

# AN EMPIRICAL ANALYSIS OF STUDY ON THE GROWTH AND EXTENT OF FII ACTIVITIES IN THE INDIAN FINANCIAL MARKET

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## ABSTRACT

It is well known that portfolio capital movements are notoriously unpredictable. Additionally, there is the concern that foreign institutional investors, who are under great pressure to earn profits, might distort the markets of the nation that is hosting them. The present chapter is an attempt to identify the direction of causality between the activities of foreign institutional investors (FIIs) and the performance of the Indian stock market. This is done within the context of it. For the purpose of gaining a deeper comprehension of the causal connection that exists between foreign institutional investments (FII) flows and the performance of the stock market at the time (BSE National Index), this research used a total of nineteen consecutive fiscal years, beginning in January 1992 and ending in December 2010. The Granger Causation Test has been used in order to ascertain the direction in which the causal relationship is pointing.

**Keywords:** FIIs, P-Notes, Portfolio, Stock-Market/Capital Market, SEBI etc.

## INTRODUCTION

According to the definition of an institutional investor, any money-related master or hypothesis account that is registered in a country other than the one in which it is now contributing is deemed to be an institutional investor. Annuities, protective groups, theoretical stock ventures, and pooled resources are all terms that are very commonly associated with professionals working in the area of institutional finance. Due to the tremendous expansion of the Indian market, a group of faraway financial specialists known as Foreign Institutional Investors (FIIs) have shown their interest in investing in the Indian market. The growth and development of the Indian stock market may be attributed to the participation of foreign institutional investors (FIIs). Changes that are qualitative as well as quantitative have been brought about as a consequence this. In addition to this, it had expanded the market's scope and elevated its significance. Foreign institutional investors (FIIs) have discovered interesting venture targets in emerging economies like as India's, which provide returns that are much higher than those offered by industrialized countries with similar companies. The recent support of a development movement by the government has caused financial specialists to feel enthusiastic about India and their perspectives on the country. According to the findings of Ernst & Young's (EY) Global Capital Confidence Barometer (CCB) - Technology study, India is ranked third among the most appealing concept targets for advancement trades throughout the world. India has the

third biggest startup base on the world, according to a study conducted by the National Association of State-Owned and Controlled Companies (NASSCOM). In 2016, almost 1,400 new organizations were founded, and 4,750 new firms were emerging. There were record highs for foreign institutional investors' net advantages in Indian qualities and commitment during the previous fiscal year. These gains were spurred by the expectation of a fiscal recovery, a reduction in advance expenditures, and an improvement in pay outlook. First-time investors (FIIs) have retained a net interest in India's qualities and devotion amounting to \$7.46 billion during the 2016–2017 fiscal years.

Foreign institutional investors (FIIs) continue to play a major role in the Indian capital market, despite the fact that they were involved in the enormous and purposeful outflow of funds from the country during the latter cash-related crises. A common term for foreign institutional investors (FIIs) is "hot money" because of their adaptability and ease of access. The Indian financial markets, on the other hand, are no longer seen to be a safe haven, as stated by foreign portfolio budgeting authorities. The so-called "hot money" of 2016 was the worst time in the preceding eight years in terms of offshore projects, and it is generally understood that any rebound from this slump will likely come in the second half of 2017. They are apparently preparing to withdraw around two billion dollars from the "hot money" of 2016. 2016 was the most visibly dreadful year for the Indian capital markets, equivalent to foreign wander since 2008, when foreign institutional investors withdrew a massive Rs 41,215 crore during the global financial crisis. This was because to the entire net flood, which occurred in 2016. During the two months that followed the win of Donald Trump and the declaration of demonetization by the Indian government, there was a significant amount of money that was taken out of first-time investor accounts. During the month of November, offshore portfolio managers withdrew a total of Rs 28,919 crore from India, resulting in a commitment flood of Rs 15,194 crore. throughout the time when FPI was depleting India's resources, there was a significant inflow of resources into the country from sources affiliated with DII. This is something else that should be taken into consideration throughout this period of time (or rather, during the whole of it). It was responsible for a net investment of 27,426.12 crores in India during the months of October and December of 2016. **OBJECTIVE**

1. The impact FII and DII on Indian stock markets namely BSE & NSE and also to study the influence of FII & DII on BSE & NSE.
2. To study the trends and growth of foreign capital flow in to India in the form of FDI & FII
3. To study the impact of FDI and FII on Indian stock market (Sensex and Nifty).

