CHAPTER I

INTRODUCTION

1. INTRODUCTION

The passive investment management philosophy began in 1971 at Wells Fargo with simple index funds. Growth of index funds in United States was dramatic in the 1970s and 1980s and gained impetus in the UK and Europe in the 1980s. In India, the first index fund was launched by the Unit Trust of India in 1998. This segment is expected to grow. In particular, this product seems to appeal to the institutional investors and the corporations.

Indexing has flourished because it is compatible with both theoretical findings and practical needs. On the theoretical side, the philosophy of passive fund management emanates from the efficient market hypothesis. If the markets are difficult to beat, then there is no point in spending money to devise methods and strategies to outperform the market. Instead of the “high return high cost” approach it is better to focus on “market return low cost” approach. This kind of differentiated product has an appeal to treasury managers and high networth individuals and has resulted in huge inflows from institutions, corporations and high networth individuals. These investors are in a position to demand and expect pre-defined performance from the investment managers. They not only look at the overall performance but also investigate the factors that contribute to the overall performance. The fund management company has to respond to this situation. Therefore, it is of paramount significance that we find a method to attribute the overall Index fund performance to causal factors of relevance.
In the decade of the 1960s and 1970s, many studies indicated that actively managed funds which seek to obtain excess returns by actively forecasting returns on individual stocks, do not actually obtain statistically significant excess returns. This was consistent with the hypothesis of ‘market efficiency’, which suggested that obtaining excess returns should be difficult in a competitive market. These researches suggested a superior investment strategy: the index fund. This would be a portfolio which passively replicated the returns of the index. The most useful kind of market index is one where the weight attached to a stock is proportional to its market capitalisation. Index funds are easy to construct for this kind of index, since the index fund does not need to trade in response to price fluctuations. Trading is only required in response to issuance of shares, mergers, etc. Index funds are central to the modern approach to fund management. Since the first index fund launched in 1972, investors all over the world have discovered that there are substantial benefits from utilising index funds as an alternative to actively managed funds. Since the first index fund launched in 1999, the index fund market in India has been growing steadily.

In the past few decades many performance evaluation studies indicated that actively managed mutual funds, which seek to obtain excess returns than the market by actively forecasting returns on individual stocks, do not actually obtain statistically significant excess returns (Jensen, 1968; Grinblatt and Titman, 1989; Malkiel, 1995; Gruber, 1996). This was consistent with the ‘Efficient Market Hypothesis’ which suggests that due to the availability of all kinds of information, obtaining excess returns should be difficult in a competitive market. These researches suggested a superior investment strategy namely indexing. Instead of actively engaging in stock picking, an index fund passively replicates the risks and returns of an underlying market index by investing in the securities constituting the index in the same
weightage as represented in the index. Since the first index fund launched in early 1970s, investors all over the world have discovered that there are substantial benefits from utilizing index funds as an alternative to actively managed funds. Some such benefits of indexing includes lower management expense ratio, lower turnover and its related expenses due to buy and hold nature of most index funds and tax efficiency when compared to actively managed funds.

Like any other mutual fund, index funds may be structured as either open-ended funds or close-ended funds. Open-ended funds, as the name suggests, are open for subscription and redemption for all the investors throughout the year. However, one of the limitations of such funds is that they are priced only once a day, after the close of business. Since all the trades in such funds during the business day are executed at the closing Net Asset Value (NAV), investors are unable to react expeditiously to dramatic changes in a market during the business day. Close-ended funds on the other hand, are open for subscription only once, and can be redeemed only on the fixed date of redemption. Moreover, in order to provide liquidity to such funds, these are listed on stock exchanges and traded throughout the business day on real time basis. Though the continuous trading of such funds overcome the pricing limitation of open-ended funds, but at the same time also raises the issue of deviation between the trading price and NAV of such funds. Since the overall corpus of close-ended funds remain constant, the daily demand and supply forces often leads to significant premiums or discounts on such funds in the secondary market. Recognizing both the appeals of open-ended index funds (continuous creation and redemption of fund units) as well as of close ended index funds (continuous trading on exchange like a stock), an innovative financial product named Exchange Traded Fund (ETF) was designed in the early 1990s, which combines the beneficial features
of both these types of funds. This present study aims at providing a descriptive and conceptual framework of this relatively new financial product available to the investors.

1.1 AN OVERVIEW OF INDEX FUND

It was 1976 when John Bogle introduced the world’s first index mutual fund into the marketplace. The idea for the fund, the First Index Investment Trust, was simple: create a basic, low-cost portfolio that mirrors the performance of the Standard & Poor’s 500 stock index. An index fund (also index tracker) is an investment fund (usually a mutual fund or exchange-traded fund) that aims to replicate the movements of an index of a specific financial market.

An Index fund follows a passive investing strategy called indexing. It usually holds stock in the same proportion as that in the represented index. It doesn't aim to outperform the index but tries to imitate the performance of the benchmarked index. This strategy is not concerned with asset selection or stock picking but only to minimize cost. Passive or index Funds is a category of funds which is been invested into only those securities which are been in any indices namely, Sensex, Nifty, HangSeng, Russell 2000. Its daily returns are the same as the daily returns obtained from an index. A Nifty index fund has all its money invested in the Nifty fifty companies, held in the same weights of the companies which are held in the index. This type of fund management leaves no decisions open, about what companies to hold and how much to invest in each company. The objective of index funds is to track the ideal market index or their ideal portfolio. Many of the index funds also invest in derivatives such as futures and options. Some Index funds are invested in indices companies as same ratio as they were included in indices while some index funds only invest in all companies as sample.
1.2 THE ADVANTAGES OF INDEX FUNDS

In comparison to actively managed funds, Index funds have the following advantages:

**Low Risk**

Index funds track a broad index, which is less volatile than specific stocks or sectors, thereby lessening the risk for investors.

**Low Costs**

Because the composition of a target index is a known quantity, it costs less to run an index fund. No highly paid stock pickers or analysts are needed. Lower transaction costs and fewer expenses make index funds cheaper than the actively managed funds. Generally the expense ratio of index funds ranges from 0.5% to 1.5% compared with up to 2.5% in diversified funds. The investment and advisory fees shall not exceed three fourths of one percent (0.75%) and the total expenses of the scheme including the investment and advisory fees shall not exceed one and one half percent (1.5%) of the weekly average net assets.

**Simplicity**

The investment objectives of index funds are easy to understand. Once an investor knows the target index of an index fund, what securities the index fund will hold can be determined directly.

**No change in investment style**

Style drift occurs when actively managed mutual funds go outside of their described style (i.e. mid-cap value, large cap income, etc) to increase returns. Such drift hurts portfolios that are built with diversifications as a high priority. Drifting into other styles could reduce the overall portfolio’s diversity and subsequently increase
risk. With an index funds, this drift is not possible and accurate diversification of a portfolio is increased.

