CLEAR IJRMST Volume-04 Issue-07 Jan-Jun 2014
Online-ISSN: 2249 -3506
Print-ISSN: 2249 -3492
www.thaavan.org

Impact of Foreign Institutional Investor (FII) on Indian Capital Market

Dr.R.Radhika
Assistant professor, Hyderabad Business School, Gitam University, AP, India
radhika@gitam.in, Ph.no 8096538082

Abstract
The Foreign Institutional Investors (FIIs) have emerged as noteworthy players in the Indian stock market and their growing contribution adds as an important feature of the development of stock market in India. To facilitate foreign capital flows, developing countries have been advised to strengthen their stock market. As a result, the Indian stock markets have reached new heights and became more volatile making the research work in this dimension of establishing the link between FIIs and stock market volatility. Hence, it's an interesting area of research to examine the role of FIIs in Indian Capital Markets. Foreign institutional investors have gained a significant role in Indian stock markets. The dawn of 21st century has shown the real dynamism of stock market and the various benchmarking of sensitivity index (Sensex) in terms of its highest peaks and sudden falls. In this context present paper examines the contribution of foreign institutional investment in sensitivity index (Sensex). Also attempts to understand the behavioral pattern of FII during the period of 2009 to 2013 and examine the volatility of BSE Sensex due to FII. The data for the study uses the information obtained from the secondary resources like website of BSE sensex and SEBI. We attempted to explain the impact of foreign institutional investment on stock market. Also attempts to present the correlation between FII and BSE Sensex. This research studies the relationship between FIIs investment and stock indices. For this purpose India's major index i.e. BSE Sensex is selected. This index would be used for to represent the picture of India's stock markets. So this project reveals the impact of FII on the Indian capital market. The study has founded that the equity and debt return has a significant and positive impact on FII, but given the huge volume of investment, foreign investors could play a role of market makers ad book their profit, i.e. they can buy financial assets when the prices are declining thereby jacking up the asset price and sell when the asset prices are increasing. The study suggest whenever there is inflow of FII investment we can see the raise in the index. Similarly whenever there is pullback of investment by FII, there is bearish trend in the index movement.
Key Words: *FII- Sensex- SEBI- BSE- Indian- Capital -Markets*

INTRODUCTION

FII is defined as an institution organized outside of India for the purpose of making investments into the Indian securities market under the regulations prescribed by SEBI. 'FII' include "overseas pension funds, mutual funds, investment trust, asset management company, nominee company, bank, institutional portfolio manager, university funds, endowments, foundations, charitable trusts, charitable societies, a trustee or power of attorney holder incorporated or established outside India proposing to make proprietary investments or investments on behalf of a broad-based fund. FIIs can invest their own funds as well as invest on behalf of their overseas clients registered as such with SEBI. These client accounts that the FII manages are known as 'sub-accounts'. A domestic portfolio manager can also register itself as an FII to manage the funds of sub-accounts foreign institutional investor means an entity established or incorporated outside India which proposes to make investment in India. Positive tidings about the Indian economy combined with a fast-growing market have made India an attractive destination for foreign institutional investors. FII is defined as an institution organized outside of India for the purpose of making investments into the Indian securities market under the regulations prescribed by SEBI. Entry options for FII -a foreign company planning to set up business operations in India has the following options: incorporated entity i.e. by incorporating a company under the companies act, 1956, through joint ventures; or wholly owned subsidiaries. Foreign equity in such Indian companies can be up to 100% depending on the requirements of the investor, subject to equity caps in respect of the area of activities under the Foreign Direct Investment (FDI) policy. Institutional investors will have a lot of influence in the management of corporations because they will be entitled to exercise the voting rights in a company. They can actively engage in corporate governance. Furthermore, because institutional investors have the freedom to buy and sell shares, they can play a large part in which companies stay solvent, and which go under influencing the conduct of listed companies, and providing them with capital are all part of the job of management One of the most important features of the development of stock market in India in the last 20 years has been the growing participation of FIIs. Since September, 1992 when FIIs were allowed to invest in India, the no. of FIIs has grown over a period of time. At end- march 2012, there were 1765 FIIs registered with SEBI.

