in most countries, these sponsors need approval from a regulator, SEBI (Securities exchange Board of India) in our case. SEBI looks at track records of the sponsor and its financial strength in granting approval to the fund for commencing operations. A sponsor then hires an asset management company to invest the funds according to the investment objective.

It also hires another entity to be the custodian of the assets of the fund and perhaps a third one to handle registry work for the unit holders (subscribers) of the fund. In the Indian context, the sponsors promote the Asset Management Company also, in which it holds a majority stake. In many cases a sponsor can hold a 210% stake in the Asset Management Company (AMC). E.g. Birla Global Finance is the sponsor of the Birla Sun Life Asset Management Company Ltd., which has floated different mutual funds schemes and also acts as an asset manager for the funds collected under the schemes.

Definitions

- A mutual fund is made up of money that is pooled together by a large number of investors who give their money to a fund manager to invest in a large portfolio of stocks and/or bonds.
- An ended fund operated by an investment company which raises money from shareholders and invests in a group of assets, in accordance with a stated set of objectives. mutual fundraise money by selling shares of the fund to the public, much like any other type of company can sellstock in itself to the public.
- Mutual funds then take the money they receive from the sale of their shares (along with any money made from previous investments) and use it to purchase various investment vehicles, such as stocks, bonds and money market instruments.
- In return for the money they give to the fund when purchasing shares, shareholders receive an equityposition in the fund and, in effect, in each of its underlying securities. For most mutual funds, shareholders are free to sell their shares at any time, although the price of a share in a mutual fund will fluctuatedaily, depending upon the performance of the securitiesheld by the fund.

History of mutual funds in India

Mutual Fund History India

Unit Trust of India (UTI) was the first mutual fund set up in India in the year 1963. In early 1990s, Government allowed public sector banks and institutions to set up mutual funds. UTI has an extensive marketing network of over 40,000 agents all over the country. In the year 1992, Securities and exchange Board of India (SEBI) Act was passed. The objectives of SEBI are – to protect the

interest of investors in securities and to promote the development of and to regulate the securities market.

In 1995, the RBI permitted private sector institutions to set up Money Market Mutual Funds (MMMFs). They can invest in treasury bills, call and notice money, commercial paper, commercial bills accepted/co-accepted by banks, certificates of deposit and dated government securities having unexpired maturity up to one year.

As far as mutual funds are concerned, SEBI formulates policies and regulates the mutual funds to protect the interest of the investors. SEBI notified regulations for the mutual funds in 1993. Thereafter, mutual funds sponsored by private sector entities were allowed to enter the capital market. The regulations were fully revised in 1996 and have been amended thereafter from time to time. SEBI has also issued guidelines to the mutual funds from time to time to protect the interests of investors.

All mutual funds whether promoted by public sector or private sector entities including those promoted by foreign entities are governed by the same set of Regulations. There is no distinction in regulatory requirements for these mutual funds and all are subject to monitoring and inspections by SEBI. The risks associated with the schemes launched by the mutual funds sponsored by these entities are of similar type.

NEED FOR THE STUDY

Mutual Fund is a topic which is of enormous interest not only to researchers all over the world, but also to investors. India's mutual fund and stock market has witnessed phenomenal growth over the last few years. Mutual funds as a medium-to-long term investment option are preferred as a suitable investment option by investors. With the entrance of new fund houses and the introduction of new funds into the market, investors are now being presented with a broad array of Mutual Fund choices. The mutual fund industry in India has seen dramatic improvements in quantity as well as quality of product and service offerings in recent years.

Mutual Fund industry today, with about 34 players and more than five hundred schemes, is one of the most preferred investment avenues in India. However, with a plethora of schemes to choose from, the retail investor faces problems in selecting funds. Factors such as investment strategy and management style are qualitative, but the funds record is an important indicator too. Therefore, there is a need to identify the factors that are influencing the selection behavior of individual investor. In view of the fact that the Indian mutual fund industry is one of the fastest growing sectors in the Indian capital and financial markets the present study is undertaken to throw light on different factors that influencing mutual funds like past record, minimum investment, entry and exit load, brand reputation etc.

OBJECTIVES OF THE STUDY

- To evaluate the performance different equity schemes based on beta and rate of return.
- To compare the NAV trend of the funds to that of the NSE of Nifty.
- To find out is there any significant difference between the performance put-up by HDFC, UTI, HSBC and SBI Magnum equity funds.
- To offers the investors to get right kind of schemes of Mutual Funds.
- To study know which the best one the company risk and return.

METHODOLOGY OF THE STUDY

The Methodology of the study consists of

1. Source of data collection
2. Statistical tool
3. Data Analysis

Source of data collection:

The data had been collected through Primary and Secondary sources.

Primary sources:

The data had been collected through project guide and staff of the Company and primary data was that original in character and was collected a fresh. The primary data is information collected for the first time for the purpose of the study of the problem.

Secondary sources:

Secondary data refers to the use of information already collected and published (or) unpublished sources are

- Books
- Journals
- Websites
- Broachers
- Textual information available in the library.

Statistical tool:

The data collected from the above sources have been analyzed through ‘Treynor method’, which is one of the popular statistical tools in **performance of mutual funds** is considered for the study.

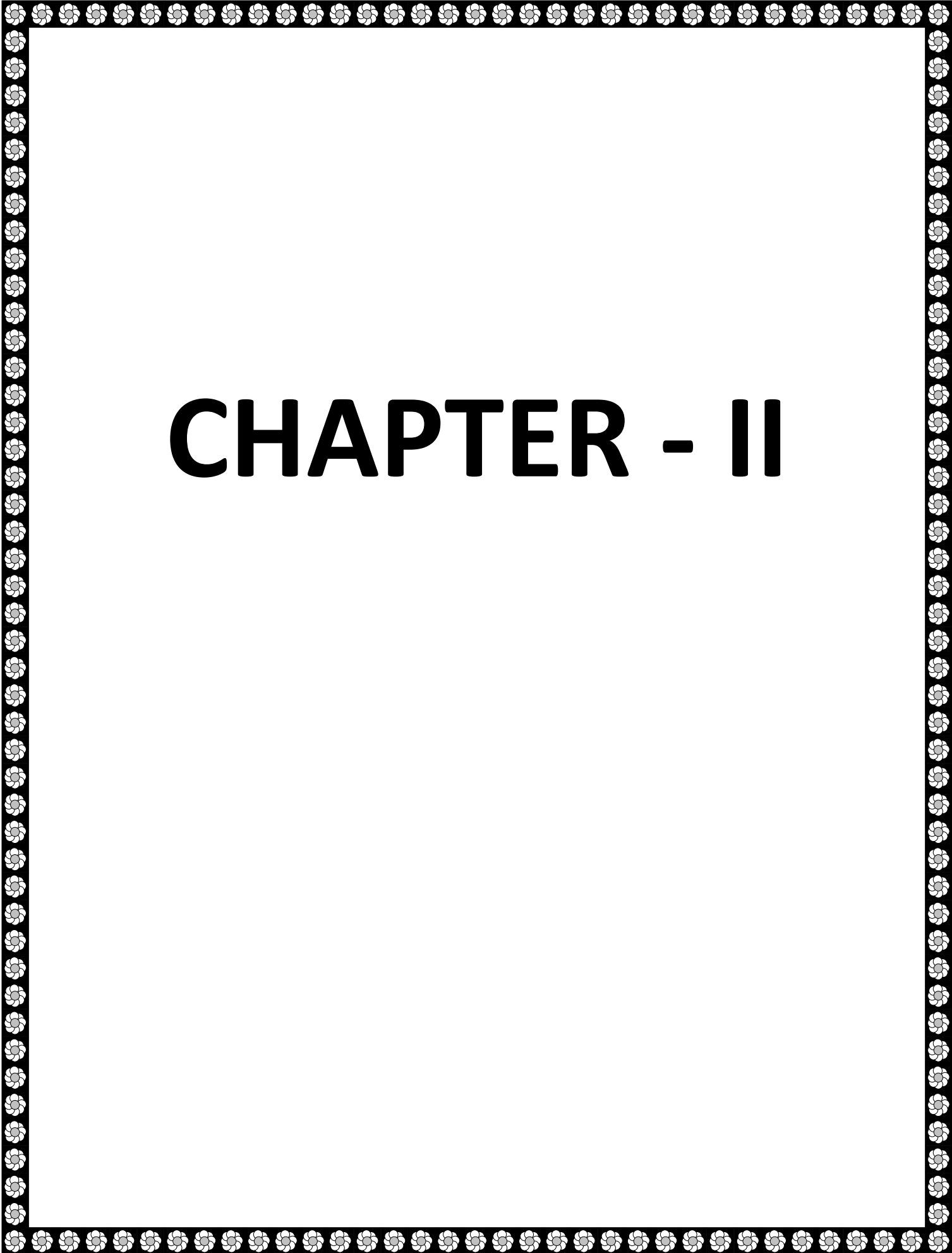
Data Analysis:

The data had been analyzed using Tables.

LIMITATIONS OF THE STUDY

The following are the limitations of the study:

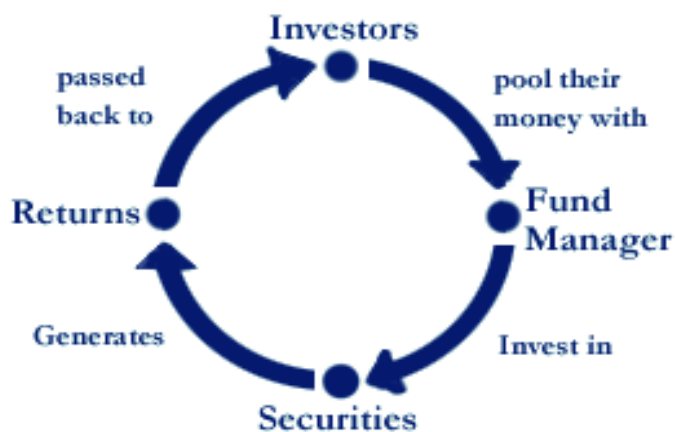
- I have selected only few funds. So the study is not extensive
- The study was conducted for a period of 6weeks, so it could not be conducted intensively.
- It is only limited to mutual fund industry
- The study was conducted mainly with secondary data.
- It is very difficult to understand the investor attitude.

