# FII Equity Investment and Indian Capital Market - An Empirical Investigation

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## Abstract

India, after United States hosts the largest number of listed companies. Global investors now ardently seek India as their preferred location for investment. Once viewed with skepticism, stock market now appeals to middle class Indians also. Many Indians working in foreign countries now divert their savings to stocks. This recent phenomenon is the result of opening up of online trading and diminished interest rates from banks. The stockbrokers based in India are opening offices in different countries mainly to cater the needs of Non Resident Indians.

The present study has covered foreign investments in form of equity. The time period is limited from April 2005 to March 2010 as it will give exact impact in both the bullish and bearish trend. The study will provide a very clear picture of the impact of foreign institutional investors on Indian stock indices. It will also describe the market trends due to FIIs inflow and outflow. The study would be helpful for further descriptive studies on the ideas that will be explored. Moreover, it would be beneficial to gain knowledge regarding foreign institutional investments and their impact on Indian stock market.

## Introduction

Indian economy has been one of the stars of global economy in recent years, growing at around 8% consistently. This growth has been supported by market reforms, huge inflows of FIIs, FDIs, real state booms and a flourishing capital market. The Indian security market in the last decade witnessed a significant transformation it has developed and grown simultaneously. As well as grown voluminously on several counts such as number of brokers, institutional investors, number of listed companies, market capitalization, trading volume and turnover on stock exchange.

India, after United States hosts the largest number of listed companies. Global investors now ardently seek India as their preferred location for investment. Once viewed with skepticism, stock market now appeals to middle class Indians also. Many Indians working in foreign countries now divert their savings to stocks. This recent phenomenon is the result of opening up of online trading and diminished interest rates from banks. The stockbrokers based in India are opening offices in different countries mainly to cater the needs of Non Resident Indians.

The Securities and Exchange Board of India (SEBI) is the statutory body that controls and regulates the functioning of stock exchanges, brokers, sub-brokers, portfolio manager's investment advisors etc. Many foreign institutional investors (FII) are investing in Indian stock markets on a very large scale.

Positive tidings about the Indian economy combined with a fast-growing market have made India an attractive destination for foreign institutional investors. 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. 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.

**Brief Literature Review**

In India, the purchase of domestic securities by FIIs was first allowed in September 1992 as part of the liberalization process that followed the balance of payment crisis in 1990-91. Now days, a significant portion of Indian corporate sector's securities are held by Foreign Institutional Investors, such as pension funds, mutual funds and insurance companies. These investors are often viewed as sophisticated investors as these institutional investors are better informed and better equipped to process information than individual investors (Han and Wang, 2004).

The impact study of FIIs flows on domestic stock market is important from government as well as investor point of view, for example, does the opening up of the market for FII increase speculation in the market and thus make the market more volatile and more vulnerable to foreign shocks (Li, 2002).

The immediate impact of market opening to FIIs is the surge in trading volume and capital inflows to domestic stock markets, result of which the boom in stock prices. The stock market boom, typically, does not last for the entire period is of capital inflows. It usually starts with the initial surge in capital inflows and ends before the episode of capital inflows completely subsides (Calvo and Mendoza, 2000).

Gompers et al. (2001) prove that institutional investors invested in liquid and large stocks having low returns during the previous year. So an increase in the institutional demand in share market will affect stock market prices and returns if supply and demand curves for that particular share are not perfectly elastic.

Lin et al. (2006) conclude that the investment performance of FIIs high holding stocks is significantly better than that of FIIs low holding stocks. They presented the evidence that FIIs trading behavior has generated better returns and portfolio performance since the stock market's full liberalization. There was a surge in capital inflows into India too since 1992 as investors tend to study companies more thoroughly. The involvement of foreign investors disseminates information better hence leads to more efficient market.

Richards (2004) analyze data of six Asian emerging equity markets and found two interesting findings. The trading behavior of foreign investors was largely influenced by the return in global market that is positive feedback trading. The price impact associated with foreign investors trading was much large than estimated earlier.

Stanley Morgan (2002) has examined that FIIs have played a very important role in building up India's forex reserves, which have enabled a host of economic reforms. Secondly, FIIs are now important investors in the country's economic growth. The Morgan Stanley report notes that FII strongly influence short-term market movements during bear markets. However, the correlation between returns and flows reduces during bull markets as other market participants raise their involvement reducing the influence of FIIs.

Sivakumar S (2003) has analyzed the net flows of foreign institutional investment over the years, it also briefly analyses the nature of FII flows based on research, explores some determinants of FII flows and examines if the overall experience has been stabilizing or destabilizing for the Indian capital market.

