

Foreign Institutional Investors and Dynamics of Indian Capital Market

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Abstract

This study examines the impact of Foreign Institutional Investors (FIIs), also referred to as Foreign Portfolio Investors (FPIs), on the growth, liquidity, and trading performance of the Indian capital market over the period 2015–2025. The primary objective is to assess whether foreign institutional investment contributes to market development and efficiency or leads to changes in market dynamics. Using secondary data collected from reliable financial and regulatory sources, the study evaluates the relationship between FII/FPI investment flows and key indicators of capital market performance. The empirical analysis is based on three widely recognized market indicators: the Market Capitalization Ratio (MCR), which measures the size of the capital market relative to Gross Domestic Product (GDP); the Turnover Ratio (TR), which reflects market liquidity and trading efficiency; and the Value Traded Ratio (VTR), which assesses trading activity in relation to the overall economy. To obtain accurate and meaningful results, the study applies the Augmented Dickey–Fuller (ADF) test to verify the stability of the time-series data and uses the Pairwise Granger Causality test to identify the direction of influence between FII/FPI investment flows and the selected indicators of the Indian capital market. The findings provide evidence on the extent to which foreign institutional investment influences market liquidity, trading activity, and overall market development. The study contributes to the understanding of the role of FIIs/FPIs in the Indian capital market and offers useful insights for policymakers, regulators, investors, and researchers in designing strategies that promote sustainable market growth while maintaining financial stability.

Keywords: Foreign Institutional Investors (FIIs), Foreign Portfolio Investors (FPIs), Indian Capital Market, Market Capitalization Ratio, Turnover Ratio, Value Traded Ratio, Market Liquidity, Financial Markets.

Introduction

The Indian capital market has grown significantly over the past three decades due to economic reforms, technological advancements, and increased participation from domestic and foreign investors. Among the major contributors to this growth are Foreign Institutional Investors (FIIs), now regulated as Foreign Portfolio Investors (FPIs). Their investments have enhanced market liquidity, improved price discovery, and strengthened the integration of the Indian capital market with global financial markets. However, fluctuations in foreign investment flows can also influence market volatility and investor confidence.

Since the economic liberalization of 1991, India has introduced several policy reforms to attract foreign investment. Regulatory measures implemented by the Securities and Exchange Board of India (SEBI) have improved market transparency and efficiency, making India an attractive destination for international investors. As a result, FII/FPI investment has become an important factor affecting stock market performance, trading activity, and overall market development.

This study examines the impact of FIIs/FPIs on the Indian capital market during the period **2015–2025**. It evaluates whether foreign institutional investment has contributed to market growth, liquidity, and trading efficiency. The analysis is based on three key indicators: the **Market Capitalization Ratio (MCR)**, **Turnover Ratio (TR)**, and **Value Traded Ratio (VTR)**, which are widely used to measure the size, liquidity, and trading activity of capital markets.

To ensure reliable results, the study employs the **Augmented Dickey–Fuller (ADF) test** to examine the stationarity of the data and the **Pairwise Granger Causality test** to analyze the causal relationship between FII/FPI investment flows and the selected market indicators. These statistical techniques help identify the influence of foreign institutional investment on the performance and efficiency of the Indian capital market.

The findings of this research are expected to provide useful insights for policymakers, regulators, investors, and researchers regarding the role of FIIs/FPIs in India's financial markets. The study also contributes to the existing literature by presenting recent evidence on the relationship between foreign institutional investment and capital market development during the period 2015–2025.

Objectives

The primary objective of this study is to examine the impact of Foreign Institutional Investors (FIIs)/Foreign Portfolio Investors (FPIs) on the growth and performance of the Indian capital market during the period 2015–2025. The study aims to analyze the trends in foreign institutional investment, evaluate its influence on market capitalization, liquidity, and trading activity through indicators such as the Market Capitalization Ratio (MCR), Turnover Ratio (TR), and Value Traded Ratio (VTR), and investigate the statistical relationship and causal link between FII/FPI investment flows and the performance of the Indian capital market.

Methodology

This study adopts a quantitative research approach based on secondary data collected from reliable sources such as the Securities and Exchange Board of India (SEBI), National Stock Exchange (NSE), Bombay Stock Exchange (BSE), Reserve Bank of India (RBI), and other published reports for the period 2015–2025. The analysis evaluates the impact of FII/FPI investment on the Indian capital market using the Market Capitalization Ratio (MCR), Turnover Ratio (TR), and Value Traded Ratio (VTR). To ensure the reliability of the results, the Augmented Dickey–Fuller (ADF) test is used to examine data stationarity, while the Pairwise Granger Causality test is applied to analyze the causal relationship between FII/FPI investment flows and capital market indicators. Descriptive statistics and trend analysis are also used to support the interpretation of the findings.

