

Impact of Foreign Institutional Investors (FIIs) Investments on Nifty Prices

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One of the most important features in the development of the Indian stock market observed in the last 15 years has been the steadily growing participation of Foreign Institutional Investors. India, the second fastest growing economy after China at a growth rate of 8.2%, has seen positive FII inflows driven by sound fundamentals and growth opportunities in the last decade. FII inflows into the Indian stock market have been steady ever since the markets were opened up to FIIs in the year 1992-93. With the exception of the years of 1999 and 2009, net flows have been positive. FIIs own a dominant 16% of Indian equities (worth US\$147bn) and account for 10-15% of the equity volumes. (Source: CLSAAsia-Pacific Markets) The FIIs were permitted to trade in the derivatives market in February 2002. The cumulative FIIs Net investment was Rs 3, 88,310 crore as on March 31, 2010 as compared to Rs.2,45,653 crore as on March 31, 2009, a growth of 58%.

The quantitative and qualitative developments in the stock market such as expansion of securities business, increased depth and breadth of the market and above all efficient pricing of the stocks can be attributed to the FIIs and their dominant investment philosophy of emphasizing on the fundamentals. Cumulative FII positions as percentage of total gross market position in the derivative segment as on Apr 27, 2011 is 33.24%.

As we see that FIIs play a dominant role in the Indian stock market, the question arises whether FIIs investments affect the prices of the Indian stock indices.

This paper tries to draw a relationship between FII flows and the price of the index futures and index options (Nifty).

Key Words: FII, Nifty, Index Futures, Index Options, Impact of FII

Introduction

Foreign Institutional Investors (FIIs)

An investor or investment fund that is from or registered in a country outside of the one in which it is currently investing is termed as a Foreign Institutional Investor. Institutional investors include hedge funds, insurance companies, pension funds and mutual funds.

One who proposes to invest their proprietary funds or on behalf of "broad based" funds or of foreign corporate and individuals and belong to any of the under given categories can be registered as a FII.

- Pension Funds
- Mutual Funds
- Investment Trust

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- Insurance or reinsurance companies
- Endowment Funds
- University Funds
- Foundations or Charitable Trusts or Charitable Societies who propose to invest on their own behalf, and
- Asset Management Companies
- Nominee Companies
- Institutional Portfolio Managers
- Trustees
- Power of Attorney Holders
- Bank

Here the terminology "Broad based" funds means funds having more than 20 investors with no single investor holding more than 10 per cent of the shares or units of the fund provided that if the fund has institutional investor(s) it shall not be necessary for the fund to have 20 investors.

The Eligibility Criteria For Applicants Seeking FII Registration

As per Regulation 6 of SEBI (FII) Regulations, 1995, Foreign Institutional Investors are required to fulfill the following conditions to qualify for grant of registration:

- Applicants should have track record, professional competence, financial soundness, experience, general reputation of fairness and integrity
- The applicant should be regulated by an appropriate foreign regulatory authority in the same capacity/ category where registration is sought from SEBI. Registration with authorities, which are responsible for incorporation, is not adequate to qualify as Foreign Institutional Investor.
- The applicant is required to have the permission under the provisions of the Foreign Exchange Management Act, 1999 from the Reserve Bank of India.
- Applicants must be legally permitted to invest in securities outside the country or its in-corporation / establishment.

- The applicant must be a "fit and proper" person.
- The applicant has to appoint a local custodian and enter into an agreement with the custodian. Besides it also has to appoint a designated bank to route its transactions.
- Payment of registration fee of US \$ 5,000.00.

Role of FIIs in Indian Stock Market

Foreign Institutional Investors play an important role in Indian securities markets. FIIs were allowed to enter into the Indian financial market in 1992-93. FIIs investment has shown a consistent increase over the past years except in the years 1998-99 and 2008-09. FIIs investment into India was quite high particularly since 2003-04 that could be attributed to the boom in stock markets across the globe and the sound global scenario. FIIs made highest investment in the Indian equity market in 2009, surpassing the 2007 inflows.

The FIIs were permitted to trade in the derivatives market in February 2002. The cumulative FIIs Net investment was Rs 3,88,310 crore as on March 31, 2010 as compared to Rs.2,45,653 crore as on March 31, 2009, a growth of 58%. Open interest position of FIIs in index options was the highest at Rs.7,03,745 crore by end-March 2010, followed by Stock futures (Rs.5,32,266 crore), Index futures (Rs.2,28,279 crore) and Stock options (Rs.13,323 crore).

