



## Risk and Return Analysis of Select Equity Funds in India

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### ABSTRACT

In India, Various fund houses (58 AMCs) are offering mutual fund services. All these fund houses have several mutual fund schemes in each segment like equity, debt, gilt and liquid funds. Out of which equity segment has got several schemes and most of the investors are attracted towards equity mutual fund schemes. Because of availability of wide range of equity MF schemes in each AMC, it is important to identify outperforming funds available in the market. For that, it is appropriate to consider risk and return of each fund to yield better returns before taking investment decision. Hence Present study is an attempt of identifying risk and returns of equity funds and comparing the same with benchmark returns and peers to help mutual fund investors in choosing better funds as investment avenues.

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### Introduction

There are a lot of investment avenues available today in the financial market for an investor with an investable surplus. He can invest in Bank Deposits, Corporate Debentures, and Bonds where there is low risk but low return. He may invest in Stock of companies where the risk is high and the returns are also proportionately high. The recent trends in the Stock Market have shown that an average retail investor always lost with periodic bearish trends. People began opting for portfolio managers with expertise in stock markets who would invest on their behalf. Thus we had wealth management services provided by many institutions. However they proved too costly for a small investor. These investors have found a good shelter with the mutual funds.

Mutual fund industry has seen a lot of changes in past few years with multinational companies coming into the country, bringing in their professional expertise in managing funds worldwide. In the past few months there has been a consolidation phase going on in the mutual fund industry in India. Now investors have a wide range of Schemes to choose from depending on their individual profiles.

Present study gives an overview of mutual funds – types, benefits, risks, limitations, focuses on risk and return of select equity funds and performance evaluation of equity schemes using portfolio evaluation techniques.

#### Types Of Mutual Funds

- Liquid Funds
- Short term debt funds.
- Gilt funds
- Debt funds
- Balanced funds
- Index funds
- Equity funds
- Sectoral funds

#### Review of literature: history of Indian mutual funds

In 1963 the concept of Mutual Funds was introduced in India with the formation of Unit Trust of India. Till 1987, UTI

continued to be the sole Mutual Fund, and then later some public sector banks and Life Insurance Corporation of India and General Insurance Corporation of India set up Mutual Funds. Only in 1993 the private players were allowed to open shops in the country. The history of Mutual Fund Industry in India can be better understood after dividing it into the following phases:

❖ **Phase I – Establishment and Growth of the Unit Trust of India – 1964 – 1987:** The Unit Trust of India enjoyed a complete monopoly when it was established in the year 1963 by an act of the parliament. UTI was set up by the Reserve Bank of India, and it continued to operate under the regulatory control of the RBI until the two were delinked in 1978, and the entire control was transferred to the Industrial Development Bank of India (IDBI). UTI launched its first scheme in 1964, named as Unit Scheme 1964 (US – 64), which attracted largest number of investor in any single investment scheme over the years. UTI launched more innovative schemes in 1970s and 80s to suit the needs of different investors. It launched ULIP in 1971, six more schemes between 1981 – 84, Children's Gift Growth Fund and India Fund (India's first offshore fund) in 1986, Master Share (India's first equity diversified scheme) in 1987, another Monthly Income Scheme (offering assured returns) during the 1990s.

❖ **Phase II – Entry of the Public Sector Funds – 1987 – 1993:** The Indian Mutual Fund industry witnessed a number of Public Sector players entering the market in the year 1987. In November 1987, SBI Mutual Fund from the State Bank of India became the first non – UTI Mutual Fund in India. SBI Mutual Fund was later followed by Can Bank Mutual Fund, LIC Mutual Fund, Indian Bank Mutual Fund, Bank of India Mutual Fund, GIC Mutual Fund and PNB Mutual Fund.

❖ **Phase III – Emergence of the Private Sector Funds – 1993 – 1996:** Permission was given to the Private Sector funds including foreign fund management companies (most of them entering through joint ventures with Indian promoters) to enter the mutual fund industry in 1993. The entry of private players provided a wide range of choice to investors and brought more

competition in the Industry. Private funds introduced innovative products, investment techniques and investor – servicing technology. By 1994 – 95, about 11 private sector funds had launched their schemes.

