Performance Analysis of Different Asset Class in India

Subagyo* & Kanchan Bisht**

ABSTRACT

Investment is a way of investing the funds in different asset class available such as equity, debt, bonds, fixed deposits, real estate, gold etc. Each asset class has different risk return trade off. This study compares historical returns of different asset class namely Nifty 50, Sensex 30, Equity Mutual fund, Debt Mutual fund, Gold and Real Estate for 10 years horizon i.e 2007-2016. It also takes 20 years data for Nifty 50,Sensex 30 and goldi.efrom 1997- 2016 and compares the returns over the years. Further, itdiscusses the impact of recent change in the Indian Financial Budget relating to Long Term Capital Gain Tax (LTCG) over Real Estate investor's returns. This study shows that Debt Mutual fund has given better returns as compared to other asset classes for shorter period of time i.e. for one year period. However, for long term investors,equity mutual funds have performed consistently better as compared to other asset class.This study also reveals that change in budget relating to LTCG holding period for immovable property has made the real asset investment class more attractive for wealthy investors.

Keyword: *Mutual Fund, Net Asset Value, Long Term Capital Gain, Stock Index, CAGR.*

INTRODUCTION

Investment is the employment of funds with the aim of getting return on it.It is commitment of funds which have been saved from current consumption with the hope that some benefits will be received in future. Thus, it is a reward for waiting for money. Various investment options areavailable, offering differing risk-reward tradeoffs. Each asset class has its own merits and demerits. The following table shows characteristics of various asset class based on returns, risk, liquidity, tax and convenience.

Keeping these different asset classes, investors may have following different investment objectives.

Short term high priority: Investors have a high priority towards achieving some objectives in a short time. For example, a couple will give high priority to buy a house and invest their money accordingly.

Long term high priority: Some investors look forward for long term needs e.g. investing for education of a child or post retirement period etc.

Low priority goal: These objectives have low priority in investing. These objectives are not painful. After investing in high priority assets, investors can invest in these low priority assets like buying domestic appliances etc.

* Associate Professor, Finance and Managerial Accounting, Economic Faculty, Universitas Nusantara PGRI Kediri, Jalan K.H. Achmad Dahlan 76, Kediri, East Java, Indonesia 64121, subagyo@unpkediri.ac.id

** Assistant Manager, HDFC Asset Management Company Ltd, Dehradun, Uttrakhand, India, kanchanbisht62@gmail.com

Table 1: Characteristics of Various Asset Class

Asset class	Return		Risk	Liquidity	Tax Shelter	Convenience
	Current Yield	Capital Appreciation				
Equity Shares	Low	High	High	Very High	High	High
Equity Mutual Funds	Low	High	High	Very High	High	Very High
Debt Mutual Funds	Moderate	Low	Low	High	Low	Very High
Gold	Nil	Moderate	Moderate	Moderate	Low	Moderate
Real estate	Moderate	Moderate	Low	Low	Low	Low

Money making goal: Investors may have objective to maximize wealth. The investors invest in companies to get benefitted with capital appreciation apart from regular/current income (dividend).

Mutual Fund

Mutual fund is a way of investment by pooling money from different investors and diversifies collected funds into different option like equity, debt, gold, bonds, etc. Investors can get exposure of same securities through mutual fund who may not want to invest directly in financial markets. Investors can diversify their portfolio holdings with small amounts, by investing in gold and real estate through mutual funds. Each product offered by a mutual fund company is called a scheme. Mutual Fund Company offer varieties of schemes or funds, each catering to a different investment need of the investor. An investor may choose to invest through a mutual fund to be able to use the services of the fund manager who will make the investment decisions relating to selection of securities, timing of investments, reviewing and rebalancing the portfolio periodically and executing the operational decisions related to the portfolio. These services are provided to the investor by charging a fee. There are different types of mutual funds available in the financial market. Some of them are listed below.