The Impact of FII in equity investment behavior in stock market was examined by Karimullah (1997-2007). He attempted to find out two way causes between behavior and performance of Indian stock market. He researched about the idea, that financial liberalization increases the efficiency of financial market and permission of FIIs equity investment are an important example of financial liberalization. Apart from net investment of FII's the purchase and sale behavior of FIIs were also analyzed in the study.

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 returns.

**Rationale and Scope of the Study**

Foreign Institutional Investors are said to be the driver of the market. Those are the one cause behind the rise and fall of Sensex. FII investment trends tell us about many effects that the Indian market is experiencing. The companies in which they invest are getting overvalued. Whenever FII find any trouble they withdraw their investments.

There is a lot of discussion in the market about Sensex of BSE but many of us do not talk about other Indices like NSE and BSE's Midcaps and Small caps which are high growth oriented and risky investment avenues. The return provided by them is high as compared to Sensex scripts. FIIs are also interested in investment in these scripts and impact these indices. So in order to find the impact of FII on these markets the study has been undertaken. This project analyses the impact of foreign institutional investment particularly among Midcaps & Small caps market of Bombay Stock Exchange. They are major institutional investors in Indian capital market. Movement in these indexes' is clearly driven by the behavior of Foreign Institutional Investors. The presence of FII in the BSE and NSE's Midcaps & Small caps companies and their active trading behaviors, their role in determining the share price movements must be considerable.

Scope of the study is very broader and covers both the stock indices and its comparison with foreign institutional investments. But, study is only going to cover foreign investments in form of equity. The time period is limited from April 2005 to March 2010 as it will give exact impact in both the bullish and bearish trend. The study will provide a very clear picture of the impact of foreign institutional investors on Indian stock indices. It will also describe the market trends due to FIIs inflow and outflow. The study would be helpful for further descriptive studies on the ideas that will be explored. Moreover, it would be beneficial to gain knowledge regarding foreign institutional investments, their process of registration and their impact on Indian stock market.

**Objectives of the Study**

- To find the relationship between FII equity investment pattern and BSE Sensex, mid cap and small cap indices.
- To analyze the impact of FII equity investment on Price movement of selected Mid cap & Small cap companies
- To study the contribution of FII equity investment in shaping Indian capital market.
- To study the impact of activity of FII on volatility of BSE and NSE indices
- To know the market trends due to FIIs inflow and outflow.

**Hypotheses**

Following hypotheses were developed for the study and tested at 5% level of significance.

H1 There is significant relationship between Sensex and FII equity investment

H1.1 Sensex is significantly correlated with FII equity purchases

H1.2 Sensex is significantly correlated with FII equity sale

H2 There is significant relationship between Mid cap indices and FII equity investment

H2.1 MIDCAP is significantly correlated with Foreign institutional investor purchases

H2.2 MIDCAP is significantly correlated with Foreign institutional investor sales

H3 There is significant relationship between Small cap indices and FII equity investment

H3.1 Small cap indices is significantly correlated with FII purchases

H3.2 Small cap indices is significantly correlated with FII sales

H4 There is significant degree of correlation among BSE indices

H4.1 Sensex is significantly correlated with MIDcap indices.

H4.2 Sensex is significantly correlated with smallcap indices

H4.3 Small cap indices is significantly correlated with midcap indices.

**Research 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. The study focuses on Mid cap & Small caps market of Bombay Stock Exchange. In this research the sale and gross purchases data was used to find the relation with Mid cap & Small caps Indices and to analyze

**Type of Research**

Exploratory Research method applied for the study. As an exploratory study is conducted with an objective to gain familiarity with the phenomenon or to achieve new insight into it, this study aims to find the new insights in terms of finding the relationship between FII'S and Indian Stock Indices.

**Sampling Method -**

Convenient Sampling method used for the Study.

**Data Collection**

Data for the study collected primarily from Secondary sources. For this various literatures, books, journals, magazines, web links were used. Five year data was collected as: Monthly data from BSE of Mid cap & Small cap Indices (2005-2010), Monthly data of FII flow in equity (2005-2010), Quarterly FIIs shareholding data of seven companies each of Mid cap & Small cap Indices (2005-2010), Quarterly closing price data of ten companies each of Mid cap & Small cap Indices (2005-2010) and Monthly closing data of FII closing(2005-2010)

**Research Analysis Tools**

The data was classified and tabulated using MS EXCEL. Correlation analysis used as statistical tool for data analysis. Correlation analysis measures the relationship between two data sets that are scaled to be independent of the unit of measurement. The population correlation calculation returns the covariance of two data sets divided by the product of their standard deviations. We can use the Correlation tool to determine whether two ranges of data move together - that is, whether large values of one set are associated with large values of the other (positive correlation), whether small values of one set are associated with large values of the other (negative correlation), or whether values in both sets are unrelated (correlation near zero). Data were analyzed with the help of SPSS version 11.