**Lower turnovers**

Turnover refers to the selling and buying of securities by the fund manager. Because index funds are passive investments, the turnovers are lower than actively managed funds resulting in low cost of maintenance.

**Diversification**

Diversification refers to the number of different securities in a fund. A fund with more securities is said to be better diversified than a fund with smaller number of securities. Owning many securities reduces volatility by decreasing the impact of large price swings above or below the average return in a single security.

**Well Researched Portfolio**

Sensex has 30 large cap stocks representing 12 Sectors. There are stiff criteria for stocks to remain part of the Sensex. An expert committee reviews these stocks on a quarterly basis based on listed history, market capitalization weightage, trading frequency, industry and sector representation, track record and if they fail to meet the criteria laid down they are replaced by another stock which fulfills the criteria. In effect we get to invest in well researched and diversified portfolio.

**Passive management** (also called passive investing) is a financial strategy in which an investor (or a fund manager) invests in accordance with a pre-determined strategy that doesn't entail any forecasting (e.g., any use of market timing or stock picking would not qualify as passive management). The idea is to minimize investing fees and to avoid the adverse consequences of failing to correctly anticipate the future. The most popular method is to mimic the performance of an externally specified index. Retail investors typically do this by buying one or more 'index funds'. By
tracking an index, an investment portfolio typically gets good diversification, low
turnover (good for keeping down internal transaction costs), and extremely low
management fees.

Passive management is most common on the equity market, where index funds track a stock market index. One of the largest equity mutual funds, the Vanguard 500, is a passive management fund.

1.3 CHARACTERISTICS OF AN INDEX FUND

- Make no attempt at forecasts and analysis as its objective is to closely replicate the performance of the target Index. Thus the performance of index scheme would rise or fall in accordance with the rise or fall in the target index.
- Reduce non-systemic risk, i.e. risk that is unique to an individual company or industry is minimized.
- Lower expense ratios.
- Ease in portfolio construction, monitoring and rebalancing.
- Allocate across asset classes which are not correlated, e.g. portfolio comprised of GS Nifty BeES, GS Junior BeES, GS Liquid BeES and GS Gold BeES.

1.4 TYPES OF INDEX FUNDS

- Traditional open ended Index Mutual Fund
- Exchange Traded Funds or ETFs

An Exchange Traded Fund (ETF) is an open-ended mutual fund scheme which is listed and traded on the stock exchange like a stock. Primarily, ETFs are passively managed and their objective is to capture the behavior of the underlying i.e. equities, fixed income or commodities. An Exchange-Traded Fund (ETF) is a security that tracks an index, a commodity or invests in money market instruments. Equity ETFs
allow exposure to entire markets, yet have characteristics of a stock as they are listed on a stock exchange and can be bought and sold daily.

Index linked products, whether open-end mutual funds or ETFs, attempt to replicate the returns and risks of the underlying market index. Theoretically, it appears to be a very simple strategy, requiring passive fund managers to hold each constituent index security in the same proportion to the benchmark (known as a ‘full replication’ strategy). In reality however, index funds and ETFs experience considerable difficulty in replicating the target index, because the index represents a mathematical calculation that does not take into account market frictions. Accordingly, a passive portfolio manager’s objective must then be to implement an investment strategy, which seeks to constrain the tracking error (i.e. a quantitative measure of difference in the return between the fund and benchmark over time) such that investors achieve returns that closely approximate the target benchmark at minimum cost. Researches concerning ETF performance have examined the magnitude and determinants of such tracking errors and provided comparison between the performance of ETFs and their index fund counterparts tracking the same underlying indices.

1.5 HISTORY AND DEVELOPMENT OF ETFs

These innovative financial products were first introduced on the U.S. and Canadian exchanges in the early 90s. Officially, the Standard and Poor’s Depository Receipts (SPDRs) is considered to be the first ETF which was created in 1993 in order to replicate the performance of S&P 500 Index. In the first several years, ETFs represented a small fraction of the assets under management in index funds. However the launching of an ETF named cubes (or QQQ) in 1999 which follows the return of NASDAQ 100 Index was accompanied by a spectacular growth in trading volume, making ETFs the most actively traded equity securities on the U.S. stock exchanges.
Since then, ETF markets have continued to grow, not only in the number and variety of products, but also in terms of assets and market value. Initially, they aimed at replicating broad-based stock indices; however, new ETFs extended their fields to sectors, international markets, fixed-income instruments and lately commodities. Today ETFs have proliferated across global financial markets both in terms of their number and the market value of total assets under management.

As of January, 2014, there were over 1,500 ETFs traded in the U.S., with over $1.7 trillion in assets. About 60% of trading volumes on the American Stock Exchange are from ETFs. The most popular ETFs are QQQs (Cubes) based on the NASDAQ-100 Index, SPDRs (Spiders) based on the S&P 500 Index, I SHARES based on MSCI Indices and TRAHK (Tracks) based on the Hang Seng Index. The average daily trading volume in QQQ is around 89 million shares.

Their passive nature is a necessity: the funds rely on an arbitrage mechanism to keep the prices at which they trade roughly in line with the net asset values of their underlying portfolios. For the mechanism to work, potential arbitragers need to have full, timely knowledge of a fund's holdings.

In India, the first ETF was launched on National Stock Exchange in January 2002 by Benchmark Mutual Funds under the name Nifty Benchmark Exchange-traded Scheme (Nifty BeES) which tracks the S&P CNX Nifty index. Since then the ETF segment has grown slowly but steadily in India with a total of 31 ETFs being listed on Indian stock exchanges with net assets of Rs.9641.83 crores as on 31st August 2011 as per SEBI estimates. Of these, the ETFs that are gaining popularity among the Indian investors recently are the gold ETFs which attempt to replicate the returns of gold without requiring the physical trade of gold on the part of investors.
Despite such a short history of ETFs in India, they have performed quite well over these years. As per the findings of a study conducted by Singh and Gupta (2011) to analyse the performance of ETFs in India, most of the ETFs have been able to achieve their stated objective of nearly replicating the underlying index composition. Though they have been found to experience statistically significant daily tracking errors, there is no significant under or out performance over long term investment horizon of half year or more. When compared against their index funds counterparts, ETFs were found to perform better than index funds in all respects, namely portfolio replication strategy, tracking ability and effectiveness over long term. Also, Indian ETF market was found to be shallow in terms of the percentage of outstanding shares traded each day, which averaged less than 1% for most ETFs. This could possibly be due to lack of investor awareness regarding this relatively new financial product available to them and is likely to be one of the important factors explaining the significant pricing inefficiency in the Indian ETF market. Thus, there is a need to build awareness among Indian investors regarding this innovative investment product, which as an alternative to index mutual funds offer investors a low cost, flexible and tax efficient way to track their favorite market segment.

