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## **A Case Study of FII Flows on Indian Stock Market (Special Reference to BSE Sensex and NSE Nifty)**

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### **ABSTRACT:**

The stock markets in India have set new records and become more volatile, making the research work in this dimension establish the link between FIIs and stock market volatility. Hence, it is interesting to ascertain the role of FIIs in the Indian Stock Market. Foreign institutional investors (FIIs) have emerged as remarkable companies listed on the Indian stock exchange and the increasing role they play is an essential aspect of the growth of India's stock markets. The researchers are now attempting to establish a correlation between FIIs and stock market volatility, as the Indian stock markets have peaked and become more volatile as a consequence. The database used for the study was composed of the yearly data of FII flow, BSE SENSEX, and NSE NIFTY. Data was collected from 2007 to 2023. The data related to FII flows has been collected from the SEBI website.

In contrast, the data related to the yearly closing value of SENSEX and NIFTY have been taken from the BSE and NSE websites, respectively, and analysis of the data was done with the support of MS Excel software, growth rate, and CAGR. The formed hypothesis was tested with the help of linear Regression Analysis and two-sample Assuming Equal Variances.

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**Keywords:** - FII, BSE Sensex and NSE Nifty

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### **Introduction :**

The rate of sustained economic growth and development, facilitated by investment, serves as an indicator of a nation's progress and prosperity. Foreign exchange reserves, exports, government revenue, financial position, available supply of domestic savings and Foreign investment, both in terms of quantity and quality, is essential to the economic growth and development of a nation. Foreign institutional investors (FIIs) have emerged as essential players in the Indian equity market in recent years. They are gradually becoming one of the major contributors to the growth of the financial markets, more so in developing economies like India.

The increased height and volatility of the Indian stock market has prompted researchers to investigate the relationship between FIIs and stock market volatility. Hence, it is interesting to ascertain the role of FIIs in the Indian Stock Market. Foreign institutional investors (FIIs) have emerged as remarkable entities participating in the Indian equity market, and their expanding impact is an essential feature of the development of stock markets in India. Because of this, the Indian Stock Markets have reached new highs and become more volatile. This is why researchers are trying to find a link between FIIs and Stock Market volatility. The reforms in India made many changes in the structure and performance of different sectors in the Indian financial system, and the stock market became part of these reforms. The Indian stock markets performed exceptionally after the initiation of reforms, and they became the best destination for foreign investors.

India opened its doors to Foreign Institutional Investors (FIIs) on 14th September 1992 to trade in the Indian stock market in the form of equity investment with suitable restrictions; the FIIs investments helped to improve the liquidity and performance of Indian corporations as well as to economic development. Indian stock market achieved new highs in terms of trading volume and market capitalization, and FIIs fund flows highly influenced the Indian stock market indices majorly, i.e., SENSEX and Nifty; these are fluctuating according to the moves of FIIs.

The research works so far around foreign institutional investors are limited to specific categories. Integrated studies on different kinds of indices are minimal. The present study aims to provide research analysis on the trends and patterns of foreign capital flow into the stock market in the form of FII and the relationship of FII investment. The present study also covers FII's impact on BSE SENSEX and NSE Nifty. This study outlines the foreign capital flow into the stock market through Foreign institutional investors and the market with the following objectives.

The term Foreign Institutional Investors is defined by SEBI as "an institution established or incorporated outside India which proposes to invest in India in securities. Foreign Institutional Investors are defined as domestic asset management companies and portfolio managers who, on behalf of a sub-account, manage funds raised, collected, or imported from outside India for investment in India." The term FIIs is most used to refer to companies established or incorporated outside India and investing in India's financial markets by registering themselves with the Securities & Exchange Board of India (SEBI).

Foreign Investment Institutions (FIIs) comprise a variety of entities such as international pension funds, investment trusts, asset management firms, these groups include bank nominees, professional portfolio managers, university funds, endowments, foundations, charitable trusts, and charitable

societies. and a trustee or power of attorney holder outside India that intends to execute proprietary investments on behalf of a broad-based fund (defined as a fund with more than 20 investors, where no single investor holds more than 20% of the fund's shares). Foreign Institutional Investment is short-term and primarily made in the financial market.