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CHAPTER - II

THEORETICAL FRAME WORK

A Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal. The money thus collected is then invested in capital market instruments such as shares, debentures and other securities. The income earned through these investments and the capital appreciation realized is shared by its unit holders in proportion to the number of units owned by them. Thus a Mutual fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost. The flow chart below describes broadly the working of mutual funds.



Mutual fund is a mechanism for pooling the resources by issuing units to the investors and investing funds in securities in accordance with objectives as disclosed in offer document.

Investments in securities are spread across a wide cross-section of industries and sectors and thus the risk is reduced. Diversification reduces the risk because all stocks may not move in the same direction in the same proportion at the same time. Mutual Fund issues units to the investors in

accordance with quantum of money invested by them. Investors of mutual funds are known as unit holders.

The investors in proportion of their investments share the profit or losses. The mutual funds normally come out with a number of schemes with different investment objectives that are launched from time to time. A mutual fund is required to be registered with Securities Exchange and Board of India SEBI, which regulates securities markets before it can collect funds from the public.

Different investment avenues are available to investors. Mutual funds also offer good investment opportunities to the investors. Like all investments, they also carry certain risks. The investors should compare the risks and expected yields after adjustment of tax on various instruments while taking the investment decisions.

ORGANISATION OF MUTUAL FUND

A mutual fund is set up in the form of a trust, which has sponsor, trustees, Asset Management Company (AMC) and custodian. The trust is established by a sponsor or more than one sponsor who is like promoter of a company. The trustees of the mutual fund hold its property for the benefit of the unit holders. Asset Management Company (AMC) approved by SEBI manages the funds by making investments in various types of securities. Custodian, who is registered with SEBI, holds the securities of various schemes of the fund in its custody. The trustees are vested with the general power of superintendence and direction over AMC. They monitor the performance and compliance of SEBI Regulations by the mutual fund. SEBI Regulations require that at least two thirds of the directors of trustees company or board of trustees must be independent i.e. they should not be associated with the sponsors. Also, 50% of the directors of AMC must be independent. All mutual funds are required to be registered with SEBI before they launch the any scheme.



The Structure Consists Of Sponsor

Sponsor is the person who acting alone or in combination with another body corporate establishes a mutual fund. Sponsor must contribute at least 40% of the net worth of the investment managed and meet the eligibility criteria prescribed under the Securities and Exchange Board of India (Mutual Funds) Regulations, 1996. The sponsor is not responsible or liable for any loss or shortfall resulting from the operation of the schemes beyond the initial contribution made by it towards setting up of the Mutual Fund.

Trust

The Mutual Fund is constituted as a trust in accordance with the provisions of the Indian Trust Act, 1882 by the sponsor. The trust deed is registered under the Indian Regulation Act, 1908.

Trustee

Trustee is usually a company (corporate body) or a Board of Trustees (body of individuals). The main responsibility of the Trustee is to safeguard the interest of the unit holders and inter alia ensure that the AMC functions in the interests of investors and in accordance with the securities and exchange board of India (mutual funds) regulations, 1996, the provisions of the Trust Deed and the Offer Documents of the respective schemes. At least 2/3rd directions of the Trustee are independent directors who are not associated with the Sponsor in any manner.

Asset Management Company

The Trustee as the Investment manager of the Mutual Fund appoints the AMC. The AMC is required to be approved by the Securities and Exchange Board of India (SEBI) to act as an asset management company of the Mutual Fund. At least 50% of the directors of the AMC are independent directors who are not associated with the Sponsor in any manner. The AMC must have a net worth of at least 21 crore at all times.

Registrar of Transfer Agent

The AMC if so authorized by the Trust Deed appoints the Registrar and Transfer Agent to the Mutual Fund. The Registrar processes the application form; redemption requests and dispatches account statements to the unit holders. The Registrar and Transfer Agent also handle communication with investors and update investor records.

ADVANTAGES OF MUTUAL FUNDS

- Professional Management
- Diversification
- Convenient Administration
- Return Potential
- Low costs
- Liquidity
- Transparency
- Flexibility

- Choice of schemes
- Tax benefits
- Well regulated

There are numerous benefits of investing in mutual funds and one of the key reasons for its phenomenal success in the developed markets like US and UK is the range of benefits they offer, which are unmatched by most other investment avenues.

Affordability

A mutual fund invests in a portfolio of assets, i.e. bonds, shares etc. depending upon the investment objective of the scheme. An investor can buy in to a portfolio of equities, which would otherwise be extremely expensive. Each unit holder thus gets an exposure to such portfolios with an investment as modest as Rs.500/-. This amount today would get you less than quarter of an Infosys share. Thus it would be affordable for an investor to build a portfolio of investments through a mutual fund rather than investing directly in the stock market.

Professional Management

Qualified investment professional who seek to maximize returns and minimize risk monitor investor's money. When you buy into a mutual fund, you are handing your money to an investment professional that has experience in making investment decisions. It is the fund manager's job to (a) find the best securities for the fund, given the fund's stated investment objectives; and (b) keep track of investments and changes in market conditions and adjust the mix of the portfolio, as and when required.

Diversification

It simply means that spread the investment across different securities (stocks, bonds, money market instruments, real estate, fixed deposits etc.) and different sectors (auto, textile, information

technology etc.). This kind of diversification may add to the stability of returns, for example during one period of time equities might under perform but bonds and money market instruments might do well enough to offset the effect of a slump in the equity markets. Similarly the information technology sector might be faring poorly but the auto and textile sectors might do well and may protect principal investment as well as help to meet return objectives.

Convenience

An investor can purchase or sell fund units directly from a fund, through a broker or a financial planner. The investor may opt for a Systematic Investment Plan or a Systematic Withdrawal Advantage Plan. In addition to this an investor receives account statements and portfolios of the schemes.

Liquidity

In Open-ended mutual funds, you can redeem all or part of your units any time you wish. Some schemes do have lock-in period where an investor cannot return the units until the completion of such a lock-in period.

Transparency

Open-ended mutual funds disclose their Net Asset Value daily ('NAV') and the entire portfolio monthly. This level of transparency, where the investor himself sees the underlying assets bought with his money, is unmatched by any other financial instrument. Thus the investor is in the know of the quality of the portfolio and can invest further or redeem depending on the kind of the portfolio that has been constructed by the investment manager.

Flexibility

Mutual funds offering multiple schemes allow investors to switch easily between various schemes.

This flexibility gives the investor a convenient way to change the mix of his portfolio over time.

Variety

Mutual funds offer a tremendous variety of schemes. This variety is benefited in two ways. First, it offers different types of schemes to investors with different needs and risk appetites; secondly, it offers an opportunity to an investor to invest sums across a variety of schemes, both debt and equity.

For example, an investor can invest his money in a Growth Fund (equity scheme) and Income Fund (debt scheme) depending on his risk appetite and thus create a balanced portfolio easily or simply just buy a Balanced Scheme.

Tax benefits

Any income distributed after March 31, 2002 will be subject to tax in the assessment of all Unit holders. However, as a measure of concession to Unit holders of open-ended equity oriented funds, income distributions for the year ending March 31, 2003, will be taxed at a concessional rate of 21.5%.

In case of Individuals and Hindu Undivided Families a deduction up to Rs.9,000 from the Total Income will be admissible in respect of income from investments specified in Section 80L, including income from Units of the Mutual Fund. Units of the schemes are not subject to Wealth-Tax and Gift-Tax.

Regulations

Securities Exchange Board of India, the mutual funds regulator has clearly defined rules, which govern mutual funds. These rules relate to the formation, administration and management of mutual funds and also prescribe disclosure and accounting requirements. Such a high level of regulation seeks to protect the interest of investors.

SEBI REGULATIONS REGARDING CALCULATION AND PUBLICATION OF RETURNS BY MUTUAL FUND

In order to ensure uniformity and comparability across funds, SEBI has stipulated some norms for return data that is published by mutual funds. These are:

- Only standard methods of computing returns can be used by mutual funds, these include measures like annual dividend on face value annual yield on purchase price, and annual compounded rate of return.
- For return of periods less than a year returns can be shown only on absolute basis the returns cannot be annualized. However a liquid fund can annualize returns provided the returns are not misleading.
- For returns of periods more than year CAGR has to be used
- Return calculations for funds with payouts should assume that dividends are reinvested at the ex-dividend NAV
- Every mutual fund should highlight CAGR for the past 1,3 and 5 years of the scheme or since inception, whichever is lower

Classification of markets:-

Markets can be classified based on the turnover

- | | |
|----------------|---|
| 1) Large Cap = | Market capitalization above 1500 crores |
| 2) Mid Cap = | between 250-1500 crores |
| 3) Small Cap = | below 250 crores |

Net Asset Value:-

The net asset value is the actual value of a share or unit on any business day. It is computed as follows:

$$\text{NAV} = (\text{Market value of the funds investment} + \text{Receivable} + \text{Accrued income} - \text{Liabilities} - \text{Accrued expenses}) / \text{Number of share or Units outstanding}$$

Structure of Indian Mutual Fund

In developed countries like UK and the US, the mutual fund industry is highly regulated with a view to imparting operational transparency and protecting the investor's interests. Since there is a clear distinction between open ended schemes and close ended schemes, usually two different types of structural and management approaches are followed. Open ended funds (unit trusts) in the UK follow the trust approach), while close ended schemes follow the 'corporate approach' the management and operations of the two types of the funds are there fore guided by separate regulatory mechanisms and the rules are laid down by separate regulatory mechanisms, and rules are laid down by separate controlling authorities. However, no such distinctions exist in Indian and both approaches trust and corporate have been integrated by SEBI.