Table 1: FIIs registered with SEBI

Year	No. of FIIs
1992-93	0
1993-94	3
1994-95	156
1995-96	353
1996-97	439
1997-98	496
1998-99	450
1999-00	506

2000-01	528
2001-02	490
2002-03	502
2003-04	540
2004-05	685
2005-06	882
2006-07	997
2007-08	1319
2008-09	1635
2009-10	1713
2010-11	1722

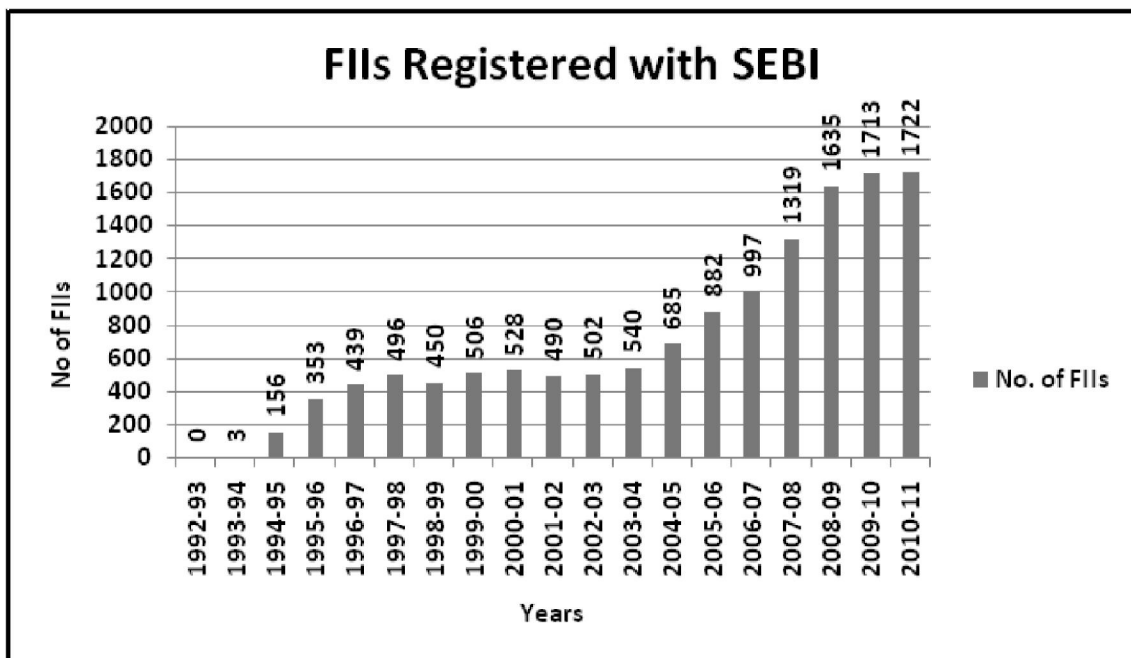
www.sebi.gov.in

Number of FIIs registered with SEBI in 2010- 2011 is 1722. It has been continuously increasing from 3 in 1992-93 to 1722 in 2011. This may be attributed to strong fundamentals and positive economic indicators.

Research Problem

This research studies the relationship between FIIs investment and nifty prices. The Research problem is to analyze the "Impact of Foreign Institutional Investors investments on Nifty prices". For this purpose one of the major indices S&P CNX Nifty is selected. S&P CNX Nifty is a well diversified 50 stock index accounting for 24 sectors of the economy.

Figure1: FIIs registered with Sebi



Index may depend on many other factors such as Government policies, budgets, bullion market, inflation, economic and political condition of the country, FDI, Re./Dollar exchange rate etc. But for this study we have selected only one independent variable i.e. FIIs investment. This study uses the concept of correlation and regression to study the relationship between FIIs investment and prices of nifty future and nifty options.

The FIIs re permitted to trade in derivative market in 2002. For this study investment made by FIIs in every month from January, 2006 to December, 2010 and prices of nifty future and nifty option for the same period is taken.