## Literature Review

**Mamatha et al. (2012)** found that, based on data analysis, the FIIs influence the SENSEX movement to a greater extent. Further, the SENSEX increased when there were positive inflows of FIIs, and there was a decrease in SENSEX when there were negative FII inflows. The Pearson correlation values indicate a positive correlation between foreign institutional investments and the movement of SENSEX.

**Patel (2013)**, the study investigated the impact on the Indian stock market return created by foreign institutional fund flows. For this purpose, the monthly data from January 1993 to May 2012 have been considered. The author has applied the Johanson Cointegration test, Granger test, and error correction model. The result of Granger causality stated that bidirectional causality existed between the variables and showed that a long-run relationship had been found between the variables.

**Yogendra (2013)**, it can be concluded that FII has no significant impact on the Indian Stock Market. However, other factors like government policies, budgets, bullion market, inflation, economic and political conditions, etc., also impact the Indian stock market. There is a positive correlation between stock indices and FIIs, but FIIs did not significantly impact the Indian Stock Market.

**Pradip and Ravikumar (2020)**, the study examined investment trends of FII and the movement of the Indian stock market from the date of 2002 to 2018; they found a moderate relationship between FII flow and market movement and also observed the data daily with more positive results (maybe). Also, FII is not the only factor affecting the stock indices. Other significant factors influence the stock market.

**Murtaza and Shafi (2021)** found that during the study period, there was a moderately positive correlation between FIIs and the Indian capital market. However, the moderate correlation value indicates that FIIs are not the only factors; there can also be other factors that affect the volatility of prices on the NSE Nifty index. This also revealed that FIIs are not the sole factors affecting the Indian stock market; there are other factors, such as government policies, budgets, the bullion market, inflation, economic conditions, and political conditions that impact the Indian stock market. The study also observed a significant impact of net FII investment on the Nifty index from 2000-2017.

## Objectives of the Study

- To study Foreign Institutional Investment (FII) flow in India.
- To analyze the Investment Flow of Foreign Institutional Investments (FIIs) activities in the Indian Stock market.
- To study the effect of FII flow on stock market volatility.

## Hypotheses of the Study

Ho: There is no significant impact of FII Flow Investment on the BSE Sensex Index.

H1: A significant impact exists of FII Flow Investment on the BSE Sensex Index.

Ho: There is no significant impact of FII Flow Investment on the NSE Nifty index.

H1: A significant impact exists of FII Flow Investment on the NSE Nifty market.

## Data and Methodology

The research is descriptive and relies on secondary data. The data on FII flows was obtained from the SEBI and Moneycontrol.com websites, while the data on the year-closing value of the SENSEX and NIFTY was obtained from the BSE and NSE websites, respectively.

Data analysis using SPSS Software, growth rate, and CAGR. The hypothesis was examined by linear regression analysis.

The study's database comprised yearly data from the FII flow, the BSE SENSEX, and the NSE NIFTY. Data has been collected from 2007 to 2023. Specific criteria were followed when selecting the sample. When gathering data for FII flows, only data about equity investment was used. The information used was obtained from SEBI's website and major stock exchanges.

## Results and Discussions

**Table 1: Flow of FII in Equity investment and stock market indexes (2007 to 2023)**

Year	Total Purchase	Total Sale	Net purchase/sale	BSE Sensex	NSE Nifty
2007	602,645.89	602,997.05	-351.16	20286.99	6,138.60
2008	687,856.19	789,658.76	-101,802.57	9647.31	2,959.15
2009	581,159.18	556,339.09	24,820.09	17464.81	5,201.05
2010	705,057.74	643,544.61	61,513.13	20509.09	6,134.50
2011	595,677.50	622,275.76	-26,598.26	15454.92	4,624.30
2012	633,960.34	532,794.23	101,166.11	19426.71	5,905.10
2013	762,325.86	675,220.80	87,105.06	21170.68	6,304.00

