CHAPTER – VI
SUMMARY AND CONCLUSION

The purpose of the study is to understand the FIIs investment in stock market and the factors that drive them. In this chapter a brief summary of the objectives of the study and the methodology adopted for the study and also salient findings drawn from the analysis are presented. Verification of hypotheses is made to draw specific conclusions. The recommendations and conclusion of the study are also stated.

6.1 Objectives of the Study

The overall objective of the study is to understand the FII flows in Indian stock market. The following objectives are stated in specific and addressed in the research.

1. To understand the regulatory framework for FIIs and the trading mechanisms adopted by FIIs in Indian stock market.

2. To study the trend that exists in FIIs purchases, FIIs sales and Net Investment and in FII financial flows.

3. To identify the factors that influence the FIIs capital flows in Indian stock market.

4. To explore the relationship between the FIIs net investment pattern and Indian stock indices.
6.2 Methodology

Due to nature of research carried out, focus has been on gathering the secondary data which is relevant to the analysis being carried out. As the foreign investors emerged as one of the reasons for the movement of SENSEX and NIFTY in the Indian stock market, the present work is framed to analyze the influence of FII flows to understand the performance of stock market. The analysis is made by, correlating the FIIs purchases, sales and net investment with equity market returns to identify whether an association exists between them. The tools used for analysis include: Trend Analysis, Correlation analysis, Regression Analysis, Augmented Dickey Fuller test, and Granger causality test. The factors influencing FIIs to invest in Indian stock market is analyzed with ADF and Granger Causality test. The influence of the independent variables on FII flows and the casual relationship between these variables is studied.

6.3 Findings

In the present investigation, an attempt has been made to find out the impact of FII on Indian stock market. This chapter summarizes the findings which have been analyzed in different sections of the chapter V. The salient findings of the study are brought together in this chapter. Besides the major findings emerging from the study, the researcher also presents the recommendations of the
study and areas for further research in the light of the investigation. The findings of the study are summarized below:

**Trend in FII**

The trend of FII in India shows a positive approach of FIIs with investment in India. FIIs registered with SEBI (Securities Exchange Board of India) every year for the purpose of investment in India has almost grown 99 times. From 18 in the year 1992-1993, it rose to 500 in a decade. In the year 2011-2012 the number of registered FIIs in India rose to 1765. At the end of March 2013, FIIs held the highest stake of 16.9 percent in the banking sector, followed by FMCG and finance (9.2 percent and 8.8 percent, respectively). The net inflow of FII increased from Rs. 2608.13 crores in 1993 to Rs. 146438 crores in 2011 with relative ups and downs. There is increase in FIIs net investment till 2005-2006. There is small decrease in the years 2006-2007 and 2008-2009. There is a steep increase since 2009. This is the period when stock prices went up and market prospered. There is increase in net investment in equity and debt till 2005-2006. There is small decrease in the years 2006-2007 and 2008-2009. There is a steep increase since 2009. This is the period when stock prices went up and market prospered. In 2010-2011, the net FIIs investment in equity and debt is Rs. 14,64397 million. There is a 60 percent decline in FIIs net investments in equity and debt in 2011-2012. There is decrease in investment made by FIIs in banking and iron and steel companies.
during the years 2007 to 2012. However there is a drastic increase of investment made by FIIs in infrastructure, Information Technology and FMCG sectors. The flow of FIIs has been high and positive especially during 2009-10 to 2010-11. The flow of BSE SENSEX shown increasing trend during the considered period, except during the period 2001-03 and 2008-09 and the flow of CNX NIFTY has shown increasing trend except the years 2001-02 and 2008-09.

**Volatility in Stock Market**

The instability in stock market which influences the investment of FIIs is studied with an analysis of the volatility of stock market. The Long Term Price (LTP) and the percentage change of its price in the long term are studied for the 50 companies listed in NIFTY in December 2012. Daily Range for one month of December 2012 is studied. Three months, weekly one year range, weekly two years range, fortnightly two years range, Monthly two year range and monthly four year range is also studied. Daily moving averages of these companies are studied to understand the fluctuations that happen in the market from three day to 200 days from June 2012.

**Impact of FII Flows on Economic Factors**

FII flows is studied from 2000 to 2012 to understand its relationship with BSE Sensex and the indicators like Industrial production, Money supply,
Exchange rate, Foreign exchange reserves, Wholesale price index and interest rates. It is found that FII flows and the BSE Sensex showed a significant positive correlation. It is further observed that there is good co-movement between FII flows and foreign exchange reserves since India balances its current account deficit (CAD) on the one hand, and the foreign exchange kitty on the other hand, with the help of foreign currency inflows. There exists a significant relationship between FII investment and economic indicators studied. Granger Causality tests are conducted to understand the causal relationship between FII and the economic indicators considered. Non-existence of the cause-and-effect relationship is observed between FII flows and other variables such as Wholesale Price Index, exchange rate. FII do not significantly cause exchange rate in India, since exchange rates are determined by various other factors, viz., Balance of Payment, differentials of inflation and interest rates, crude oil prices. It is also found that FII flows do not cause inflation since India suffers from supply-side constraints rather than excessive liquidity alone.

