

# FLOW OF FOREIGN INSTITUTIONAL INVESTORS AND MUTUAL FUNDS IN THE INDIAN STOCK MARKET: A COMPARATIVE STUDY

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## ABSTRACT

*Mutual funds (MFs) are professionally managed open-ended investment funds that pool money from a variety of participants to purchase securities. Institutional investors, including foreign institutional investors and retail investments, invest in MF. The purpose of the research is to look into the statistical relationship between the FII and the MF. Mutual Funds and FIIs are compared to indicate the entire flow of funds in the stock market.*

**Keywords:** *FII Net Flows, MF Net Flows, SIP, Correlation.*

## INTRODUCTION

In the last three decades, large institutional flows have influenced the Indian stock market. Because of their large inflows and withdrawals, FIIs (Foreign Institutional Investors) have always had a significant impact on the Indian stock market.

Our markets just followed their lead; when they invested, our markets rose dramatically, but when they withdrew funds, our markets plummeted like a deck of cards. As a result, this is a critical part of the Indian stock market's operation. However, in recent years, Indian mutual funds have emerged as important players, and their contributions have helped to maintain market stability. Indian mutual funds have formed the foundation of the Indian stock markets in recent years, since they have had consistent inflow from regular investors under the Systematic Investment Plan (SIP).

This article attempts to examine the statistical association between flow of FII and MF into the Indian stock market from 1999 to March 2020. The study will examine the impact both of these institutions have on the Indian stock market, as well as how their flows have changed in response to various global economic crises.

## FOREIGN INSTITUTIONAL INVESTORS

After May 1992, foreign institutional investors (FII) were permitted to invest in the Indian stock market.

The new LPG (Liberalization, Privatization, and Globalization) regulations have revolutionised the way the Indian economy operates. When it comes to investing in the Indian stock market, the FII has been a key player, and its impact on the Indian stock market's volatility has been significant. FII has been one of the primary drivers in the Indian stock market, and it has had a significant impact on how the Indian markets operate. In the year 1999, there were approximately 56 foreign institutional investors (FII) registered in the Indian capital market, which climbed to 506 by March 31, 2000.

FII's made a net investment of Rs. 10,121.93 crores between 1999 and 2000, which reached a five-year high of Rs. 1,01,122 crores in 2019. There were years when they invested Rs. 1,66,127 crores in the Indian debt market and our markets returned 31%, and years when they invested Rs. 1,01,122 crores and our markets returned 14%. FII's withdrew Rs. 45,811 crores from the Indian stock market in 2008 amid the Global Financial Crisis, and the market fell from 21,206.776 in January 2008 to 7,697.39 in October 2008. This demonstrates the FII's influence in terms of the outflows they have caused and their impact on the Indian economy.

## **MUTUAL FUNDS**

The Unit Trust of India was established in 1963 on the initiative of the Government of India (GoI) and the Reserve Bank of India (RBI). The adventure of Indian mutual funds began. It was in 1993 when private sector players were given permission to launch mutual funds. In April 2020, the total Asset Under Management (AUM) reached Rs. 23,93,486 crores, up from Rs. 47,004 crores at the end of 1993.

There are now 43 mutual funds with over 1000 strategies. Every month, over Rs. 8,000 crores is invested in the Indian stock market under the Systematic Investment Plan (SIP), indicating that the Indian investor's psychology is maturing. Despite the fact that global and Indian markets have corrected by more than 30%, mutual fund flows have been positive. Mutual funds contributed Rs. 1,15,000 crores in 2017 when the Indian markets returned 27 percent, and Rs. 1,20,000 crores in 2018 when the markets returned 5.6 percent, despite the fact that FII were net sellers to the extent of Rs. 32,000 crores. This demonstrates that mutual funds have become a significant support for the Indian stock market, supplying consistent flow of capital to the Indian stock market.

## **LITERATURE REVIEW**

This is a detailed understanding of the study conducted by a number of different researchers. Here is a list of all existing and notable research from the past.

The study "An Empirical Evidence of Dynamic Interaction between Institutional Fund Flows and Stock Market Returns in India," undertaken by Naik, 2015, looked at a three-factor vector auto regression (VAR) model. They discovered that flow of both mutual fund and funds from FII had a considerable impact on the Indian stock market.

A study on the "Impact of Foreign Institutional Investors (FIIs) on Indian Capital Market" was undertaken by Kulshrestha, 2014. He gathered information over 11 year period, from 2000 to 2011. His research sought to determine whether foreign institutional investors had an impact on the Indian capital market, as well as whether FII have an impact on the BSE Sensex and CNX Nifty. He employed regression

analysis for this research. He discovered a positive association between the FII and the BSE Sensex and the FII and the CNX Nifty. As a result, if FII investment rises, the BSE Sensex and CNX Nifty will rise as well.

