



# A Study on the Impact of FII and DII Net Investments on Nifty 50 Index Trends in India

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**Abstract—** This study examines the influence of Foreign Institutional Investors (FIIs) and Domestic Institutional Investors (DIIs) on the performance of the Nifty 50 index in India during the period from 2015 to 2025. The objective is to understand whether the net investment patterns of these institutional investors have a significant impact on stock market trends, particularly the movement of the Nifty 50 index.

**Keywords—** Foreign Institutional Investors (FII), Domestic Institutional Investors (DII), Nifty 50, Indian Stock Market, Stock Market Trends, & Investment Flows.

## I. INTRODUCTION

The Indian equity market is significantly influenced by institutional investors, primarily Foreign Institutional Investors (FIIs) and Domestic Institutional Investors (DIIs). Their investment activities play a crucial role in shaping market trends, liquidity, and overall investor sentiment. Understanding how these institutional flows impact major market indices like the Nifty 50 is essential for grasping the broader dynamics of India's financial markets.

The Indian stock market is one of the fastest-growing financial markets in the world, attracting substantial investments from both domestic and international investors. Among the key players influencing this market are Foreign Institutional Investors (FIIs) and Domestic Institutional Investors (DIIs). These institutional investors significantly affect market liquidity, price movements, and overall market sentiment due to the large volumes of capital they deploy. Their net investment activity, which is the difference between their purchases and sales, often serves as an important indicator of market trends and investor confidence.

### 1.2 Need of the Study

- To understand how Foreign Institutional Investors (FIIs) and Domestic Institutional Investors (DIIs) influence the Indian stock market, especially the Nifty 50 index
- To assess the stabilizing role of DIIs during periods of FII outflows and market volatility.

### 1.3 Scope of the Study :

- Focuses on annual FII and DII net investment data and Nifty 50 index values from 2015 to 2025.
- Uses secondary data from official financial sources such as NSE/BSE and reputed financial portals.
- Limited to analyzing trends, correlations, and comparative influence on the Nifty index.
- Applicable to the Indian stock market only; broader or international market effects are not considered.

### 1.4 Objectives of the Study :

- To study the trends in FII and DII net investments from 2015 to 2025.

- To analyze the movement of the Nifty 50 index during the same period.
- To compare the impact of FII and DII net investments on Nifty levels using historical data.

## II. LITERATURE REVIEW

### Sharma, Bhatia & Roy(2023)

This research examined the role of FIIs in India's equity derivatives market, especially how their investment behaviour affects implied volatility. The findings suggest that large-scale trading by FIIs in derivatives can amplify risk levels in the market, thereby making it important for regulators to closely monitor such activities to ensure market stability and protect retail investors.

### Nalini(2023)

Nalini's study investigated the relationship between FII investments and key market indicators like trading volume, market capitalization, and investor participation. The results showed a strong positive correlation—meaning that as FII inflows increased, so did trading activity and market value.

## III. RESEARCH METHODOLOGY

### Research Design

The study adopts a descriptive and analytical research design, aimed at understanding and explaining the influence of institutional investments—specifically Foreign Institutional Investors (FIIs) and Domestic Institutional Investors (DIIs)—on the performance of the Nifty 50 index.

This approach provides both quantitative insights and interpretative analysis for better decision-making and forecasting.

### Nature of Data

- **Type of Data:** The research relies entirely on **secondary data**, as it utilizes pre-existing and published financial records.
- **Data Period:** The analysis covers a **10-year period from 2015 to 2025** (based on the most recently available data at the time of study). This time span includes various market phases—bullish, bearish, volatile, and stable—providing a comprehensive picture.
- **Frequency of Data:** The data is collected on an **annual basis**, allowing for year-on-year trend analysis and reducing the impact of short-term fluctuations.