**Determinants of FII**

Comparison of FII and different determinants like FDI, Inflation rate, Exchange rate, GDP growth rate, BSE Sensex, bank Interest Rate and Indian Industrial Index are made. FII and FDI has low negative correlation (-0.12), when FDI will increase then FII will slowly decrease or vice versa. There is no
significant association between FII and the variables studied as the significance level is greater than 0.05. Hence at 5 percent level of significance, FII is not influenced by FDI, Inflation rate, Exchange rate, GDP growth rate, BSE Sensex, bank Interest Rate and Indian Industrial Index.

**FII's Net Investment Pattern and Market Indices**

BSE Sensex and foreign institutional investment has followed a close relationship. This is understood with Pearson Correlation. There exists a positive correlation between the foreign institutional investments and the movement of sensex. Correlation coefficient is 0.529. Hence at 1 % level of significance there exist strong positive correlation between FII's Net investments and Sensex Value points. Extent of influence of BSE on the FII is studied with regression. R square value is 0.280 which explains that FII influences around 28 percent movements in BSE Sensex.

Relationship between FII's investment and NIFTY movements is studied with Pearson’s correlation. There exists positive correlation and co-efficient of correlation is 0.541. The impact of FII on NIFTY is further studied with regression. R square value is 0.293 which explains that FII influences around 29 percent movements in NIFTY. Relationship between FII inflows and stock exchange return is studied. The correlation coefficient between FII's net purchases or sales and stock market return is 0.654. The relationship between FII's net
purchases or sales and adjusted sensex close value is studied with Pearson’s correlation. There is a low degree of positive correlation between the net investments by FIIs and the sensex close with correlation coefficient of 0.357.

**FIIs Investment Behaviour**

Investors are not always rational in their investment. In order to understand the variance in Sensex with the investment behaviour of FII, regression is performed. $R^2 = 0.297$ which suggests that FIIs are not the only determining factors in deciding the movement or direction of Sensex, there are other major factors also, however FIIs as one of the factors cannot be completely ignored. The Results of Granger Casuality test indicates that there exists a bidirectional relationship between the net FII and index returns. This indicates that each one is causing each other. Foreign institutional investors buying and selling can influence the stock market prices and at the same time stock market prices influence the foreign investors buying or selling decisions. This study proves that there exists bidirectional relationship between FIIs and stock market returns.

**FII and Movements with Market Capitalization & Market Turnover**

Relationship between movement of market capitalization and FII is studied. The correlation test for the monthly time series data between net FIIs investment and the movement of market capitalization shows that the association is significant
and positive, indicated by correlation coefficient of 0.666 at 1 % level of significance. The association between the monthly FII flows and the movement of market turnover is analyzed with correlation coefficient. The correlation test for the monthly time series data between net FIIs investment and the movement of market turnover shows that the association is significant and positive, indicated by correlation coefficient of 0.416 at 1 % level of significance.

**FII and Sensex Movements**

The relationship between FII activity and movement of Sensex is studied with Vector Auto Regression Model (VAR). Stationarity condition is also tested for movement of Sensex using Augmented Dickey Fuller (ADF). The estimated values of both FII and movement of sensex, reported by the ADF test statistic at the first difference are -12.24390 and -10.80610 respectively. The critical values at 1 %, 5 % and 10 % significance level are also given and the test statistic exceeds the critical value and hence the null hypothesis is rejected. Therefore the two variables, Net FII and movement of Sensex are said to be stationary and ready for testing the Granger Casuality.

Casuality between the FIIs investment and movement of sensex for the daily data of the mid period of the study is made. The reported F-value and P-value suggest that there is a bidirectional casuality using 4 period lag between the movement of sensex and the net FII and this would imply that movement of
sensex “Granger cause” net FII and vice versa or improve the prediction. Since bidirectional casuality exists between FIIs and movement of sensex the ordering of variables are made keeping in mind that the movement of sensex is followed by the buying and selling in the FII activity.

6.4 Hypotheses Verification

Based on the above stated objectives of the study, the hypotheses formulated for empirical verification and tested with the data analysis. They are:

1. There exists trend in the FIIs Investment in India.
   This hypothesis is proved to be true as there exists increase or decrease in the investment pattern of FIIs.

2. There exists a significant relationship between FII flows and economic indicators.
   This hypothesis is proved to be true as there exists significant association between the economic indicators and the FII flows.