Research Hypothesis

Null Hypothesis (Ho): FIIs investment does not affect

the price of the index (nifty) future and index option.

Objectives of The Study

Following are the objectives of the study:

- o To study the trends of Foreign Institutional investments in Index future and in Index option.
- o To analyze the relationship between the FIIs investment in index future and index option and their respective prices.
- o To analyze the impact of FIIs investment in index future and index option on their prices.

Scope and Need of Study

This study covers both the trends of foreign institutional investments and nifty prices. The time period taken for

the study is from January 2006 to December 2010.

The study will provide a very clear picture of the impact of foreign institutional investments on nifty prices.

Analysis Of Fii Investment In Index Futures And Options (Nifty)

Analysis of the relationship between the two variables

The data used for the purpose of calculation and analysis for the period Jan 2006 to December 2010 is as follows:

Dependent Variable: Nifty

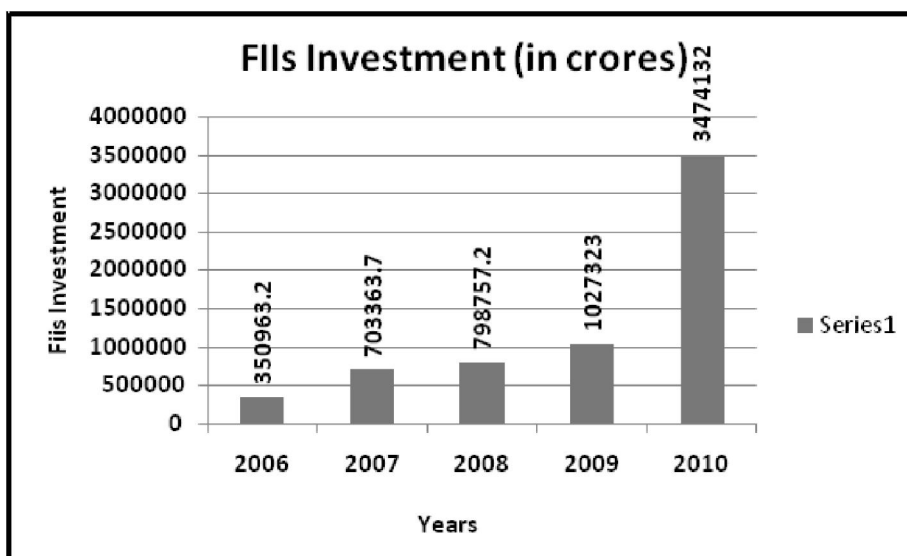
Independent Variable: FIIs investment in nifty future and option

Table 2: FIIs investment in index futures and index option (Nifty)

Years	FIIs Investment (in crores)	% Change
2006	350963.2	
2007	703363.7	100.41%
2008	798757.2	13.56%
2009	1027323	28.62%
2010	3474132	238.17%

Source: www.sebi.gov.in

Figure 2: FIIs investment in index futures and index option (nifty)



From table 2, we can see that FIIs investment in nifty futures and nifty option has been continuously increasing from Rs. 350963.2 crores in 2006 to Rs. 3474132 crores in 2010.

The highest increase was in 2010 by 238.17%.

Statistical analysis of the extent of relationship between the two variables

Table 3: FIIs investment and nifty prices

Period	FIIs Investment (Rs. in crores)	Nifty prices
Jan-06	19587.58	2892.683
Feb-06	20181.65	3019.321
Mar-06	25096.80	3236.368
Apr-06	25647.69	3494.061
May-06	38575.29	3437.411
Jun-06	38659.64	2914.913
Jul-06	30799.88	3092.11
Aug-06	25408.22	3305.582
Sep-06	32220.58	3492.131
Oct-06	32289.12	3649.428
Nov-06	23992.53	3868.611
Dec-06	38504.22	3910.18
Jan-07	36944.13	4037.065
Feb-07	36441.10	4083.787
Mar-07	53615.39	3731.129
Apr-07	40893.32	3947.328
May-07	29617.38	4184.39
Jun-07	50268.21	4222.174
Jul-07	50949.03	4474.182
Aug-07	84944.22	4301.357
Sep-07	64465.52	4659.92
Oct-07	85771.91	5456.618
Nov-07	112159.46	5748.575
Dec-07	57293.99	5963.574
Jan-08	87982.62	5756.354