LITERATURE REVIEW

Verma and Prakash (2011) found that the interest rate sensitivity of FII flows is not statistically significant and concluded that the BSE Sensex is a major pull factor for these flows into the domestic financial markets. Gupta Ambuj (2011) have studied the role of FII in volatility of the market and stock prices of individual securities, he found a high degree of relationship between the factors. P. Krishna Prasanna (2008) has examined the contribution of foreign institutional investment particularly among companies included in sensitivity index (Sensex) of Bombay Stock Exchange. Also examined is the relationship between foreign institutional investment and firm specific characteristics in terms of ownership structure, financial performance and stock performance. It is observed that foreign investors invested more in companies with a higher volume of shares owned by the general public. The promoters' holdings and the foreign investments are inversely related. Foreign investors choose the companies where family shareholding of promoters is not substantial. Among the financial performance variables the share returns and earnings per share are significant factors influencing their investment decision.

Agarwal, Chakrabarti et al (2003) have found in their research that the equity return has a significant and positive impact on the FII. But given the huge volume of investments, foreign investors could play a role of market makers and book their profits, i.e., they can buy financial assets when the prices are declining thereby jacking-up the asset prices and sell when the asset prices are increasing. Hence, there is a possibility of bi-directional relationship between FII and the equity return.

Mukherjee, Bose and Coondoo (2002) studied the cause-and-effect relationship between FII flows and returns on the Indian equity market. They found that FII flows to and from the Indian market tend to be caused by returns in the domestic equity market and not the other way round.

Kumar (2001) investigated the effects of FII inflows on the Indian stock market represented by the Sensex using monthly data from January 1993 to December 1997. Kumar (2001) inferred that FII investments are more driven by Fundamentals and they do not respond to short-term changes or technical position of the market. In testing whether Net FII Investment (NFI) has any impact on Sensex, a regression of NFI was estimated on lagged values of the first difference of NFI, first difference of Sensex and one lagged value of the error correction term (the residual obtained by estimating the regression between NFI and Sensex). The study concluded that Sensex causes NFI. Similarly, regression with Sensex as dependent variable showed that one month lag of NFI is significant, meaning that there is causality from FII to Sensex. This finding is in contradiction with the findings of Rai and Bhanumurthy (2003) who did not find any causation from FII to return in BSE using similar data between 1994 and 2002. However, Rai and Bhanumurthy have also found significant impact of return in BSE on NFI.

INDIAN ECONOMY

India GDP growth has slowed down significantly in the last 3 years from the highs of 9% recorded during the quarter ended Jun 2010 to the low of 4.7% for the quarter ending Dec 2013.

India's GDP growth in Q3 of 2012-13, at 4.5 per cent, was the weakest in the last 15 quarters. The services sector growth (6.02 per cent Y-o-Y), which has been supporting overall growth, has decelerated to its slowest pace in a decade. Even though the industrial sector expanded at a faster rate (2.31 per cent Y-o-Y), the growth rate remained low. The agricultural growth slowed to 1.06 per cent during the quarter. The real GDP growth during the second quarter of 2012-13 was 5.3 per cent.

The Quick Estimates by CSO shows that the India's General Index of Industrial production (IIP) went up by 2.4 per cent (Y-o-Y) in January 2013. The cumulative growth for the period April-January 2012-13 over the corresponding period of the previous year stands at 1.0 per cent. As regards price situation, year-on-year headline WPI inflation edged up to 6.8 per cent in February 2013 from 6.6 per cent in January.

STATEMENT OF THE PROBLEM

India opened its stock markets to foreign investors in September 1992 and has since received considerable amount of portfolio investment from foreigners in the form of foreign institutional investors (FII) investment in equities. This has become one of the main channels of international portfolio investment in India for foreigners. In order to trade in Indian equity markets, foreign corporations need to register with the SEBI as foreign institutional investors (FII). There may be many other factors on which a stock index may depend i.e. Government policies, budgets, bullion market, inflation, economies and political condition of the country etc.

In this context, the study of the impact of foreign institutional investor (FII) on the movement of share price in stock market is undertaking.

OBJECTIVES OF THE STUDY

- To study the movement of FII investment trends from the year 2009-2013.
- To study the extent of impact caused by FII on stock values on Sensex.

METHODOLOGY

The study carried out is analytical and empirical in nature in which it explores the relationship between the inflows of FII and their impact on Indian capital market. Data required for the study is collected from Secondary sources. For various literatures, books, Journals, magazines, websites like www.nseindia.com, www.bseindia.com,www.sebi.gov.in were used.