The formation and operations of mutual funds in Indian are guided solely by the SEBI regulations (for details of the Securities and Exchange Board of India Mutual Funds) regulations, 2009, see appendix.

Give us an idea pf the structure of Indian mutual funds. A mutual fund comprises four separate entities –sponsor, mutual trust, AMC and custodian. These are, of course, assisted by other independent administrative entities, such as banks, registrars and transfer agents. We may discuss in brief the formation of different entities, their functions and obligations.

TYPES OF MUTUAL FUND SCHEMES

Types of Mutual Fund Schemes

By structure

BY STRUCTURE

Open-Ended scheme
Close-Ended scheme
Interval scheme

BY INVESTMENT

Growth schemes
Income schemes
Balanced schemes
Money
Marketscheme

OTHER SCHEMES

Tax saving schemes
Special saving
schemes
Index schemes
Sector specific

By investment objective

- Growth schemes
- Income schemes
- Balanced schemes
- Money market schemes

Other schemes

- Tax saving schemes
- Special saving schemes
- Index schemes
- Sector specific schemes

Schemes according to Structure

A mutual fund scheme can be classified into open-ended scheme or close-ended scheme depending on its maturity period.

Open-Ended Fund/Scheme

An open-ended fund or scheme is one that is available for subscription and repurchase on a continuous basis. These schemes do not have a fixed maturity period. Investors can conveniently buy and sell units at Net Asset Value NAV related prices, which are declared on a daily basis. The key feature of open-ended scheme is liquidity.

Close-Ended Fund/Scheme

A close-ended fund or scheme has a stipulated maturity period e.g. 5-7 years. The fund is given an option of selling back the units to the mutual fund through periodic repurchase at NAV related prices. SEBI Regulations stipulate that at least one of the two exit routes is provided to the investor i.e. either purchase facility or through listing on stock exchanges. These mutual funds schemes disclose NAV generally on weekly basis, open for subscription only during a specified period at the time of launch of the scheme. Investors can invest in the scheme at the time of the initial public issue and thereafter they can buy or sell the units of the scheme on the stock exchanges where the units are listed.

Key differences between close and open ended schemes

S.NO	Feature	Open end	Close end
1	Capitalization	Unlimited	Limited
2	Any time entry	Yes	No
3	Any time exit	Yes	No
4	Tax advantages	Yes	No
5	Listed on exchange	Generally no	Yes
6	Available for a fixed mutual fund	No	Yes

Schemes according to the Investment Objective

A scheme can also be classified as growth scheme, income scheme, or balanced scheme considering its investment objective. Such schemes may be open-ended or close-ended schemes as described earlier. Such schemes may be classified mainly as follows.

Growth /Equity Oriented Scheme

The aim of growth funds is to provide capital appreciation over the medium to long term. Such schemes normally invest a major part of their corpus in equities. Such funds have comparatively high risks. These schemes provide different options to the investors like dividend option, capital appreciation, etc. and the investors may choose an option depending on their preferences. The investors must indicate the option in the application form. The mutual funds also allow the investors to change the options at a later date. Growth schemes are good for investors having a long term outlook seeking appreciation over a period of time.

Income / Debt Oriented Scheme

The aim of income funds is to provide regular and steady income to investors. Such schemes generally invest in fixed income securities such as bonds, corporate debentures, Government securities and money market instruments. Such funds are less risky compared to equity schemes. These funds are not affected because of fluctuations in equity markets. However, opportunities of capital appreciation are also limited in such funds. The NAVs of such funds are affected because of change in interest rates in the country. If the interest rates fall, NAVs of such funds are likely to increase in the short run and vice versa. However, long term investors may not bother about these fluctuations.

Balanced Fund

The aim of balanced fund is to provide both growth and regular income as such schemes invest both in equities and fixed income securities in the proportion indicated in their offer documents. These are appropriate for investors looking for moderate growth. They generally invest 40-60% in equity and debt instruments. These funds are also affected because of fluctuations in share prices in the stock markets. However, NAVs of such funds are likely to be less volatile compared to pure equity funds.

Money Market of Liquid Fund

These funds are also income funds and their aim is to provide easy liquidity, preservation of capital and moderate income. These schemes invest exclusively in safer short-term instruments such as treasury bills, certificates of deposits, commercial papers and inter-bank call money, government securities, etc. Returns on these schemes fluctuate much less compared to other funds. These funds are appropriate for corporate and individual investors as a means to park their surplus funds for short periods.

Gilt Fund

These funds invest exclusively in government securities. Government securities have no default risk. NAVs of these schemes also fluctuate due to change in interest rates and other economic factors as are the case with income or debt oriented schemes.

Index Fund

Index Funds replicate the portfolio of a particular index such as the BSE Sensitive Index, S&P NSE 50 Index (Nifty), etc. These schemes invest in the securities in the same weight age comprising of an index. NAVs of such schemes would rise or fall in accordance with the rise or fall in the index, though not exactly by the same percentage due to some factors known as 'tracking error' in technical terms. Necessary disclosures in this regard are made in the offer document of the mutual fund scheme. There are also exchange traded index funds launched by the mutual funds, which are traded on the stock exchanges.

Sector Specific Fund / Schemes

These are the funds/schemes, which invest in the securities of only those sectors or industries as specified in the offer documents. e.g. Pharmaceuticals, Software, Fast Moving Consumer Goods (FMCG), Petroleum stocks, etc. The returns in these funds are dependent on the performance of the respective sectors/industries. While these funds may give higher returns, they are more risky compared to diversified funds. Investors need to keep a watch on the performance of those sectors/industries and must exit at an appropriate time. They may also seek advice of an expert.

Tax Saving Scheme

These schemes offer tax rebates to the investors under specific provisions of the Income Tax Act, 1961 as the Government offers tax incentives for investment in specified avenues. e.g. Equity Linked Savings Schemes (ELSS). Pension schemes launched by the mutual funds also offer tax

benefits. These schemes are growth oriented and invest pre-dominantly in equities. Their growth opportunities and risks associated are like any equity- oriented scheme.

Fund of Funds (FoF) Scheme

A scheme that invests primarily in other schemes of the same mutual fund or other mutual funds is known as a FoF scheme. A FoF scheme enables the investors to achieve greater diversification through one scheme. It spreads risks across a greater universe.

Load or no-load Fund

A Load Fund is one that charges a percentage of NAV for entry or exit. That is, each time one buys or sells units in the fund, a charge will be payable. This charge is used by the mutual fund for marketing and distribution expenses. Suppose the NAV per unit is Rs.21.21 and those who offer their units for repurchase to the mutual fund will get only Rs.9.90 per unit. The investor should take the loads into consideration while making investment these affects their yields/returns. However, the investors should also consider the performance track record and service standards of the mutual fund, which are more important. Efficient funds may give higher returns in spite of loads.

A no-load fund is one that does not charge for entry or exit. It means the investors can enter the fund/scheme at NAV and no additional charges are payable on purchase or sale of units.

Mutual Funds cannot increase the load beyond the level mentioned in the offer document. Any change in the load will be applicable only to prospective investments and not to the original investments. In case of imposition of fresh loads or increase in existing loads, the mutual funds are required to amend their offer documents so that the new investors are aware of loads at the time of investments.

Assured return scheme

Assured return schemes are those schemes that assure a specific return to the unit holders irrespective of performance of the scheme.

A scheme cannot promise returns unless such returns are fully guaranteed by the sponsor or AMC and this required to be disclosed in the offer document.

Investors should carefully read the offer document whether return is assured for the entire period of the scheme or only for a certain period. Some schemes assure returns one year at a time and they review and change it at the beginning of the next year.

Asset allocation funds

These funds invest in various asset classes including, but not limited to, equities, fixed income securities, and money market instruments. They seek high total return by maintaining precise weightings in asset classes. Global asset allocation funds invest in a mix of equity and debt securities issued worldwide.

Flexible portfolio fund

These funds invest in common stocks, bonds, other debt securities, and money market securities to provide high total return. These funds may invest up to 210 percent in any one type of security and may easily change weightings depending upon market conditions.

High yield funds

These funds invest two-thirds or more of their in lower rated U.S. Corporate bonds. World bond funds invest in debt securities offered by foreign companies and governments. They seek the highest level of current income available worldwide.

OBJECTIVES OF EQUITY FUNDS

Capital appreciation funds seek capital appreciation; dividends are not a primary consideration

- Aggressive growth funds invest primarily in common stocks or small growth companies.
- Growth funds invest primarily in common stock or well-established companies.
- Sector funds investment primarily in companies in related fields.

Total return funds seek a combination of current income and capital appreciation.

- Growth and income funds invest primarily in common stocks of established companies with a potential for growth and a consistent record of dividend payments.
- Income equity funds invest primarily in equity securities of companies with consistent record of dividend payment they seek income more than capital appreciation.

World equity funds invest primarily in stocks of foreign companies.

- Emerging market funds invest primarily in companies based in developing regions of the world.
- Global equity funds invest primarily in equity securities traded worldwide, including those of U.S. companies.
- International equity funds invest primarily in equity securities of companies located outside the United States.

- Regional equity funds invest in companies based in a specific part of the world.

Asset allocation

Considering the market trends, any prudent fund managers can change the asset allocation i.e. he can invest higher or lower percentage of the fund in equity or debt instruments compared to what is disclosed in the offer document. It can be done on a short term basis on defensive considerations i.e. to protect the NAV. Hence the fund managers are allowed certain flexibility in altering the asset allocation considering the interest of the investors. In case the mutual fund wants to change the asset allocation on a permanent basis, they are required to inform the unit holders and giving them option to exit the scheme at prevailing NAV without any load.

DIFFERENT TYPES OF RISKS

The Risk-Return Trade-off

The most important relationship to understand is the risk-return trade off. Higher the risk greater the return/loss and lower the risk and lesser the return/loss.

Hence it is up to the investor to decide how much risk he is willing to take. In order to do this one must first be aware of the different types of risks involved with investment decision.