## REVIEW OF LITREATURE

Through the use of a paired methodology, Chakrabarti (2001) conducted an investigation on the correlation between the inflows of foreign institutional investors (FIIs) and the performance of the BSE National Index. His analysis indicated that the effect of FII portfolio investment on the returns of the Indian market was much bigger than the influence that it had on the returns directly. In addition, Chakrabati (2001) used the same monthly data in order to test the premise that market returns were the only factor that influenced foreign direct investment (FII) flows into India after the Asian financial crisis. The study took into consideration a number of additional pertinent elements that were discovered in the previous research.

Mukherjee, Paramita, Suchismita Bose, and Dipankor Coondoo, (2002) enhanced and strengthened the empirical research that Chakrabati (2001) had conducted by using extended daily data from the beginning

of 1999 to the end of 2002. The first thing that they did was run a pair-wise Granger-causation test in order to validate the findings of Chakrabati (2001). The results of their sample period demonstrated that there is a unit-directional causality between Indian stock returns and FII flows. Following that, they computed the impact that delays in stock returns and other relevant parameters, such as industrial production, call money rate, and currency rate, would have on investments made by foreign institutional investors (FII). In their analysis, they came to the conclusion that the most important factor in determining the flow of FII was market returns.

According to the findings of study conducted by V. Ravi Anshuman (2016), foreign institutional investors (FIIs) have a negative impact on the irrationality of the financial markets in India. In contrast to the overall trading activity of local money-related expert authorities, the total trading activity of foreign institutional investors (FIIs) hoses brings attention to a unique occurrence. On the other hand, when positive staggers have a higher impact on overall trade development than negative dazes, there is a more severe imbalance for all-family transactions. but, risk is heightened when foreign institutional investors (FIIs) offer to local consumers or when family unit clients trade between themselves (16). FIIs do not construct stock eccentrics; but, risk is elevated when families trade amongst themselves.

According to study conducted by Gordon and Gupta (2003) on portfolio flows in India and the influence of local fundamental concerns, there is a significant impact that domestic fundamentals have on investment flows into India. This fact was discovered via their investigation. Between September 1992 and October 2001, a regression model and a unit root test were used to analyze the data that was gathered during that time period. It has been discovered that portfolio flows to India are quite constant and relatively moderate when compared to portfolio flows to other emerging nations. For the goal of calculating the portfolio flows into India, it is essential to take into consideration a variety of local, regional, and global elements.

The research conducted by Batra Amita (2003) focused on the impact that the trading biases of foreign institutional investors (FIIs) have on the volatility of the stock market. When everything is taken into consideration, there is solid evidence that foreign institutional investors (FIIs) have continuously been trend chasers and positive investors. On the other hand, it does not seem that monthly positive feedback trading is taking place. A further discovery made by the research was that foreign investors in India prefer to engage in business transactions in groups. There does not seem to be any impact on the stability of the stock market brought about by the trading conduct or biases of FIIs.

According to Makwana and Chetna R. (2009), first impressions are important, and foreign institutional investors (FIIs) have an effect on the market. In light of the volatility that has been seen in the Indian stock market, it is plausible to believe that foreign institutional investors (FIIs) are a contributing factor. They are both going in the same direction. If you want to estimate the return and volatility of the Indian stock market, it is essential to measure the volatility of foreign institutional investors (FII) flows since these flows do not follow a pattern.

According to the findings of the research conducted by Dhvani Mehta in 2009 and titled "A Study: FII Flows in India," a significant number of foreign institutional investors (FIIs) have been investing their money in the Indian stock markets. This has had an effect on the factors that contribute to the belief that markets are manipulated among investors on a smaller scale. According to the prevalent notion, it is not the

other way around that is expected to produce profits for investors in India; rather, it is the relative performance of the Indian stock market in comparison to other established and emerging markets that is likely to generate profits. This may cause investors in India to breathe a sigh of relief.