Equity Mutual Fund: An equity fund is a mutual fund that invests in stocks. It can be managed actively or passively. Equity funds are also known as stock funds. These funds invest a maximum part of their corpus into equities holdings. Equity investments are meant for a longer time horizon. The Equity Funds are classified, based upon their investment objective, as follows:

- Diversified Equity Funds(Large Cap)
- Mid-Cap Funds
- Small Cap Funds
- Sector Specific Funds
- Tax Savings Funds (ELSS)
- Thematic Funds

Debt Mutual Fund: Debt Mutual Funds is a mixture of debt or fixed income securities such as, Government Securities, Treasury Bills, Corporate Bonds, Money Market instruments and other debt securities of different time periods. Debt securities have a fixed maturity date with a fixed rate of interest. These funds provide low risk and provide stable income to the investors. Debt funds are of following types:

- Gilt Funds
- Income Funds
- Short Term Plans
- Liquid Funds
- Monthly Income Plans (MIPs)

Gold: Gold is the most popular as an investment product. Investors buy gold generally to diversify risk, through the use of derivatives. The gold market is subject to speculation and volatility as are other markets. Gold is useful as a store of wealth. It acts as secret assets. The investment is highly liquid and can be sold at any time. The market prices are continuously increasing with return on investment. The investment is also safe and secure. There is a high degree of prestige value for gold in the society. The benefit of capital appreciation is also available.

Real Estate: Real estate generates income or is otherwise intended for investment purposes. This is considered as one of the oldest investment product and has gained a lot off importance in the recent past due to very high returns it has generated for the investors.

Stock Index

Nifty50: The NIFTY 50 index is National Stock Exchange of India's benchmark stock market index for Indian equity market. Nifty is generally owned and managed by India Index Services and Products (IISL), which is a wholly owned subsidiary of the NSE Strategic Investment Corporation Limited. The Nifty is a well diversified 50 stock index accounting for 22 sectors of the economy. It is used such as benchmarking fund portfolios, index based derivatives and index funds.

SENSEX 30: The SENSEX was introduced by the Bombay stock exchange in 1986. It is one of the prominent stock market indexes in India. It comprises of 30 stocks.

LITERATURE REVIEW

The literatures review on performance analysis of different asset classhas revealed that there has been a very few study which focuses on the comparison of different asset class over 20 years time period.

There have been different studies in the past which have analyzed the performance of some asset class in terms of their risk and return. Guha Deb, Banerjee and Chakrabarti in 2007 have conducted a study on Indian mutual fund data for the period 2000-2005 on a sample of 96 mutual funds. Their study showed that only 18 funds exhibited positive excess returns over their style benchmarks although none of them are statistically significant at 5% significance level.Anand and V. Murugaiah in 2008 conducted a study on performance of mutual funds of 113 selected schemes and found that mutual funds were not able to compensate to investors for the additional risk taken by investing in mutual funds. Dzikevicius and Vetrovin 2012 combined business cycle and asset allocation theories by adding significant information about performance of different asset classes during different stages of business cycle and demonstrated that different asset classes have different returncharacteristics. Rajni in 2015 calculated that the Indian equity market had provided an average return of 16.59% as against the expected rate of 10.84% during the period of 2003-2013 with a delivered risk premium of 9.78% per annum. S.NarayanRao in 2003 evaluated performance of Indian mutual funds in a bear market through relative performance index, risk-return analysis, Treynor's ratio, Jensen's alpha ratio, Sharpe ratio and Fama's measure. This study takes into account 269 open-ended schemes for calculating relative performance index. The results of performance measures indicates that 58 schemes of mutual fund in the sample were able to satisfy investor's expectations by providing excess returns over expected returns. Thenmozhi&Karthika in 2014 found that Debt is another significant asset class for the investors and the major debt instruments are the bonds. Dilip in 2014 found Gold to be a valuable asset class that can improve the risk-adjusted performance of a well-diversified portfolio of stocks which also hedge against various market and macroeconomic factors. Inder and Vohra in 2012 evaluate the long run performance of index funds schemes and captures sentiments of market and performance of the market.

Cole and IP in 1993 studies the performance of Australian equity trusts and found portfolio managers were unable to earn positive returns in investment. Most of these studies are either limited to one or two asset classes or having analysis of limited time period. Therefore, this study has got relevance as it has different asset classes with time horizon of as high as 20 years included into it.