Market Risk

Sometimes prices and yields of all securities rise and fall, broad outside influences affecting the market in general lead to this. This is true, may it be big corporations or smaller mid-sized

companies. This is known as Market Risk. A Systematic Investment Plan that works on the concept of Rupee Cost Averaging might help mitigate this risk.

Credit Risk

The debt servicing ability may it be interest payments or repayment of principal of a company through its cash flows determines the Credit Risk faced by you. This credit risk is measured by independent rating agencies like CRISIL who rate companies and their paper. A 'AAA' rating is considered the safest whereas a 'D' rating is considered poor credit quality. A well-diversified portfolio might help mitigate this risk.

Inflation Risk

Inflation is the loss of purchasing power over time. A lot of times people make conservative investment decisions to protect their capital but end up with a sum of money that can buy less than what the principal could at the time of the investment. This happens when inflation grows faster than the return on investment. A well-diversified portfolio with some investment in equities might help mitigate this risk.

Interest Rate Risk

In a free market economy interest rates are difficult if not impossible to predict. Changes in interest rates affect the prices of bonds as well as equities. If interest rates rise the prices of bonds fall and vice versa. Equity might be negatively affected as well in a rising interest rate environment. A well-diversified portfolio might help mitigate this risk.

Political/Government Policy Risk

Changes in government policy and political decision can change the investment environment. They can create a favorable environment for investment or vice versa.

Liquidity Risk

Liquidity risk arises when it becomes difficult to sell the securities that one has purchased. Liquidity Risk can be partly mitigated by diversification, staggering of maturities as well as internal risk controls that lean towards purchase of liquid securities.

Factors

- Mutual Funds and securities investments are subject to market risks and there can be no assurance that the objectives of the Mutual Fund will be achieved.
- As with any investments in securities, the NAV of the units issued under the scheme can go up or down depending on the factors and forces affecting capital markets.
- Past performance of the Sponsor/Investment Manager/Mutual Fund does not indicate the future performance of the Scheme and may not necessarily provide a basis of comparison with other investments.
- The name of the scheme does not in any manner, indicate either the equity of the Scheme or its future prospects or returns.
- The sponsors are not responsible for any loss resulting from the operation of the scheme beyond the initial contribution of Rs. 1, 00,000 towards setting up the Mutual Fund.
- The Mutual Fund is not guaranteeing or assuring any monthly/quarterly dividend or returns. The Mutual Fund is also not assuring that it will make monthly/quarterly dividend distributions, though it has every intention of doing so. All dividend distributions are subject to the investments performance of the scheme.
- Trading volumes and settlement periods inherently restricts the liquidity of the Scheme's investments. In the event of an inordinately large number of redemptions or of

a restructuring of the Scheme's investment portfolio, there may be delays in the redemption of units. Please refer section 'Extraordinary Circumstances' and 'Risk factors and special considerations'.

- Changes in government policy in general and changes in tax benefits applicable to mutual funds may impact the returns to investors in the scheme.
- The NAVs may be affected by changes in the general market conditions, factors and forces affecting capital market in particular, level of interest rates, various market related factors, settlement periods and transfer procedures.

The Scheme may also invest in ADRs / GDRs as permitted by Reserve Bank of India and Securities and Exchange Board of India. To the extent that some part of the assets of the Scheme may be invested in securities denominated in foreign currencies, the Indian Rupee equivalent of the net assets, distributions and income may be adversely affected by the changes in the value of certain foreign currencies relative to the Indian Rupee. The repatriation of capital also may be hampered by changes in regulations concerning exchange controls or political circumstances as well as the application to it of other restrictions on investment.

A Unit holder may invest in the scheme and acquire a substantial portion of the scheme units. The repurchase of units by the Unit holder may have an adverse impact on the units of scheme, because the timing of such repurchase may impact the ability of other Unit holder to repurchase their units.

NET ASSET VALUE

A unit is a basic measure of investment in a mutual fund. Each scheme or plan will have different market values depending on the market value of the underlying asset it has invested in. this value is called net asset value. Similarly market value of underlying asset changes everyday, net asset value also varies on day-to-day basis.

NAV is computed using a formula: $(\text{Total assets} - \text{liabilities}) / \text{No. of assets}$. Suppose investing 2100 rupees in a plan X that has NAV of 21 rupees, then the units would be 210.

PUBLIC OFFER PRICE

Units multiplied by latest NAV gives the market value. But in some cases / for some schemes it is not applicable straightly. Maintenance of a scheme and servicing investors come at a cost to Asset Management Company. This is particularly more in case of select schemes which have additional overheads. For such schemes investors will have to pay extra premium called Load. This load can be either the time of investment called Entry load or at the time of redemption Exit load or both.

The entry load / exit load is normally between 1 to 3%

With both together is can't be more than 7%

NAV plus or minus load is called Public Offer Price.

$$\text{POP} = \text{NAV} * (1 \pm \text{load}).$$

For a subscription:

NAV of a scheme X	Rs. 21	
Entry load	2%	
POP	Rs. 21.20	$[21*(1+0.02)]$
Amount invested	Rs. 21,000	

Units allotted	980.392	$[21,000 / 21.20]$
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For Redemption:

NAV of a scheme X	Rs. 21	
Entry load	2%	
POP	Rs. 9.8	$[21*(1-0.02)]$
Amount invested	Rs. 21,000	
Units allotted	2120.408	$[21000 / 9.8]$

Units are computed and denoted with a decimal precision.

In addition to the standard load structure mentioned above, some schemes can have more complex load structures often based on investment slabs, duration of investment etc. As a general rule, as the investment value goes up, the load percentage tends to zero.

SERVICE STANDARD

Checks at the bank are compelled to complete the transaction in the timelines mentioned. This compulsion to complete transactions within timeliness is called service standard.

Similarly mutual funds also have service standards too.

It is usually measured as $T + n$

List of general service standards

Transaction	Service standard
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New purchases	T+1
Additional purchases	T+1
Redemption in a liquid plan	T day
Redemptions in non-liquid plan	T+1
Switches	T+1
Non commercial transaction	T+2
Dividends	T+5

ROLE OF A REGISTRAR

Primary role of a registrar in a mutual fund is to provide back office functions and provide an accurate and timely service to investors, distributors and asset management companies. Processing the following transactions is the main job of a registrar.

Commercial transactions

- Noncommercial transactions
- Special products
- Special product features
- Dividends
- Brokerage
- Banking reconciliation
- Daily reporting to AMC
- Various data feeds to bank, distributors.

MEASURING MUTUAL FUND PERFORMANCE

The investor would be interested in tracking the value of his investments, whether investing directly in the markets or indirectly through mutual funds. The investor would have to make intelligent decisions whether to get an acceptable return on the investments in the funds selected or to switch to another fund. The investor therefore needs to understand the basis of performance measurement for the fund and acquire the basic knowledge of the different measures of evaluating the performance of a fund. Only then investor would be in a position to judge correctly whether the fund is performing well or not, and make right decisions.

DIFFERENT PERFORMANCE MEASURES

There are many measures of fund performance depending on the type of fund, the stated investment objective of the fund and depending on the current financial conditions.

CHANGE IN NAV – The Most Common Measure:

Purpose: If investors want to compute the return on investment between the two dates, use the Per Unit Asset Value at the beginning and the end periods, and the change in the value of the NAV between the two dates in the absolute and percentage terms.

Formula: For NAV change in absolute terms:

$(\text{NAV at the end of the period}) - (\text{NAV at the beginning of the period}).$

For NAV Change in percentage terms:

$(\text{Absolute change in NAV} / \text{NAV at the beginning}) * 100$

If period covered is less / more than one year: For annualized NAV change:

$\{[(\text{Absolute change in NAV at the beginning}) \text{ months covered}] * 12\} * 100$

Suitability: Investors to evaluate fund performance mostly use NAV change, and the advantage of this measure is that it is easily understood and applies to virtually any type of fund.

Interpretation: Whether the return in terms of NAV growth is sufficient or not should be interpreted in light of the investment objective of the fund, current market conditions and alternative investment returns. Thus, long-term growth fund or infrastructure fund will give low returns in the initial years. All equity funds may give lower returns when the markets are in a bearish phase. Debt funds may give lower returns when interest rates are rising.

Limitations: This measure does not always give the correct picture, in cases where the fund has distributed to investors a significant amount of dividend in the interim period. Therefore it is suitable for evaluating growth funds and accumulation plans of debt and equity funds, but should be avoided for income funds and funds with withdrawal plans.

TOTAL RETURN:

Purpose: This measure corrects the shortcoming of the NAV change, by taking account of the dividends distributed by the fund between the two NAV dates, and adding them to NAV change to arrive at the total return.

Formula: Total returns is: $[(\text{Distributions} + \text{change in NAV}) / \text{NAV at the beginning of the period}] \times 210$

Suitability: Total return is a measure suitable for all types of funds. Performance of different types of funds can be compared on the basis of total return. Thus, during a given period, find out whether a debt fund gave better returns than an equity fund. It is also more accurate than simple NAV change, because it takes in to account distributions during the period. While using total returns, performance must be interpreted in the light of market conditions and investment objective of the fund.

Limitations: Although more accurate than NAV change, simple total returns as calculated is still inadequate as a performance measure, because it ignores the fact that distributed dividends also get

reinvested if received during the year. The investor's total return should take account of reinvestment of interim dividends.

RETURN ON INVESTMENT OR TOTAL RETURN WITH DIVIDENDS REINVESTED AT NAV

Purpose: The shortcoming of the simple total return is overcome by computing the total return with reinvestment of dividends in the fund itself at the NAV on the date of distribution (ex-dividend date). The appropriate measure of the growth of a investor's mutual fund holdings is, therefore the return on investment on accumulative basis over a certain time period. Total return with reinvestment is such a measure of cumulative wealth accumulation, and the same as ROI.