While ETFs are available across a range of indices, commodities and other assets, the main asset classes are typically the following:

- **Equities** – replicating the composition and performance of an equity index (e.g. CNX Nifty, Hang Seng)
- **Commodities** – tracking the actual price of commodity (e.g. gold) or basket of commodities
- Fixed income – government and corporate bonds covering a range of timeframes (e.g. long-term, mid-term and short-term bonds), including some that are income-producing (e.g. pay dividends)

ETFs can track underlying of various asset classes. Equity ETFs – Equity ETFs are mostly index funds that replicate the composition and the performance of a target index. These schemes invest in the securities in the same weightage as its target index (e.g. CNX Nifty index, CNX Bank index)

Money Market ETFs – Money Market ETF invests in a basket of call money, short-term government securities and money market instruments of short maturities while providing safety and liquidity.

Commodity ETFs – Commodity ETFs enables investors to gain exposure to a variety of commodities such as gold, silver, oil or broad based commodities index. Among the first commodity ETFs were gold ETFs, which have been offered in a number of countries and are gaining popularity in India as well. Broad based commodity index include commodities from sectors as diverse as energy, metals, agriculture and livestock.

The objective of such ETF is to track closely the physical price of the target commodity. In India, only Gold ETF is currently available.

Other ETFs available globally include fixed income ETFs, real-estate ETFs, currency ETF, actively managed ETF, inverse ETF, and leveraged ETF, all of which are yet to be offered in India.

The ETFs types are as following:

**Market Index ETFs:** Market ETFs usually track a major market index and are some of the most active ETFs on an exchange floor, however there are some market ETFs that track low-volume indexes as well. It has to be kept in mind that the goal of a
market ETF is to emulate an underlying index, not outperform it. An example would be the QQQ’s which tracks the NASDAQ-100 index. Besides, there are many foreign ETFs, one can choose from. To have international exposure or to hedge foreign investing risk, country or region ETFs may be an option. Two examples are EWJ which tracks Japan’s Nikkei Index and EWG which tracks the MSCI Germany Index.

**Foreign Currency ETFs:** Speaking of foreign ETFs, foreign currency ETFs help investors gain exposure to foreign currencies without having to complete complex transactions. Currency ETFs are seemingly simple investment vehicles that track a foreign currency, similar to how a market ETF tracks its underlying index. In some cases this type of ETF tracks a basket of currencies, allowing an investor access to more than one foreign currency.

**Sector and Industry ETFs:** Industry ETFs are types of ETFs that generally track a sector index representing a certain industry. They are perfect for gaining exposure to a certain market sector like pharmaceuticals without having to purchase the plethora of individual companies.

**Commodity ETFs:** Commodity ETFs are similar to industry ETFs in the fact that they are targeted to a certain area of the market. However when one purchases a commodity ETF like gold or energy, we do not actually buy the commodity, the ETF consists of derivative contracts in order to emulate the price of the underlying commodity.

**Derivative ETFs:** There are some types of ETFs that do not consist of equities. Very common with commodity ETFs, some funds are made up of derivative contracts like futures, forwards, and options. While the goal is to emulate an investment product, there are different ways to do so within the construction of ETFs. Assets in the fund can either be individual companies or in these cases, derivative products.
**Style ETFs:** Some types of ETFs track a certain investment style or market capitalization (large-cap, small-cap, mid-cap). Style ETFs are most actively traded in the United States and exist on growth and value indexes developed by S&P / BARRA and Russell.

**Bond ETFs:** The multitude of available bond ETFs runs the gamut. There are international, government, and corporate to name a few. Bond ETFs have a difficult task when it comes to construction since they track a low-liquidity investment product. Bonds are not active on secondary markets since they are normally held to maturity, yet ETFs are actively traded products on exchange floors. However, ETF providers like Barclays have done their job with debt-based ETFs and created some successful bond funds like the SPDR Capital Long Credit Bond ETF (LWC) which gives investors opportunities in the bond market while still maintaining the benefits of ETFs.

**ETNs – Exchange Traded Notes:** Exchange traded notes are the little brothers of ETFs. While they are not truly a type of ETF, people still lump them into the major ETF categories. ETNs are issued by a major bank as senior debt notes. This is different from an ETF which consists of securities or derivative contracts. When we buy an ETN, we receive a debt investment similar to a bond. ETNs are backed by high credit rating banks so they are considered secure investment products, however the notes are not totally absent of credit risk.

**Inverse ETFs:** When the market starts to plummet, investors tend to want to get short. However, trading account constraints can make that an issue. Margins may not allow that possibility if one is selling a naked investment or there may be a restriction on certain accounts against selling certain investments. Inverse ETFs are funds
created to create a short position when we buy the ETF. They have an inverse reaction
to the direction of the underlying index or asset.

**Leveraged ETFs:** Leveraged ETFs are very controversial funds and are more suited
for the advanced ETF trading strategy. A common misconception is that they will
produce exponential annual returns, when in truth, they are constructed with the goal
of creating a leveraged daily return on underlying indexes and assets. And even then,
it is a goal, not an absolute.

**Actively Managed ETFs:** In the ever going war of ETFs vs. Mutual Funds, there just
may be a compromise - Actively Managed ETFs. They combine all the benefits of
both mutual and exchange traded funds (ETFs) in one asset.

**Dividend ETFs:** Some ETFs target equities that pay dividends. Usually dividend
ETFs will track a dividend index and the assets in the fund and index will consist of a
diverse range of dividend-paying stocks. In some cases, the dividend stocks will be
segmented by market-caps or geo-graphic locations.

**Innovative ETFs:** With ETFs gaining popularity on a daily basis, there are more and
more innovations when it comes to these investment products. Some of the newer and
more innovative funds include ETFs of ETFs, Volatility ETFs and Tax-Deferred
ETFs to name a few. But of course these are just the tip of the future ETF iceberg.

**1.5.1. Indian Scenario**

In less than two decades, Exchange-Traded Funds have become a major type
of investment around the world. As financial instruments go, ETFs are not very old.
The first ETF was launched in the US only in 1993 and in Europe in 1999. Today, a
huge USD 2.3 trillion of assets globally are deployed in ETFs. However, Indian
investors have almost completely ignored these funds. ETFs are index-based mutual
funds but are bought and sold like shares. ETFs are inherently very low-cost funds.
While an actively managed mutual fund often deducts expenses of up to 2.25%, ETFs are generally in the 0.3% to 1% range. With compounding, this can build up to a significant difference over time. While Benchmark is now in the news for having been acquired by Wall Street superpower Goldman Sachs, nothing significant has happened to the ETF business in India.