❖ **Phase IV – Growth and SEBI Regulation 1996 – 2004:** The Mutual Fund Industry witnessed robust growth and strict regulation from the SEBI after the year 1996. The mobilization of funds and number of players operating within the industry reached new heights as investors started showing more interest in Mutual Funds. Investors' interests were safeguarded by SEBI and the Government offered tax benefits to the investors in order to encourage them. SEBI (Mutual Funds) Regulations, 1996 were introduced by SEBI that set uniform standards for all Mutual Funds in India. The Union Budget in 1999 exempted all dividend incomes in the hands of investors from Income Tax. Various Investor Awareness Programs were launched during this phase, both by SEBI and AMFI, with an objective to educate investors and make them informed about the Mutual Fund industry. In February 2003, the UTI Act was repealed and UTI was stripped of its special legal status as a trust formed by an Act of Parliament. The primary object behind this step was to bring all Mutual Fund players on the same level.

❖ **Phase V- Growth and Consolidation – 2004 onwards:** The industry has also witnessed several mergers and acquisitions recently, examples of which are acquisition of schemes of Alliance Mutual Fund by Birla Sun Life, Sun F & C Mutual fund and PNB Mutual Fund by Principal Mutual Fund. Simultaneously, more international mutual fund players entered India like Fidelity, Franklin Templeton Mutual Fund, etc. There were 56 funds at the end of December, 2012. This is a continuing phase of growth of the industry through consolidation and entry of new international and private sector players.

#### **Literature Review**

Literature on Mutual Funds' performance evaluation is enormous. A few research studies that have influenced the preparation of this paper substantially are discussed in this section.

Sharpe (1996) suggested a measure for the evaluation of portfolio performance. Drawing on results obtained in the field of portfolio analysis, economist Jack L. Treynor suggested a new predictor of Mutual Fund performer, one that differs from virtually all those used previously by incorporating the volatility of a fund's return in a simple yet meaningful manner. Jensen (1967) derived a risk-adjusted measure of portfolio performance (Jensen's alpha) that estimated how much a managers forecasting ability contributes to a fund's returns. As indicated by Stateman (2000), the e-SDAR of a fund's portfolio is the excess return of the portfolio over the return of the Benchmark Index, where the portfolio is leveraged to have the benchmark index's Standard Deviation. Rao et-al. conducted an empirical study on conditional performance of Indian Mutual Funds. the results suggested that the use of conditioning lagged information variables improves the performance of mutual fund schemes, causing alpha's to shift towards right and reduced the number of negative timing coefficient. Mishra et al. (2002) measured the mutual fund performance using lower partial movement. In their paper, measures of evaluating portfolio performance based on lower partial movement were developed. Risk from the lower partial movement is measured by taking into account only those states in which return is below a pre-specified "target rate" like risk-free rate. Fernandez (2003) evaluated index fund

implementation in India. In her paper, tracking error of index funds in India was measured. The consistency and level of tracking errors obtained by some well-run index fund suggested that it is possible to attain low levels of tracking errors under Indian conditions.

#### **Latest developments in Mutual Fund Industry:**

- The Indian mutual funds retail market, growing at a CAGR of about 30%, is forecasted to reach US\$ 300 Billion by 2015.
- Income and growth schemes made up for majority of Assets under Management (AUM) in the country. At about 84% (as on March 31, 2008), private sector Asset Management Companies account for majority of mutual fund sales in India.
- Individual investors make up for 96.86% of the total number of investor accounts and contribute 36.9% of the net assets under management.
- The Rs.7.2 trillion Indian Mutual Fund Industry is revisiting its business model to be in sync with the new norms put in place by the capital market regulator, the Securities and Exchange Board of India, or SEBI.
- India has 58 asset management companies (AMCs) and at least some of them are planning to start their own distribution business instead of selling funds through third-party distributors. Among other things, they plan to cut distributors' commission by 25-30 basis points (bps) and shift their focus from frequent churning of funds to managing money for the longer term. One basis point is one-hundredth of a percentage point.
- Out of the 32 crore employed Indians, only 2.5% are investors. Many investors, particularly youth mostly having the dispensable income opt for mutual funds to enter into the securities market indirectly.