Formula: Total return on investment:

$$[\{(Units\ held + div/ex-div\ NAV) * end\ NAV\} - begin\ NAV] / begin\ NAV * 210$$

Suitability: Total return with distributions reinvested at NAV is a measure accepted by mutual fund tracking agencies such as Credence in Mumbai and Value research in New Delhi. It is appropriate for measuring performance of accumulation plans, monthly / quarterly income schemes and debt funds that distribute interim dividends.

Cumulative aggregate vs. Average annualized returns:

Purpose: While deploying any of the measure described above, it must be remembered that absolute NAVs do not give a complete picture and that consistent performance with respect to total return and compounded annual return is of paramount importance.

Many mutual fund schemes, notably from Unit Trust of India, are based on cumulative returns over a long time period, e.g. Children's Gift Growth Fund or Rajalaxmi Fund. When an investor receives a cumulative figure at the end of a long period, care should be taken to compute an

annualized average compounded rate of return from the cumulative. Many mutual funds present schemes with cumulative growth option or with dividend option. Comparison between two such schemes is possible only after the cumulative returns are into average annualized returns.

Formula: To convert cumulative return to average annualized return:

The maturity value of an original investment will be:

$A = P(1 + R/210)^N$, P=principal A=maturity value of investment, N=period of investment in years,
R=annualized compounded rate in %

The growth in maturity value can be converted to average annualized return as follows:

$$R = [(N\text{th root of } A/P)]^{210} - 1$$

EFFECT OF LOADS

The principal amount invested will be lower if there is an entry load charged by the fund. Therefore investor's return on amount invested has to be reduced by the initial load paid.

There would be two ways of accounting for the load. One would be to reduce the compound rate of return by load % number of years.

A second and more accurate approach would be to reduce the % cumulative NAV growth figure by the entry load paid.

Compare the same time periods

While computing these total returns, it is imperative to use the performance data over the same time periods for two different funds being compared, as returns over different periods vary due to market conditions prevalent then. This means only those funds for which performance data are available during a given period for both of the funds being compared.

Less than one year periods

If the fund performance data relates to a period of one less than one year, it should be annualized, except for money market mutual funds which have a short investment horizon.

Returns since inception

SEBI requires return to be computed since the inception of a scheme, using Rs.21 as the base amount. This method is correct as it is applied to no-load funds. Otherwise an adjustment for the loads paid has to be made as described above.

EXPENSE RATIO

Purpose: The expense ratio is an indicator of the funds efficiency and cost effectiveness.

Formula: It is defined as the ratio of total expenses to average net assets of the fund.

Suitability: SEBI Regulations regulate this aspect for funds in India, and it is important that brokerage commissions on the funds transactions are not included in the fund expenses figure while computing this ratio. The expense ratio is most important in case of Bond Fund or Debt Funds performance can be adversely affected if a larger proportion of it as income is spent on expenses.

Limitations: Though an important yardstick, fluctuations in the ratio across periods require that an average over three to five years be used to judge a fund's performance. Also, the expense ratio must be evaluated in the light of fund size, average account size and portfolio composition – equity or fixed income.

INCOME RATIO

Formula: A fund's income ratio is defined as its net investment income divided by its net assets for the period.

Purpose/Suitability: This ratio is a useful measure for evaluating income-oriented funds particularly debt-oriented funds. It is not recommended for funds that concentrate primarily on capital appreciation.

Limitation: The income ratio cannot be considered in isolation; it should be used only to supplement the analysis based on the expense ratio and total return.

PORTFOLIOS TURN OVER RATE

Formula: Portfolio turn over rate measures the amount of buying and selling of securities done by a fund. It defined as the lesser of assets purchased or sold divided by the fund's net assets.

Purpose: The ratio measures how many times the fund manager turns over his port folio by buying or selling or securities in the market. A 210% turnover implies that the manager replaced his entire portfolio during the period in question.

Interpretation: This percentage is a good indicator of the extent to which the fund is active in terms of its dealing on the market. However, high turn over ratio also indicates high transaction costs charged to the fund. The net return to the investor can be lower with high transaction costs.

Suitability: Turnover ratios would be most relevant to analyze in case of equity and balanced funds, particularly those that derive a large part of their income from active trading. However, it would not be appropriate for equity funds with a value – based, long term investment philosophy, or even a growth fund.

Limitation: However, as a performance measure, this ratio is meaningful only when evaluated against the backdrop of the fund's investment objectives, and in terms of its ability to perform well on a consistent basis. High turn over rate does not necessarily indicate greater efficiency, and must be seen in relation to the total return of the investor. It is not meaningful to use the turn over rate for newly launched schemes that are not fully invested. In the Indian context, only the securities market turnover should be considered, excluding the call money operations.

TRANSACTIONAL COSTS

Definition:

Transactional costs include all expenses related to trading such as the brokerage commissions paid, stamp duty on transfers, registrar's fees and custodian's fees. Brokerage commissions are an important component of transaction costs. These are quantified in the prospectus. In addition, transaction costs include the so called "dealer spreads". All securities usually have a bid and an offer price. The fund sells securities at the bid price and buys them at the offer price. The offer price is usually higher than the bid price and the difference is the dealer spread, representing a cost to the fund investors. This spread may be further magnified as a security is thinly traded and the fund wants to buy/sell a large quantity quickly.

Suitability: Transaction has a significant bearing on fund performance and the total return. Funds with small size, or small returns, have to be judged on their expense ratios and transaction costs, given their impact on total return.

Limitation: While other costs are detailed in the fund prospectus or annual reports, dealer spreads are difficult to quantify or document.

FUND SIZE

Fund size can affect performance. Small funds are easier to maneuver and can achieve their objectives in a focused manner with limited holdings. Large funds benefit from economies of scale with lower expense ratios and superior fund management skills. They also gain through greater risk bearing and management capacity. There can be no definition of what a small fund and what a big fund, as small and big are relative terms. But, simply comparing the corpus or two or more funds helps get a good fix on size.

CASH HOLDINGS

Definition: Mutual funds allocate their assets among equity shares, debt securities and cash/bank deposits. The percentage of a fund portfolio held in cash equivalents can be important element in its successful performance.

Interpretation: Large cash holdings allow the fund to strength its position in preferred securities without liquidating its other portfolios. Cash also allows the fund a cushion against decline in the market prices or bonds. The fund must also guard against large, consistent net redemptions, because these not only indicate dissatisfaction on the part of investors, but also force the fund to maintain large cash reserves lowering the return on the portfolio. It becomes difficult for the fund to attain its objectives in such a situation.

BORROWING BY MUTUAL FUNDS

There are hedge funds that seek to enhance per unit earnings by borrowings, thereby enhancing their fund size or corpus. The strategy holds well when interest costs is not very high and fund performance is good. However if interest rates rise unexpectedly, or the value of the portfolio declines significantly, the fund must reduce its dependence on debt quickly.

In general, in India, mutual funds are not allowed to borrow to increase their corpus. SEBI Regulations allow mutual funds to borrow only for the purpose of meeting temporary needs for a period not exceeding six months, and to the extent of 20% of it net assets. Hence it would be uncommon to see fund schemes with borrowings on their balance sheets, and if borrowings are seen, caution may need to exercise in evaluating the fund performance.

EVALUATING FUND PERFORMANCE

Importance of Benching in Evaluating Performance

The measures described earlier are absolute, meaning that none of the measures should be used to evaluate the fund performance in isolation. A fund's performance can only be judged in relation to investor's expectations. However, it is important for the investor to define his expectations in relation to certain "guide posts" on what is possible to achieve, or moderate his expectations with realistic investment alternatives available to him in the financial markets. These guideposts or indicators of performance can be thought of as benchmarks against which a fund's performance ought to be judged. For example, an investor's expectations or returns from an equity fund should be judged against how the overall stock market performed, in other words how much the stock market index itself moved up or down, and whether the fund gave a return that was better or worse than the index movement. In this example, we can use a market index like S&P CNX Nifty or BSE SENSEX as "benchmarks" to evaluate our investor's mutual fund performance.

While an advisor needs to look at the absolute measures of performance, he needs to select the right benchmark to evaluate a fund's performance, so that he can compare the measured performance figures against the selected benchmark. How do we select the right benchmark to evaluate a given fund's performance?

Historically in India, investor's only options were UTI schemes or bank deposits. UTI itself tended to "benchmark" its returns against what interest rates were available on bank deposits of 3/5-year maturity. Thus, for long period, US 64 scheme dividends were compared to bank interest rate and investors would be happy if the dividend yield on US 64 units was greater than comparable

deposit interest rate. Thus, investors in Indian mutual funds tend to routinely compare increasing investment options in the market, bank interest rates should not be used to judge a mutual fund performance in all cases. Let us therefore take a look at how to choose the correct benchmarks of mutual fund performance.

Basis of choosing an appropriate performance benchmark:

Appropriate benchmark for any fund has to be selected by reference to:

1. The asset class it invests in thus, an equity fund has to be judged by an appropriate benchmark from the equity markets, a debt fund performance against a debt market benchmark and so on; and
2. The fund's stated investment objective. For example, if a fund invests in long-term growth stocks, its performance ought to be evaluated against a benchmark that captures growth stocks performance.

BENCHMARKING RELATIVE TO THE MARKET – EQUITY INDEX

Index funds-a base index:

If an investor to choose an equity index fund, now being offered in India, he can expect to get the same return on his investments as the return on the equity index used by the fund as its benchmark, called the base index, this is a passive investment style. The fund would invest in the index costs. And expect its NAV changes to mirror the changes in the index itself. The fund and therefore the investor would not expect to beat the benchmark, but merely earn the same return as the index.

In the case of index funds, then, the benchmark is clear and pre-specified by the fund manager in advance. For example, IDBI mutual fund's index fund is based on and will track the S&P CNX Nifty index, while UTI'S fund is based on BSE SENSEX Index.

Tracking error:

In order to obtain the same returns as the index, an index fund invests in all of the stocks include in the index calculation, in the same proportion as the stocks weight age in the index an index fund's actual return may, however, be better or worse by what is called "tracking error" the tracking error arises from the practical difficulties faces by the fund manager in trying to always buy or sell stocks to remain in line with the weight age that the stocks enjoy in the index.