SCOPE OF THE STUDY

- The study gives the investment pattern of the FIIs from the year 2008-2012
- The study give the relationship between FIIs investment pattern and Sensex movement
- Since there are problem associated with investments of FIIs in the stock market, the study can help the investors to take informed decision regarding buying and selling of stock

TOOLS AND TECHNIQUES

Correlation

The correlation coefficient measures the nature and the extent of relationship between the stock market index return and the stock return in the particular period. A number between -1 and +1 calculated so as to represent the linear dependence of two variables or sets of data.

$$r = \frac{n\,\Sigma xy - \Sigma x \Sigma y}{\sqrt{n\,\Sigma x^2 - (\Sigma x)^2}\,\sqrt{n\,\Sigma y^2 - (\Sigma y)^2}}$$

Beta

The sensitivity of a security to market movement is called beta (β). A measure of risk commonly advocated in beta. It represents the most widely accepted measure of the extent to which the return o security fluctuates with the return on market portfolio. It describes the relationship between with the securities return and the index return. To calculate the beta of a portfolio, regress the rate of return of the portfolio on the rate of market index.

The Beta (β) of a stock or portfolio is a number describing the correlated volatility of an asset in relation to the volatility of the benchmark that said asset is being compared to. This benchmark is generally the overall financial market and is often estimated via the use of representative indices.

If $\beta < 0$ Asset generally moves in the opposite direction as compared to the index

If $\beta = 0$ Movement of the asset is uncorrelated with the movement of the benchmark

If $0 < \beta < 1$ Movement of the asset is generally in the same direction as, but less than the movement of the benchmark

If $\beta = 1$ Movement of the asset is generally in the same direction as, and about the same amount as the movement of the benchmark.If $\beta > 1$ Movement of the asset is generally in the same direction as, but more than the movement of the benchmark

$$\beta = \frac{n\,\Sigma xy - \Sigma x \Sigma y}{n\,\Sigma x^2 - (\Sigma x)^2}$$

Standard Deviation

It is a measure of the value of the variable around its mean or it is the square root of the sum of the squared deviations from the mean divided by the number of observations. The arithmetic mean of the return may be same for two companies but the return may vary widely.

$$SD = \sqrt{\frac{(\Sigma Ri - \bar{R})^2}{n - 1}}$$

Regression

Regression analysis is used when you want to predict a continuous dependent variable from a number of independent variables.

The two basic types of regression are linear regression and multiple Regression. Linear regression uses one independent variable to explain and/or predict the outcome of Y, while multiple Regression uses two or more independent variables to predict the outcome. The general form of each type of regression is:

Linear Regression: $Y = a + bX + u$

Multiple Regression: $Y = a + b1X1 + b2X2 + B3X3 + ... + BtXt + u$

Where:

Y= the variable that we are trying to predict

X= the variable that we are using to predict Y

a= the intercept

b= the slope

u= the regression residual.

DATA ANALYSIS AND INTERPRETATION

REASON TO CONSIDER BSE SENSEX

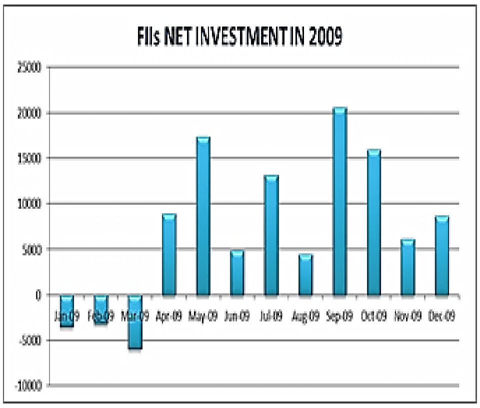
Of the all the stock exchanges in India, Mumbai's (earlier known as Bombay) Mumbai Stock Exchanges is the largest, with over 6000 stock listed. The BSE accounts for over two third of the total trading volume in the country. Established in 1875, the exchange is also the oldest in Asia. Among the twenty-two stock exchanges recognized by the government of India under the securities contracts (regulation) act, 1956, it was the first one to be recognized.

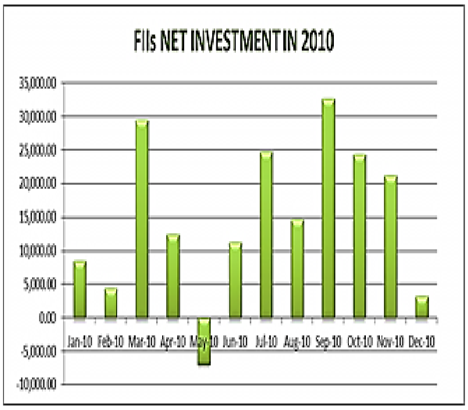
SENSEX is the basket of 30 constituent stocks representing a sample of large, liquid and representative companies. The base year of SENSEX is 1978-79 and the base value is 100. The index is widely reported in the both domestic and international market through print as well as electronic media.