Hence, potential investors in mutual funds need evaluation not only by financial institutions but also by academicians and retail investors so that they can make a right choice in their investment decisions.

#### **Need For The Study**

Various fund houses (58 Asset Management Companies) in India offering several funds in each segment like Equity, Debt gilt and ETF etc., Out of which equity segment is flourished and most of the investors are attracted towards equity MFschemes. In the perspective of investor, identification of Superior and outperforming equity funds among various available MFs is necessary before making investment decision. Present study focuses on identifying outperforming equity Mutual Funds among select range of funds by way of measuring risk and return of each funds.

#### **Scope of the study**

For carrying out the study, top ten funds of various Asset Management Companies are selected based on rating assigned by CRISIL. The study focuses on comparison of risk and return of 10 equity schemes with benchmark index to identify outperforming mutual funds.

#### **Objectives of the study**

- To analyze risk and returns of equity funds to suggest investors about outperforming funds.
- To suggest investors about outperforming funds among available equity schemes.

#### **Methodology**

**Nature and Collection of Data:** Net Asset Values of Select funds were collected from published reports and websites like [www.AMFIIndia.com](http://www.AMFIIndia.com) and [www.Moneycontrol.com](http://www.Moneycontrol.com)

**Tools of Analysis:** Various statistical and evaluation techniques were used for analyzing the data.

NAME OF THE FUND	Linear Growth Rate (LGR) of Select Equity Funds and Benchmark Index					
	2007	2008	2009	2010	2011	2012
Birla Sunlife Gennext Growth	58.21	(48.00)	58.40	28.56	(15.76)	48.55
Franklin Indian Prima Plus	54.76	(46.54)	71.01	19.41	(17.20)	31.86
HDFC Growth Fund	67.90	(47.88)	73.93	26.98	(21.35)	28.75
ING Dividend Yield	70.63	(49.40)	101.24	27.24	(17.45)	26.57
Kotak Opportunities Fund	92.49	(56.16)	77.63	18.11	(23.45)	32.03
Principal Dividend Yield	65.04	(55.15)	77.47	23.73	(27.27)	43.57
Quantum Long-Term Equity	46.11	(46.24)	100.75	28.71	(20.72)	32.70
Reliance Equity Opportunities	47.70	(54.91)	104.71	30.68	(21.98)	48.61
TATA Dividend Yield Fund	76.44	(52.70)	87.91	31.88	(17.86)	34.73
UTI MNC Fund	32.65	(42.28)	81.72	26.47	(7.51)	31.99
NIFTY	54.72	(51.71)	75.51	18.78	(24.88)	27.96

\*negative returns are indicated with brackets

Some of the tools were Linear Growth Rate (LGR), Compounded Annual Growth Rate (CAGR), Standard Deviation, Sharpe Index model etc.,

**Period of the Study:** The analysis of Mutual fund schemes was done between Dec, 2007 and Dec, 2012.

#### Limitations Of The Study

- Present study is only confined to select equity funds. Results of the study cannot be generalized to all categories of mutual fund schemes.
- Present returns are not guaranteed in future and investors have to consider other aspects before investing in equity mutual funds.