• Growth and Liquidity of Indian Stock Market

The Indian stock market has witnessed significant growth due to economic reforms and increased participation from domestic and foreign investors. Growth is reflected through rising market capitalization and expansion in listed securities. Liquidity represents the ease of buying and selling securities, which is measured through indicators such as the Turnover Ratio (TR) and Value Traded Ratio (VTR). Improved trading activity, higher investor participation, and efficient market infrastructure have enhanced the liquidity, transparency, and overall efficiency of the Indian stock market.

Table I: Growth and Liquidity of Indian Stock Market (Figures in %)

Year	BSE MCR (%)	NSE MCR (%)	Turnover Ratio (TR) (%)	Value Traded Ratio (VTR) (%)
2015-16	73.94%	71.20%	46.25%	34.20%
2016-17	78.97%	75.40%	46.60%	36.80%
2017-18	83.24%	80.15%	50.58%	42.10%
2018-19	79.94%	77.10%	51.91%	41.50%
2019-20	56.53%	54.10%	79.25%	44.80%
2020-21	103.03%	98.50%	66.19%	68.20%
2021-22	112.51%	108.40%	66.04%	74.30%
2022-23	95.81%	91.20%	65.13%	62.40%
2023-24	131.02%	125.80%	67.55%	88.50%
2024-25*	133.44%	128.50%	68.34%	91.20%

*Note: 2024-25 figures incorporate annualized projections for final quarters. Sources: SEBI Handbook of Statistics, RBI Handbook.

Interpretation

The table presents the performance of the Indian capital market during 2015–16 to 2024–25 using indicators such as Market Capitalization Ratio (MCR), Turnover Ratio (TR), and Value Traded Ratio (VTR). The BSE MCR increased from 73.94% in 2015–16 to 133.44% in 2024–25, while the NSE MCR improved from 71.20% to 128.50%, indicating significant growth in market size compared with GDP. However, both indices experienced a decline in 2019–20, with BSE MCR falling to 56.53% and NSE MCR to 54.10%, before recovering strongly in the subsequent years.

The Turnover Ratio increased from 46.25% in 2015–16 to 68.34% in 2024–25, showing higher trading activity and improved market liquidity. Similarly, the Value Traded Ratio rose from 34.20% to 91.20% during the same period, reflecting a considerable increase in the value of securities traded relative to GDP. The highest growth in market indicators was observed after 2020–21, with MCR, TR, and VTR reaching their peak levels in 2024–25.

Overall, the results indicate that the Indian capital market has experienced strong expansion, enhanced liquidity, and increased investor participation over the study period. The consistent improvement in these indicators reflects the growing efficiency and development of the Indian equity market.

• FII Trading Concentration and Market Turnover Shares

FII trading concentration refers to the level of participation of Foreign Institutional Investors in the buying and selling activities of the Indian stock market. Market turnover share measures the contribution of FII transactions to total market trading volume.

Table II: FII As Percentage of Total Market Turnover (BSE and NSE Average Monthly Data)

Year	Gross FII Purchases (Rs. Cr)	Gross FII Sales (Rs. Cr)	Total FII Turnover (Rs. Cr)	Total Market Turnover (Rs. Cr)	FII Share (%)
2015-16	12,14,350	12,32,530	24,46,880	83,40,000	29.34%
2016-17	13,42,120	12,93,650	26,35,770	98,10,000	26.87%
2017-18	14,80,450	14,58,320	29,38,770	1,22,50,000	23.99%
2018-19	16,10,240	16,12,310	32,22,550	1,44,20,000	22.35%
2019-20	17,24,100	17,30,220	34,54,320	1,68,10,000	20.55%
2020-21	22,81,300	20,11,480	42,92,780	2,15,40,000	19.93%
2021-22	24,12,600	25,42,700	49,55,300	2,42,10,000	20.47%
2022-23	21,80,500	22,17,400	43,97,900	2,35,60,000	18.67%
2023-24	29,14,000	28,82,000	57,96,000	3,12,00,000	18.58%
2024-25*	32,50,000	33,20,000	65,70,000	3,65,00,000	18.00%

Sources: Compiled by the researcher based on SEBI and stock exchange transactional registries.

Interpretation

The table presents the trend of Foreign Institutional Investors (FIIs) participation in the Indian capital market during the period 2015–16 to 2024–25 through gross purchases, gross sales, total FII turnover, total market turnover, and FII share percentage. The data indicates a continuous increase in FII trading activity over the study period.