3. There exists a significant relationship between FII and NIFTY.
   This hypothesis is proved to be true as there exists significant association between the FII and NIFTY.

4. There exists a significant relationship between FII and BSE Sensex.
   This hypothesis is proved to be true as there exists significant association between the FII and BSE Sensex.
5. There exists a significant relationship between FII flows and Stock market Return.

This hypothesis is proved to be true as there exists significant association between the FII flows and Stock market return.

6. There exists a significant relationship between FII flows and Adjusted Sensex close value.

This hypothesis is proved to be true as there exists significant association between the FII flows and adjusted Sensex close value.

7. There exists a significant relationship between Stock market and FIIs investment behaviour.

This hypothesis is proved to be true as there exists significant association between Stock market and the investment behaviour of FII.

8. There is significant association between Net FII Investment and Market Capitalization

This hypothesis is proved to be true as there exists significant association between the Net FII Investment and Market Capitalization.

9. There is significant association between Net FII Investment and Market Turnover

This hypothesis is proved to be true as there exists significant association between the Net FII Investment and Market turnover.

10. Net FII is significantly influenced by movements of Sensex
This hypothesis is proved to be true with granger casuality test performed between Sensex movements and net FII.

6.5 Recommendations

Indian companies are becoming increasingly global in focus, competitive and are scoring well in innovation and sophistication of operations and adoption of the latest technologies from across the world which attract the global investors for investment in Indian Equities. The major recommendations for the foreign investors in Indian market are:

- Diversified investment options including short term, long term and different sectors would reap them better results.
- Investing in a fundamentally strong company which has good future prospects too at a discounted price is the key investment mantra to follow.
- Number of FIIs in a company is too large then it’s easier for the individual entities to move out of a stock which would make stock price of the company very volatile and risky. So, investing in a company which has smaller number of FIIs could be a safer investment option.
- Professional investor analysis should be scientific and this will direct FIIs towards appropriate investment decision.
In case of regulatory authorities, which include the government and SEBI, the following are recommended for enhancing the investments from FIIs:

- Government should set a minimum limit as well as maximum limit, within which FIIs invest in India, in order to avoid volatility in Indian stock market.
- From an investor’s point of view, there is no incentive to stay long term. This would encourage investors to go for more short term investments. Effective incentives for long term investments can be proposed.
- Banks should be efficient in supporting FIIs, as they are the vehicle in promoting long term financial investments from FIIs.

6.6 Conclusion

FII is a vital component which helps in the development of financial market and the overall financial development thereby allowing the capital flows available in a country to pursue its trajectory of economic growth. From all the above discussions and data analysis of the study it is inferred that there has been growing presence of the FII inflows in the Indian stock markets which is evident through the net cumulative investments. It is also clear from the study that there is an increase in the number of FIIs registered with SEBI. The study conducted observed that investments by FIIs and the movements of Sensex are quite closely correlated in India and FIIs make significant influence on the movement of sensex.
FIIs have positive impact on BSE Sensex and Nifty. FIIs are not the only determining factors in deciding the movement or direction of Sensex, there are other major factors also; however FIIs as one of the factors cannot be completely ignored. This signifies that market rise when increase in FIIs and collapse when FIIs are withdrawn from the market. In the absence of any other substantial form of capital inflows, the potential ill effects of a reduction in the FII flows into the Indian economy can be severe which can be seen at the time of U.S sub-prime crisis. Moreover, the findings of this study also indicate that Foreign Institutional Investors have emerged as the most dominant investor group in the domestic stock market in India. Particularly, in the companies that constitute the BSE Sensex, their level of control is very high. There exists bidirectional relationship between Sensex movements and FIIs investments. This explains that favourable Sensex movements would attract FIIs investments and the vice versa.

6.7 Scope for Future Research

A research study would be incomplete if it doesn’t provide necessary guidelines as well as potential research topics, for further exploration. The following suggestions are made for further research in this area.

- The relationship between stock market and FIIs is a comparatively less researched area in India. Even in the international level, interest in this subject evoke only in the 1990s following a wide effort by
World Bank to explore the link between finance and development. As a result cross-country, country-wise, industry-wise and firm-level case studies were made in many parts of the world exploring the functional link between stock market and FII.

➢ The applicability of the findings of these studies differs among countries depending on the level of development achieved and the pattern of economic policies adopted. An attempt may be taken to study about the impact of FII based on the economic condition of each country.

➢ The study identifies the following areas of future endeavour for researchers interested in this field. There is little evidence for the link between stock market development and domestic savings, financial intermediation, capital accumulation, income distribution, corporate growth, and legal framework in the Indian context.

Considering the history and present development of the stock market in the country, the volume of research done is so inadequate and there is ample scope of future research.