Analysis and Interpretation (on next page)

- It is revealed from table 1 that performances of indices are positively correlated with FII and the strength of correlation is very strong. It was also revealed that the performances of indices were also highly and positively related. Degree of correlation between FII purchase and BSE Sensex is 0.867 hence hypothesis H1.1 is accepted

- Table 1 also indicates that performance of indices is positively correlated with FII and the strength of correlation is very strong. It was also revealed that

**Table 1 Correlation among FII, MIDCAP, SMALLCAP Indices & Sensex**

**Correlations**

| | | PURCHS | SALE | NET | MIDCAP | SMALLCP | SENSEX |
|---|---|---|---|---|---|---|---|
| PURCHS | Pearson Correlation | 1.000 | .956** | .009 | .828** | .798** | .867** |
| | Sig. (2-tailed) | . | .000 | .950 | .000 | .000 | .000 |
| | N | 47 | 47 | 47 | 47 | 47 | 47 |
| SALE | Pearson Correlation | .956** | 1.000 | -.285 | .743** | .715** | .805** |
| | Sig. (2-tailed) | .000 | . | .052 | .000 | .000 | .000 |
| | N | 47 | 47 | 47 | 47 | 47 | 47 |
| NET | Pearson Correlation | .009 | -.285 | 1.000 | .171 | .170 | .089 |
| | Sig. (2-tailed) | .950 | .052 | . | .252 | .254 | .550 |
| | N | 47 | 47 | 47 | 47 | 47 | 47 |
| MIDCAP | Pearson Correlation | .828** | .743** | .171 | 1.000 | .986** | .951** |
| | Sig. (2-tailed) | .000 | .000 | .252 | . | .000 | .000 |
| | N | 47 | 47 | 47 | 47 | 47 | 47 |
| SMALLCP | Pearson Correlation | .798** | .715** | .170 | .986** | 1.000 | .901** |
| | Sig. (2-tailed) | .000 | .000 | .254 | .000 | . | .000 |
| | N | 47 | 47 | 47 | 47 | 47 | 47 |
| SENSEX | Pearson Correlation | .867** | .805** | .089 | .951** | .901** | 1.000 |
| | Sig. (2-tailed) | .000 | .000 | .550 | .000 | .000 | . |
| | N | 47 | 47 | 47 | 47 | 47 | 47 |

**. Correlation is significant at the 0.01 level (2-tailed).

the performances of indices were also highly and positively related Degree of correlation between FII sale and mid cap indices is 0.805 hence hypothesis H1.2 is accepted

- It was also found that performances of indices are positively correlated with FII and the strength of correlation is very strong. It was also revealed that the performances of indices were also highly and positively related Degree of correlation between FII purchase and mid cap indices is 0.828 hence hypothesis H2.1 is accepted

- It is exhibited from table 1 that performance of indices is positively correlated with FII and the strength of correlation is very strong. It was also revealed that the performances of indices were also highly and positively related Degree of correlation between FII sale and mid cap indices is 0.743 hence hypothesis H2.1 is accepted

- It is revealed from table 1 that performance of indices is positively correlated with FII and the strength of correlation is very strong. It was also revealed that the performances of indices were also highly and positively related Degree of correlation between FII purchase and small cap indices is 0.798 hence hypothesis H3.1 is accepted

- It was also found that performances of indices are positively correlated with FII and the strength of correlation is very strong. It was also revealed that the performances of indices were also highly and positively related Degree of correlation between FII sale and small cap indices is 0.715 hence hypothesis H3.2 is accepted

- It is revealed from table 1 that performance of indices is positively correlated with FII and the strength of correlation is very strong. It was also revealed that the performances of indices were also highly and positively related Degree of correlation among sensex and mid cap indices 0.951 hence hypothesis H4.1 is accepted

- Table 1 also explained that performances of indices are positively correlated with FII and the strength of correlation is very strong. It was also revealed that the performances of indices were also highly and positively related Degree of correlation among sensex and small cap indices 0.901 hence hypothesis H4.2 is accepted

- It is revealed from table 1 that performances of indices are positively correlated with FII and the strength of correlation is very strong. It was also revealed that the performances of indices were also highly and positively related Degree of correlation among mid cap and small cap indices hence hypothesis H4.3 is accepted