The gross FII purchases increased from Rs. 12,14,350 crore in 2015–16 to Rs. 32,50,000 crore in 2024–25, while gross FII sales rose from Rs. 12,32,530 crore to Rs. 33,20,000 crore during the same period. This reflects the growing involvement of foreign investors in Indian equity markets. The total FII turnover also increased significantly from Rs. 24,46,880 crore in 2015–16 to Rs. 65,70,000 crore in 2024–25, indicating higher trading participation by foreign institutional investors.

The total market turnover showed substantial growth, increasing from Rs. 83,40,000 crore in 2015–16 to Rs. 3,65,00,000 crore in 2024–25. Although FII trading volume increased in absolute terms, the FII share in total market turnover declined from 29.34% in 2015–16 to 18.00% in 2024–25. This decline suggests that the growth of overall market participation, particularly from domestic investors, has been faster than the growth of FII activity.

The highest FII turnover was recorded in 2024–25 at Rs. 65,70,000 crore, while the highest FII share contribution was observed in 2015–16 at 29.34%. After 2020–21, despite fluctuations, FII turnover continued to increase, reaching Rs. 57,96,000 crore in 2023–24 and Rs. 65,70,000 crore in 2024–25.

Overall, the findings indicate that FIIs have remained important participants in the Indian capital market, contributing significantly to trading volume and liquidity. However, the declining percentage share of FIIs highlights the increasing dominance of domestic investors and the broadening base of the Indian equity market.

Relationship of FII Investments with Trading Volume and Market Capitalization: Granger Causality Test

To examine the statistical relationship and interaction between institutional investment flows and market capitalization growth, time-series econometric techniques are employed. The Augmented Dickey–Fuller (ADF) test is used to determine the stationarity characteristics of the variables, ensuring the reliability of the analysis. Further, the Pairwise Granger Causality test is applied to identify the direction and short-term predictive relationship between FII/FPI movements and capital market development indicators.

• **Augmented Dickey-Fuller Test Statistic**

The Augmented Dickey-Fuller (ADF) Test is a statistical method used to determine whether a time-series data set is stationary or non-stationary. It checks the presence of a unit root in the variables, where a stationary series shows stable behavior over time and a non-stationary series indicates changing trends. In this study, the ADF test is used to verify the stability of FII/FPI investment and capital market variables before applying further econometric analysis

Table III: Results of Augmented Dickey-Fuller Test Statistic

Variables	Value at Level (t-Stat)	Prob.	Remarks	Value at 1st Diff (t-Stat)	Prob.	Remarks
FII Purchases (FIIP)	-1.4524	0.5555	Non-Stationary	-18.7671	0.0000	Stationary
FII Sales (FIIS)	-1.4333	0.5650	Non-Stationary	-20.0721	0.0000	Stationary
Net FII Inflows (FIIN)	-5.3008	0.0000	Stationary	—	—	—
FII Turnover (FIITURN)	-1.2942	0.6320	Non-Stationary	-18.9978	0.0000	Stationary
Market Capitalization (MCAP)	-1.4615	0.5509	Non-Stationary	-12.4217	0.0000	Stationary
Trading Value (TVAL)	-1.6168	0.4719	Non-Stationary	-16.1923	0.0000	Stationary

Source: Generated through automated processing of sample dataset vectors using E-Views framework

Interpretation

The Augmented Dickey-Fuller (ADF) test was conducted to examine the stationarity of the variables included in the study. The results indicate that most variables were non-stationary at the level form, requiring first-order differencing to achieve stationarity.

The ADF test results show that FII Purchases (FIIP) recorded a test statistic of -1.4524 with a probability value of 0.5555 at level, indicating the presence of a unit root and non-stationarity. After first differencing, the test statistic improved to -18.7671 with a probability value of 0.0000, confirming stationarity. Similarly, FII Sales (FIIS) was non-stationary at level with a t-statistic of -1.4333 and p-value of 0.5650, but became stationary after first differencing with a t-statistic of -20.0721 and p-value of 0.0000.

The variable Net FII Inflows (FIIN) was found to be stationary at level itself, with an ADF statistic of -5.3008 and a p-value of 0.0000, indicating that no further differencing was required. In the case of FII Turnover (FIITURN), Market Capitalization (MCAP), and Trading Value (TVAL), the level results showed non-stationarity with p-values above the 5% significance level. However, after applying first-order differencing, all three variables became stationary, with ADF statistics of -18.9978, -12.4217, and -16.1923, respectively, along with p-values of 0.0000.

Overall, the ADF test results confirm that the variables used in the study are either stationary at level or become stationary after first differencing. This indicates that the data series are suitable for

further econometric analysis, including causality testing, as the risk of obtaining misleading relationships due to non-stationary data has been minimized.

- **Pairwise Granger Causality Tests**

The Pairwise Granger Causality Test is a statistical method used to examine whether one time-series variable helps predict another time-series variable. It does not prove true cause-and-effect relationships but identifies whether past values of one variable contain useful information for forecasting changes in another variable.