Active equity index:

An index Fund is passively managed, to track a given index. However, the fund manager actively manages most of the other equity funds/schemes. If an investor holds such an actively managed equity fund, the fund manager would not specify in advance the benchmark to evaluate his expected performance as in case of an index fund. However, the investor still needs to know whether the fund performance is good or bad. To evaluate the performance of an equity fund, therefore we still need to select an appropriate benchmark and compare its returns to the returns on benchmark: usually this means using the appropriate market index. The appropriate index to be used to evaluate a broad-based equity fund should be decided on the basis of the size and the composition of the fund's portfolio.

If the fund in question has a large portfolio, a broader market index like BSE 210 OR 200 OR NSE 210 may have to be used as the benchmark rather than beat the index, in other words give higher returns than the index itself.

Somewhat like the index funds, the choice of the benchmarks in case of sector fund is easier. Clearly, for example, an investor in InfoTech or Pharma sector funds if such an index exists. In other words, the choice of the correct equity indexes as a benchmark also depends upon the investment objective of the fund, the performance of a small cap funds has to be compared with a small cap index. A growth fund investing in new growth sectors but it is diversified in many sectors can only

be judged against the appropriate growth index if available. If not, the returns can only be compared to either a broad based index or a combined set of sectoral indices.

Choosing market benchmarks in practice:

The best alternative in practice for the investor and his advisor is to rely on the expert performance tracking agency reports and analyses, since the choice of appropriate benchmark can become a difficult technical exercise.

In India, benchmarking for retail investors is done using a menu of indices in combination. Agencies such as credence prefer the BSE200 because of its broad-based nature. For sector funds, the S&P CNX Sectoral indices have been preferred. Choice of an appropriate index from the ones available is critical. The investor or his advisor would do well to refer to India Index Services Limited for more details of the indices available and the past performance data, similar information can be obtained from the Index Services Division of the BSE or other exchanges.

DEBT FUNDS

As we have seen, historically investors have used bank deposit interest rates as benchmark to judge the performance of debt funds. However a debt fund's performance ought to be judged against the equity market index. Further, for debt funds the kind of debt that comprises the portfolio will also decide the index to be used. If the bond fund in question is abroad based one, and then a broad-based debt index has to be used for this purpose. If the debt fund is a narrower.

Government Securities Fund, for example, then only the govt.sec. sub segment of the broad based index has to be used as the appropriate benchmark. Investors in India commonly do performance of closed end debt funds with a clear period of maturity however may be compared with bank deposits of comparable maturity, as.

In practice, no appropriate debt index is available in India, to be used for benchmarking debt funds. Some analysts often use I-SEC'S I-BEX index, and its govt. securities sub segment can be used as benchmark to judge govt.sec.funds. In any case, any benchmark for a debt must have the same portfolio composition and the same maturity profile as the fund itself, to be comparable.

RISK OF MUTUAL FUND PORTFOLIO

Pursuing greater than average return generally means assuming high risk. Since investment risk is defined as variability of investment return, portfolios with above-average return potential are subject to above average swing in value relating to stock market as a whole. These portfolios beat the market, far behind when rising, but drop faster than the market fall. The risk taking investors tend to re-structure their portfolio in a manner that the constituent of growth securities is increased to an unproportionate level, forgetting that market would dip suddenly.

Risks in mutual fund holdings:

For diversified portfolios, such as common stock mutual funds, beta provides a useful index of investment risk. Simply stated, beta measures portfolio risk in relation to the rising of the market risk. The trade off between investment risk and investment return is known as the "capital market line". The upward sloping of this line represents the combinations of risk and return found in well-diversified portfolios of common stocks.

The return potential of a diversified common stock portfolio can be obtained by applying the following mathematical statement of the capital line, $\text{Portfolio Return} = \text{Risk Free Return} + \text{Beta} (\text{Market Return} - \text{Risk Free Return})$. The risk free rate of return is approximated by the yield on short-term treasury bills while the market return is usually taken as the total rate of return on the market index.

Beta measures how one security, or group of stocks, would likely to fare relatively to the stock market as a whole. A mutual fund where $\text{beta} = 1.0$ is most likely to go up or down as much as stock

market as a whole i.e. with the market movement, the portfolio of a mutual fund is perfectly co-related. One with a beta down more e.g. if $\beta = 1.6$, the movement of portfolio would go up and down by 60% more than the corresponding movement of the stock market. A beta lower than 1.0 tends to react less than the market reaction. A negative beta is the symbol of movement in opposite direction. If market grows upwards, then the portfolio movement would be downwards and vice-versa. Although beta cannot predict direction of the market-going upward or downward, stable, it is an excellent indicator of the responsiveness of a portfolio value, given changes in stock market as a whole.

RISK EXPOSURE

Many individual investors define investment success as 'beating the market', or in other words, earning above-average returns. But these investors often forget that they are pursuing greater than average risk also. Since investment risk is defined as variability of investment return, portfolio with above average return potential are subject to above average swings in value relative to the stock market as a whole.

These portfolios far-out pace the market when the market is rising but drop faster than the market when the market falls. However, when stock prices are rising, investors tend to forget about the negative aspects of holding a high-risk portfolio because they are 'beating the market'. In fact it has been found that as long as stock prices continue rise, investors tend to increase the risk of their portfolios in pursuit of greater and greater investment rewards. These investors are generally shaken by the size of their losses when the stock market takes a sudden dip.

An astute investment management requires that individuals continually monitor the riskiness of their investment portfolios'. They must periodically ask themselves if the current level of portfolio risk is consistent with their ability to weather sudden investment storms.

BETA-A MEASURE OF VOLATILITY

In market index beta is 1.0 and a money market mutual fund carries beta of '0' – since carries no market risk. In USA during October 1987 crash, low-beta companies emerged stronger. Some stocks may have high beta, not because they are high risk and high return stocks, rather being it thinly traded scrip of a unknown that reacts more sharply to any rumor or trip. Prices of an international stock is not correlated to domestic beta and simultaneously precious metals stocks and mutual funds which are not related to market index for them beta is meaningless.

A market index has always a beta of 1.00. A stock or a mutual fund that fluctuates 20% more than 'market index', is assigned a beta of 1.20. If one purchase a stock of high bets at low-end and sell at high and, earns profit, but certainly yes only when able to gauge up and down timely, since a high beta stock loses larger price when market is down and gains a more if the market is upward. An ideal fund of course, is one that performs well both in up and down market. For a government bond beta is extremely low 0.5 with practically no volatility. A prudent investor chooses a less volatile fund. The investor does not know when to sell investments and in bets is high in a downward market; the investor suffers a big capital loss.

A test of fund manager's ability lies in:

1. Lower the beta, and higher the fund's performance-better.
2. High is the beta and a stratospheric performance – does well.

ALPHA (A MEASURE OF RISK AND RETURN)

The relationship between a fund's beta and performance is called 'alpha'. The higher the alpha coefficient, the better but alpha 0 is always desirable. An alpha '0' indicates that fund has done what exactly was expected, given its volatility. The alpha coefficient is a statistical measure that indicates

the difference between the funds's actual return and what it should be, based on its beta coefficient and the market's actual return. This measure is also generally not appropriate for fixed income fund because of its dependence on the beta coefficient. A positive alpha means, fund managers have been successful at market timing and/or stock selection, that the mutual fund has earned larger than expected return at a systematic risk. The reverse is true for achieving a negative alpha. Some of the very best performing mutual funds have very high positive 'alpha' and worst performer's negative alpha.

R² (R-SQUARE), COEFFICIENT OF DETERMINATION

R-square is the measure of the fund's risks as related to the degree its diversification. More diversified is the fund, closer it comes to eliminating unique risk. R-square measures and indicates the proportion of the variations in the fund's return that is explained by variations in the market's returns. More diversified is the portfolio, able to eliminate unique risk and remains prone to systematic risk. This systematic risk is undiversifiable one.

If R-square is 210%, it means the portfolio is fully diversified to the extent of overall market.

If R-square = 210%, beta would be 1.0 conversely, when beta 1.0, R-square would be 210%.

If R-square is less than 210%, beta would be more than 1.0 i.e. fund suffers with unique risk as well systematic risk.

A long term, systematic high return earning portfolio would have high R-square and beta nearing to 1.00 or less than 1.00.

STANDARD DEVIATION

The standard deviation is a measure of funds 'total risk', both systematic and unique risks. The risk of any portfolio can be reduced by diversification. In R-square = 210% condition a portfolio is said to be fully diversified equivalent to market and carry only systematic risk not the unique one. The

standard deviation measures the dispersion of a fund's rate of return around its average return. This is done taking monthly average return over the last three years period. The longer is the standard deviation for a given average return, the larger the fund's total risk. Standard deviation is a recommended tool for measuring an income fund.

IMPORTANT MEASURES

TREYNOR'S MEASURE:

Treynor developed the first composite measure of portfolio performance that included risk. He postulated two components of risk:

1. Risk produced by general market fluctuations and
2. Risk resulting from unique fluctuations in the portfolio securities.

To identify risk due to market fluctuations, he introduced the characteristic line, which defines the relationship between the rates of return for portfolio overtime and the rates of return for an appropriate market portfolio. He noted that the characteristic line's slope measures the relative volatility of the portfolio's returns in relation to returns for the aggregate market and the slope is the portfolio's beta coefficient. A higher slope characterizes a portfolio that is more sensitive to market returns and that has greater market risk.

Deviations from the characteristic line indicate unique returns for the portfolio relative to the market. These differences arise from the returns on individual stocks in the portfolio. In a completely diversified portfolio, these unique returns for individual stocks should cancel out. As the correlation of the portfolio with the market increases, unique risk declines and diversification improves. Because Treynor was not concerned about this aspect of portfolio performance, he gave no further consideration to the diversification measure.