### Data Sources

- BSE
- Traders Cockpit

### Tools and Techniques Used for Analysis

- Microsoft-Excel:  
The primary software used for data organization, statistical analysis, and graphical representation is Microsoft Excel. Key Excel tools include:
  - Regression analysis (to assess the degree of influence that FIIs and DIIs have on market movements)
  - Line charts and trend graphs (for visualizing investment patterns and index movements over time)
- Statistical-Methods:  
The following statistical methods are employed:
  - Pearson's Correlation Coefficient
  - Simple Linear Regression

## IV. DATA ANALYSIS AND RESULTS

Date	FII (INR Crore)			DII (INR Crore)		
	Gross Purchase	Gross Sales	Net Purchases/Sales	Gross Purchase	Gross Sales	Net Purchases/Sales
2025	1403254	1530238.8	-126984.99	1442882	1166069.1	276812.47
2024	3957137	4252529.5	-295393.2	3347130	2843749	503381.22
2023	2521484	2541010	-19525.809	1873809	1691624.8	182184.6
2022	1978882	2265376	-286494.06	1635862	1361124.8	274737.25

2021	2113698	2199367.8	<b>-85670.12</b>	1456590	1364184.9	<b>92405.59</b>
2020	1744317	1670835	<b>73482.15</b>	1070837	1116877.8	<b>-46040.77</b>
2019	1356731	1320999.2	<b>35731.43</b>	916936.8	870021.9	<b>46914.9</b>
2018	1209810	1276679.2	<b>-66869.3</b>	902614.9	805969	<b>96645.92</b>
2017	1278001	1319122.8	<b>-41121.63</b>	826428.1	737216.7	<b>89211.41</b>
2016	1087344	1099183.1	<b>-11838.65</b>	512924.4	472843.75	<b>40080.69</b>
2015	1116463	1132898.4	<b>-16435.56</b>	466455.7	401802.56	<b>64653.11</b>

Date	FII Net Purchases/Sales	DII Net Purchases/Sales	NIFTY 50 Index
2025	<b>-126985</b>	<b>276812.47</b>	24750.7
2024	<b>-295393.2</b>	<b>503381.22</b>	23644.8
2023	<b>-19525.81</b>	<b>182184.6</b>	21731.4
2022	<b>-286494.1</b>	<b>274737.25</b>	18105.3
2021	<b>-85670.12</b>	<b>92405.59</b>	17354.1
2020	<b>73482.15</b>	<b>-46040.77</b>	13981.8
2019	<b>35731.43</b>	<b>46914.9</b>	12168.5
2018	<b>-66869.3</b>	<b>96645.92</b>	10862.5
2017	<b>-41121.63</b>	<b>89211.41</b>	10530.7
2016	<b>-11838.65</b>	<b>40080.69</b>	8185.8
2015	<b>-16435.56</b>	<b>64653.11</b>	7946.35

Year	FII Net Purchases/ Sales	NIFTY
2015	<b>-16435.56</b>	7946.35
2016	<b>-11838.65</b>	8185.8
2017	<b>-41121.63</b>	10530.7
2018	<b>-66869.3</b>	10862.5
2019	<b>35731.43</b>	12168.5
2020	<b>73482.15</b>	13981.8
2021	<b>-85670.12</b>	17354.1
2022	<b>-286494.06</b>	18105.3
2023	<b>-19525.809</b>	21731.4
2024	<b>-295393.2</b>	23644.8
2025	<b>-126984.99</b>	24750.7

### Regression Between FII Net Investment And Nifty 50:

Hypothesis for Regression Analysis :

#### Hypotheses:

- Null Hypothesis ( $H_0$ ): FII net investment has no significant impact on the Nifty 50 index
- Alternative Hypothesis ( $H_1$ ): FII net investment significantly impacts the Nifty 50 index

Regression Statistics	
Multiple R	0.579477231
R Square	0.335793861
Adjusted R Square	0.261993179
Standard Error	5232.516395
Observations	11

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	124575767.6	124575767.6	4.550010264	0.061712202
Residual	9	246413050.4	27379227.83		
Total	10	370988818.1			

	Coefficient s	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	13123.52022	1901.440213	6.90188423	7.05213E-05	8822.163623	17424.87682	8822.163623	17424.87682
FII Net Purchases/Sales	-0.029607232	0.013880069	-2.133075307	0.061712202	-0.06100613	0.001791665	-0.06100613	0.001791665

#### Hypotheses:

Null Hypothesis ( $H_0$ ): There is **no significant impact** of DII net investment on the Nifty 50 index.

Alternative Hypothesis ( $H_1$ ): There is a **significant impact** of DII net investment on the Nifty 50 index.