OBJECTIVES OF THE STUDY

This study has following objectives to achieve.

i) Comparison of returns of different asset class with different time horizon

ii) Impact of change in Long Term Capital Gain Tax over investor's return in Real Estate Asset.

RESEARCH METHODOLOGY

This section discusses an overview of various dimensions of the research, tools and techniques and methods used to achieve the research objectives.

The Data and the Sample

The study is primarily **e**xploratory as well as descriptive and is focused on six categories of asset class namely SENSEX 30, NIFTY 50, Equity Mutual Fund, Debt Mutual Fund, Gold and Real Estate.

Data

The data has been taken from Association of Mutual Fund Industry of India (AMFI), Bombay Stock Exchange (BSE), National Stock Exchange (NSE), Bank Bazaar, and Residex Index published by National Housing Bank (NHB). The sample period undertaken for study is from the year 1997-2016.

In this study, it is proposed to do a comparative analysis of six categories of asset class namely SENSEX 30, NIFTY 50, Equity Mutual Fund, Debt Mutual Fund, Gold and Real Estate. The analysis has been done for the short term, medium term and long term horizon.Here, short term is defined as one year period, medium term is defined as 5 years period, and long term is defined as 10 years and more.

For this purpose, Compound Annual Growth Rate (CAGR) of index of SENSEX 30, index of NIFTY 50, Net Asset Value (NAV) of Equity Mutual Funds, NAV of Debt Mutual Funds, prices of gold, and index of Residex have been calculated. The calculation of NAV and CAGR have been explained in the following chapter under the head 'models and techniques'.

Sample Frame

The sample frame is called the list of the target population. The sample frame in this study is all those Mutual funds which are reporting their performance data to AMFI, and Real Estate prices reported to NHB.

Sample Size

This study has taken samples of top four Asset Management Company (AMC) on the basis of their Asset Under Management (AUM) for Equity and Debt oriented mutual funds. It also included top 8 popular cities (Delhi, Mumbai, Chennai, Bangalore, Kolkata, Hyderabad, Ahmadabad and Pune) for the calculation of real estate price change.

Sampling Technique

In order to analyze and compare the performance of different asset class, a convenience sampling is chosen.

Models and Techniques

For the conduct of the study, CAGR of NAV, SENSEX30, NIFT50, Real Estate Prices, Gold Prices have been used.

CAGR is calculated as under:

$$CAGR = \left(\frac{EV}{BV}\right)^{1/n}$$

Where:

EV = Investment's ending value

BV = Investment's beginning value

n = Number of periods (months, years, etc.)

Net Asset Value (NAV) is calculated as under:

NAV = (Market Value of All Securities Held by Fund + Cash and Equivalent Holdings - Fund Liabilities) / Total Fund Shares Outstanding

ANALYSIS AND FINDINGS

Comparison of Returns of Different Asset Class

One Year Comparison: It can be observed from Figure-1that Debt Mutual Funds have given highest returns as compared to other asset class for one year time horizon. It has delivered 12.50 % return during the year 2016 while Equity mutual fund has given 6.39%. The investors have received 8.65% return on Gold while SENSEX 30 and Nifty 50 have given 3-4% return for the same period. The Real Estate sector was also shown a lackluster performance with little over 2% return.

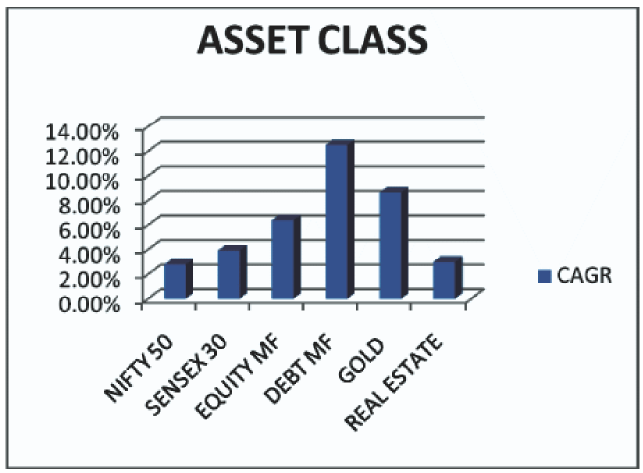

Figure 1: One Year Returns of Different Asset Class

Three Years Comparison: If investor is investing for medium term, i.e. if the holding period is for three years then, Equity mutual fund has outperformed other asset class with the returns of 15.67% per annum. The Debt mutual fund comes second with the return of 10.70% per annum. Gold being the worst performer yielded just 0.73% per annum. Other asset classes were in the range of 7-9%.