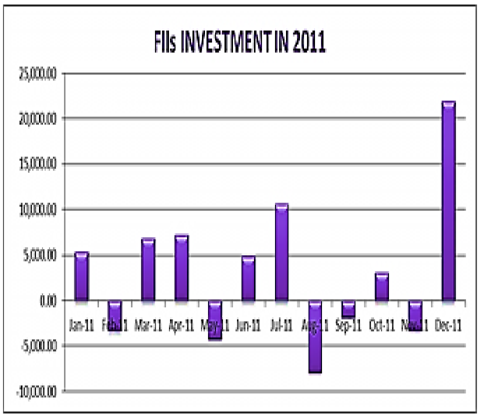
TYPES OF STUDY AND ANALYSIS CONDUCTED

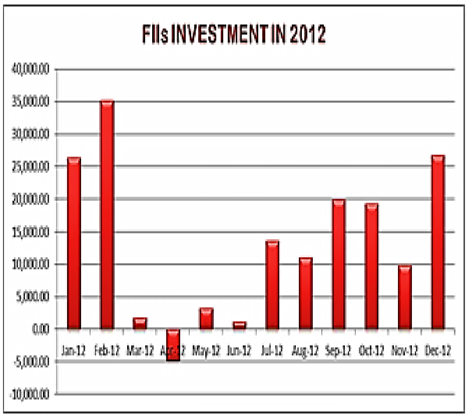
Trends in the FII's Investment are studied by doing trend analysis. The performance of Sensex from 2009-2013 and the Influence of FII's on Sensex is analyzed conducting Correlation and Regression analysis.

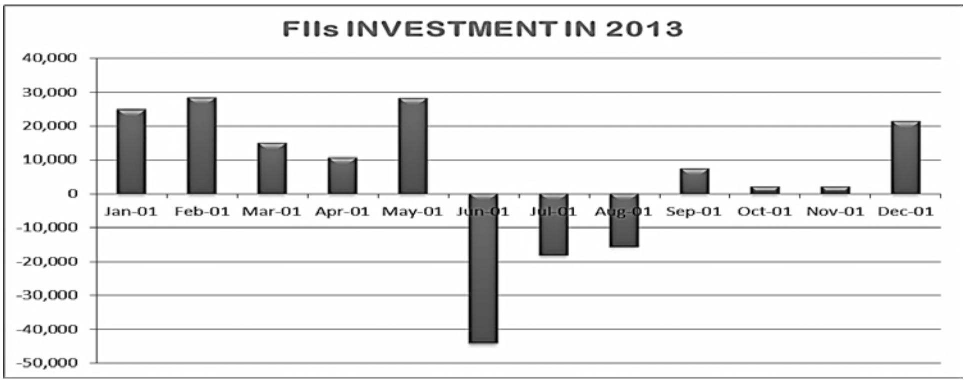
TRENDS IN THE FII'S NET INVESTMENT DURING 2009-2013











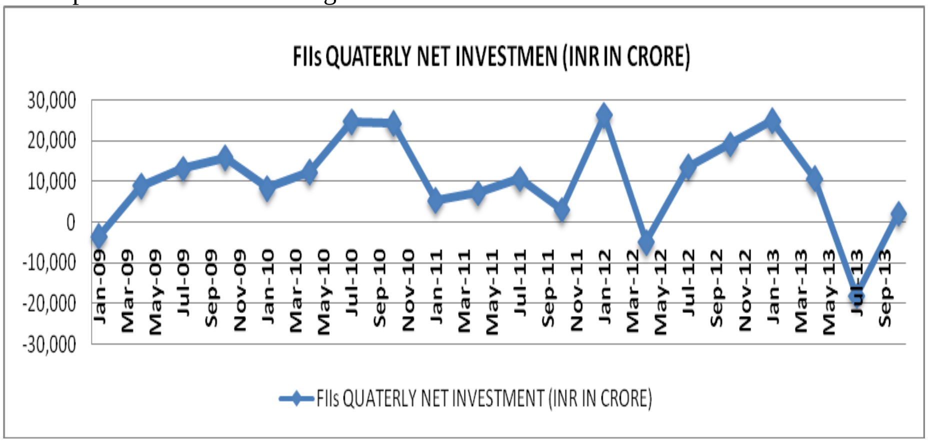
The data for the year 2009 indicating that the investors slowly started investing in Indian market again as in the year 2008 they have taken away their investment made in India capital market. The month of Sep is the month in which more capital flow it's around 20000 crore and more is in equity. In starting of 2009 the investment is negative it's because of last year impact but it doesn't continue more and again investment is made by FII investors. So overall it's a good year for Indian capital market.