1.6 ETF TRADING MECHANISM

The ETF trading process is characterized by a dual structure, with a primary market open to institutional investors for the creation and redemption of ETF shares in lots directly from the fund, and a secondary market where ETF shares can be traded with no limitation on order size. This structure has been illustrated in figure 1.

In the primary market, only Authorized Participants (APs), typically large institutional investors who have an agreement with the fund sponsor, are allowed to create new shares, in blocks of specified minimal amounts called creation units. Creation units vary in size from one fund to another, ranging from 25,000 up to 3,00,000 ETF shares. The creation of these new shares is done “in-kind” by requiring the AP to deposit a portfolio of shares that closely approximates the proportion of the stocks in the underlying index at that time, together with a specified amount of cash component to make up for the difference between the applicable NAV of the fund and the market value of the portfolio deposits. A similar “in-kind” process is followed in case of redemption of outstanding ETF shares whereby the redeemers (APs) are offered the portfolio of stocks that make up the underlying index plus a cash amount in return for creation units.

The number of outstanding shares tradable on the secondary market varies over time according to creation and redemption operations carried out on the primary market. Both institutional and individual investors can buy and sell shares in the
secondary market like ordinary stocks at any time during the trading day. As such, there is no fee payable for secondary market purchases or sales, but secondary market transactions are subject to regular brokerage commissions.

Since an ETF may be negotiated on two markets, it has two prices: the NAV of the shares and their market price. The first price is the value per share of the fund’s holdings computed at the end of each trading day. The second depends on the supply and demand for shares on the exchange. If selling or buying pressure is high, these two prices may deviate one from the other. However, the possibility of “in-kind” creation and redemption ensures that departures are not too large. For instance, if the value of the underlying index is higher than the price of the ETF, the authorized
participants may redeem the units to the Sponsor in exchange for the higher priced securities. Conversely, if the price of the underlying securities is lower than the ETF, the APs may create ETF units by depositing the lower-priced securities. This arbitrage mechanism eliminates the problem associated with closed-end mutual funds namely, the premium or discount to the NAV.

1.7 ETFs IN INDIA

The first ETF in India, "Nifty BeEs (Nifty Benchmark Exchange Traded Scheme) based on S&P CNX Nifty, was launched on December 28, 2001 by Benchmark Mutual Fund. It could be bought and sold like any other stock on NSE. Its symbol on NSE was "NIFTYBEES". Subsequently, with the takeover of the Benchmark AMC Company by Goldman Sachs, it was called as “GS Nifty BeES”. Over the time, other companies entered the market with their ETF products. There were funds tracking the NSE Index – Nifty and BSE Index– Sensex. Other funds focused on the commodity – Gold and some other leading indices.

1.7.1 Types of ETFs in India

**EQUITY ETF-** Equity ETFs are mutual fund schemes, which combine the best features of open ended and close-ended funds. They are like stocks, listed on NSE, liquid, tradable throughout the day, priced continually and in demat form.

**GOLD ETF-** A gold exchange-traded fund (or GETF) is an exchange-traded fund (ETF) that aims to track the price of gold. Gold ETFs are units representing physical gold which may be in paper or dematerialized form. These units are traded on the Exchange like a single stock of any company. Gold ETF's are intended to offer investors a means of participating in the gold bullion market without the necessity of
taking physical delivery of gold, and to buy and sell that participation through the trading of a security on a stock exchange.

**WORLD INDICES** - Exchange Traded Funds (ETF) that have as their underlying tracking instrument an index or other financial product focused on a single country. They are usually well diversified and designed to reflect the overall economic condition of the country itself. The underlying index chosen is often the major index of the principal exchange within the country.

**DEBT ETF** - Debt ETFs that invest in bonds or debt securities are known as bond or debt ETFs. They thrive during economic recessions because investors pull their money out of the stock market and into bonds (for example, government treasury bonds or those issues by companies regarded as financially stable). These ETFs are linked to money or debt funds, with the aim of providing money market returns.

Liquid BeES (Goldman Sachs Liquid Exchange Traded Scheme) is the first money market ETF (Exchange Traded Fund) in the world. The investment objective of the Scheme is to provide money market returns. Liquid BeES will invest in a basket of call money, short-term government securities and money market instruments of short and medium maturities. It is listed and traded on the NSE - Capital Market Segment and is settled on a T+2 Rolling basis.

Some International ETFs were also introduced to Indian investors. International Exchange Traded Funds (ETF) are those which have as their underlying tracking instrument an index or other financial product focused on a single country. They are usually well diversified and designed to reflect the overall economic condition of the country itself. The underlying index chosen is often the major index of the principal exchange within the country. Hang Seng BeES was the first
International ETF in India. The investment objective of Hang Seng BeES was to provide returns that, before expenses, closely correspond to the total returns of securities as represented by Hang Seng Index of Hang Seng Data Services Limited, by investing in the securities in the same proportion as in the Index. The other ETF, Motilal MOS1 Shares N100 ETF was based on the performance of the NASDAQ-100 Index.

The benefits of investing in ETF:

1. An ETF is a mutual fund scheme which is listed and traded on stock exchanges.
2. It reduces non-systemic risks as index ETFs are mirror images of an index.
3. ETFs give diversification of an index and trade like a stock.
4. Continuous pricing on exchanges throughout market hours.
5. Practice asset allocation by investing in equity, commodity and money market ETFs.

ETFs have several advantages over traditional mutual funds, such as lower expense ratios, trading flexibility, tax efficiency, transparency, and exposure to diverse asset classes. Mutual funds have higher expense ratios than ETFs because of entry and exit loads. It is pertinent to note that in India, entry loads for mutual funds have been banned while exit loads do exist. ETFs are more tax efficient because of their in-kind creation and redemption process, which allows for arbitrage and pricing efficiency. In the case of ETFs, only the transacting shareholder is taxed, while the gains are distributed to the other shareholders. On the other hand, the transactions of mutual funds generate tax consequences for all the unit holders.
Exchange Traded Funds (ETFs), popularly known as ETFs, are hybrid investment instruments, which combine the main characteristics of open-ended index funds and ordinary corporate stocks. Like index fund, ETFs contain basket of securities designed to track specific indices. And like stocks, ETFs can be bought and sold on a stock exchange during trading hours on a real time basis, can be short sold, bought on margin and can be purchased in as little as one share. What one needs to invest in ETFs would be a demat account through which unit can be bought any time during the trading hours. The cost that one incurs includes only the fund management cost and the charge for the demat account. ETF’s are low cost investments with expense ratio of 0.5 per cent and so it costs less than investing in funds offline. ETF’s (even index funds) will have a tracking error no matter how closely it tracks the index that it represents.

Thus, ETFs can be referred to as open-ended index funds with the tradability of stocks. They enable investors to trade ‘the market’ with a single investment as easily as if they were buying an individual stock. Financial planners are increasingly recommending ETFs to investors who have long-term goals and want to invest in equity without taking too much risk.