## Results and Findings

The introduction of Midcap & Smallcap Indices at Bombay Stock Exchange was on April 11,2005. So for the study five years monthly data from April-2005 to March-2010 of FII equity investment, BSE Mid cap closing, Small cap closings & closing of Sensex Indices were considered. Quarterly data of FII Shareholding and selected mid cap and small cap scrips were also analyzed.. Correlation Test has been carried out to find the degree of association between the FII Gross Purchases and BSE Midcap & Smallcap Indices; Sensex and Midcap & Smallcap Indices FII Shareholding & Scrip wise price. First of all correlation between sensex and FII gross purchase and FII gross sale and sensex is carried out to verify relation between them Sensex of Bombay Stock Exchange is considered as the barometer of Indian Capital Market. So first of all I begin with analyzing the relation between Sensex and Midcap & Smallcap Indices .This inference is further supported by high degree of correlation coefficient obtained between two variables in the Table-1. This high degree of correlation further suggests that there is direct correlation between the Midcap & Smallcap Indices and FIIs investments.FIIs gross purchases have been taken as independent variable to find the impact of FII because net investments involve negative values when there are more sales as compared to purchases FII invest in scrips of these Indices because they provide higher returns as compared to large cap scrips. Table-1 indicates a high degree of correlation between FIIs gross purchases and midcap closing after that FII gross sale and midcap closing gross purchase and smallcap closing and FII gross sale and smallcap closing.

This analysis indicates the impact of FIIs on Indices. An FII driven market can impact the real economy indirectly, when their behavior in the market exerts pressure on policy makers. Secondly, the wealth effect' where capital gains are translated into increased consumption and investment, can act as a more direct link between equity and physical markets. FIIs are always considered to increase the volatility of market. Volatility is often viewed as a negative in that it represents uncertainty and risk. However, volatility can be good in that if one shorts on the peaks, and buys on the lows one can make money, with greater money coming with greater volatility. The possibility for money to be made via volatile markets is how short term market players like day traders hope to make money, and is in contrast to the long term investment view of buy and hold. Foreign institutional investment is certainly volatile in nature and its volatility has certainly posed some threats to the Indian stock market considering its influence on the market. Increase in investment by FIIs cause sharp price increase. It would provide additional incentives for FII investment and this encourages further investment so that there is a tendency for any correction of price and when the correction begins it would have to lead by an FII pullout and can take the form of extremely sharp decline in the share prices Indices because only FIIs are not responsible for the fluctuations instead there are other factors like company specific factors, speculative trading, interest rate prevailing in the market, political factors, government policies related to specific sectors etc. which cause a significant change in the price. Findings of the study can be summarized as:

- Growth potential of Indian Capital Market has attracted the continuous increase in the number of registered FIIs and the Gross purchases made by them.

- The movements in Midcap & Smallcap Indices and Sensex are highly correlated with FII equity investment in Indian Capital market.

- The movement of FIIs gross purchases follows almost significant influence on the movement of Midcap & Smallcap Indices. When there is a downward trend in FIIs due to huge selling, there is decline in Midcap & Smallcap Indices. On the other hand if there is an upward trend in FII due to more gross purchases as compared to selling, Indices rises.

- The high degree of volatility in Indian stock market is caused by the increase in investment by FIIs which increases stock indices that in turn increases the price and encourages further investments. In this event when any correction takes place the stock prices decline and there will be pull out by the FII in a large number as earning per shares declines.

- The FIIs manipulate the situation of boom in such a manner that they will wait till the index rises up to a certain height and exit at an appropriate time. This tendency increases the volatility further.

## Conclusion

In the Indian stock market FIIs have a disproportionately high level of influence on the market sentiments and price trends. Results of the study shows the linkages between the FIIs inflows and the performance of Midcap & Smallcap Indices are robust and significant. FIIs have significant impact on the share prices of the Midcap & Smallcap Indices companies and their active trading behaviour.Small and periodic shifts in their behavior leads to market volatility.

It is recommended to policy formulators that they should certainly encourage Foreign Institutional Investment but should keep a check on the volatility factor. Long term funds should be given priority and encouraged. Some of the actions that could be taken to ensure stability can be strengthening domestic Institutional Investors and Operational flexibility to impart stability to the market.

## Limitation of Study

The study is based on limited samples selected for the study from BSE Sensex . If more sample companies consist of probably a heterogeneous group then the results may give better insight in to relationship of the specific variables. Also the data is taken on monthly basis.

The data on daily basis can give more positive results. In the study only FII equity investment and sales were considered. Other economic variables of macro and micro environment such as foreign exchange rate, speculative trading, interest rate prevailing in the market, political factors, government policies related to specific sectors etc. which can affect the performance of Indian capital market and FII inflow to the Indian capital market were not considered. Inclusion of these factors can provide more accurate insight to the findings of the present study.

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