

# FII Flows and Indian Equity Market Performance

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(Received on 10 September 2011 and accepted on 15 December 2011)

**Abstract** - This study mainly focuses on the FII flows in India and its impact on Indian equity market viz. BSE, NSE and S&P CNX 500. The data used for the study is secondary in nature. The study period is 10 years i.e., from 2001 to 2010. Literature collection and review helps the researcher to get the knowledge on the research topic and proceedings. Research design used in the study is analytical research and the statistical tools used are Correlation, Regression and Simple percentage. The study shows that there is a positive relationship between the FII flows and Indian equity market performance but the impact is not significant. This makes the researcher to conclude that Indian equity market performance is not only depending upon FIIs but also other unexplained factors like domestic investors, inflation, interest rate, government policy etc.

**Keywords:** Foreign Institutional Investors, Sensex, Nifty, Capital Flows, Investment

## I. INTRODUCTION

Any investment flowing from one country into another is foreign investment. The Government of India differentiates cross-border capital inflows into various categories like foreign direct investment (FDI), foreign institutional investment (FII), non-resident Indian (NRI) and person of Indian origin (PIO) investment. Inflow of investment from other countries is encouraged since it complements domestic investments in capital-scarce economies of developing countries. Foreign investments not only help in creating additional economic activity and employment generation but also facilitate flow of technology in to our country and help the economy to become more competitive. India opened up to foreign investments gradually over the past two decades, especially since the landmark economic liberalization of 1991. Initially, Indian government holds a higher control on foreign investments and slowly the government has reduced controls on foreign trade and investment. Higher limits on foreign direct investment were permitted in a few key sectors, such as automobiles, textiles, telecommunications etc. However, tariff spikes in sensitive categories including agriculture are still hindering the foreign access to India's vast and growing market.

FIIs have been allowed to invest in the Indian capital

market since September 1992 when the guidelines for Foreign Institutional Investment were issued by the Government. The Foreign Institutional Investors (FIIs) have emerged as important players in the Indian equity market in the recent past with a contribution of nearly 60% of the total foreign investment. FIIs include asset management companies, pension funds, mutual funds, investment trusts as nominee companies, incorporated/institutional portfolio managers or their power of attorney holders, university funds, endowment foundations, charitable trusts and charitable societies. FIIs can buy/sell securities on Indian stock exchanges, but they have to get registered with stock market regulator Securities Exchange Board of India (SEBI). They can also invest in listed and unlisted securities outside stock exchanges if the price at which stake is sold has been approved by RBI. No individual FII/sub-account can acquire more than 10% of the paid-up capital of an Indian company.

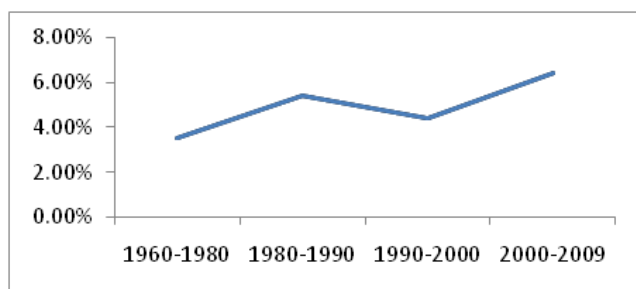
The FII inflows into Indian equity market can be classified in to two ways viz., Primary market and secondary market. The FII inflow to primary market in India comes mainly through the conversion of foreign currency convertible bonds (FCCBs), private placement to qualified institutions placements (QIPs), initial public offers (IPOs), follow-on overseas offers, conversion of warrants and preferential offers. As far as the secondary market is concerned, the significance of FIIs is every much evident as one of the familiar reasons offered by the market analysts may be "FIIs fuel rally" at the time of market rises and "Market melts due to FIIs selling" at the time of down trend. To fasten the economic performance FIIs role is inherent one for developing nations.