1.7.2 Understanding Tracking Error and Tracking Difference

According to the Black Rock Inc., there are two common measures used to evaluate the performance of an ETF – “tracking error” and "tracking difference". While both are useful indicators of deviation from benchmark performance, they measure different characteristics. Understanding both performance metrics is therefore very important.
**Tracking difference** is simply the return difference between the ETF and its underlying index over a given time period while **Tracking error** is the volatility (as measured by standard deviation) of that return difference. So while tracking difference tells us how much the performance of an ETF can deviate from its underlying index over a given time period, tracking error shows the consistency of returns relative to the index throughout this entire time period.

Generally, for long-term investors, tracking difference is their primary concern, whereas for short-term investors, tracking error is much more significant, since volatility relative to the benchmark may have significant impact on returns over shorter time periods. Looking at both tracking difference and tracking error in tandem will give a fuller picture of how well an ETF tracks its index over time.

### 1.7.3. Comparison and advantages

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<th>Type</th>
<th>Equity ETF</th>
<th>Gold ETF</th>
<th>Money Market ETF</th>
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<td>Underlying</td>
<td>Equity Index</td>
<td>Gold</td>
<td>Money Market Instruments</td>
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<td>Tracking</td>
<td>Tracks the performance of target index</td>
<td>Tracks price of physical Gold</td>
<td>Not applicable</td>
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<td>Benefits</td>
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<td>An efficient method to take exposure to Gold</td>
<td>To park cash between trades</td>
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<td>Convenient dealing through demat account</td>
<td>Relatively low exposure to risk</td>
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<td></td>
<td>Lower expense ratio as compared to active equity fund</td>
<td>No storage &amp; security concerns for investors</td>
<td>No STT</td>
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<td></td>
<td>Transparent</td>
<td>Transparent pricing</td>
<td>Can be used as cash equivalent margin for derivatives segment with a 10% hair cut</td>
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<td>Trading flexibility – intraday on the exchange</td>
<td>No STT – classified as debt fund</td>
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<td></td>
<td>Real time pricing</td>
<td>No wealth tax</td>
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<td>STT – NIL on buy and 0.001% on sell through stock exchange</td>
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An Equity ETF is an exchange listed index fund that replicates the composition and performance of a target equity based index (e.g. CNX Nifty Index). These schemes invest in the securities in the same weightings as that of the index. As they are listed on the stock exchange, ETFs can be easily transacted like any other
stock in a cash segment through a brokerage account opened with a registered stock broker. The minimum investment in an Equity ETF is as low as one unit, representing all constituents of the target index.

Equity ETF gives trading flexibility of stock while providing diversification like a mutual fund.

- As ETFs are listed and traded on the stock exchange, they can easily be transacted like any other stock on real time basis.
- Minimum investment in an Equity ETF is as low as one unit, where the cost of one unit is a function of the underlying value of the target index (e.g Nifty BeES is priced at 1/10th of CNX Nifty value).
- Single unit of an ETF represents ownership of all constituents of the underlying Index.

1.7.4. Comparison of ETF and Traditional Mutual fund Scheme

The most significant similarity of ETFs and index funds is the passive character of their investing strategy. Both of them track specific and known indexes; broad market, sector or international, offering a considerably great degree of diversification of portfolio non-systematic risk. Passive strategy reflects low managerial costs both for ETFs and index mutual funds, since the managers simply follow the index and they are not obliged to develop costly and complicated investing policies. However, ETFs are charged with transaction costs and broker house commissions, while the index funds are not. On the other side, index mutual funds are loaded with redemption and purchase fees, except if they are no load funds. They both bestow investors with easy and direct access to professional and specialized portfolio management, with a complete transparency of portfolio under management. Besides the principal
similarities of ETFs and index funds, basic differences among them also exist. The main difference is that ETFs are purchased and shelled at the exchange markets for prices, which closely fit their net asset value any time during the trading day.

The initial and the secondary markets of ETFs are connected, giving the ability to institutional investors for arbitrage, which reduce the premium or the discount of their net asset value. On the contrary, index funds can be purchased or redeemed only at the end of the day at the value of their net assets. Even though the close-ended fund structure facilitates continuous pricing, they are not characterized of arbitrage possibility. Also, index fund shares can be purchased from the fund directly by the shareholder or through a financial intermediary. In contrast, shares of an ETF cannot be purchased from, or redeemed by the issuing fund, except in large denominations by an authorized participant for an in-kind basket of securities. Moreover, ETFs, like stocks, are permitted to be shelled or purchased in margin or be short sold while index funds don’t have this flexibility.

Another significant disparity is the tax efficiency of ETFs, which derives of their in-kind creation and, especially, redemption mechanism. Index funds on the other hand are redeemed in money and this is a taxable event.

- ETFs have a lower expense ratio than traditional mutual fund schemes.
- ETFs do not charge loads at the time of redemptions.
- ETFs, in addition to single NAV, has indicative real time NAV as compared to only a single NAV for traditional mutual fund schemes which is declared post market hours.
- Portfolio is available on a real time basis for ETFs
Table 1.2. Characteristics of Mutual Fund and Exchange Traded Fund

<table>
<thead>
<tr>
<th></th>
<th>Open Ended Mutual Fund</th>
<th>Closed Ended Mutual Fund</th>
<th>Exchange Traded Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fund size</td>
<td>Flexible</td>
<td>Fixed</td>
<td>Flexible</td>
</tr>
<tr>
<td>NAV</td>
<td>Daily</td>
<td>Daily</td>
<td>Real-time and Daily</td>
</tr>
<tr>
<td>Liquidity provider</td>
<td>Fund itself</td>
<td>Stock market</td>
<td>Stock market/Fund</td>
</tr>
<tr>
<td>Expense Ratio</td>
<td>Higher</td>
<td>Higher</td>
<td>Lower</td>
</tr>
<tr>
<td>Portfolio disclosure</td>
<td>Disclosed monthly</td>
<td>Disclosed monthly</td>
<td>Daily/Real-time</td>
</tr>
<tr>
<td>Intra-Day Trading</td>
<td>Not possible</td>
<td>Expensive</td>
<td>Possible at low cost</td>
</tr>
</tbody>
</table>

Both types (ETF and IMF) have all above mentioned characteristics, however some differences are:

Table 1.3. Difference between traditional open ended index fund and ETFs

<table>
<thead>
<tr>
<th></th>
<th>Traditional Open Ended Index Fund</th>
<th>Exchange Traded Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buying/Selling</td>
<td>Directly with mutual fund house</td>
<td>Can also be done through Stock Exchange as ETFs are listed on secondary market</td>
</tr>
<tr>
<td>NAV</td>
<td>Declared only once a day after financial markets close</td>
<td>Additionally, indicative real time NAV available throughout trading session</td>
</tr>
<tr>
<td>Trading flexibility</td>
<td>Transactions processed once a day at end of day NAV</td>
<td>Throughout market trading hours</td>
</tr>
<tr>
<td>SIP Facility</td>
<td>SIP offered by Mutual Fund</td>
<td>SIP facility may be offered by registered Stock Broker</td>
</tr>
</tbody>
</table>

1.7.5. Significance of Asset allocation

- Asset allocation can be defined as a process of investing in a range of assets or investments that are inversely correlated in order to diversify and reduce the risk of the overall portfolio.