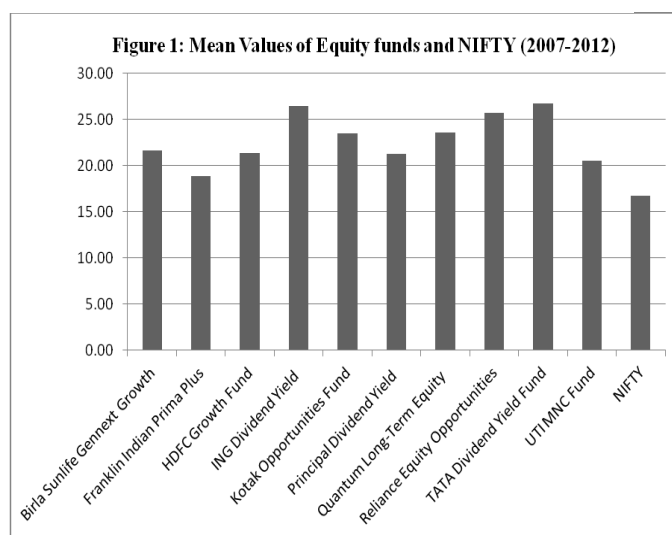
#### Analysis And Interpretation

Linear growth rate of 10 equity funds is compared with their peers and benchmark index. Annual returns for the period 2007 – 2012 are presented in the Table 1:

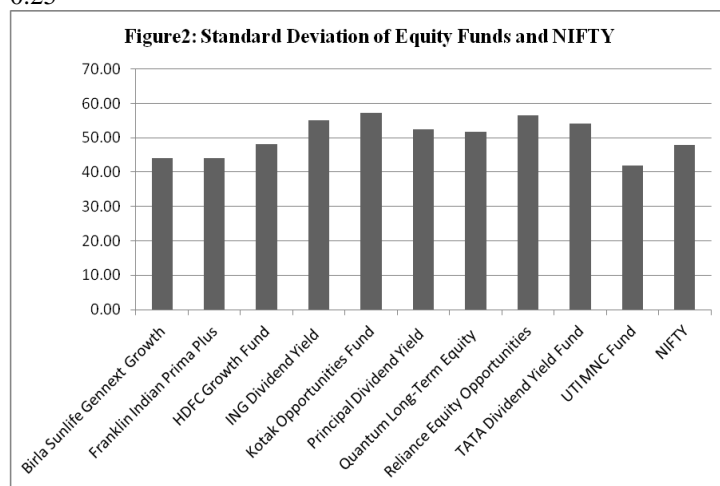
Out of 6 years, all 10 equity funds selected for the study and NIFTY recorded positive returns in 4 years (except 2008 and 2011). In the year 2007 Kotak opportunities fund yielded 92.49 percent returns followed by TATA Dividend Yield Fund and HDFC Growth funds with 76.44% and 67.90% respectively. In 2008 all funds and NIFTY yielded negative returns due to Global economic downfall. In 2011, a negative trend in returns was being experienced by all equity funds including NIFTY. In 2009 and 2012 Reliance equity opportunities fund outperformed its peers in terms of its returns. TATA dividend yield fund was successful in offering superior returns to its investors in the year 2010. Equity funds and NIFTY mean values have shown positive returns. Average returns of NIFTY and Franklin India prima plus fund stood at 16.73 and 18.88 percent respectively. Amongst the funds selected for the study, average return of three out of ten funds are more than 25 percent. Returns of remaining funds are between 20 and 25 percent.

Standard deviation of NIFTY stood at 47.84, while standard deviation of mutual funds deferred from 41 to 57. Standard Deviation of UTI MNC Fund, Birla Sun Life and Franklin India Prima Plus fund are between 40 to 45. There was deviation to the extent of 48.24% during the tenure of 6 years in HDFC growth fund returns. Three out of 6 funds returns are deviated from 50 to 55 percent. ING dividend yield, Reliance equity and Kotak Opportunities fund returns are highly deviated during the tenure of 6 years (55 to 60).

Compounded Annual Growth Rate of NIFTY is 6.96 percent. CAGR of 10 mutual funds are far better than benchmark NIFTY but KOTAK opportunities fund outperformed in CAGR amongst 10 funds (14.97 percent), CAGR return of Principal Dividend Yield fund hammered with 9.22 percent.