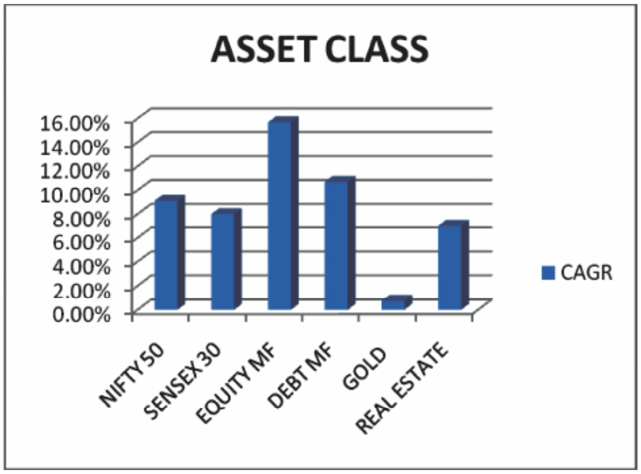

Figure 2: Three Year Returns of Different Asset Class

Five Years Comparison: If investor is investing for five years then again Equity mutual fund has outperformed other asset classes with the returns of 16.28 % per annum. The Debt mutual fund comes with the return of 9.30% per annum. Sensex and Nifty has given 11.40% and 12.03% per annum respectively. Real estate has given return of 11%. Gold again being the worst performer yielded -1.61 % per annum returns.

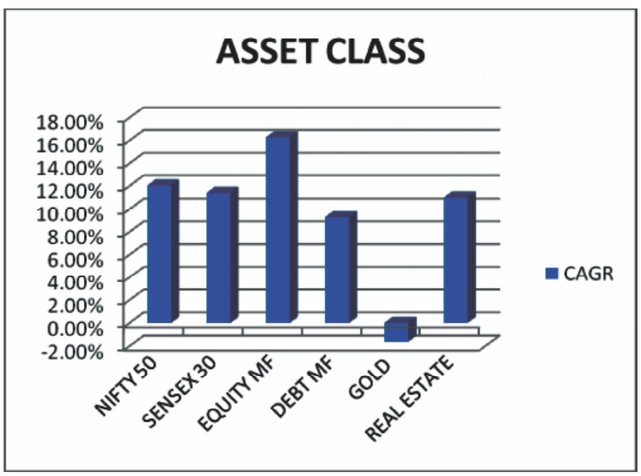

Figure 3: Five Year Returns of Different Asset Class

Ten Years Comparison: If investor is investing for ten years then again Equity mutual fund has outperformed other asset classes with the returns of 11% per annum. Gold has given second highest return among all with 10.23% per annum. The Debt mutual fund comes with the return of 8.20%. Sensex and Nifty has given 6.683% and 9.11% respectively. Real estate has given return of 9 % per annum over ten years period.

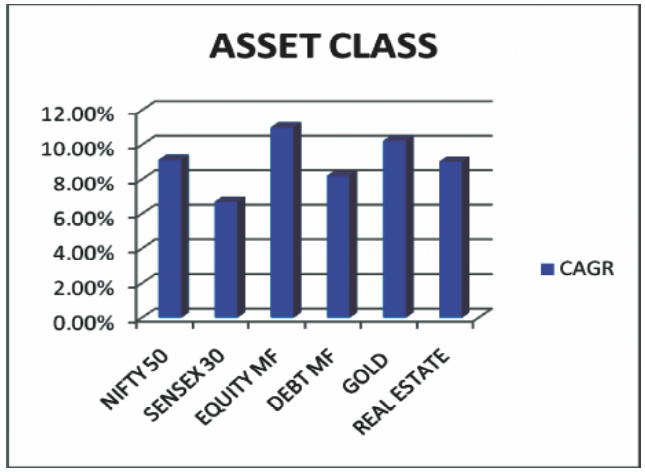

Figure 4: Ten Year Returns of Different Asset Class

Twenty years Comparison: For twenty years comparison, data relating to Gold, Nifty 50 and Sensex 30 are only available. Looking at these data, it is observed that NIFTY 50 is giving the highest returns with 11.4% per annum, while Sensex30 with 9.54% and Gold with 9.42% came second and third respectively.