In the year 2010 it is clear that the last year results are continued in this year 2010 the investors shown interest in market and invested their capital in Indian capital market. It's good for Indian economy also as more fund flow the economy will also grow. The month of Sep has seen the more flow its around 33000 crore and more in equity only one month the month of May the investors have taken back their capital so overall its good year more capital flow to India.

In the year 2011 FIIs investors have many time pulled back their investment and many time they have invested their capital. The year 2011 is full of ups and downs from the point of view of FIIs investment in Indian Capital Market. Only the month of Dec has seen the good flow of capital which is around 21000 crore in that month more investment is made in debt rather than equity and the month of Aug investors has taken back their capital more.

The Year 2012 has shown the positive result in this year FIIs investors again get attracted as they have invested more in Indian Capital Market the starting of the year is good as in Feb the more Capital flow its around 35000 crore and more through equity and only one month the month of Apr investors have taken their Capital and in all other months the capital flow to Indian market but in the month of March suddenly the investment is fallen down and continue for 4 months up to Jun.

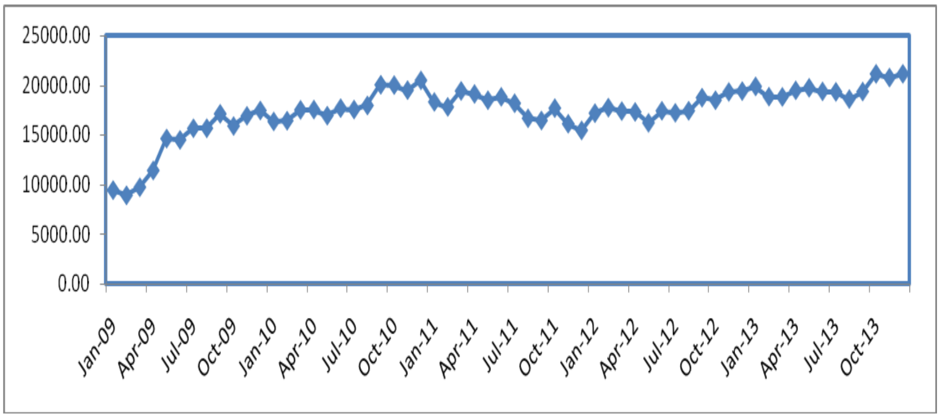
In the year 2013 FIIs investors have many time pulled back their investment and many time they have invested their capital. The year 2013 is full of ups and downs from the point of view of FIIs investment in Indian Capital Market. Only the month of Feb and May has seen the good flow of capital which is around 28441crore. In the month of Jun investors has taken back their capital more.



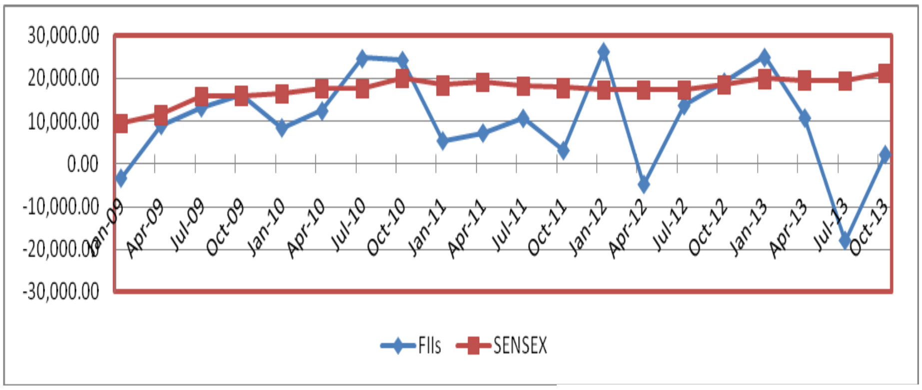
The above graph shows the net investment of FIIs from Jan-2009 to Sep-2013. It is clear that capital flow from FIIs is more after March 2009 before that the FII investment is not that much. In the year 2010 it is more compare to 2009. The highest investment is made in Feb 2012 which is around 35000 crore and the lowest is the month of jun-2013 which is around -44162 where the investors have drawn back their investment more and it's around. From the above graph it's also seen than when ever more investment is made suddenly it will fall immediately it may be because of the investors made their profit and after making profit they take back their capital.