(Kotishwar, 2015) investigated "FII & DII Fund Flow Influence of Mutual Funds Inflows and Outflows His intentions were to define the connection between nifty and FII, DII, and MF inflow and outflow, as well as the impact of nifty on MF inflow and outflow. He gathered data for the study during an eightyyear period, from 2006 to 2014. He discovered that mutual fund inflows had a negative connection with the secondary benchmark using correlation, regression, and the granger causality test. During the study period, FII, DII, and Flows had an impact on nifty.

(Meman, 2016) in his research work, investigated the "Impact of Foreign Institutional Investments (FIIs) on India Stock Market." He used data from the year 2000 to 2015 for this study, which spanned 15 years. His purpose was to see if FII had any impact on the NSE Nifty. This study used Causal Analysis. He discovered that there is only one way causation from NSE Nifty to Foreign Institutional Investments (FIIs), and that there is no reverse causality. There is no direct relationship between foreign investments and the movement of the Indian stock market, but there is a direct relationship that the movement of the Indian stock market causes international investors to invest or disinvest in the country's market.

**(Dave, 2016)** published a study titled "A Study on FII's Investment in Equity Market and its Impact on BSE SENSEX" as part of his research. From the year 2000 to 2015, the data was collected over a period of 15 years. The goal of his research was to see if there was any correlation between the BSE Sensex and FII equity net investments. The Regression Model was employed in this investigation. He discovered that the BSE Sensex has a considerable impact on foreign direct investment (FDI) in India.

A study on the "Impact of Foreign Institutional Investors(FII) on Indian Capital Market" was undertaken by **(Abid, 2017)**. Their idea was to see if there was a link between the Indian stock market and foreign institutional investors. From 2006 to 2016, they collected data for a period of ten years. They employed correlation to conduct their research and discovered that the Indian stock market and FII inflows have a favourable association. As a result, the conclusions of various academics are incongruent, necessitating further investigation into the statistically significant relationship between FII and Mutual Fund Flows in the Stock Market of India.

The study "Effect of Foreign Institutional Investor on Stock Market: Bibliography of Unclassified Literature" was undertaken by **(Budur, 2017)**. His goal was to find out if the FIIs and the stock market had some sort of relationship. According to his research, there is a modest positive correlation between the two, that both the SENSEX and FII inflows have a direct correlation, with the Sensex increasing when there is a favorable FII inflow and decreasing when there is an adverse FII inflow.

"A study on the impact of FIIs and DIIs on the Indian stock market NSE Nifty," according to **(Bansal, 2018)**. Their target was to investigate the behaviour of foreign institutional investors and domestic institutional investors in relation to the Indian stock market, to determine whether there is a positive and significant correlation between institutional investors (both foreign and domestic) and stock market returns in India, and to explore the influence of these investors on the Indian stock market. They collected data for this study during an 11 year period, from April 2007 to April 2018. Using trend analysis they

discovered that when foreign institutional investors (FIIs) invested in the Indian stock market, DIIs disinvested, and vice versa. They learned that the DIIs and NSE nifty had a strongly negative association, but the FIIs had a somewhat favourable relationship.

**(Datta, 2019)** conducted a study on the topic "Impact of FII (Foreign Institutional Investors) on Indian Stock Market with Specific Reference to Sensex and Nifty." They evaluated data from the years 2007 to 2018 till the end of April for this study. The focus of their study was to look into the relationship and effect of foreign institutional investors (FIIs) on the Indian stock market, with a clear focus on the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE), as well as the relationship between FII flows and NIFTY returns. They conducted both qualitative and quantitative research on this. According to the findings of the qualitative research, there is a favourable association between FII investments and SENSEX returns. They used correlation and t-test for their mathematical modeling and encountered that there is a moderate relationship between FII's net equity investments and SENSEX returns, as well as a moderate correlation between FII net equity investments and Nifty returns, and that there is a significant correlation of FIIs flows with both SENSEX and Nifty returns.

**(Nalini, 2019)** conducted research on the topic "Influence of Foreign Institutional Investors on Indian Stock Market," with the intent of examining the impact of FII on different measures of the National Stock Exchange (NSE). They used a few NSE factors and data for this analysis, which spanned a period of 18 years from 2000 to 2018.

For their data analysis, they used statistical tools including correlation and regression analysis. The regression study revealed that FII has an impact on several variables such as market capitalization, Demat trading, and internet trading. According to the findings, the FII has a favourable impact on the Indian stock market, according to their report.