Treynor was interested in a measure of performance that would apply to all investors regardless of their risk preferences. Building on developments in capital market theory, he introduced a risk-free asset that could be combined with different portfolios to form a straight portfolio possibility line. He showed that relation risk – adverse investors would always prefer portfolio possibility lines with larger slopes because such high slope lines would place investors on higher indifference's curves. The slopes of this portfolio possibility line (designated T) is equal to

$$T = (R_i - R_{FR}) / \beta$$

Where:

R_i = the average rate of return for portfolio during a specified period of time.

R_{FR} = the average rate of return on a risk-free investment during the same time period.

β = the slope of the fund's characteristic line during that time period.

A large T value indicates a larger slope and a better portfolio for all investors. Because the numerator of this ratio ($R_i - R_{FR}$) is the risk premium and the denominator is a measure of risk, the total expression indicates the portfolio's risk premium return per unit of risk. All risk-averse investors would prefer to maximize this value. The risk variable beta measures systematic risk and tells us nothing about the diversification of the portfolio. It implicitly assumes a completely diversified portfolio, which means that systematic risk is the relevant risk measure.

Comparing a portfolio's T value to a similar measure for the market portfolio indicates whether the portfolio would plot above the SML. Calculate the T value for the aggregate market as follows:

$$T_m = (T_m - R_{FR}) / \beta_m$$

Very poor return performance or very good performance with very low risk may yield negative T values. An example of poor performance is a portfolio with both an average rate of return below the risk-free rate and a positive beta. So, a portfolio with negative beta and an average rate of return

would likewise have a negative T value. Because negative betas can yield T values that give confusing results, it is preferable either to plot the portfolio on an SML graph or to compute the expected return for the portfolio using the SML equation and then compare this expected return to the actual return. This comparison will reveal whether the actual return was above or below expectations.

$$\text{Expected return} = \text{RFR} + \text{Beta} (\text{R}_m - \text{RFR})$$

SHARPE'S MEASURE:

Sharpe likewise conceived of a composite measure to evaluate the performance of mutual funds. It is given as follows:

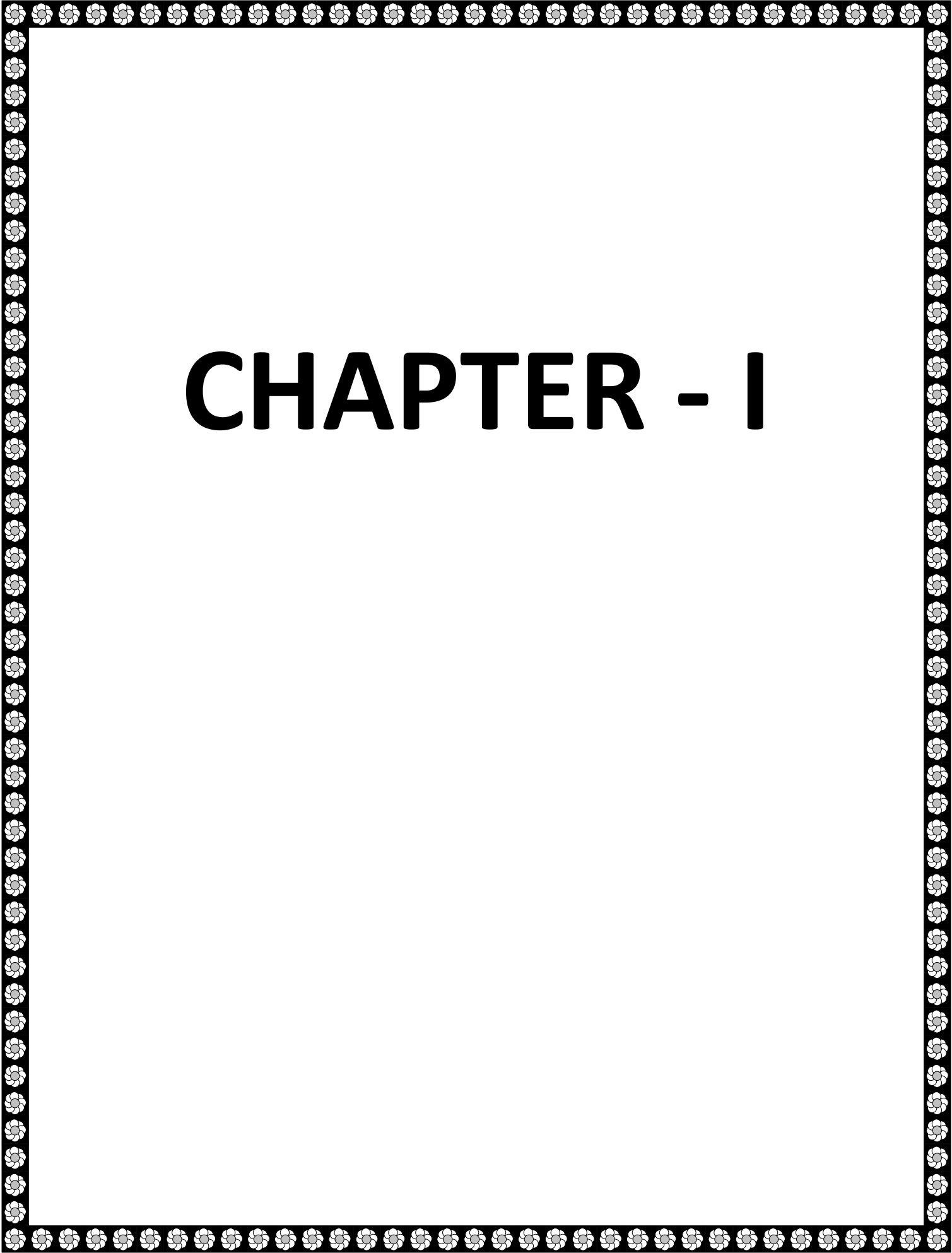
$$S_i = (\text{R}_i - \text{RFR}) / \text{S.D}_i$$

This measure seeks to measure the total risk of the portfolio by including the standard deviation of returns rather than considering only the systematic risk summarized by beta.

Because the numerator is the portfolio's risk premium, this measure indicates the risk premium return earned per unit of total risk. In terms of capital market theory, his portfolio performance measure uses total risk to compare portfolios to the CML. The standard deviation can be calculated using either total portfolio returns or portfolio returns in excess of the risk-free rate.

TREYNOR VERSUS SHARPE MEASURES:

For a completely diversified portfolio, one without any unsystematic risk, the two measures give identical rankings because the total variance of the completely diversified portfolio is its systematic variance. Alternatively, a poor diversified portfolio could have a high ranking on the basis of the Treynor measure but a much lower ranking on the basis of the Sharpe performance measure. Any difference in rank would come directly from a difference in diversification. Therefore, these two measures provide complementary yet different information, and both measures should be used. If dealing with a group of well-diversified portfolios, as many mutual funds are, the two measures provide similar rankings.

A decorative border consisting of a continuous line of small, stylized flowers. Each flower has a grey center and white petals, set against a black background. The border runs along all four edges of the page.

CHAPTER - I

DATA ANALYSIS

HDFC EQUITY FUND-GROWTH

Nature of Schemes: Open-ended equity schemes.

Whocaninvest: Ideal for people who are focused on long-term growth on their investment.

Investment Objective: To provide income distribution and/or medium to long-term capital gains while at all times emphasizing the importance of capital appreciation.

Investment Options:

- Growth
- Dividend

Minimum Application Amount: Rs: 5000/-

Date of Inception: December 08th 1994.

ASSET ALLOCATION

Instrument	Risk profile	%
Equities	High	98-210
Debentures	Low Medium	
Cash and Assets		

Calculation of Risk and Return of HDFC Equity Fund

Month	NAV'S	R	$r=(R-R')$	R2	Index	M	$m=(M-M')$	M2	RM
Jan'21	145.67	0	0	0	3933.40	0	0	0	0
Feb'21	154.96	6.37	3.02	9.12	4233.40	7.62	3.90	15.21	48.53
Mar'21	138.77	-21.44	-13.79	190.16	3761.65	-11.14	-14.86	220.81	116.30
Apr'21	141.04	1.63	-1.72	2.95	3843.50	2.17	-1.55	2.40	3.53
May'21	150.17	6.47	3.12	9.73	4077.00	6.07	2.35	5.52	39.27
Jun'21	157.92	5.16	1.81	3.27	4145.00	1.66	-2.06	4.24	8.56
Jul'21	167.91	6.32	2.97	8.82	4419.40	6.62	2.90	8.41	41.83
Aug'21	171.66	2.23	-1.12	1.25	4462.21	0.96	-2.76	7.61	2.14
Sep'21	172.11	0.26	-3.09	9.54	4509.50	1.06	-2.66	7.07	0.27
Oct'21	182.42	6.00	2.65	7.02	5085.1	12.76	9.04	81.72	76.56
Nov'21	201.74	21.60	7.25	52.56	5698.75	12.06	8.34	69.55	127.83
Dec'21	213.22	5.70	2.35	5.52	5974.30	4.83	1.11	1.23	27.53

Calculation of BETA

R'	3.58
M'	3.72
Standard deviation R	5.00
Standard deviation M	5.94
Co-variance r,m	1.38
BETA	1.16

TREYNOR MEASURE:= $(R_i - R_f) / \text{beta}$

$$= (3.58 - 0.679) / 1.16$$

$$= (5 - .695) / 1.61$$

$$= 1.80$$

Beta is calculated to know the risk associated with a particular fund. The market risk is basically denoted as 1.

This fund has a high risk that is BETA= which is high than the market risk=1. Hence this fund is risky.

From the above analysis one can say that the fund has generated a high return with a relatively risk compared to market risk return profile. By seeing the performance of the fund in the past year one could say that is performing well in the market.

HSBC EQUITY FUND – GROWTH

Nature of schemes: Open-ended equity schemes

Who can invest: Ideal for people who are focused on long-term growth on their investment.

Investment Objective: To provide income distribution and/or medium to long-term capital gains while at all times emphasizing the importance of capital appreciation.