## Research Methodology

**Wellspring of Data** - In order to complete the inquiry, the BSE and NSE were asked to provide information that was optional. It has been determined that the information on the monthly market charges of driving area that are reported in BSE and NSE has been obtained. In addition, the information on inflows for FIIs and DIIs is gathered from a variety of sources, which are also employed for this purpose. It will be possible to access the information that has been distributed via various mediums such as newspapers, websites, journals, books, and reports written by executives, researchers, scientists, merchants, and so on. The reason for selecting the annual expenses is so that long-term fluctuations in the market prices of the stocks, which are caused by both internal and external factors, may be accounted for and eliminated. Despite the fact that it is feasible to conduct a significant study using ordinary prices, it is ludicrous to collect information over an extended period of time. Consideration is thus given to the annual expenses.

**Information Collection Method** - Based on the principles of Judgmental Sampling, the example of the stocks that will be used to collect auxiliary information has been selected. Taking into consideration the highest market capitalization, the two important lists that are now operating in India were selected.

**Technique for Sampling** – For the purpose of doing data analysis using the BSE Sensex, quota testing entails selecting subjects that are in the best position or most favorable depending on market capitalization.

**Tools: Return** - In situations when more than one time period is known, it is possible to compute the arrival and rate of return throughout the whole time frame by using the return within each sub period as the basis for the calculation. This technique may be used to a single period or to a number of periods simultaneously.

**Hazard** - There are risks associated with investing that are a result of being exposed to market movements as a whole.

It very well may be determined as

$$B = \frac{n\sum xy - (\sum x)(\sum y)}{n\sum x^2 - (\sum x)^2}$$

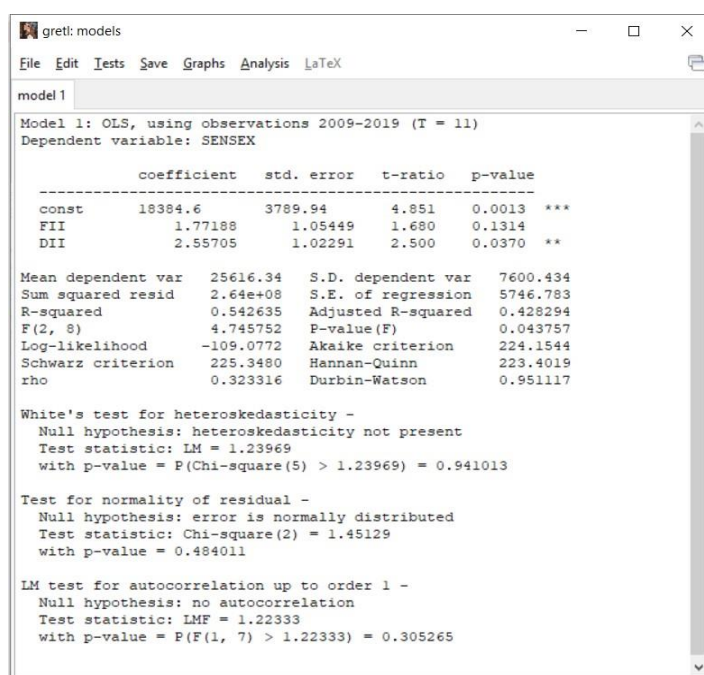
**Correlation coefficient (r):** During a certain time period, the correlation coefficient is a statistical tool that is used to determine the type and amount of the link that exists between the stock market index and the stock return.