THE PERFORMANCE OF SENSEX

Sensex movement from the year 2009-2013



The above graph shows the movement of Sensex from 2009 to 2013, it is observed that the movement in Sensex between this times period is between 1,000- 20,000 points only four time it goes above 20,000. In the period starting from jan-09 to july-09 the Sensex goes down and afterward it started increasing and remains between 15,000-20,000 points. We can say that 2009 is the Bear market because market is falling and from mar-2009 it is a Bull market because market again started to show upward trend.

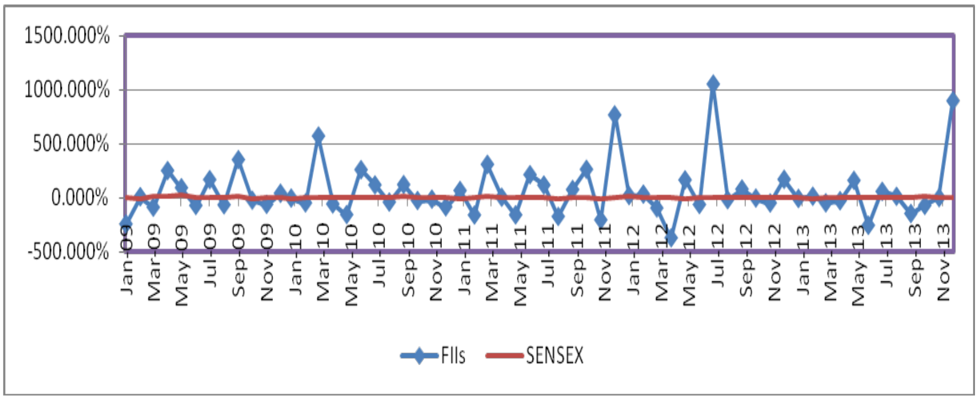


The above graph shows the FIIs investment and Sensex movement for a time period of 5 year which is from the year 2009 to 2013. From the above graph it is clear that FII investment has a positive impact on Sensex because in the year 2009 FII investors have drawn back their investment made in Indian capital market due to which Sensex also comes down and when again they have invested the Sensex started moving upward. The year 2011 is a bad year for India because FII investors taken back their investment and Sensex also come down.

INFLUENCE OF FII ON SENSEX

MONTHLY CHANGE IN NET INVESTMENT OF FIIs, SENSEX MOVEMENT AND CORRELACTION BETWEEN THEM FROM JAN-2009 TO NOV-2013

CLEAR IJRMST *Volume-04* *Issue-07* *Jan-Jun 2013*
Online-ISSN: 2249 -3506
Print-ISSN: 2249 -3492
www.thaavan.org



CORRELATION

	% CHANGE IN FIIs NET INVESTMENT	% CHANGE IN SENSEX
% CHANGE IN FIIs NET INVESTMENT	**1**	
% CHANGE IN SENSEX	**0.170546955**	**1**

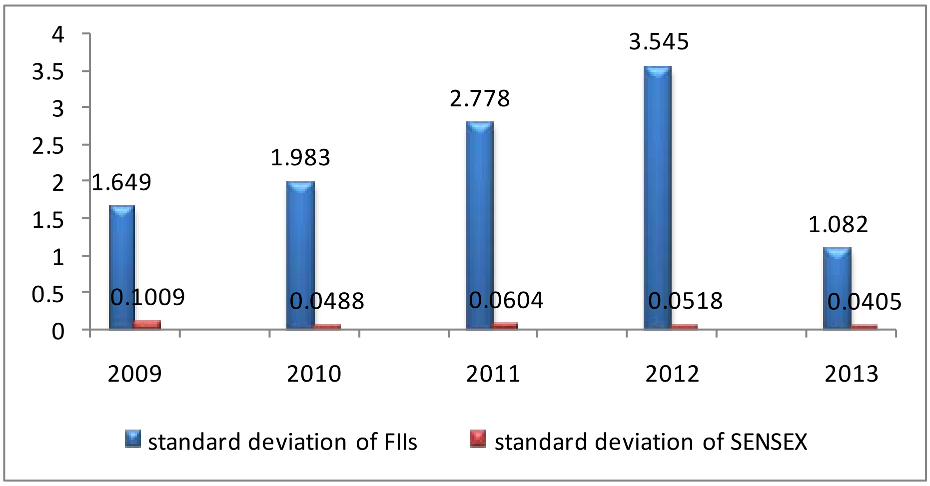
COEFFECIENT OF DETERMINATION	**0.0291**
STANDARD DEVIATION OF FII	**2.533**
STANDARD DEVIATION OF SENSEX	**0.0662**
COVARIANCE	**0.0281**
BETA	**0.0045**