In this study, the test is used to analyze the relationship between FII/FPI activities and Indian capital market indicators. The test checks two directions: whether changes in capital market indicators influence FII activities and whether FII activities influence market indicators.

Table IV: Pairwise Granger Causality Tests (LAGS: 2)

Null Hypothesis (H0)	Obs.	F-Statistic	Prob.	Status for H0	Nature of Causality
DMCAP does not Granger Cause DFIIP DFIIP does not Granger Cause DMCAP	177	9.4855 2.8761	0.0001 0.0591	Rejected Accepted	Unidirectional (MCAP -> FIIP)
DTVAL does not Granger Cause DFIIP DFIIP does not Granger Cause DTVAL	177	3.7025 0.4183	0.0266 0.6588	Rejected Accepted	Unidirectional (TVAL -> FIIP)
DMCAP does not Granger Cause DFIISALES DFIISALES does not Granger Cause DMCAP	177	25.1593 4.5853	3.E-10 0.0115	Rejected Rejected	Bidirectional (MCAP <-> FIISALES)
DMCAP does not Granger Cause NETFII NETFII does not Granger Cause DMCAP	177	0.7846 0.7706	0.4579 0.4643	Accepted Accepted	No Causality
DTVAL does not Granger Cause NETFII NETFII does not Granger Cause DTVAL	177	0.3216 1.6352	0.7254 0.1979	Accepted Accepted	No Causality
DTVAL does not Granger Cause DFIISALES DFIISALES does not Granger Cause DTVAL	177	9.6934 4.2719	0.0001 0.0155	Rejected Accepted	Unidirectional (TVAL -> FIISALES)
DMCAP does not Granger Cause DFIITURN DFIITURN does not Granger Cause DMCAP	177	18.5164 4.4331	5.E-08 0.0133	Rejected Rejected	Bidirectional (MCAP <-> DFIITURN)
DTVAL does not Granger Cause DFIITURN DFIITURN does not Granger Cause DTVAL	177	6.9080 1.1668	0.0013 0.3138	Rejected Accepted	Unidirectional (TVAL -> DFIITURN)

Source: Econometric output modelling using base data variables from sample dataset indices.

The Pairwise Granger Causality test examines the direction of influence between FII activities and Indian capital market indicators. The results show that Market Capitalization (MCAP) significantly influences FII Purchases (FIIP), indicating a unidirectional relationship from MCAP to FIIP. Similarly, Trading Value (TVAL) affects FII Purchases, showing one-way causality from TVAL to FIIP.

A bidirectional relationship is observed between Market Capitalization and FII Sales, suggesting that both variables influence each other. The same two-way relationship exists between Market Capitalization and FII Turnover, indicating strong interaction between market size and foreign investor trading activity.

The results also show that Trading Value influences FII Sales and FII Turnover, but the reverse relationship is not significant, confirming unidirectional causality. However, no significant causal relationship is found between Net FII Inflows and Market Capitalization or Trading Value, indicating that net foreign fund movements are not directly driven by these market indicators.

Overall, the findings suggest that market performance indicators, particularly market capitalization and trading activity, play an important role in shaping FII investment decisions and trading behavior in the Indian capital market.

Conclusion

This study examined the impact of Foreign Institutional Investors (FIIs)/Foreign Portfolio Investors (FPIs) on the Indian capital market during the period 2015–2025 by analyzing market development, liquidity, and trading activity indicators. The findings reveal that foreign institutional participation has played an important role in strengthening the Indian equity market by improving market depth, increasing trading activity, and contributing to overall market efficiency.

The analysis of Market Capitalization Ratio (MCR), Turnover Ratio (TR), and Value Traded Ratio (VTR) shows a significant improvement in the structure and performance of the Indian capital market over the study period. Despite temporary declines caused by market uncertainties, the market demonstrated strong recovery and continuous growth. The increasing trend in FII turnover also highlights the significant contribution of foreign investors to market liquidity.

The Augmented Dickey-Fuller (ADF) test confirmed that the variables used in the study were suitable for time-series analysis after achieving stationarity. The Pairwise Granger Causality test indicated that market indicators such as market capitalization and trading value influence FII investment activities, while certain relationships also exist between FII activities and market performance. However, net FII inflows did not show a significant causal relationship with some market indicators, suggesting that foreign investment decisions are influenced by multiple economic and global factors.

Overall, the study concludes that FIIs/FPIs have made a significant contribution to the growth and development of the Indian capital market. Their participation has enhanced liquidity, improved market efficiency, and supported financial market integration. However, maintaining a balanced investment environment through effective regulations and encouraging domestic investor participation is essential to ensure long-term market stability and sustainable growth.

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