Feb-08	83072.16	5201.564
Mar-08	71132.98	4769.497
Apr-08	59078.98	4901.905
May-08	67328.66	5028.663
Jun-08	87605.35	4463.788
Jul-08	84335.98	4124.604
Aug-08	60164.78	4417.118
Sep-08	66886.25	4206.686
Oct-08	58430.51	3210.223
Nov-08	34325.48	2834.786
Dec-08	38413.41	5528.341
Jan-09	36706.5	2854.363
Feb-09	36694.22	2819.205
Mar-09	60558.55	2802.273
Apr-09	68175.3	3359.829
May-09	84387.25	7538.976
Jun-09	93321.95	4463.37
Jul-09	114284.2	4343.098
Aug-09	113005.1	4571.11
Sep-09	113659.6	4859.308
Oct-09	99419.78	4994.108
Nov-09	119599.52	4953.538
Dec-09	87511.21	5099.743
Jan-10	113394.49	5156.224
Feb-10	109312.29	4839.573
Mar-10	109312.29	5178.148
Apr-10	107453.5	5294.755
May-10	198598.33	5052.971
Jun-10	181345.64	5187.775
Jul-10	160618.06	5359.745
Aug-10	170551.29	5457.239
Sep-10	197653.72	5811.483
Oct-10	188227.53	6096.107
Nov-10	1824270.69	6055.331
Dec-10	113394.49	5971.32

Source: www.sebi.gov.in and www.nseindia.com

Inference :

The analysis is based on correlation and regression statistic along with summary statistics of both the

variables, FII and Nifty between the periods from January 2006 to December 2010.

Table 4: Summary statistics

Column1		Column2	
Mean	105908.992	Mean	4461.43365
Standard Error	29737.86531	Standard Error	134.5962947
Median	67107.455	Median	4463.579
Mode	113394.49	Mode	#N/A
Standard Deviation	230348.5142	Standard Deviation	1042.578416
Sample Variance	53060437994	Sample Variance	1086969.753
Kurtosis	54.95636662	Kurtosis	-0.163481968
Skewness	7.269313134	Skewness	0.255256037
Range	1804683.11	Range	4736.703
Minimum	19587.58	Minimum	2802.273
Maximum	1824270.69	Maximum	7538.976
Sum	6354539.52	Sum	267686.019
Count	60	Count	60

The above table summarizes the statistics of the data furnished in terms of the dependent and the independent variable. The first column refers to the FII investment over the last 5 years. The second column furnishes data on the Nifty values over the same period.

Table 5: Correlation

Correlation	Column 1	Column 2
Column 1	1	
Column 2	0.327042	1

There is positive effect of FII on Nifty to the extent of 0.327042 that shows a positive yet weak relationship between the two variables. This means that Nifty has a relation with FII but the FII is not influencing the Nifty much.

Table 6: Regression statistics

Regression Statistics	
Multiple R	0.327042
R Square	0.106957
Adjusted R Square	0.091559
Standard Error	993.704
Observations	60

The proportion of variation in the dependent variable that can be explained by the independent variable is to the extent of 0.106957. The higher the better but in this case it is on the lower side.

The proportion of variance in the dependent variable that can be explained by the independent variables or

in other words the R square adjusted for changes in the independent variable is 0.091559.

The standard error of the estimate predicted dependent variable comes out to be 993.704 which is high and so it means that the deviation from the mean value is very high. This does not mean the relation is false but we can say that the error in linear relation is high.

Hence the null hypothesis cannot be rejected even though the extent of relationship between the two variables is significantly low.

Conclusion

An influx of foreign capital in any developing country such as India helps the economy by increasing productivity of labour and in building up foreign exchange reserves. Foreign Investment through stock market provides a channel through which a country can have access to foreign capital.

According to the analysis conducted in the study, it can be concluded that Foreign Institutional Investors do have an impact over the Nifty but to a lesser extent. The correlation between the FIIs and Nifty prices observed over the period of last 5 years from 2006 to 2010 is 0.32 that can be considered positive yet negligible.

FII is not the only factor affecting the Nifty prices. There are other major factors that may influence the movement in the Nifty prices such as government policy, bullion market, budgets, inflation, economical and political condition, etc.

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