- For example, adding an asset or an investment to a portfolio which is negatively correlated with the portfolio as a whole, will potentially reduce the volatility of the total portfolio.
Using ETFs to diversify your portfolio

- Asset allocation can be challenging given the costs and assets required to achieve proper levels of diversification.
- ETFs can enhance portfolio diversification due to their ability to cover indices, sectors, countries and asset classes.
- The range of ETFs available provides investors with the ability to build a diverse portfolio that should meet their individual investment needs (depending on their risk tolerance and investment timeframe).
- ETFs have relatively low expenses ratios enabling diversification at a low cost.

1.7.6. ETFs and investor suitability

Given the flexibility, simplicity and transparency of ETFs, they have proved to be popular, and are used by different types of investors to gain exposure to a variety of investment strategies. These include:

- Individual investor – ETFs offer the individual investor a cost-effective, approach to gain diversification within their investment portfolio. ETFs are especially beneficial to investors who like to make investments over a long timeframe
- Short-term investors – ETFs provide speculative investors the opportunity to bet on an entire market as a single stock, taking advantage of market volatility.
- Institutional investors – As ETFs are a relatively low cost investment vehicle, institutions can use them effectively and efficiently to allocate their resources.
1.7.7. Positive Attributes of ETFs

1. Passive Management and Transparency of Portfolio

The purpose of an ETF is to match a particular market index, leading to a fund management style known as passive management. Essentially, passive management means the fund manager makes only minor, periodic adjustments to keep the fund in line with its index, thereby mitigating the element of "managerial risk" that can make choosing the right fund difficult. Rather than investing in a fund manager, an investor buying shares of an ETF would thus be harnessing the power of the market itself. Moreover, the passive nature of the funds also facilitates transparency of portfolio since there is little desire on the part of fund manager to maintain secrecy over his/her investment strategy. Indeed, by enabling investors to know the underlying portfolio combination on a daily basis, ETFs are even more transparent than the index funds which disclose such portfolio composition on a monthly basis.

2. Exchange Trading

Perhaps the most immediately striking characteristic of ETFs is their eponymous innovation: the ability to trade like a typical security throughout the business day at real-time prices on a stock exchange. Prior to the advent of ETFs, an investor seeking broad market or sector diversification via a single investment instrument would be limited to mutual funds, which are priced just once a day. Investors in mutual funds thus, have no way of reacting to positive or negative news during the business day. With ETFs, however, investors can react immediately to positive or negative news by purchasing or selling ETF shares as soon as they receive the information. A savvy and responsive ETF investor may thus be able to profit from rises or to avoid declines in the market through swift ETF transactions.
3. Flexibility

ETF shares resemble stocks and provide flexibility to investors in other ways as well. Investors can, for example, place market, stop, or limit orders on ETF shares, thereby exerting a good deal of precise control over the purchases and dispositions of the holdings in their portfolios. In the same way, investors may also sell ETF shares short in order to bet against the movements of broad market indices or to hedge against the performance of other holdings in their portfolios. Similarly, investors may purchase ETF shares on margin and buy or sell options on ETF shares. Such flexibility in trading is however missing in case of mutual funds.

4. Lower Costs

Because of the nature of their structure and management, ETFs generally charge low fees and expense ratios, which further endear them to investors. ETFs that passively track broad market indices have relatively little need for management by human portfolio managers. Accordingly, ETFs suffer very few of the transaction costs associated with the turnover of portfolio securities. Even when compared to passively managed index mutual funds, ETFs experience relatively less turnover of portfolio securities due to its unique in-kind creation and redemption process. This in-kind process also saves ETFs from the cash-drag experienced by index fund that need to keep a certain proportion of assets un-invested to meet redemption needs. Moreover, being exchange traded products, ETFs incurs lower expenses in terms of shareholder’s accounting, marketing and distribution as compared with many traditional mutual funds.
5. **Tax Advantage**

Passive management is also an advantage in terms of tax efficiency. ETFs are less likely than actively managed portfolios to experience the trading of securities, which can create potentially high capital gains distributions. Fewer trades into and out of the trust mean fewer taxable distributions, and a more efficient overall return on investment. Moreover, since in-kind redemption is not considered a taxable event, no capital gain tax accrues at the time of redemption.

6. **Suitable for Broad Class of Investors**

ETFs are suitable for a broad class of investors; be it a short term investor looking to cash in on intraday volatility, a long term investor who wants to be insulated from short term trading activities of other investors, a retail investor looking for low initial investment, or a large investor looking for low cost, liquidity and all the benefits of index tracking.

1.7.8 **Limitations of ETFs**

The unique structure of ETFs provides an edge over its mutual fund counterparts in many aspects, as discussed. However, like any other financial innovation, ETFs too have its share of criticism. These are discussed as follows.

1. **Investor Transaction Cost**

Although, the most striking feature of ETFs of being traded at stock exchanges has many advantages, the fact that retail investors must buy and sell ETFs on exchanges means that such investors will have to pay brokerage fee and also bear the burden of absorbing costs that results from bid and ask spread - that is, the gap between the price buyers are willing to pay and sellers are willing to accept. These
trading costs may be amortized into relative insignificance if an investment is held for many years. However, for more active traders, or for the investors following a saving strategy that involves purchasing a relatively small amount of investment at regular intervals, such ETF transaction cost may work out to be high enough to eat up much of their expense advantage over mutual funds.

2. Short-Term Speculations

Critics of ETFs argue that the flexible trading rules of these funds creates an environment that fosters a short-term trading mentality using indexed instruments that were designed for long term investment, and that investors use the trading features of ETFs to chase the hot funds or sectors, not to match the performance of an index.

3. Tracking Error

Perhaps the most fundamental shortcoming of an ETF or an index fund is its failure to perfectly replicate the returns of the index to which it is benchmarked. The extent to which the fund performance differs from the underlying benchmark index is assessed by quantifying the level of tracking error. These results from factors such as transaction costs, fund cash flows, dividends, benchmark volatility, corporate activity and index composition changes.