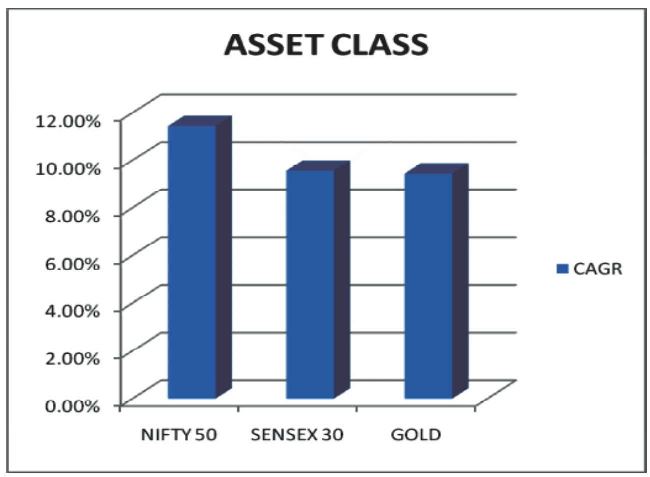

Figure 5: Twenty Year Returns of Different Asset Class

Table-2 below gives the snap shot of the returns of various asset classes over different time horizon.

Budget implication on return of Real Estate Asset: Indian Budget 2017 has proposed a change in Long Term Capital Gains (LTCG) holding period for Immovable property (like Real Estate Asset)from 3 years to now 2 years. This means that if investor sells the property after the holding period of two years, he will get the advantage of LTCG.

Table 2: Summary of Returns of Various Asset Class

		CAGR			
ASSET CLASS	**1 Year**	**3 Year**	**5 Year**	**10 year**	**20 Year**
Nifty 50	2.8%	9.11%	12.03%	7.40%	**11.43%**
Sensex 30	3.92%	7.99%	11.40%	6.68%	9.54%
Equity MF	6.39%	**15.67%**	**16.28%**	**11%**	-
Debt MF	**12.50%**	10.70%	9.30%	8.20%	-
Gold	8.65%	0.73%	-1.61%	10.24%	9.42%
Real estate	3%	7%	11%	9%	-
Best performer	**Debt MF**	**Equity MF**	**Equity MF**	**Equity MF**	**Nifty 50**

Table 3: Scenario-1 Pre-Budget and Post-Budget Comparison

Pre Budget	**(Rs)**	**Post Budget**	**(Rs)**
Salary Income (A)	1500000	Current Income	1500000
Tax Slab	30%	Tax Slab	30%
Investments		**Investments**	
Purchase Price(Year 2015)	2500000	Purchase Price(Year 2015) A	2500000
Selling Price (Year 2017)	3000000	Selling Price (Year 2017) B	3000000
Time horizon	2 years	Time horizon	2 years
STCG (B)	**500000**	**LTCG**	**500000**
Total Income (A+B) (**STCG added to Salary income)**	2000000	Tax on LTCG	20% After Indexation
Tax Slab	30%	Price After Indexation(C)	=2500000X(1125/1024) = 2746582
Effective tax on STCG	30%	Effective LTCG (B-C)	253418
Tax amount on STCG	**150000**	**Tax amount on LTCG**	**50684**
Tax Reduction			**66%**

Table 4: Scenario-2 Pre-Budget and Post-Budget Comparison

Pre Budget	**(Rs)**	**Post Budget**	**(Rs)**
Salary Income (A)	300000	Current Income	300000
Tax Slab	10%	Tax Slab	5%
Investments		**Investments**	
Purchase Price (Year 2015)	2500000	Purchase Price (Year 2015) A	2500000
Selling Price (Year 2017)	3000000	Selling Price (Year 2017) B	3000000
Time horizon	2 years	Time horizon	2 years
STCG (B)	**500000**	**LTCG**	**500000**
Total Income (A+B) (**STCG added to Salary income)**	8000000	Tax on LTCG	20% After Indexation
Tax Slab	20%	Price After adjusting for Cost Inflation Index (C)	=2500000X(1125/1024) = 2746582
Effective tax on STCG (10% for Rs 2 lakh , 20% for next Rs 3 lakh)		Effective LTCG (B-C)	253418
Tax amount on STCG	**80000**	**Tax amount on LTCG**	**50684**
Tax Reduction			**37%**