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

## DATA ANALYSIS

Year	BSE SENSEX	FII In flows in crores (Rs.)	DII in crores(Rs.)
2009	17464.81	2068	2175
2010	20509.09	5126	-1602
2011	15454.92	-2126	2433
2012	19426.71	8430	-4650
2013	21170.68	7258	-6087
2014	27499.42	5618	-2379
2015	26117.54	-1697	5632
2016	26626.46	-881	2946
2017	34056.83	-3675	7561
2018	36068.33	-6101	9138
2019	37384.99	3036	4124

**Table 1: Average index of BSE sensdex, FII & DII inflows**



**Table showing the GRETL result by using Ordinary least squares**

The regression equation that follows is derived from the table that was shown before.

$$\text{BSE Sensdex} = 18384 + 1.77 * \text{FII} + 2.55 * \text{DII} \text{-----}$$

Reg. Eq 1

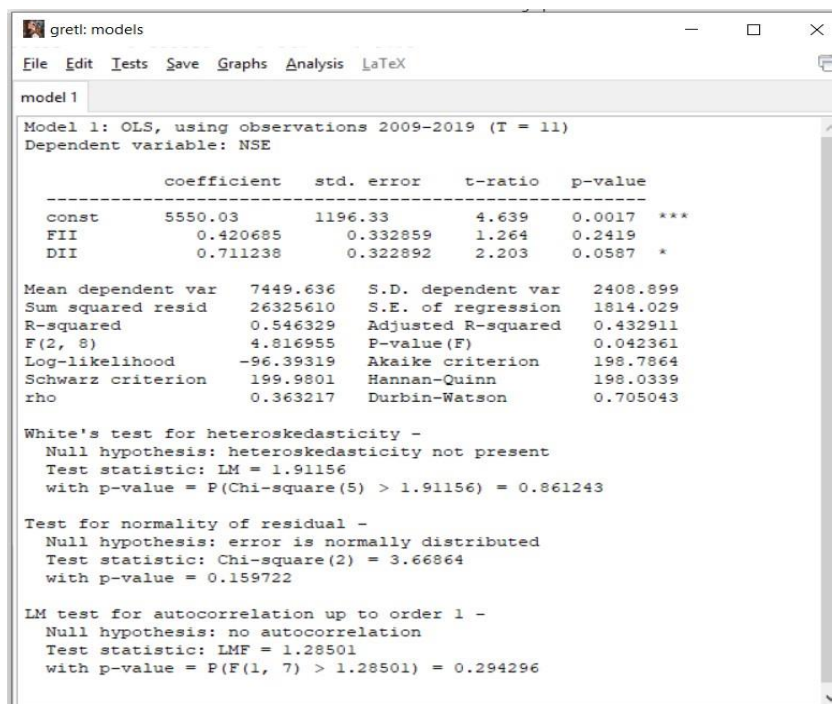
As can be seen from the equation presented above, there are two independent variables, namely FII and DII, which are responsible for the variations that are occurring in the BSE value of the sensex. Based on the data shown in the table above, it can be noticed that the P-value for FII is 0.1314, which is higher than 0.05. This suggests that it does not constitute a substantial contribution to the change in the BSE sensex. Additionally, it has been discovered that the P-value for DII is 0.0370.

The observed association between the independent variables (FII and DII) and the dependent variable (BSE sensex) accounts for 54.26 percent of the overall variance in the data. Given the very low effect of FII, it is highly probable that the 42.8% variation that is explained by the updated R-squared value in the model is impacted by their presence. In spite of this, the F test reveals that the model is statistically significant ( $p = 0.0437$ , which is lower than 0.05). This model is still applicable since it has the potential to meet important assumptions like as

- Due to the fact that the p-value is more than 0.05, we are unable to completely exclude the likelihood that the residuals follow a normal distribution.
- The p-value is 0.941, which is more than 0.05, which means that the null hypothesis cannot be rejected because of the homoscedasticity in variances.
- Because of the autocorrelation, the null hypothesis is not rejected (the p value is 0.31, which is more than 0.05).
- The presence of multicollinearity is indicated when both FII and DII have VIF values that are lower than 10.

year	NSE NIFTY	FII In flows in crores(Rs.)	DII in crores(Rs.)	
2009	4183	2068	2175	
2010	5462	Valueis approxima between1	tely &	
2011	5312			602
2012	5410			433
2013	5908	7258	-6087	
2014	7453	5618	-2379	
2015	8292	-1697	5632	
2016	8139	-881	2946	
2017	9661	-3675	7561	
2018	10826	-6101	9138	
2019	11300	3036	4124	

