Impact of Foreign Institutional Investments (Fiis) on Indian Stock Market

Mahammadrafique U. Meman | Research Scholar, VNSGU, Surat Assistant Professor, College of Business Administration, Mandvi

ABSTRACT

Since Indian stock market is broad and attract investors for their investments. The major part of investors who are attracted to Indian stock market are Foreign Institutional Investors. The present study examined the impact of foreign institutional investments on Indian stock market. In order to achieve this objective, monthly data has been collected for NSE Nifty and Foreign Institutional Investments during year 2000 to year 2015. The statistical tool used is Granger Causality Test. To conclude, it can be said that foreign investments do not cause Indian stock market to move, but its Indian stock market which affects foreign investors for their investments in India.

KEYWORDS | Foreign Institutional Investments, NSE Nifty, Granger Causality Test

INTRODUCTION
National Stock Exchange
The National Stock Exchange (NSE) is India's leading stock exchange covering various cities and towns across the country. NSE was set up by leading institutions to provide a modern, fully automated screen-based trading system with national reach. The Exchange has brought about unparalleled transparency, speed & efficiency, safety and market integrity. It has set up facilities that serve as a model for the securities industry in terms of systems, practices and procedures.

CNX Nifty
The CNX Nifty is a well diversified 50 stock index accounting for 22 sectors of the economy. It is used for a variety of purposes such as benchmarking fund portfolios, index based derivatives and index funds. CNX Nifty is owned and managed by India Index Services and Products Ltd. (IISL). IISL is India's first specialized company focused upon the index as a core product.

Foreign Institutional Investments (FIIs):
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. An important milestone in the history of Indian economic reforms happened on September 14, 1992, when the FIIs (Foreign Institutional Investors) were allowed to invest in all the securities traded on the primary and secondary markets, including shares, debentures and warrants issued by companies which were listed or were to be listed the stock exchanges in India.

REVIEW OF LITERATURE
Mukherjee, Paramita explores in his study the relationship of foreign institutional investment flows to Indian equity market with its possible covariates based on a daily data-set for the period Jan. 1999 to May 2002 by employing Granger Causality Test on it. He obtained the result that the FII net inflow is correlated with the return in Indian equity market. So far as

investment in Indian equity market is concerned, foreign investors do not seem to be at informational disadvantage compared to domestic investors.

The possibility of bi-directional relationship between FII and the equity returns was explored by Rai and Bhanumurthy. They studied the determinants of foreign institutional investment in India during the period 1994-2002. They found, using monthly data that the equity returns is the main driving force for FII investment and is significant at all levels. They further studied the impact of news on FII flows and found that the FIIs react more (sell heavily) to bad news than to good news.

M. Venkata Ramanaiah examined the impact of foreign funds flow on Indian stock market after the adoption of LPG philosophy from 1991. Of late, the Indian stock market has registered tremendous growth despite high volatility in the prices of stocks. The causes include global factor, information boom, IT revolution, changes in income level of middle class, FDI and FII. Among the aforesaid, the later plays a dynamic role in stock market and causes high fluctuation in stock market prices .

Babu M. Suresh and Prabheesh K.P., reveal that the FIIs investments are influenced by the previous trading day returns, confirming the positive feedback strategy by them, but they are also influenced by the next trading day returns. Most of the studies generally point to the positive relationship between FII investments and movement of the National Stock Exchange share price index some also agree on bi-directional causality stating that foreign investors have the ability of playing like market makers given their volume of investments.

RESEARCH METHODOLOGY
PROBLEM STATEMENT
"To Study the Impact of Foreign Institutional Investments (FIIs) on Indian Stock Market"

RESEARCH OBJECTIVES
To study the impact of Foreign Institutional Investments on Indian stock market.

To study whether Foreign Institutional Investments have any influence on NSE Nifty.

RESEARCH DESIGN
Descriptive Research Design has been used. To investigate cause and effect relationship between two or more variables the Causal Analysis has been used.

DATA COLLECTION METHOD

Secondary Data (FIIs and NSE Nifty) have been collected from official websites of National Stock Exchange, journals, magazines, books etc. Monthly data have been collected from Jan, 2000 to June, 2015.

STATISTICAL TOOLS

Statistical tools used in this study are Augmented Dickey Fuller (ADF) Unit Root Test and Granger Causality Test by using Eviews7 and Microsoft Excel.