Regression Statistics	
Multiple R	0.75981683
R Square	0.57732162
Adjusted R Square	0.53035735
Standard Error	4174.11273
Observations	11

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	214179864.6	2.14E+08	12.29279	0.006659254
Residual	9	156808953.5	17423217		
Total	10	370988818.1			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	10945.8562	1785.707899	6.129701	0.000173	6906.304317	14985.40815	6906.304317	14985
DII Net Purchases/Sales	0.03014062	0.008596606	3.506107	0.006659	0.010693745	0.049587491	0.010693745	0.05

## V. FINDINGS

- Contrasting Investment Patterns Between 2015 and 2025, Foreign Institutional Investors (FIIs) and Domestic Institutional Investors (DIIs) typically exhibited opposite investment behaviors. When FIIs were selling off shares, DIIs tended to buy, and the reverse was also true.
- Significant FII Withdrawals in Select Years there were substantial outflows by FIIs in years such as 2022, 2024, and 2025, with 2024 seeing the highest level of foreign selling. This trend reflects the cautious approach taken by foreign investors amid varying global and domestic uncertainties.
- Robust Support from DIIs During Market Stress In times when FIIs were exiting the market, DIIs provided crucial buying support. Notably, in 2024, DIIs invested more than ₹5 lakh crore, helping to stabilize market conditions.
- DIIs as a Market Cushion DIIs played a vital role in cushioning the market from volatility by balancing out FII outflows, which helped sustain investor confidence during challenging periods.
- Resilience of Nifty 50 Index Despite significant FII sell-offs, the Nifty 50 index largely maintained an upward trajectory, signaling the underlying robustness of the Indian stock market and increasing participation from domestic investors.
- Market Movements Influenced by Investor Dominance Both FIIs and DIIs influence the Nifty 50's performance; however, the group that is more active during a given period tends to have a stronger impact on the market's direction.
- Strengthening Role of Indian Investors Post-2021 From 2021 onwards, there has been a noticeable rise in the confidence and activity levels of Indian investors, including DIIs and retail participants, which has contributed significantly to market stability during uncertain global conditions.
- Limited Statistical Influence of FIIs on Market Analysis shows that FIIs do not exhibit a statistically significant effect on the Nifty 50 at the 5% confidence level, indicating that FII movements alone do not substantially dictate market trends.
- Positive and Significant Impact of DIIs Conversely, investments from DIIs have demonstrated a clear and positive correlation with Nifty 50 performance, underscoring their increasing role in supporting market growth.
- Market Stability Largely Supported by DIIs Even with ongoing global uncertainties and periods of FII withdrawal, DIIs have played a crucial role in maintaining equilibrium within the Indian equity market, reducing its reliance on foreign investment flows.

## VI. CONCLUSION

Inverse Investment Behavior of FIIs and DIIs (2015-2025) between 2015 and 2025, Foreign Institutional Investors (FIIs) and Domestic Institutional Investors (DIIs) generally exhibited contrasting investment patterns. Whenever FIIs were reducing their holdings and selling shares, DIIs tended to increase their purchases, indicating a balancing effect in market participation from these two groups. Significant FII Outflows in Specific Years Notable large-scale withdrawals by FIIs occurred particularly in the years 2022, 2024, and 2025. Among these, 2024 stands out as the year with the highest volume of foreign selling, reflecting heightened caution among global investors likely driven by geopolitical, economic, or domestic uncertainties. Strong DII Investments During Market Stress In periods marked by heavy FII selling, DIIs stepped up as crucial market participants by making substantial investments. For instance, in 2024, DIIs infused over ₹5 lakh crore into the market, playing a pivotal role in counteracting the negative effects of foreign capital outflows and supporting market stability. DIIs as Stabilizers of Market Sentiment Domestic Institutional Investors have been instrumental in stabilizing market conditions by offsetting the impact of FII withdrawals. Their active buying during volatile phases helped maintain investor confidence and prevented sharp declines, thereby contributing to a more balanced market environment. Resilience of the Nifty 50 Amid FII Selling Pressure Despite considerable selling pressure from FIIs in certain years, the Nifty 50 index generally continued its upward trajectory.

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