**Table 2: Average index of NSE Nifty, FII & DII inflows**



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gret: models
File Edit Tests Save Graphs Analysis LaTeX
model 1
Model 1: OLS, using observations 2009-2019 (T = 11)
Dependent variable: NSE

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      coefficient      std. error      t-ratio      p-value
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const      5550.03          1196.33          4.639        0.0017 ***
FII         0.420685           0.332859         1.264        0.2419
DII         0.711238           0.322892         2.203        0.0587 *

Mean dependent var      7449.636      S.D. dependent var      2408.899
Sum squared resid      26325610     S.E. of regression      1814.029
R-squared                0.546329     Adjusted R-squared      0.432911
F(2, 8)                 4.816955     P-value (F)             0.042361
Log-likelihood          -96.39319     Akaike criterion        198.7864
Schwarz criterion       199.9801     Hannan-Quinn            198.0339
rho                     0.363217     Durbin-Watson           0.705043

White's test for heteroskedasticity -
Null hypothesis: heteroskedasticity not present
Test statistic: LM = 1.91156
with p-value = P(Chi-square(5) > 1.91156) = 0.861243

Test for normality of residual -
Null hypothesis: error is normally distributed
Test statistic: Chi-square(2) = 3.66864
with p-value = 0.159722

LM test for autocorrelation up to order 1 -
Null hypothesis: no autocorrelation
Test statistic: LMF = 1.28501
with p-value = P(F(1, 7) > 1.28501) = 0.294296
    
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The following equation for regression is obtained from the data that is shown in the table that is located above.

$$\text{NSE Nifty} = 5550 + 0.4206 * \text{FII} + 0.711 * \text{DII} \text{-----}$$

Reg. Eq 1

According to the equation shown above, it can be seen that there are two independent variables, namely FII and DII, which are responsible for the changes that occur in the NSE Nifty. The fact that the P-value for FII is 0.2419, which is more than 0.05, suggests that it is not a substantial contributor for the change that is NSE Nifty, as can be seen from the table that was just previously shown. Additionally, it has been noted that the P-value for DII is 0.0587.

In spite of this, it has been shown that the independent variables FII and DII account for about 54.63% of the variation in the dependent variable, which is the NSE Nifty. It seems likely that the small impact of FII is having an influence on the variance, to the extent that the modified R square in the model explains 43.2% of the variation. The model, on the other hand, is statistically significant since the p value obtained from the F test is lower than 0.05, which is 0.04236.

The relevance of the model is maintained because it is able to satisfy the many critical assumptions that are listed below, including

- A sample with a normally distributed distribution ( $p=0.4236 > 0.05$ ) does not rule out the possibility of the null hypothesis being true.
- Due to the homoscedasticity in variances, there is no evidence to reject the null hypothesis (the p value is 0.86, which is more than 0.05).

- Due to the fact that the p-value is greater than 0.05, the autocorrelation does not result in the rejection of the null hypothesis.
- The presence of multicollinearity is indicated when both FII and DII have VIF values that are lower than 10.

## FINDINGS\RESULT

1. It is observed that foreign institutional investors are less influencing the BSE so government should have to take some measures to attract Domestic institutional investors
2. It is observed that foreign institutional investors are less influencing the NSE
3. It is observed that Domestic institutional investors are less influencing the BSE. So it is observed that government should take some measure to attract the DII's.
4. It is observed that Domestic institutional investors are less influencing the NSE

## CONCLUSION

One may draw the conclusion from the evidence that was presented before that FIIs do not have a big influence on the Sensex. In this instance, the research article's null hypothesis, which states that there would be no significant variation in the flow of foreign direct investment (FII) in India over the time of investigation, is accepted. During the time period under investigation, there would be no substantial association between the indices of the capital market and the flow of foreign institutional investors. The coefficient of correlation between the Sensex and the FII does not exhibit a positive association for any of the two investigations. The same points are included by regression analysis, which indicates that there is no significant association between FII Investment and the sensex. When we use the t-test, we are able to determine whether or not foreign institutional investment (FII) has an influence on the points of the sensex. If the t-test reveals a low or weak link, it indicates that there is no significant relationship between FII investment and the BSE sensex.