Table 5: Scenario-3 Pre-Budget and Post-Budget Comparison

Pre Budget	(Rs)	Post Budget	(Rs)
Salary Income (A)	600000	Current Income	600000
Tax Slab	20%	Tax Slab	20%
Investments		**Investments**	
Purchase Price (Year 2015)	2500000	Purchase Price (Year 2015) A	2500000
Selling Price (Year 2017)	3000000	Selling Price (Year 2017) B	3000000
Time horizon	2 years	Time horizon	2 years
STCG (B)	**500000**	**LTCG**	**500000**
Total Income (A+B) (**STCG added to Salary income)**	1100000	Tax on LTCG	20% After Indexation
Tax Slab	30%	Price After Indexation C	=2500000X(1125/1024) = 2746582
Effective tax on STCG (20% for Rs 4 lakh , 30% for next Rs 1 lakh)		Effective LTCG (B-C)	253418
Tax amount on STCG	**110000**	**Tax amount on LTCG**	**50684**
Tax Reduction			**54%**

This study also analyses the implication of such changes in returns of different type of investors (different income group investors). There are three scenarios possible for different income group of investors.

Scenario-1 assumes that the investor has income of Rs. 15 Lakh per annum and he is liable to pay 30% tax. Suppose, he has invested Rs. 25 Lakh in Real Estate and sold it after 2 year for Rs 30 Lakh. In this case, table below shows the calculations of effective returns and compare both Pre-Budget and Post-Budget scenario. It can be observed that the investor can reduce its tax liability by 66% post budget. Scenario-2, where the income of an investor is Rs 3 lakh per year, reduces the tax liability by 37% post budget. Scenario-3, where the income of an investor is Rs 6 lakh per year, reduces the tax liability by 54% post budget.

CONCLUSION

This study concludes that the medium to long term investors should prefer Equity oriented Mutual Fund schemes to maximize their returns. However, if the investor has short investment horizon, debt oriented mutual fund schemes should be the preferred choice.

Budget 2017 has further enhanced the net take home from these investment assets in general. The study reveals that change in budget relating to LTCG holding period for immovable property has made the real asset investment class more attractive for wealthy investors. Investor, having the tax bracket of 30 %, is able to reduce its tax liability by 66%. At the same time, those, having the tax bracket of 10 %, are able to reduce its tax liability by 37% only.

REFERENCES

- Anand S. and MurugaiahV. (2012). Analysis of Components of Investment Performance: An Empirical Performance of Mutual Funds in India. http://papers.ssrn.com/sol3/papers.cfm?accessed on March 20, 2017.
- Dilip, K. (2014). Return and Volatility Transmission between Gold and Stock Sectors: Application of Portfolio Management and Hedging Effectiveness. *IIMB Management Review*. 26(1).
- Dzikevicius, A., and Vetrov, J. (2012). Analysis of Asset Classes through the Business Cycle. Business, *Management and Education*. 10(1), 1-10.
- Guha Deb, Banerjee, Chakrabarti.(2011). Performance of Indian Equity Mutual Funds vis a vis their Style Benchmarks: An Empirical Exploration. http://ssrn.com/abstract=962827, 1-17
- Inder S. and Vohra S. (2012). Mutual Fund Performance: An Analysis of Index Funds. *International Journal of Research In Commerce & Management*. 3 (2), 143- 146.
- Thenmozhi, M., & Nair, K. S. (2014). Impact of Changes in Macroeconomic Factors on Treasury Bond Returns.
- Rajani Kant (2015). Equity Risk Premium Puzzle: The Case of Indian Stock Market, *IUP Journal Applied Finance*. 21(3), 50-56.