1.7.9. Securities Transaction Tax (STT)

STT was introduced in the 2004 Union Budget and is a tax levied on all equity transactions. STT ensures that all securities transactions entered into a recognized stock exchange in India, are taxed and includes transactions in shares, derivatives or equity-oriented mutual fund units. STT of 0.10% was levied on both buy and sell
transactions undertaken on stock exchanges and 0.25% on redemptions with a mutual fund.

The 2013 Union Budget has announced reductions in STT for transactions in equity ETFs with effect from June 2013.

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Current rate of STT</th>
<th>Revised rate of STT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase on exchanges</td>
<td>0.10%</td>
<td>NIL</td>
</tr>
<tr>
<td>Sale on exchanges</td>
<td>0.10%</td>
<td>0.001%</td>
</tr>
<tr>
<td>Direct redemptions with mutual fund</td>
<td>0.25%</td>
<td>0.001%</td>
</tr>
</tbody>
</table>

The reduction in STT specifically for ETFs will result in:

- Lower investment cost for all segments.
- Greater overall participation.
- Improvement in liquidity on the stock exchanges leading to lower spreads.

1.8 A GOLD EXCHANGE TRADED FUND (GOLD ETF)

A Gold ETF is a mutual fund scheme which is listed and traded on a stock exchange like a stock. The investment objective of a Gold ETF is to provide returns that, before expenses, closely correspond to the returns provided by the domestic price of gold through investment in physical gold and gold related instruments. Gold ETFs provide the opportunity to the investors to participate in the gold bullion markets without the necessity of taking physical delivery of gold.

The history of Gold ETFs is started from Canada. The first Gold ETFs product was “Central Fund of Canada”, a closed-end fund founded in 1961. It later amended its articles of incorporation in 1983 to provide investors with an exchange tradable product for ownership of gold and silver bullion. It has been listed on Toronto Stock...
Exchange since 1966 and the AMEX since 1986. In India, the idea of Gold ETFs was first conceptualized by Benchmark Asset Management Company Private Limited when they filed a proposal with the Securities Board of India (SEBI) in May 2002. However, it did not get approval at first and later in 2007, it was launched.

The features of Gold ETFs

- Gold ETFs can be bought in minimum quantity of one unit on a stock exchange.
- One unit represents approximately one gram of gold.
- Units are held in a Demat account.
- No securities transaction tax (STT) due to ETFs being classified as a debt fund.

Benefits of buying Gold ETFs over physical gold

- With Gold ETFs, you don’t have to pay additional costs like making or delivery charges.
- Quick and convenient dealing through a demat account.
- No storage or security concerns for investors.
- No issue of purity as gold purchased through an ETF is as per SEBI guidelines and is subject to SEBI inspection.
- ETFs can be easily bought or sold at any time during trading hours at transparent, real-time prices.
For Gold ETFs, the long-term capital gains tax is applicable after one year, versus three years for physical gold.

No wealth tax.

The underlying physical gold is stored with a SEBI registered custodian and its quantity is physically verified by statutory auditors on a half yearly basis.

Gomathy Thyagarajan, (2012) made a study titled “Performance Evaluation of Indian Mutual Fund Industry from 2002-2007 with Special Reference to Franklin Templeton, HDFC and ICICI Prudential Mutual Funds” found that mutual funds have emerged as a strong financial intermediary and are the fastest growing segment of the financial services sector in India. Mutual funds play a very significant role in channelizing the savings of millions of individuals. A mutual fund is the most suitable investment for the common person as it offers an opportunity to invest in a diversified, professionally managed portfolio at a relatively low cost. There are wide varieties of mutual fund schemes that cater to investor needs. Whether as the foundation of one’s investment program or as a supplement, mutual fund schemes can help the investors to meet their financial goals. A host of factors has contributed to this explosive growth of the industry. The industry has made significant strides in terms of its variety, sophistication and regulation. Due to the economic boom, entry of foreign asset management companies, favorable stock markets and aggressive marketing by mutual funds, the asset management industry in India is witnessing dramatic growth in terms of new fund openings, the number of mutual fund families, and in the total assets under management in recent years. Despite various attractions offered, the total net assets of mutual funds are very less as compared to other developed countries. In the product offering too, the Indian fund industry is not close
to the developed countries. India’s forty four member fund industry has to scale new heights to narrow the gap with the other developed countries. To achieve this, the Indian mutual fund industry needs to widen its range of products with affordable and competitive schemes that combine various elements of liquidity, return and security in making mutual fund products the best possible alternative for the small investors in the Indian market. Besides, mutual funds can survive only if they perform well and satisfy the expectations of the investors. The objective of carrying out this research is to guide the investors and help them gain an insight into the idea of investing in mutual funds, and understand the phenomena of performance evaluation. The study also attempts to provide information to assist the investors to assess their risk-return profile and accordingly choose the right product and helps them to rectify their respective areas of weaknesses so as to surpass expectations of industry growth and profitability

Navdeep Aggarwal and Mohit Gupta in their article on “Performance of Mutual Funds in India: An Empirical Study” traces the growth path of the global mutual fund industry pointing to the fact that the research on mutual funds has been confined only to a few developed markets, with the US always getting special attention. Although emerging markets such as India have attracted the attention of investors all over the world, they have remained devoid of much systematic research, especially in the area of mutual funds. MFs offer small investors the opportunity to invest in diversified portfolios and free them to a large extent from the burden to make allocation decisions. It is important to know at what cost these alleged advantages are offered.

1 Ninth AIMS International Conference on Management January 1-4, 2012
The paper says that research on mutual funds have proceeded along three lines: (1) Researches dealing with the timing/investment abilities of and its fund managers implications for market efficiency (2) Measurement errors and common factors underlying fund performance, and (3) Fund specific factors that may impact fund performance. Analysis was carried out with the help of Capital Asset Pricing Model (CAPM) and Fama-French Model. In the world of CAPM this study’s findings suggest that mutual funds actually added value and investing in them was worthwhile for investors. However, application of Fama French Model opposes this. This model, which predicts returns on excess market returns, size factor and value factor, suggests that returns earned by mutual funds are actually due to exposure to these factors only and the fund managers do not add any value.

Active investing is an investment strategy that requires fund managers to actively and continuously make decisions about the buying and selling of assets, thereby striving for superior returns in comparison to benchmark indices. Investors are more than happy to pay performance related fees to fund managers that outperform their benchmark indices. However, research by authors like Malkiel (1995) and Gruber (1996) suggests that most fund managers do not sufficiently outperform the benchmark to justify the higher costs. This raises doubts about the stock picking ability of these fund managers.