Investment Options:

- Growth
- Dividend

Minimum Application Amount: 21,000/-

ASSET ALLOCATION

Instrument	Risk profile	%
Equities	High	82.30
Debentures	Low Medium	4.61
Cash and Assets	Low	13.08

Calculation of Risk and Return of HSBC EQUITY FUND

Month	NAV's	R	$r=R-\frac{R}{R'}$	R2	Index	M	$m=M-\frac{M}{M'}$	M2	RM
Jan'21	71.37	0	0	0	3933.40	0	0	0	0
Feb'21	75.37	5.60	1.6	2.56	4233.40	7.62	3.90	15.21	42.67
Mar'21	66.46	-	-	250.27	3761.65	-	-14.86	220.81	131.67

		11.82	15.82			11.14			
pr'21	66.56	0.15	-3.85	14.82	3843.50	2.17	-1.55	2.40	0.32
ay'21	71.39	7.25	3.25	21.56	4077.00	6.07	2.35	5.52	44.00
n'21	72.75	1.90	-2.1	4.41	4145.00	1.66	-2.06	4.24	3.15
l'21	78.15	7.46	3.46	11.97	4419.40	6.62	2.90	8.41	49.38
ug'21	80.37	2.84	-1.16	1.34	4462.21	0.96	-2.76	7.61	2.72
p'21	80.64	0.33	-3.67	13.46	4509.50	1.06	-2.66	7.07	0.34
ct'21	89.75	11.30	7.30	53.29	5085.21	12.76	9.04	81.72	144.18
ov'21	214.04	15.92	11.92	142.08	5698.75	12.06	8.34	69.55	191.99
ec'21	111.43	7.21	3.21	9.61	5974.30	4.83	1.11	1.23	34.29

Calculation of BETA

R'	4.00
M'	3.72
Standard deviation R	6.54
Standard deviation M	5.94
Co-variance r,m	1.38
BETA	1.51

$$\begin{aligned}\text{TREYNOR MEASURE} &:= (R_i - R_f) / \beta \\ &= (4.00 - 0.69) / 1.51 \\ &= 2.19.\end{aligned}$$

Beta is calculated to know the risk associated with a particular fund. The market risk is basically denoted as 1.

This fund has a high risk that is $\beta = 2.19$ which is high than the market risk $= 1$. Hence this fund is risky.

From the above analysis one can say that the fund has generated a high return with a same risk compared to market risk return profile. By seeing the performance of the fund in the past year one could say that it is performing well in the market.

UTI EQUITY FUND – GROWTH

Nature of schemes: Open-ended equity schemes

Who can invest: Ideal for people who are focused on long-term growth on their investment.

Investment Objective: to provide income distribution and/or medium to long-term capital gains while at all times emphasizing the importance of capital appreciation.

Investment options:

- Growth
- Dividend

Minimum Application Amount: Rs.5000/-

Date of Inception:

ASSET ALLOCATION

Instrument	Risk profile	%
Equities	High	86.38
Debt	Low Medium	4.51
Cash and Assets		9.11

Calculation of Risk and Return of UTI EQUITY FUND

Month	NAV's	R	$r=R-R'$	R2	INDEX	M	$m=M-M'$	M2	RM
Jan'21	32.33	0	0	0	3933.40	0	0	0	0
Feb'21	34.00	5.16	2.07	4.28	4233.40	7.62	3.90	15.21	39.31
Mar'21	30.13	-11.38	-14.47	209.38	3761.65	-11.14	-14.86	220.81	126.77
Apr'21	30.22	-0.30	-3.39	11.49	3843.50	2.17	-1.55	2.40	-0.65
May'21	32.83	8.63	5.54	30.69	4077.00	6.07	2.35	5.52	52.38
Jun'21	33.70	2.65	-0.44	0.19	4145.00	1.66	-2.06	4.24	4.39
Jul'21	35.57	5.54	2.45	6.00	4419.40	6.62	2.90	8.41	36.67
Aug'21	36.07	1.40	-1.69	2.85	4462.21	0.96	-2.76	7.61	1.34

From the above analysis one can say that the fund has generated a low return with a relatively risk compared to market risk return profile. By seeing the performance of the fund in the past year one could say that is performing well in the market.

SBI MAGNUM EQUITY FUND – GROWTH

Nature of schemes: Open-ended equity scheme

Who can invest: Ideal for people who are focused on long-term growth on their investment?

Investment objective: to provide income distribution and/or medium to long term capital gains while at all times emphasizing the importance of capital appreciation.

Investment options:

- Growth
- Dividend

Minimum Application Amount: Rs.5000/-

ASSET ALLOCATION

Instrument	Risk Profile	%
Equities	High	91.34
Debentures	Low Medium	
Cash and Assets		8.66

Calculation of Risk and Return of SBI MAGNUM EQUITY FUND – GROWTH

Month	NAV's	R	$r=R-R'$	R ²	INDEX	M	$m=M-M'$	M ²	RM
Jan'21	27.39	0	0	0	3933.40	0	0	0	0
Feb'21	29.64	8.21	3.61	13.03	4233.40	7.62	3.90	15.21	62.56
Mar'21	26.39	-21.96	-15.53	242.11	3761.65	-11.14	-14.86	220.81	122.09
Apr'21	26.32	-0.26	-4.86	23.61	3843.50	2.17	-1.55	2.40	0.56
May'21	28.31	7.56	2.96	8.76	4077.00	6.07	2.35	5.52	45.88
Jun'21	28.62	1.09	-3.51	12.32	4145.00	1.66	-2.06	4.24	1.80
Jul'21	31.36	9.57	4.97	24.70	4419.40	6.62	2.90	8.41	63.35
Aug'21	32.54	3.76	-0.84	0.70	4462.21	0.96	-2.76	7.61	3.60
Sep'21	32.57	0.09	-4.51	20.34	4509.5	1.06	-2.66	7.07	0.09
Oct'21	37.39	14.80	21.20	214.04	5085.21	12.76	9.04	81.72	188.84
Nov'21	41.15	21.05	5.45	29.70	5698.75	12.06	8.34	69.55	121.20
Dec'21	45.77	11.22	6.62	43.82	5974.30	4.83	1.11	1.23	54.19

Calculation of BETA

R'	4.59
M'	3.72
Standard deviation R	6.60
Standard deviation M	5.94
Co-variance r_m	1.41
BETA	1.56

$$\begin{aligned}
 \text{TREYNOR MEASURE} &:= (R_i - R_f) / \text{beta} \\
 &= (4.59 - 0.59) / 1.56 \\
 &= 2.56
 \end{aligned}$$

Beta is calculated to know the risk associated with a particular fund. The market risk is basically denoted as 1.

This fund has a high risk that is BETA= 1.56 which is high than the market risk=1. Hence this fund is risky.

From the above analysis one can say that the fund has generated a low return with a relatively risk compared to market risk return profile. By seeing the performance of the fund in the past year one could say that is performing well in the market.

Calculation of BETA:

In order to calculate Beta we need to find out the return of the fund and the market return.

In this case I have taken the returns of the fund and the market for 1 year.

Step1: Calculate the mean of both market and fund by using the formula

$$R' \text{ mean} = R/N$$

$$M' \text{ mean} = M/N$$

Step2: Calculate $r = R - R'$

$$\text{Calculate } m = M - M'$$

Step3: Calculate r^2

$$\text{Calculate } m^2$$

Step4: Calculate $r \cdot m$

Step5: Calculate standard deviation of both fund and market returns.

$$SD R = r^2 / N$$

$$SD M = m^2 / N$$

Step6: Calculation of covariance $r \cdot m$ $C_{rm} = r \cdot m / R \cdot M$

Step7: Calculation of Beta is $= R \cdot M \cdot C_{rm} / M^2$.

FINDINGS

SUGGESTIONS

&

CONCLUSIONS

FINDINGS

- Among the four funds HDFC Equity Fund and SBI Magnum Equity Fund has performed better in the market.
- Among all the four companies the fund risk for HDFC is 5.00, UTI is 5.47 and for HSBC is 6.54, SBI is 6.60 so that the fund risk is more in HSBC and SBI.
- Between the four funds HDFC and UTI is more appropriate they both are given less risk when compare to HSBC and SBI. The both are well diversified fund.
- It is advisable to select the HDFC as compare to other three funds.
- As per my knowledge a fund with better diversification of funds and opting for changes based upon the market fluctuation. Under the eyes of efficient fund manager can produce a high return with a low risk under any circumstances.

SUGGESTIONS

- The fund manager should try to reduce the risk by investing in efficient or he should be able to differentiate between the efficient and inefficient securities.
- The mutual fund company should concentrate on cash rich companies like the Trusts, cash rich private companies, etc to generate, more funds for the investment.
- A through market research is to be done by the mutual fund companies before they launch any schemes. They should understand the need of the customers (i.e., investment plan and the purpose) and Taylor accordingly.
- The primary focus of mutual fund should on generating long-term returns.
- The mutual fund company should try to create investment awareness, the risk associated with it and kind of returns one can expect and expand beyond urban boundaries.
- Before investing in a stock the fund manager should make careful evaluation of the company, its management, the industry outlook, stock liquidity and earnings.

CONCLUSION

It can be said that, rising interest rates and recent developments in the investment climate in the country, have led to investment avenues dwindling drastically. But Mutual Funds are any day a safe bet for investors of different age groups, movies and other preferences. Since Asset Management companies offer a range of Funds respective Investment philosophies, an investor can benefit only by investing in appropriate fund, which shall meet his requirements.

- It is said that the risk higher is the return. But from the analysis it has been found that even though the risk involved is more in HSBC Equity Fund and SBI Equity Fund the return generated by the schemes is less.
- Even though the 4 funds chosen for the study are equity funds they also invest in debt and money market instruments.
- The BETA of 4 schemes is more than the market risk because NSE Nifty which is taken as bench marked.
- The risk of the fund can be diversified if it tries to invest in more number of companies.
- The fund should generate more returns so that it averse the risk.

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