2014	970,816.73	903,393.33	67,423.40	27499.42	8,282.70
2015	1,113,733.07	1,134,106.76	-20,373.69	26117.54	7,946.35
2016	1,071,631.40	1,082,213.66	-10,582.26	26626.46	8,185.80
2017	1,269,629.97	1,313,738.82	-44,108.85	34056.83	10,530.70
2018	1,284,646.28	1,357,858.44	-73,212.16	36068.33	10,862.55
2019	1,357,775.98	1,317,895.34	39,880.64	41253.74	12,168.45
2020	1,762,552.49	1,697,306.23	65,246.26	47751.33	13,981.75
2021	2,107,539.28	2,199,165.29	-91,626.01	58253.82	17,354.05
2022	2,001,049.09	2,279,478.57	-278,429.48	60840.74	18,105.30
2023	2,541,616.26	2,557,941.45	-16,325.19	72240.26	21,731.40

Source: moneycontrol.com

Figure 1: Trends of net FII flow (2007 to 2023)

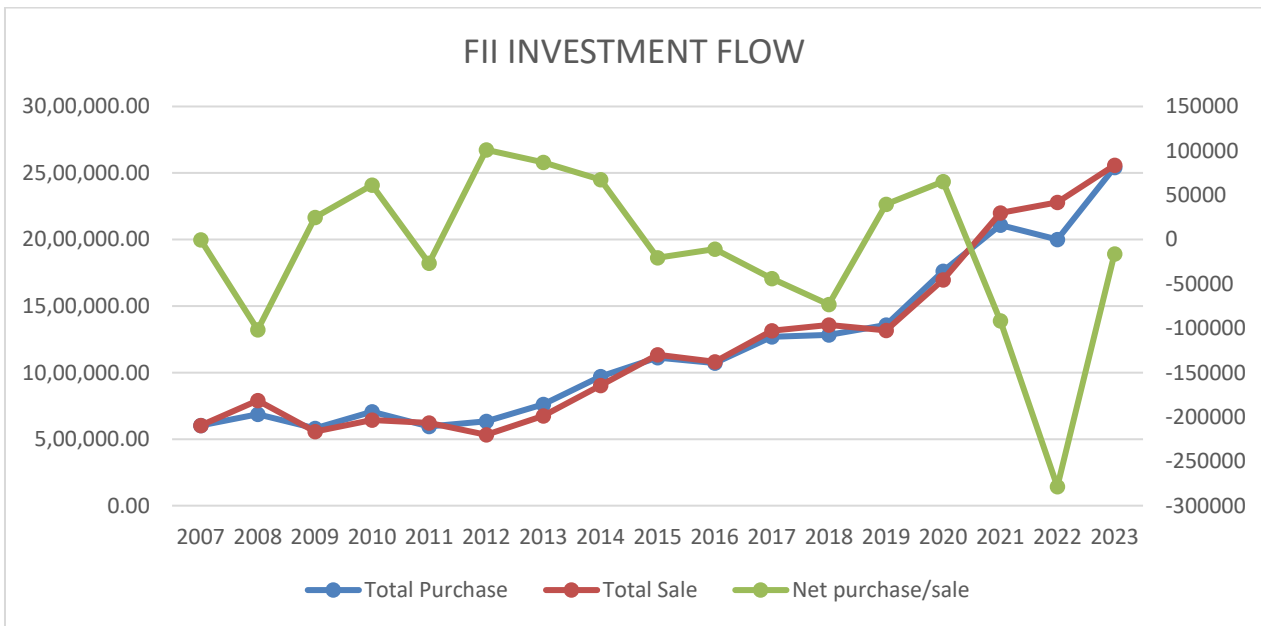
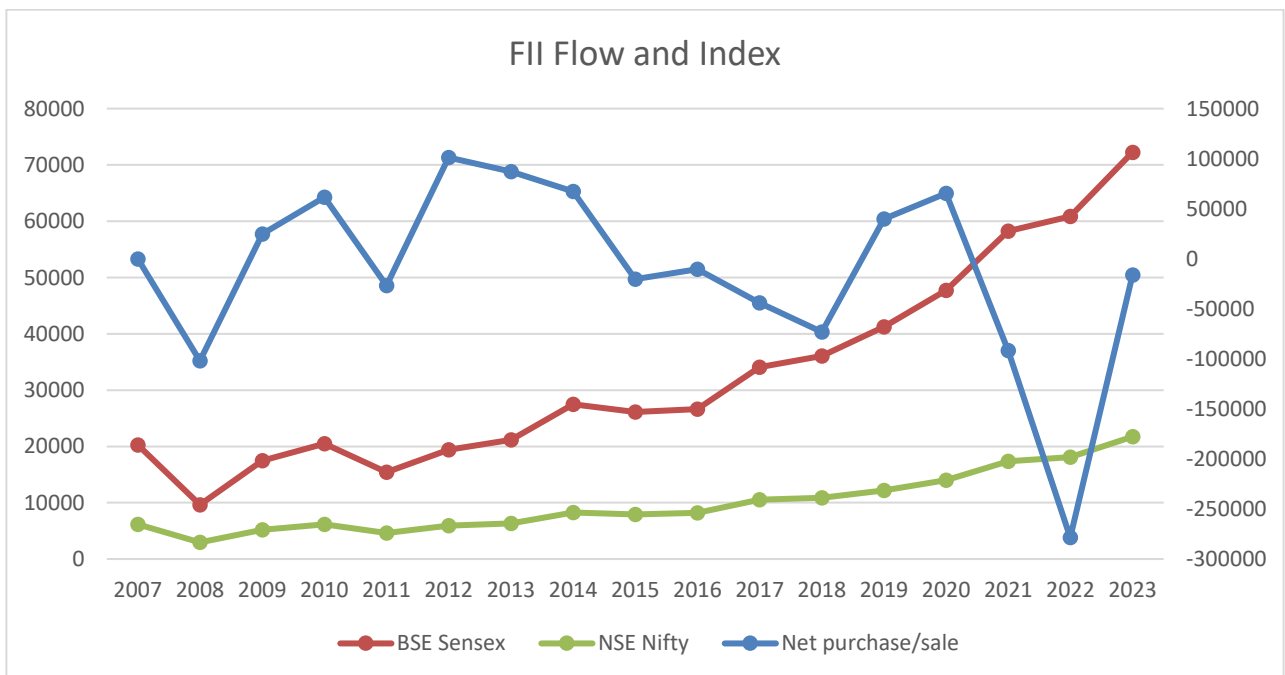