Passive or index funds on the other hand track the market. This strategy is not concerned with asset selection or stock-picking, but only to minimize cost. ETFs are similar to passively managed fund in that they track the market. However, due to the differences in management fees, transaction fees, and taxation efficiency ETFs have lower expense ratios. This means that ETFs should have better performance records than index mutual funds.
Exchange-traded funds (ETFs) are increasingly finding favor in the global financial markets; foreign institutional investors (FIIs) in particular are using ETFs to gain exposure to emerging markets. In India, ETFs are making their presence felt gradually. In fact, ETFs are one of the disinvestment modes proposed by the Indian government for public sector undertakings (PSUs). After liberalisation in 1991, FIIs have played a significant role in the Indian stock market. It has been estimated that a sizable chunk of FII flows comes through offshore and India-focused equity funds and ETFs. Notably, several India-specific ETFs that exist in the U.S. such as WisdomTree India Earnings Funds, iShares MSCI India ETF, and PowerShares India Portfolio concentrate exclusively on Indian stocks. The assets of offshore equity funds and India-focused ETFs were USD 55.84 billion in 2010 and USD 37 billion in 2012. The phenomenal growth of ETFs globally has attracted the attention of researchers and investors, and extensive studies have been done on ETFs in the context of the developed markets of the U.S. and Europe.

Avinash Andhee (2012) have compared “Exchange Traded Funds versus active and passive unit trusts: An economic perspective”, and contributes to the literature on ETF performance by comparing ETFs to their respective tracking indices as well as to comparable passive unit trusts(PUTs) and active unit trusts(AUTs) after administrative costs. Data used involved ETFs that are derived from securities listed on the Johannesburg Stock Exchange (JSE) that track FTSE/JSE indices. PUTs and AUTs were selected on the basis that they use the same FTSE/JSE indices, as the ETFs, as a benchmark. The results indicate that EFTs have a slightly lower tracking error than PUTs due to lower administrative costs. On average, ETFs and PUTs

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present statistically insignificant net return differences and it can be inferred that they have very similar returns records. Furthermore, ETFs and AUTs, on average, also present statistically insignificant net return differences and it can be inferred that they have very similar return records.⁴

Globally, most of the ETFs were passive in nature, at least to begin with. Currently however, there are many ETFs that are actively managed. ETFs were introduced in the U.S. in 1993. At the end of 2013, there were around 5090 ETFs and exchange-traded products (ETPs) in the U.S., with 10,172 listings and assets worth USD 2.4 trillion.⁵ In India, the Nifty Benchmark Exchange Traded Scheme (Nifty BeES), was the first ETF to be introduced in 2001. Nifty BeES was subsequently taken over by Goldman Sachs Asset Management Company. At present, there are over 40 ETFs listed in India and a majority of the ETFs are still passively managed, meaning that the ETFs track their underlying benchmark indices. Globally, the total assets under management (AUM) of mutual funds equaled USD 28.87 trillion at the end of the third quarter of 2013.⁶

The first mutual fund in India was set up by the Government of India when the Unit Trust of India (UTI) was created in 1963. The next mutual fund—the SBI Mutual Fund—was established only in 1987. From the late 90s onwards, there was a proliferation of mutual funds in India. At the end of December 2013, there were 1430 mutual fund schemes managing around INR 8,50,000 crore.⁷ The AUM for ETFs stood at INR 10,273 crore as on December 2013—the AUM for gold ETFs stood at

⁴ A research project submitted to the Gordon Institute of Business science, University of Pretoria, November 2012
⁵ Source: http://www.etfgi.com/index/home (ETFGI).
INR 8784 crore and that for other ETFs was INR 1489 crore. These figures are very low compared to those of mutual funds and it is obvious that ETFs have a long way to go in India. In India, only three classifications of ETFs exist, namely, index ETFs, commodity ETFs, and money market ETFs. Classical ETFs are those that invest in the benchmark indices, which is a passive investing technique. Passively managed ETFs, at first glance, appear to be a simple exercise; in reality however, this is not the case. Similar to mutual funds that have exposure to the benchmark indices (i.e., the S&P BSE SENSEX index and the CNX Nifty index), passively managed ETFs also have exposure to these benchmark indices. The most popular classical ETFs include the GS Nifty BeES, the Kotak Nifty ETF, the MOST Shares M50 ETF, and the Birla Sun Life Nifty ETF.

Some of the most popular index funds are the ICICI Prudential Index Fund–Nifty Plan, the Franklin Index Fund, the UTI Nifty Index Fund, and the Reliance Index Fund–Nifty Plan. It is pertinent to note that both classical ETFs as well as index funds track the benchmark indices. Svetina (2010) found that although ETFs underperform their benchmark indices, they actually outperform the index funds.9

In the Indian context, Prasanna (2012) examined the performance of Indian ETFs and found that gold ETFs provide returns in excess of 13% compared to the returns offered by the equity market.10 However, the performance of ETFs was not compared to that of index funds.

S. Narend (2014) analysed the performance of exchange traded funds and index funds since the period of their respective inception till July 2013 in terms of three parameters: a) tracking error b) active returns and c) Jensen's alpha. It shows

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that tracking error is higher for ETFs compared to index mutual funds. The active returns (returns of the funds minus the returns of underlying index) analysis reveals that ETFs always outperformed their underlying index while the index funds have both underperformed and outperformed. The study also reveals that Jensen’s alpha is negative for both types of funds, which means that both ETFs as well as index funds have not been able to provide excess returns over the market; however, the Jensen’s alpha is better for index funds than ETFs. Overall, the study reveals that, in India, index funds have done better than ETFs in terms of a lower tracking error and a higher Jensen’s alpha while ETFs have performed better in terms of active returns.\(^\text{11}\)

Given that ETFs and index funds track similar indices, it would be interesting to investigate which fund is actually performing better—index funds or passively managed ETFs. Hence, in this study, we examine the performance of ETFs compared to that of index funds in the Indian context.

### 1.9. NEED OF THE STUDY

Indian mutual fund industry presently valued at about $190.4 Billion, witnessed an addition of 2.2 million new investors during financial year 2015. Both ETFs and mutual funds are viable choices for investors, but with so many available on the market, it is important for investors to familiarize themselves with the differences between products to ensure they are making appropriate investment decisions. While mutual funds and ETFs share similar traits, there are differences between the two that investors must consider when deciding which to use.

Both the index fund and the exchange fund industry in India are still young. Relatively little is known about the long term performances of both these funds. However a systematic effort to measure and compare the various aspects of their

performances, using a consistent methodology, has not been undertaken. The short history with index funds in India implies that relatively little data is available. Yet, it is important to utilize this limited evidence in order to understand the limitations of indexing in India. Index funds have attracted considerable attention in India. Most major fund houses have already launched index funds while many others are on way to launching. From the perspective of investors, the current study helps in assessing the extent to which index funds deliver on their promise of exactly tracking the index in comparison to their ETF counterparts.

Thus, this research will present a long term view on the performances of index mutual funds as well as equity ETFs and Gold Exchange Trade Funds (GETF) that could be useful for further researches.