## II. OVERVIEW OF INDIAN STOCK MARKET

The working of stock exchanges in India started in 1875. BSE is the oldest stock market in India. National Stock Exchange comes second to BSE in terms of popularity. BSE and NSE represent themselves as synonyms of Indian stock market. The 30 stock sensitive index or Sensex was first compiled in 1986. The Sensex is compiled based on the performance of the stocks of 30 financially sound benchmark companies. In 1990 the BSE crossed the 1000 mark for the

first time. It crossed 2000, 3000 and 4000 figures in 1992. The reason for such huge surge in the stock market was the liberal financial policies announced by the then financial minister Dr. Manmohan Singh. The up-beat mood of the market was suddenly lost with Harshad Mehta scam. It came to public knowledge that Mr. Mehta, also known as the big-bull of Indian stock market diverted huge funds from banks through fraudulent means. He played with 270 million shares of about 90 companies. Millions of small-scale investors became victims to the fraud as the Sensex fell flat shedding 570 points. To prevent such frauds, the Government formed The Securities and Exchange Board of India, through an Act in 1992. SEBI is the statutory body that controls and regulates the functioning of stock exchanges, brokers, sub-brokers, portfolio managers investment advisors etc. SEBI oblige several rigid measures to protect the interest of investors. Now with the inception of online trading and daily settlements the chances for a fraud is nil, says top officials of SEBI.

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 scepticism, stock market now appeals to middle class Indians also. The past incidents that led to growing interest among Indian middle class are the initial public offers announced by Tata Consultancy Services, Maruti Udyog Limited, ONGC, Reliance and big names like that. Good monsoons always raise the market sentiments. A good monsoon means improved agricultural produce and more spending capacity among rural folk. The bullish run of the stock market can be associated with a steady growth of around 6% in GDP, the growth of Indian companies to MNCs, large potential of growth in the fields of telecommunication, mass media, education, tourism and IT sectors backed by economic reforms ensure that Indian stock market continues its bull run. The following chart shows India's average GDP growth rate over the period of time.



Source: www.tradechakra.com

Fig.1 India's average GDP Growth rate

### III. PROBLEM IDENTIFICATION

In the recent past, investments made in the Indian equity market have seen a huge surge. Predominantly, foreign investments in India are rising. Among the investments from foreign nations, FIIs plays a vital role in the Indian equity market as they are the main source of foreign investments in India. This induced the researcher to study the relationship between FII flows and Indian Equity market performance. The FII's contribute a major chunk of volumes on the Indian bourses and this in turn impacts the market moves.

This research paper studies the relationship between FIIs investment and stock indices. For this purpose India's two major indices i.e., Sensex and S&P CNX Nifty along with S&P CNX 500 are selected. These indices, in a way, represent the true picture of India's stock markets. So this paper reveals the impact of FII on the Indian capital market. There may be many other factors on which a stock index may depend i.e., Government policies, budgets, bullion market, inflation, economic and political condition of the country, FDI, Foreign exchange rate etc but, for this study, only one independent variable is selected i.e., Foreign Institutional Investors (FIIs).

### IV. OBJECTIVES

1. To study the Foreign Institutional Investor (FII) flows into India and its impact on Indian equity market viz BSE and NSE along with the S&P CNX 500 index;
2. To find the relationship between the FIIs equity investment pattern and Indian stock indices.

### V. LITERATURE REVIEW

Krishna Reddy Chittedi (2008) analyzed the performance of the Sensex Vs.FIIs in Indian stock market. The study shows that the liquidity as well as volatility was highly influenced by FII flows. FIIs are significant factor determining the liquidity and volatility in the stock market prices.

Dr.Tanupa Chakraborty (2007) has examined the Foreign Institutional Investment (FII) flows, i.e., capital flows across national borders, to emerging market economies (EMEs). The empirical study has been undertaken to throw some light on the direction of causality between FII flows and Indian stock market returns using data on both the variables from over the period April 1997-March 2005. The study shows that BSE National Index return series show greater variability than net FII flows. It may be noted that as information flows in financial markets drive both stock market returns and investment flows.