## **OBJECTIVE**

The purpose of this research is to determine the statistical association among both the FII and Mutual Fund flows in the Indian Stock Market from 1999 to March 2020.

## **SCOPE OF THE STUDY**

The research is being carried out from 1999 to March 2020. The net flows of both Mutual Funds and FIIs were evaluated for examination in this study. The study's objective is to explore the statistical relationship between FII and Mutual Funds flow in the Indian Stock Market from 1999 to March 2020.

## **METHODOLOGY OF RESEARCH**

For analysis, the available data (secondary data) was employed. Statistical tools has been used to analyse the secondary data. To showcase the correlation between the two variables, data from several websites such as the NSE, NSDL, Way2Wealth, and CDSL has been compiled for the course of the last 20 years, commencing from April 1999 and ending in March 2020. Mutual Fund Flows (Dependent Variable) is one of the variables, while Foreign Institutional Investors is the other (Independent Variable). Microsoft Excel and IBM SPSS Statistics Version 25 were used to examine the data.

## HYPOTHESIS

Null Hypothesis Ho: FII and MF flows have no meaningful association.

Alternative Hypothesis H1: FII and Mutual Fund flows have a substantial relationship.

Correlation, F-Test, T-Test, Regression, and ANOVA were used in this study, and the analysis was completed utilising the aforementioned statistical methods.

## DESIGN OF RESEARCH

Casual research, which is intended at evaluating the hypothesis, was used in this study.

### Analysis

**Table 1**

Year	FII Net Flows (Rs. In Cr)	MF Net Flows (Rs.In Cr)
1999	6578.1	-1975
2000	6370.5	-81
2001	13498.1	428
2002	3607.7	1340
2003	30737.1	-4
2004	38704.2	-25
2005	46711.9	1627
2006	36393.1	15225
2007	70057.2	6195
2008	-52986.9	13992
2009	83392.4	-5313
2010	133266	-27876
2011	-2714	6653
2012	128360.7	-20593
2013	113026.7	-21188
2014	97736.08	23326
2015	17946.24	71564
2016	21398.26	47818
2017	51949.06	115946
2018	-32628.28	120280
2019	100887.14	51514
2020	-50981.47	39947
	Correlation	-0.333423348

Source: [www.way2wealth.com](http://www.way2wealth.com) **Note:** The data is taken up to 31st March 2020

### Correlation

The coefficient of correlation is negative coming upto -0.3334 which indicates that the FII and MF flows have a weak relation. For comparison purposes, from January 2020 to March 31, FII withdrew Rs.-122348.56 crores in January 2020, Rs. 3916.59 crores in February 2020, and Rs. - 209 crores in March 2020 respectively, totalling Rs.-1,18,222.97 crores in three months from the Indian stock market, whereas investment made in mutual funds amounting to 68177.28 from January 2020 to March 31 (Rs. 16020.01 crores in January 2020, Rs. 23392.59 crores in Feb 2020 and Rs. 28764.68 crore). The possible explanation for this indifference is due to Pandemic- 2020 (Novel Coronavirus), which has had a negative impact on the global gross Domestic product, and as a result, FII have withdrawn money from equities and placed it in gold as an alternate solution to equity market, whereas mutual funds, which are receiving large inflows through SIP from retail investors, believe that since markets have corrected around 30%, valuations are cheap and one should do value buying so that when things improve, one can earn greater profit.

**Table 2**

**F-Test Two-Sample for Variances**

	FII NET FLOWS	MF NET FLOWS
Mean	38650.84318	19414.95455
Variance	3007896968	1581924298
Observations	22	22
df	21	21
F	1.901416503	
P(F<=f) one-tail	0.074527668	
F Critical one-tail	2.084188623	

Source: Compiled by the author using SPSS.

**F-Test:** The calculated value of the F test is 1.90, which is well below the table value of 2.08 at a 5% level of confidence, indicating that the Null Hypothesis of no significant association between FII and Indian Mutual Fund flows is acceptable.

**T-Test:** The estimated value of the T-test is 0.190, which is less than the table value of 2.02 at a 5% level of confidence, indicating that the Null Hypothesis of no significant association between FII and Indian Mutual Fund flows is accepted.