Figure 2: Trends of net FII flow and Indexes (2007 to 2023)



The Linear Regression investigation was used to analyze data and test hypotheses through SPSS.

**Hypothesis 1:** Impact between FII Flow Investment and BSE Sensex Index.

Ho: There is no significant impact of FII Flow Investment on the BSE Sensex Index.

H1: There is a significant impact of FII Flow Investment on the BSE Sensex Index.

Linear Regression Analysis FII Flow Investment and the BSE Sensex Index.

Table 2 Descriptive statistics

**Descriptive Statistics**

	Mean	Std. Deviation	N
BSE	32627.5871	17855.56144	17
PURCHASE	1179392.5441	602705.33981	17
SALE	1192113.4229	647826.60705	17
NET	-12720.8788	91839.91730	17

**Table 3 Correlation Analysis**

**Correlations**

		BSE	PURCHASE	SALE	NET
Pearson Correlation	BSE	1.000	.982	.971	-.405
	PURCHASE	.982	1.000	.992	-.434
	SALE	.971	.992	1.000	-.545
	NET	-.405	-.434	-.545	1.000
Sig. (1-tailed)	BSE	.	.000	.000	.053
	PURCHASE	.000	.	.000	.041
	SALE	.000	.000	.	.012
	NET	.053	.041	.012	.
N	BSE	17	17	17	17
	PURCHASE	17	17	17	17
	SALE	17	17	17	17
	NET	17	17	17	17