Mohd. Aamir Khan, Rohit, Siddharth Goyal, Gaurav Agrawal (2010) investigated the causal relationship between Nifty and FIIs' net investment for the period January, 1999 to February, 2009 using daily data. Correlation between FII and Nifty was the maximum in the bear phase as compared to all other phases. Further they found the causality between Nifty returns and FIIs net investment. Granger Causality highlighted unidirectional relationship of Nifty over FIIs during each phase in the long run. Variance decomposition and impulse response functions determined the short term causal relationship which reveals that there was only positive unidirectional causality from Nifty to FIIs. No reverse causality was observed in any phase.

Paramita Mukherjee, Suchismita Bose and Dipankor Coondoo (2002) explored the relationship of Foreign Institutional Investment (FII) flows to the Indian equity market with its possible covariates based on a daily data-set for the period January 1999 to May 2002. Some interesting results: viz., (1) the FII net inflow is correlated with the return in Indian equity market and the former is more likely to be the effect than the cause of the Indian equity market return; (2) so far as investment in Indian equity market is concerned, foreign investors do not seem to be at an informational disadvantage compared to domestic investors; and (3) the Asian crisis marked a regime shift in the sense that in the post-Asian crisis period the return in the Indian equity market turned out to be the sole driver of the FII inflow, whereas for the pre-Asian crisis period other covariates reflecting return in other competing markets, urge for diversification etc., were also found to be correlated with FII net inflow.

Rajesh Chakrabarti (2001) studied the FII flows to India and analysed the FII flows and their relationship with other economic variables and arrive at the following major conclusions:

- (a) While the flows are highly correlated with equity returns in India, they are more likely to be the effect than the cause of these returns;
- (b) The FIIs do not seem to be at an informational disadvantage in India compared to the local investors;
- (c) The Asian Crisis marked a regime shift in the determinants of FII flows to India with the domestic equity returns becoming the sole driver of these flows since the crisis. Given the thinness of the Indian market and its susceptibility to manipulations, FII flows can aggravate the equity market bubbles, though they do not actually start them.

## VI. RESEARCH METHODOLOGY

Historical data for the past 10 years have been used and analysed to make a critical evaluation of the material. So the research design is analytical in nature. Secondary data collection method is used for various literatures, FII, Sensex, Nifty & S&P CNX 500 data. Various analysis tools used in this research are Correlation Analysis, Regression Analysis and Simple Percentage Analysis.

## VII. DATA ANALYSIS

TABLE 1 NET CHANGE IN SENSEX, NIFTY, SNP 500 AND FII (YOY)

YEAR	SENSEX	NIFTY	SNP 500	FII
2001	-709.79	-204.5	-212.25	12795.80
2002	114.95	34.45	72.25	3629.60
2003	2461.68	786.25	758.5	30458.70
2004	763.73	200.75	273.55	38965.10
2005	2795.24	756.05	654.3	47181.20
2006	4388.98	1129.85	835.85	36539.70
2007	6500.08	2172.2	2059.65	71486.50
2008	-10639.7	-3179.45	-3058.95	-52987.10
2009	7817.5	2241.9	2033.35	83423.89
2010	3044.28	933.45	611.85	133266.00