**Table 3**

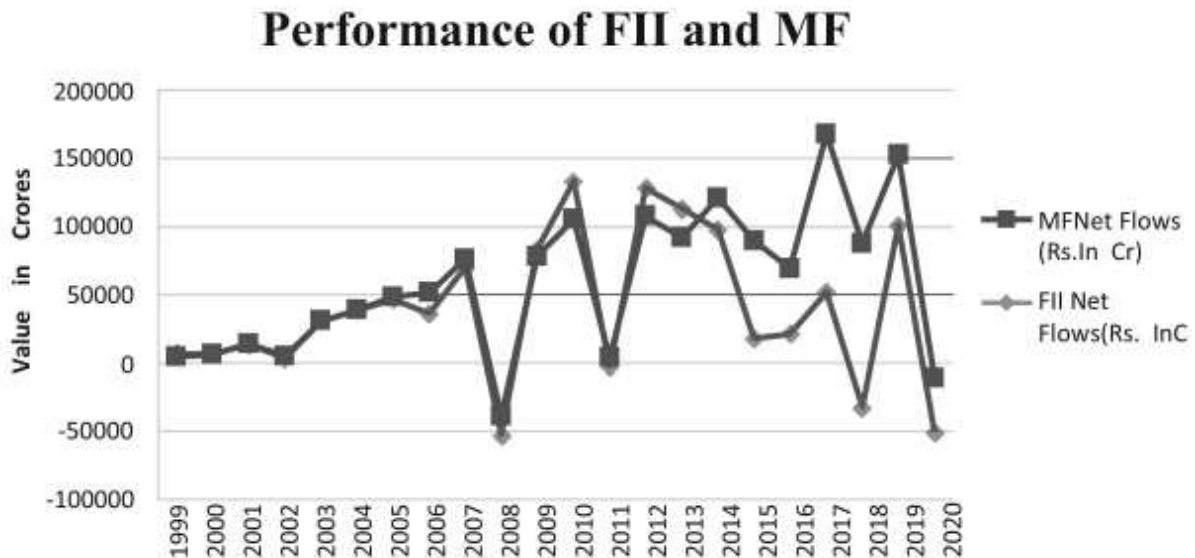
**t-Test: Two-Sample Assuming Unequal Variances**

	FII NET FLOWS	MF NET FLOWS
Mean	38650.84318	19414.95455
Variance	3007896968	1581924298
Observations	22	22
Mean Difference	0	
df	38	
t Stat	1.331759206	
P(T<=t) one-tail	0.095436406	
t Critical one-tail	1.68595446	
P(T<=t) two-tail	0.190872812	
t Critical two-tail	2.024394164	

Source: Compiled by the author using SPSS.

**Chart 1**

Foreign Institutional Investors and Mutual Funds Net Flows Trend Analysis



Source: Designed by the Author using Excel.

### Interpretation

The Net Flows of Foreign Institutional Investors and Mutual Funds are depicted in the graph above. This graph clearly shows that when Foreign Institutional Invest money in the market, investors pull their money from Mutual Funds, and when net inflow of Mutual Funds rise, Foreign Institutional Investors divert funds from the market. As a result, we can conclude that they have a negative connection in respect of Net Flows.

**Average flows:** Annual FII flows averaged to Rs. 40701 crore between 1999 and April 10, 2020, whereas that of mutual fund flows were roughly Rs. 20989 crores. The fact that mutual fund flows were relatively low when compared to FII flows in the initial periods, and that mutual funds were only observers in the market with little impact on the Indian stock market. The influx of mutual funds has accelerated significantly since 2015. All figures in Rupees Crore

Year	FII flows	MF flows
2015	17946	71564
2016	21398	47818
2017	53650	112000
2018	-32000	120000
2019	100000	51000
2020	-51000	39000

Source:-[www.way2wealth.com](http://www.way2wealth.com)

### FINDINGS OF THE STUDY

1. There is a negative relationship between FII and MF flows.
2. There is no connection between FII inflows and the inflow of Indian mutual funds.

### CONCLUSION

Ever since 1992, when foreign institutional investors were allowed to invest for the first time, they have been a crucial source of capital for the Indian stock market. They have been a powerful element influencing the fluctuations in the Indian stock market since 1999. Indian mutual funds, on the other hand, have flown under the radar in recent years and have emerged as a formidable counterweight to the Indian stock market. Indian mutual funds have been gradually investing through the SIP (Systematic Investment Plan), with Rs. 8000 crores flowing into the stock market every month. Even though Indian MFs invested Rs.120000 crores in 2018, while FIIs were net sellers to the tune of Rs.32000 crores, the SENSEX returned 5.6 percent in 2018, owing primarily to mutual fund inflows. This is in contrast to the Financial Meltdown of 2008, when FIIs withdrew Rs. 52000 crores from Indian stock markets and the SENSEX returned a negative 52 percent, and the European Union Crisis of 2011, when FIIs withdrew Rs. 2700 crores and the SENSEX returned a negative 24.65 percent.



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