The degree of relationship between SENSEX index movement and FII flow from the JAN-2009 to DEC-2013 is found to be 0.1705 and coefficient of determination is about 0.0291 i.e. 3% of the index movement during the period is due to FII flow. The risk in FIIs is much higher than in Sensex.

CONSOLIDATED DATA FOR 2009 TO 2013

Year	**Correlation**	**Coefficient of determination**	**Standard deviation of FII**	**Standard deviation of SENSEX**	**Beta**
2009	**0.5126**	**0.2628**	**1.649**	**0.1009**	**0.0031**

					4
2010	**0.5382**	**0.29**	**1.983**	**0.0488**	**0.0132**
2011	**0.4064**	**0.1652**	**2.778**	**0.0604**	**0.0089**
2012	**-0.1849**	**0.0316**	**3.545**	**0.0518**	**-0.0027**
2013	**0.0295**	**0.019**	**1.082**	**0.0405**	**0.0004**



From the above graph and table we can observe that the degree of relationship between SENSEX and FII is increasing from 2009 to 2010 then gradually decline from 53.82% in the year 2010 to -0.184% in 2012 and went to 0.0295 in the year 2013 and the coefficient of determination also decline from 29% in the year 2010 to 1.9% in the year 2013. It shows that the movement of index during this period was not much influenced by FII and it was not depend on FII net investments only .

REGRESSION ANALYSIS

Online-ISSN: 2249 -3506
Print-ISSN: 2249 -3492
www.thaavan.org

Regression analysis	2009	2010	2011	2012	2013
R Square	0.26280627	0.2900554	0.1652262	0.0342123	0.00087077
Significance	0.0883371	0.0708277	0.1897225	0.5649466	0.927464723
Coefficient	0.0313606	0.0132438	0.0088854	0.0027066	0.000397
Standard Error	0.01661	0.0065552	0.00629	0.0045547	0.004257
t-statistic	1.888	2.021288	1.40705	-0.59518	0.093356

For the year 2009 Significance level is less than 10% i.e. 0.088 that is the model is valid. year 2010 Significance level is less than 10% i.e.7% that is the model is valid. 2011 Significance level is more than 10% i.e. 19% that is the model is invalid. 2012 Significance level is more than 10% i.e. 56% that is the model is invalid. 2013 Significance level is more than 10% i.e. 92% that is the model is invalid

Consolidated Result across all the years 2009-2013

R Square	**0.03917986**
Significance	**0.129514297**
Coefficient	**0.036878**
Standard Error	**0.023979**
t- statistics	**1.53788703**

The value of R square is 0.03917; it shows that the model explains 4% of the variation. In other words the Sensex is 4% dependent on FIIs. The net effect of the FIIs (variable x) on SENSEX is 0.036878 therefore 96% of SENSEX is been effected by other factors. The significance related to FII shown in table is 0.1295 more than 10% so null hypothesis H01 is accepted. Hence it is concluded that Flow of FIIs in to India and BSE Sensex trend are independent.

The past year turned out to be quite constructive for Indian equity. Markets made fresh life time highs on the back of improving domestic macros, supportive global equity and expected governance improvement in India after next general elections. Sensex crossed the level of 21,200 after a gap of almost six years. FII reaffirmed their commitment towards Indian equities with more than 20 billion dollars invested in 2013. We see 2014 bringing a new bull cycle into existence. A strong export sector, revival in investment activity, continued recovery in US & a stable Euro area are significant positives for equity markets. With domestic macro-economic data also on the mend, we are aggressive buyers of Indian equity.

Despite so many negatives plaguing the economy, corrective measures by the new government can quickly revive growth. The potential growth rate of economy is running around 6%. The growth rebound to those levels can take place quickly by reviving the investment demand. Once that has been achieved, the more arduous path of reclaiming the 8% growth can start.