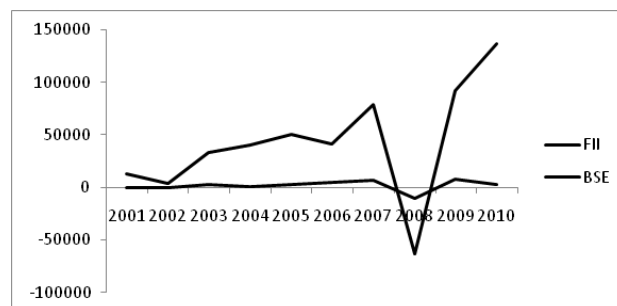


Fig. 2 Net Change - FII Vs SENSEX

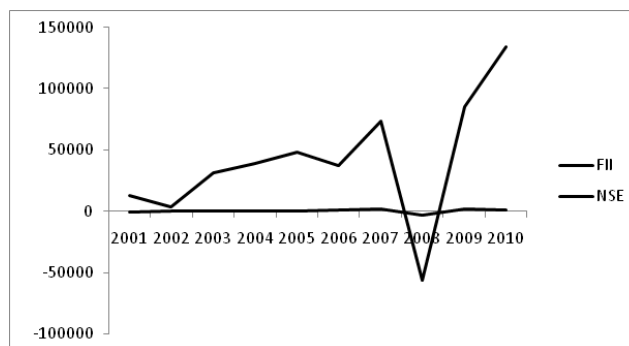


Fig. 3 Net Change - FII Vs NIFTY

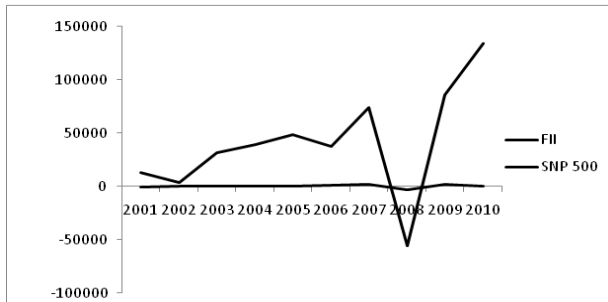


Fig. 4 Net Change - FII Vs S&P CNX 500

**VIII. CORRELATION AND REGRESSION**

TABLE II CORRELATION - FII VS SENSEX (YOY)

		NET CHANGE IN SENSEX	NET CHANGE IN FII
NET CHANGE IN SENSEX	Pearson Correlation	1	0.790
	Sig. (2-tailed)		0.007
	N	10	10
NET CHANGE IN FII	Pearson Correlation	.790	1
	Sig. (2-tailed)	.007	
	N	10	10

TABLE III REGRESSION – FII VS SENSEX (YOY)

Regression Statistics	
Multiple R	0.789999
R Square	0.624099
Adjusted R Square	0.577112

**1. FII VS SENSEX (YOY)**

The data includes 10 observations of yearly Sensex and FIIs in a decade.

There is positive effect of FII on Sensex and the correlation coefficient is 0.790 which is high. This means that Sensex has a positive relation with FII and also the significance is low. The regression coefficient is 0.6241 which reflects 62.41% variability in Sensex with the independent variable (FII) and the level to which FII affects the Sensex over the year. The standard error comes out to be 3306.84 which is very 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.

There is positive effect of FII on nifty and the correlation coefficient is 0.795 which is high. This means that nifty has a positive relation with FII and also the significance is low. The regression coefficient is 0.6316 which reflects 63.16% variability in Nifty with the independent variable (FII) and the level to which FII affects the Nifty over the year.

**2. FII Vs NIFTY (YOY)**

TABLE IV CORRELATION – FII VS NIFTY (YOY)

		NET CHANGE IN FII	NET CHANGE IN NIFTY
NET CHANGE IN FII	Pearson Correlation	1	0.795
	Sig. (2-tailed)		0.006
	N	10	10
NET CHANGE IN NIFTY	Pearson Correlation	.795	1
	Sig. (2-tailed)	.006	
	N	10	10

TABLE V REGRESSION – FII VS NIFTY (YOY)

Regression Statistics	
Multiple R	0.794721
R Square	0.631581
Adjusted R Square	0.585529

There is positive effect of FII on nifty and the correlation coefficient is 0.795 which is high. This means that nifty has a positive relation with FII and also the significance is low. The regression coefficient is 0.6316 which reflects 63.16% variability in Nifty with the independent variable (FII) and the level to which FII affects the Nifty over the year.

