

Impact of Foreign Institutional Investment (FII) on Indian Stock Market: An Empirical Study

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Abstract

In September 1992 India opened its stock markets to foreign investors and since then; significant amount of portfolio investment from foreigners in the form of Foreign Institutional Investor's (FII) investment in equities is upcoming in India. For foreigners, this has become one of the main channels of international portfolio investment in India. The FII's need to register with SEBI and obtain approval from the Reserve Bank of India under the Foreign Exchange Regulation Act (FERA) for buying & selling of securities, open foreign currency and rupee bank accounts, and to remit and repatriate funds. The present study attempts to analyse the rising trends of the Foreign Institutional Investment (FII) in India. An attempt has been made to study the relationship between the FII and the NIFTY 50 index returns. The study can be categorized under the descriptive research design. The variables in the study are the closing amounts of the FII and the stock prices ranging from the year 2013 – 2018. The growing trends of FII in the debt market and equity market have been analysed using the graphs. Correlation and regression analysis have been used as statistical tools. MS Excel has been used to study the relationship between the two variables and the impact of FII on the stock returns. The study has been conducted using the monthly closing prices and is confined to only one index NIFTY 50. The study with reference to the daily closing prices or another index may provide different sets of results. Also the regression only indicates the dependent and independent relationship and does not guarantee the causation effect.

Based on the findings, various investors can learn the behaviour of the relationship and impact of FII with the index returns which can further be used to earn above average returns. Also the significance relation between the two suggests that FII is vital to the growth and development of the stock market. This may bring attention of the SEBI to undertake measures so that the interest of foreign investors can be protected.

Keywords: FII, Correlation, Regression Analysis, Nifty 50

Introduction

After the economic reforms in 1991, India became the target destination for the foreign investments across the globe. Until the 1980s, there was reluctance towards foreign investment as India's development strategy was focused on self-reliance and import substitution and current account deficits were financed through debt flows and official development assistance. To overcome current account deficit, planning committee during 1991, proposed for The New Economic Policy which included three main factors namely Liberalization, Privatization and Globalization. After the launch of the reforms, foreign institutional investors (FIIs) from September 14, 1992, with suitable restrictions, were permitted to invest in all securities traded on the primary and secondary markets, including shares, debentures and warrants issued by companies which were listed or were to be listed on the Stock Exchanges in India and in schemes floated by domestic mutual funds.

Positive fundamentals combined with fast growing markets have made India an attractive destination for foreign institutional investors (FIIs). Although the Foreign institutional investors (FIIs), whose investments are often called 'hot money' because they can be pulled out at anytime, have been blamed for large and concerted withdrawals of capital from the country at the time of recent financial crisis, they have emerged as important players in the Indian capital market. FII chose India as the destination because India has always scope for good returns for investors, the major 3M's of production i.e., Money, Men and Material are avail at lower costs, ease of trading, transparent mechanisms and tax benefits.

FII refers to the investment made by resident of one country in the financial capital and asset of another country it facilitates and persuades large productivity and help in shaping up balance of payments. It means means an institution established or incorporated outside India which intends to make investment in securities in India. They are registered as FIIs in accordance with Section 2 (f) of the SEBI (FII) Regulations 1995. .In India FIIs investment started in September 1992. FII flows in India have continuously grown in importance. FII investments were recorded Rs. 2595.10 Cr in 1993 increasing to Rs. 135459.08 Cr. The period from 2008 to 2013 has been very critical for the world economy and for the Indian economy. The year 2008 saw the world facing the Global Financial Crisis and the year 2011 saw the world facing the Eurozone crisis. The Global Financial Crisis saw the world economy going for recession as the USA which is world big daddy went for a slowdown. FIIs contribute to almost 13% of the entire market capitalization at National Stock Exchange in India. Talking about FIIs investment, this has been continuously grown over years except 1998-99 and 2008-09 when FIIs sold more than they purchased in Indian stock market.

Literature Review

Prasanna(2008) attempted to find the relation between the investment pattern of the foreign investors with respect to the firm specific characters namely ownership structure, firm and the stock performance. He found that the foreign investors are more inclined towards the companies where the holdings of the promoters are not substantial. Further, it was found that the investment decisions are significantly related with the returns on the share and earning per share. Srivastav (2013) found that Indian markets are attracting Foreign Investors with the rapid changes in the economic policies of liberalization and globalization. Loomba (2012) in his study attempted to relate the trading behavior of the FII with the Indian markets and found significant positive correlation. Similar results were obtained for SENSEX and NIFTY movements with respect to the FII by Juneja (2013) in his study from a period ranging from 2003 – 2013.

Srinivas (2016) in his study attempted to find the impact of FII on the Indian stock market from 2008 – 2013 where the main focus is on the Global Financial crisis of 2008 and Euro Zone crisis of 2011 using various statistical tools. The results supported the literature of significant relation and impact of the FII on the Indian market. Undavia (2016) found that international investment is a powerful source in propelling the world towards economic integration and it facilitates and persuades large productivity helping in shaping up balance of payments.