It would be ideal to gather data on a weekly basis in order to have a more precise picture of the link between foreign institutional investment (FII) and the sensex exchange rate. Only one of the many factors that influence the BSE sensex is foreign institutional investment (FII), which is only one of many variables. There is little doubt that the entry of foreign money contributes to the growth of a nation's GDP, which in turn increases the wealth of shareholders. With that being said, a significant portion of the wealth that is invested in the stock market really comes from inside the nation. As a result, it is of the utmost importance for the country to encourage investment on both the local and international levels. This is due to the fact that fixed-income investors (FIIs) enter stock markets in the hope of generating income when economies grow, but they also leave just as rapidly. Changes in the pattern of investments made by foreign institutional investors (FII) may be ascribed to both domestic and international issues.

## REFERENCES

1. Chakrabarti, R. (2001). "FII Flows to India:Nature and Causes", Money and Finance, Vol. 2, No. 7.
2. Mukherjee, Paramita, Suchismita Bose, and Dipankor Coondoo. (2002). In their study on "Foreign Institutional Investment in the Indian Equity Market: An Analysis of Daily Flows during January 1999 – May 2002." ICRA Bulletin Money and Finance, pp. 21-51.



3. Gordon, James, and Poonam Gupta. (2003). In their study on “Portfolio Flows into India: Do Domestic Fundamentals Matter?” IMF Working Paper, WP/03/20.
4. Batra, A (2004)“Foreign Institutional Investors: An Introduction”,ICFAI, University Press, pages-107-111.
5. Dhvani Mehta (2009), “A Study: FII Flows in India, Research on “Indian Stock Volatility”. Vol. 14. Publisher: Emerald Group Publishing Limited.
6. Makwana,Chetna R. (2009), “FII & its Impact on Volatility of Indian stock market”, Narmada College of Management ,Gujarat., CBS E-Journal, Biz n Bytes, Vol. 2, Dec., 2009
7. V Ravi Anshuman, R. C. (2016). FII Trading Activity and Intraday Volatility. Economic & Political weekly, 51(12), 12345-12355.
8. Ch. Balaji, et al (2018) “Impact of General Elections on Stock Markets in India” in Open Journal of Economics and Commerce, 1(1), PP 1-7
9. Chintala Balaji & Dr. G. Praveen Kumar (2017) “An assessment of stock performance of selected public and private sector banks in India” in “Gitam Journal of Management” 15(2) PP:-163-179.
10. Sunita Sundari G., Vijay Kumar K., Shahenoor Basha S., Rao M.C. (2017), ‘Structural and optical characterization of organic light emitting diodes’, Rasayan Journal of Chemistry, 10(1), PP.298-304.
11. Basha S.K.S., Sundari G.S., Kumar K.V., Rao M.C. (2017), ‘Structural and Dielectric Properties of PVP Based Composite Polymer Electrolyte Thin Films’, Journal of Inorganic and Organometallic Polymers and Materials, 27(2), PP.455-466.
12. Maragani N., Vijaya Kumar K. (2017), ‘Ionconducting gel polymer electrolyte based on poly (acrylonitrile) complexed with (NaF + ZrO<sub>2</sub>): Application as an electrochemical cell’, Rasayan Journal of Chemistry, 10(4), PP.1128-1136.
13. Balaji C., Rao P.V.D., Rekha Y.C., Basheerunisa S. (2019), ‘Technological relationship between banknifty and other selected sectorial indices of NSE’, International Journal of Recent Technology and Engineering, 8(3), PP.2314-2318.
14. Jo, Gab-Je, 2012, Foreign Equity Investment in Korea, paper presented at the Association of Korean Economic Studies.
15. Kumar, A.K., 2012, Foreign Institutional Investments: Stabilizing or Destabilizing, Abhigyan, 23-26.