**3. FII VS S & PCNX 500 (YOY)**

TABLE VI CORRELATION – FII VS S&P CNX 500 (YOY)

		NET CHANGE IN FII	NET CHANGE IN S&P CNX 500
NET CHANGE IN FII	Pearson Correlation	1	0.765
	Sig. (2-tailed)		0.010
	N	10	10
NET CHANGE IN S&P CNX 500	Pearson Correlation	.765	1
	Sig. (2-tailed)	.010	
	N	10	10

TABLE VII REGRESSION – FII VS S&P CNX 500(YOY)

Regression Statistics	
Multiple R	0.764668
R Square	0.584717
Adjusted R Square	0.532807

There is positive effect of FII on S&P CNX 500 and the correlation coefficient is 0.765 which is high. This means that S&P CNX 500 has a positive but not strong relation with FII and also there is significance between the two. The regression coefficient is 0.5847 which reflects 58.47% variability in S&P CNX 500 with the independent variable (FII) and the level to which FII affects the S&P CNX 500 over the year.

### IX. OUTCOME OF THE STUDY

FII's have positive relationship with Indian equity market, but they do not have strong impact on the stock market. Though there is a positive relationship between FII flows and equity market movements, Indian equity market is not fully depending upon FII's as the regression score is not too high. Domestic investors may concentrate equally on other variables like Inflation, Interest rate, Government policy etc along with FII flows as they also influence the market movements.

### X. CONCLUSION

In developing countries like India, foreign investment avenues provide a channel through which country can have access to foreign capital. This study concludes that FII's are not the only determinant to have any significant impact on the Indian Stock Market but there are other factors like government policies, budgets, bullion market, inflation, economical and political condition, etc. The research may be extended by using the data on daily or monthly basis which may give more accurate and detailed results.

### REFERENCES

- [1] Aamir Khan, Rohit, Siddharth Goyal, and Gaurav Agrawal, "Investigation of Casualty Between FII's Investment and Stock Market Returns", *International Research Journal of Finance and Economics*, Vol. 40, 2010.
- [2] Bose Suchismita and Coondoo Dipankar, "The Impact of FII Regulations in India", *International Journal of Financial Market Trends*, Vol. 30, 2005.
- [3] Chakrabarti, "FII Flows to India: Nature and Causes", *Journal of Foreign Institution Investments*, Vol. 27, 2001.
- [4] Krishna Reddy Chittedi, "Volatility of Indian Stock Market and FII's", *The India Economic Review*, Vol. 5, No. 31, 2008.
- [5] Tanupa Chakraborty, "Foreign Institutional Investment Flows and Indian Stock Market Returns - A Cause and Effect Relationship Study", *Indian Accounting Review*, Vol. 11, No. 1, pp 35-48., 2007.
- [6] D. Ilangovan and M. Tamilselvan, "Extra Mileage In Foreign Investment in Resurging India", *International Journal of Foreign Money Supply Management*, Vol. 28, 1997.
- [7] K. S. Chalapati Rao, M R Murthy and K V K Ranganathan: "Foreign Institutional Investments and the Indian Stock Market", *Journal of Indian School of Political Economy*, Vol. 11, No. 4, 1999.
- [8] Paramita Mukherjee, Suchismita Bose & Dipankor Coondoo, "Foreign Institutional Investments in the Indian Equity Market", *ICRA Money and Finance*, 2002.
- [9] M.T. Raju and Ghosh Anirban, "Stock Market Volatility – An International Comparison", *Research on Indian Stock Volatility*, Vol 14, 2004.
- [10] P. Samy Chella and Murugan Bala, "A Study on Capital Stock Market Movement in India – Present Scenario", *European Business Review*, Vol 15, 2006.
- [11] S. Sivakumar, "FII's: Bane or boon?", *Journal of Stock Market Volatility*, Vol. 34, 2003.