**Table 4 Model Summary**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.983 <sup>a</sup>	.966	.961	3539.38350	2.449

a. Predictors: (Constant), NET, PURCHASE

b. Dependent Variable: BSE

**Table 5: ANOVA TABLE**

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4925755888.811	2	2462877944.405	196.602	.000 <sup>b</sup>
	Residual	175381297.885	14	12527235.563		
	Total	5101137186.696	16			

a. Dependent Variable: BSE

b. Predictors: (Constant), NET, PURCHASE

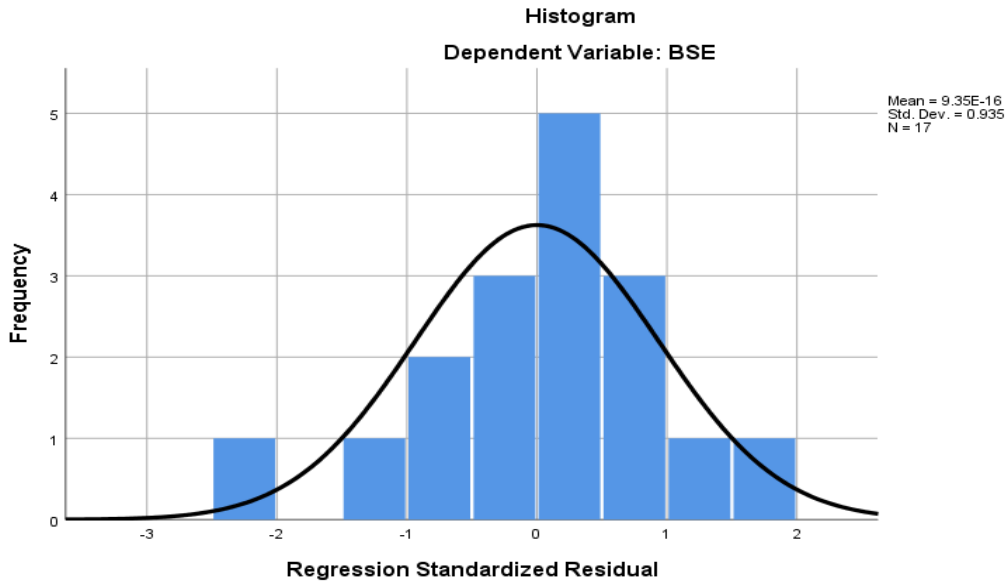
**Table 6: coefficients**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	-2016.176	2054.433		-.981	.343
	PURCHASE	.029	.002	.993	18.063	.000
	NET	.005	.011	.025	.457	.655

a. Dependent Variable: BSE

**Charts**



Simple linear regression tests to determine if the impact of FII flow investment and BSE Sensex index value was significantly predicted. The fitted regression model was  $FII\ Flow\ Investment = -2016.17 + 0.029 * (Index\ value)$ .

The overall regression was statistically significant (R2 is 0.966, F is 196.60, T is -.981, Sig value is  $P < 0.00$ ). Hence, the null hypothesis is rejected. There is undoubtedly a significant impact between FII Flow investment and the BSE Sensex index.

**Hypothesis 2:** Impact between FII Flow Investment and NSE Nifty Index.

Ho: There is no significant impact of FII Flow Investment on the BSE Sensex Index.

H1: There is a significant impact of FII Flow Investment on the BSE Sensex Index.

Linear Regression Analysis FII Flow Investment and the NSE Nifty Index.

**Regression**

**Table 7: Descriptive Statistics**

	Descriptive Statistics		
	Mean	Std. Deviation	N
NSE	9789.1618	5306.07443	17
PURCHASE	1179392.5441	602705.33981	17
SALE	1192113.4229	647826.60705	17
NET	-12720.8788	91839.91730	17

**Table 8: Correlation**

	Correlations				
	NSE	PURCHASE	SALE	NET	
Pearson Correlation	NSE	1.000	.983	.973	-.410

	PURCHASE	.983	1.000	.992	-.434
	SALE	.973	.992	1.000	-.545
	NET	-.410	-.434	-.545	1.000
Sig. (1-tailed)	NSE	.	.000	.000	.051
	PURCHASE	.000	.	.000	.041
	SALE	.000	.000	.	.012
	NET	.051	.041	.012	.
N	NSE	17	17	17	17
	PURCHASE	17	17	17	17
	SALE	17	17	17	17
	NET	17	17	17	17