LIMITATIONS OF THE STUDY

The data is taken on monthly basis. The findings might be different if daily data would have been used.

This study is based on limited time period from year 2000 to 2015.

DATA ANALYSIS & INTERPRETATION
Augmented Dickey Fuller Test

An augmented Dickey-Fuller test (1979) is a test for a unit root in a time series sample. An augmented Dickey-Fuller test is a version of the Dickey-Fuller test for a larger and more complicated set of time series models.

The Hypothesis is

Null Hypothesis: H0: δ=0 (unit root)

Alternative Hypothesis: H1: δ<0

The result of ADF test is as below:

Table 1.1 ADF test for NSE Nifty

NSE Nifty	p-value
Level- I(0)	
Trend & Intercept	0.1284
1st Difference- I(1)	
Trend & Intercept	0.0000

Interpretation

From the above table 1.1 it can be seen that at level I(0), the ADF test is statistically not significant at 5% level of significance as the p value is 0.1284 which is more than 0.05. So the null hypothesis cannot be rejected at level I(0). This mean that NSE series has unit root problem and it is considered as non stationary series. Therefore, it is checked at first difference level.

It can be seen from the above table that at level I(1), the ADF test is statistically significant at 5% level of significance as the p value for intercept, trend & intercept and none is 0.0000 and is less than 0.05. So the null hypothesis can be rejected at level I(1). This mean that NSE series is considered as stationary series at first difference level i.e. at I(1).

Granger Causality Test

Granger causality is a statistical concept of causality that is based on prediction. According to Granger causality, if a signal $X1$ "Granger-causes" (or "G-causes") a signal $X2$, then past values of $X1$ should contain information that helps predict $X2$ above and beyond the information contained in past values of $X2$ alone. Its mathematical formulation is based on linear regression modeling of stochastic processes (Granger 1969). Granger causality (or "G-causality") was developed in 1960s and has been widely used in economics since the 1960s. However it is only within the last few years that applications in neuroscience have become popular. The Granger causality test is a statistical hypothesis test for determining whether one time series is useful in forecasting another.

The Granger (1969) approach to the question of whether causes is to see how much of the current can be explained by past values of and then to see whether adding lagged values of can improve the explanation. is said to be Granger-caused by if helps in the prediction of , or equivalently if the coefficients on the lagged 's are statistically significant. Note that two-way causation is frequently the case; Granger causes and Granger causes. It is important to note that the statement Granger causes does not imply that is the effect or the result of Granger causality measures precedence and information content but does not by itself indicate causality in the more common use of the term.

$$yt = a0 + a1yt − 1 +... + alyt − l + b1xt − 1 + ...+ blx–l + et$$

$$xt = a0 + a1xt − 1 +... + alxt − l + b1yt − 1 +..+ bly–l + ut$$

The null hypothesis is that x does **not** Granger-cause y in the first regression and that y does **not** Granger-cause x in the second regression. The result of Granger Causality Test is as below:

Table 1.2 Pair Wise Granger Causality Test for FIIs and NSE Nifty

Null Hypothesis	F-Statistic	p-value
DNSE Nifty does not Granger Cause FIIS	1.92950	0.0279
FIIS does not Granger Cause DNSE Nifty	0.70229	0.7693

Interpretation

From the above Tale 1.2 it can be said that the first null hypothesis i.e. DNSE Nifty does not granger cause FIIS is significant at 5% level of significance. The p value of first null hypothesis is 0.0279 which is less than 0.05. It means that the first null hypothesis can be rejected. Thus it can be said that there is statistical evidence that the movement of NSE Nifty causes FIIs for the investments.

Further the second null hypothesis i.e. FIIS does not granger cause DNSE Nifty is not significant at 5% level of significance. The p value of second null hypothesis is 0.7693 which is more than 0.05. It means that the second null hypothesis cannot be rejected. Thus it can be said that there is no statistical evidence that the investments by FIIs causes the movement of NSE Nifty.

CONCLUSION

It can be concluded from the data analysis that there is unidirectional causality from NSE Nifty to Foreign Institutional Investments (FIIs) and there is no reverse causation present on it. There is no direct relationship that foreign investments cause the movement of Indian stock market, but a direct relationship could be established that the movement in Indian stock market does cause foreign investors to invest or disinvest in or from Indian stock market.

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