Sharpe ratio is an evaluation method which considers Returns of funds and Standard deviation of returns. Sharpe ratio of Tata Dividend yield fund and ING dividend yield fund (0.33 and 0.32) is higher than remaining funds. Sharpe ratio of Market Index NIFTY is 0.16. Sharpe ratios of mutual funds are higher than benchmark ratio. Sharpe ratio of 7 out of 10 mutual funds is above 0.25. Only two funds' sharpe ratio is between 0.20 and 0.25



#### Observations & Suggestions

Due to Macroeconomic volatility in 2008, there was high correlation in NIFTY returns and all the select Equity MFs. In 2011, NIFTY has shown downfall of results as in 2008 which lead to negative returns in the remaining equity funds.

During the period of study, high correlation exists between annual returns of Individual fund and NIFTY returns.

In emerging markets like India, long term equity markets have huge potential to yield modest returns but in short term perspective, stock markets may be volatile. With this view the current research is an attempt to find out returns of equity funds and index for medium to long term called for last 6 years. There is a huge volatility during the period of study but mutual fund investors were able to get modest returns. To find out returns two methods are popular, mean value of annual returns and CAGR.

NAME OF THE FUND	Sharpe Ratio	SD	CAGR
Birla Sunlife Gennext Growth	0.29	44.07	13.13
Franklin Indian Prima Plus	0.22	44.17	10.74
HDFC Growth Fund	0.26	48.24	11.84
ING Dividend Yield	0.32	55.18	14.97
Kotak Opportunities Fund	0.25	57.17	10.18
Principal Dividend Yield	0.23	52.49	9.22
Quantum Long-Term Equity	0.28	51.79	13.48
Reliance Equity Opportunities	0.30	56.50	12.80
TATA Dividend Yield Fund	0.33	54.04	13.87
UTI MNC Fund	0.27	41.93	13.59
NIFTY	0.16	47.84	6.96

Linear Growth Rate and CAGR of TATA Dividend yield and ING Dividend Yield fund offered better returns to investors. In terms of Annual returns and CAGR all funds yield better returns than their benchmark NIFTY returns. It is advised to the retail investors that they have to opt for investment in mutual funds to stay in markets for long term periods rather than investing for 6 months or one year.

Sharpe ratio of equity funds are far better than benchmark NIFTY ratio and according to the study Linear Growth Rate, CAGR and Sharpe Ratio of TATA Dividend yield and ING Dividend Yield fund are higher than their peers.

Performance indicators (LGR, CAGR, SD and Sharpe Ratio) together give some valuable inputs to investors to take

investment decisions in mutual fund investment. Along with these indicators investors have to consider other parameters like AUM, Inception of funds, etc. to reveal performance of Mutual Funds.

### Conclusion

Mutual funds are best investment option for retail investors and small investors who cannot afford to enter into the stock market directly with huge amounts of investments. Because of the availability of various funds in MFs in each segment, it is necessary to identify risk and returns of each fund before making investment decision. Investors should also concentrate on entry and exit loads before making their investment decision in mutual funds along with these performance indicators (LGR, CAGR, SD and Sharpe Ratio).

### References

1. Abchlor Investment Advisors P Ltd – Mutual Fund Report, September, 2009
2. Anagol, Malati&Katoli, Raghavendra, “Mutual Funds: just five year old and ready to run at a gallop” Economic Times, February27, 1992
3. Bhatt, M. Narayana, “Setting standards for investor services” Economic Times, December 27, 1993.
4. De, Mainak, “Mutual funds & Institutions – paying to a different tune” Economic Times, June 15, 1991.
5. Dave, S.A., “Mutual Funds: Growth and Development” The Journal of the Indian Institute of Bankers, Jan-March, 1992.
6. ICI Factbook 2011, AMFI Data.
7. KPMG Report Indian Mutual Fund Industry, the Future in a Dynamic Environment Outlook for 2015.
8. ShuklaSharad, “Mutual funds: Past performance is no indicator of the future” Economic Times, June 6, 1992.
9. www. amfiindia.com
10. www. moneycontrol.com