Gupta (2016) found that FIIs were allowed to invest in India since September 1992 and had grown to 1626 at the end of March 2009. Abid and Jhawar (2017) found that the Indian stock markets are both shallow and slender because there are small numbers of companies. A and Kumar (2014) found that past few years

shows clear evidence that there is a huge investment going into these stock markets through various sources and the number of companies listed in the National stock exchange has also increased significantly. Kapoor (2015) found that Portuguese, Dutch, British and French established their premises in India and started trading with Indian people and dynasties. Prasad and Vaishali (2017) attempted to study the nature and pattern of the FII into various segments of the stock market in India and found that FII stands at the second position in the investment after Financial Institutions and majority of their investments flows in the direction of Finance and Banking sector.

Research Methodology

- **Objective of the Study:**

The study attempts to analyse the relationship between index CNX NIFTY 50 and FII Inflows. Further, it aims to identify the impact of the FII Inflows on the stock returns.

- **Hypotheses of the Study**

H₀₁ – There is no relationship between CNX Nifty 50 index and FII Inflows

H₀₂ – The FII inflows does not have any impact on value of CNX Nifty 50.

- **Sources of Data:**

The study is based on value of CNX NIFTY 50. Variables used in the study are monthly closing prices of the index ranging from March, 2013- 2018 have been taken up for the study from website of NSE (www.nseindia.com). The monthly closing values of FII have been taken from the website of Department of Industrial Policy and Promotion (<https://dipp.gov.in/>).

- **Statistical Tools Used**

Initially correlation has been used for studying the relationship between the variables.. It is denoted by “r” and its values ranges from -1 to +1. If the value of r is close to +1 and -1 this indicates that the variables are positively or negatively closely correlated.

The formula for the same is given below:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Thereafter, Ordinary least square regression has been applied to study the impact of the FII inflows on the stock returns. Regression attempts to determine the strength of the dependence of Stock returns on FII inflows. The equation for the same has been given below:

$$\text{Stock Returns} = a + b (\text{FII Inflows})$$

Where, “a” denotes the intercept and “b” denotes the slope (beta).

Data Analysis

The analysis has been divided into two sections. The first section represents the correlation that measure the strength of linear association between the two variables and the second section regression analysis helps in identifying the dependent and independent relationship between the two.

Interpretation

Section1: Analysis of Correlation.

For this, Karl Pearson Correlation coefficient is calculated between the two series. Following table 1.1 represents the results of the correlation:

	<i>FII</i>	<i>NIFTY 50</i>
FII	1	
NIFTY 50	0.401626	1

Table 1.1, correlation coefficient

In the above table, the r value calculated is 0.401, which represents the strength of linear relationship between the two variables. This represents positive moderate correlation between the FII Inflows and the Stock Index. This indicates that the two series are associated with each other. However the significance of the results can be checked through p value only. The same has been obtained using Regression table in excel. Following are the results for the same:

Summery Output

<i>Regression Statistics</i>	
Multiple R	0.401625593
R Square	0.161303117
Adjusted R Square	0.147087916
Standard Error	1281.325494
Observations	61

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	18629820.8	18629821	11.34723	0.001335966
Residual	59	96865906.29	1641795		
Total	60	115495727.1			

In the above table, the p value is less than 0.05 which means the results are significant. Therefore, the hypothesis H₀₁: indicating that there is no relationship between the two variables i.e. FII and Stock Index is rejected. This means there exists association between the two variables.

Section2: Analysis of Regression

For this, Ordinary Least Square regression has been applied using Excel. Regression has been applied to see the dependency of the Stock market represented by NIFTY 50 index on the FII Inflows.

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	6984.858984	385.6375093	18.1125	8.91E-26
FII	0.060374954	0.017923051	3.368565	0.001336

From, the above table, following regression equation can be framed:

$$\text{NIFTY 50 Index Price} = 6984.85 + 0.0603 * \text{FII}$$

In the above equation, 6984.85 refers to the intercept with p value less than 0.05 meaning that the hypothesis that intercept is 0 is rejected. Beta i.e. sensitivity of the stock market with respect to the FII inflows is 0.06 with p value less 0.05 indicating that the hypothesis that beta value is equal to 0 is rejected. Therefore, the overall hypothesis H_{02} : There is no impact of FII inflows on the Stock Market Index NIFTY 50 is rejected. This means that stock index NIFTY 50 is dependent on the FII Inflows.

Conclusion

From the above analysis it can be concluded that there is very close association between FII and Indian stock market. Undoubtedly, the FII Inflows has been impacting the Indian stock market positively. Larger FIIs' inflows towards Indian Stock Market have been leading to larger prices of the index. As stock market index are the development indicator of any economy. Stable Markets and return generating stocks attracts more of FIIs. Development in the economy would attract more of FIIs which in turn will strengthen the base of the economy. So both the variables are complementing to one another.

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