From an equity market stand-point, macro-economic revival in India will open opportunities to make strong returns in the next few years. We would expect a GDP growth of 6% in FY15 and believe that economy will see a revival of growth and earnings cycle. The agricultural and services sector continue to show strong traction and gradually even manufacturing sector should pick-up as consumer demand revives. A real GDP growth of 6% along with Inflation of around 7% should lead to a nominal GDP growth of 13%. Sensex earnings growth has improved from 5% in FY13 to about 10% in FY14 on the back of INR depreciation. For FY15, we would expect a Sensex EPS growth of around 15%. We would believe that earnings growth for new five to six year business cycle should be atleast 20% considering the economy will revive from a very low base. If the infrastructure cycle revives quickly, the earnings growth revival will be faster with even 25% CAGR looking possible. A multiple rerating is also possible as cost of equity goes down in the next few years with the decrease in risk free rate. An earnings growth between 20-25% and multiple rerating from 15x to 16-17x in the next few years can lead to a 25% compounding of Sensex returns, which will take it to 100,000 levels by Calendar year 2020!

The other thing which can lead to increase in GDP growth is, making India a big player in the manufacturing space. The recent rupee depreciation can make Indian manufacturing competitive globally. With clever resource allocation, India can become a global manufacturing hub in sectors like Automobiles & auto components, pharmaceutical, textiles, gems & jewellery, leather goods, IT hardware and solar power. The SEZ policy was launched with this very intention. However, policy muddles and land acquisition issues brought this to a complete halt. There are expectations that under the new government, SEZ policy will be revived and several incentives will be given to the industry to expand in these sectors. Land acquisition bill has already been passed by Lok Sabha. Labour laws also need a complete overhaul so that producers are encouraged to hire more employees. Once Labour and land issues are streamlines and cheap finance is available to industry, Indian manufacturing will blossom and will lay the foundation of a virtuous cycle of productivity gains, high salaries and high growth.

Thus, there is no reason that India can't see a prolonged economic growth cycle with low inflation. The prolonged economic growth can create similar equity market returns in India as seen in United States in 1980s.

FINDINGS

1. In this study the pattern of SENSEX index studied by comparing with FII for five years (2009-2013). It is found that there is a positive correlation between Sensex movement and FIIs investment only in the year 2012 it is negative.
2. Impact of FIIs on Sensex in year 2009 and 2010 is more than any other year which interprets that the relationship between these two variables is more when there is a bullish trend.
3. It is observed that in the year 2008 SENSEX it totally down compare to all other year's because of recession thereafter it started to move upward and then after there is up and down between 15000 to 20000.

4. There is a very much high risk involve in FIIs compare to Sensex.

5. The numbers of company's increases which are allowing the FIIs investment compare to last year.

6. It is observed that in FIIs whenever more investment is made suddenly it will fall in next few months it may be because of the investors made their profit and after making profit they take back their capital what they invested.

CONCLUSION

Foreign Institutional Investors, who invest their money in different countries in order to get a good portfolio of investment, And India has been in the list of their portfolio for many years. The increasing GDP growth rate and the overall development of India in different sectors like industrial and agricultural field and others are the prime reason for the increasing nature of FII's inflow.

In developing countries like India foreign capital market helps in increasing the productivity of labor and to build up foreign exchange reserves to meet the current account deficit. Foreign Investment provides a channel through which country can have access to foreign capital.

According to the data which is collected for the period of 5 years from 2009 to 2013, it can be concluded that FII do have significant impact on Indian capital market but there are other factors like government policies, budgets, bullion market, inflection, economies and political conditions, etc. do also have an impact on the Indian capital market. The correlation between FIIs and Sensex in positive but not that much that we can say the Sensex movement is due to FII investment. Also the coefficient of determination is less in all the case. It shows the absence of linear reaction between FII and Sensex. This doesn't mean that there is no relationship between them.

References

1. Impact of Flow of FDI & FII on Indian Stock Market By Dr. Syed Tabassum Sultana, Prof. S Pardhasaradhi
2. Foreign institutional investors and indian stock market By M.Venkata Ramanaiah
3. Behavioral modeling of foreign institutional investor's in indian equity market by santosh kumar, amity university tavishi, amity university raju g, galgotia university ashish khatua, tata steel.
4. International journal of management research and review pattern recognition in fii flows and sensex return: a neural network approach by amitesh kapoor
5. Volatility in indian stock market and foreign institutional investor submitted by chopada pranjal vasant
6. SENSEX movement and FII flows – A Study by M. Anuradha Reddy