**Table 9: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.983 <sup>a</sup>	.967	.962	1030.78251	2.507

a. Predictors: (Constant), NET, PURCHASE

b. Dependent Variable: NSE

**Table 10: ANOVA Analysis**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	435595637.485	2	217797818.743	204.984	.000 <sup>b</sup>
	Residual	14875176.267	14	1062512.591		
	Total	450470813.753	16			

a. Dependent Variable: NSE

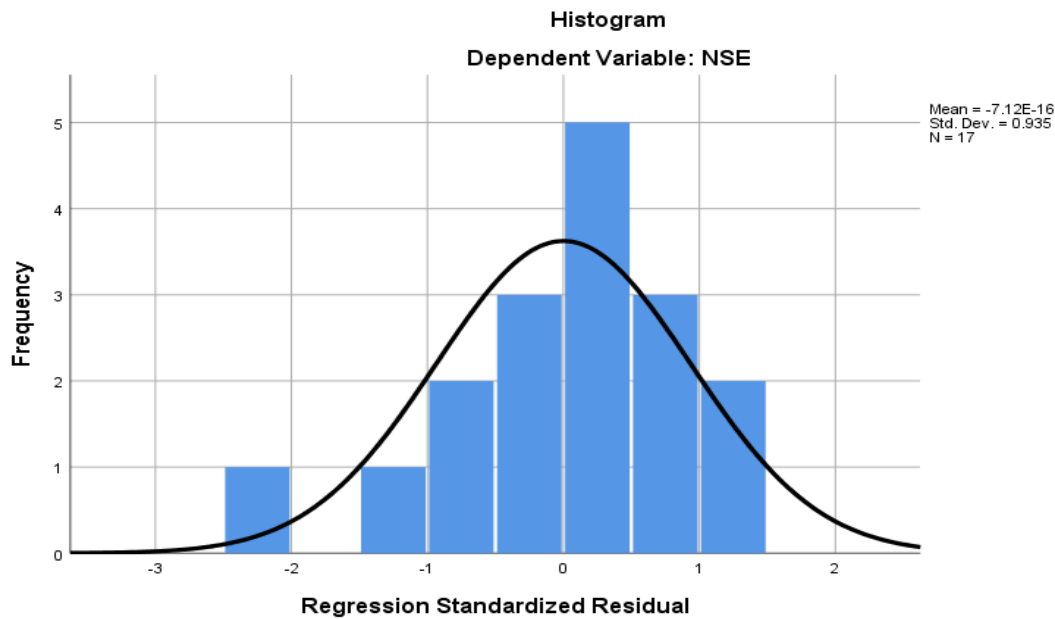
b. Predictors: (Constant), NET, PURCHASE

**Table 11: Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-495.705	598.317		-.828	.421
	PURCHASE	.009	.000	.992	18.406	.000
	NET	.001	.003	.020	.376	.712

a. Dependent Variable: NSE

## Charts



Simple linear regression tests to determine if closing the NSE Nifty and N BSE Sensex index value (Market trend) significantly predicted stock split announcements. The fitted regression model was  $\text{Stock Split announcements} = 34.165 + 0.066 \cdot \text{Index value} - 0.019 \cdot (\text{Index value})^2$ .

The overall regression was statistically significant ( $R^2$  is 0.967,  $F$  is 204.984,  $T$  is -.828, Sig value is  $P < 0.00$ ). Hence, the null hypothesis is rejected. There is undoubtedly a significant impact between FII Flow investment and the NSE Nifty index.

## Findings of the Study :

In 17 years, there has been a massive difference between the lowest and highest market values because of the COVID-19 pandemic, the Ukraine war, and US inflation. Indian stock market growth of approximately 18% CAGR between 2007 to 2022. After COVID-19, massive changes occurred in the market; in a shorter time, markets quickly recovered because of huge investments from domestic investors, and they are considering this FII flow increased and decreased trend from 2007-2022. FII dominance gradually decreased in the Indian stock market after COVID-19. Domestic investors have more impact on the capital market than the FII. Whatever changes have occurred, in the BSE SENSEX and NIFTY50 of NSE, the FII investment is responsible only for up to 9.8% and 8%. This implies that many other macroeconomic factors have indirectly affected the stock market indexes.

## Suggestions :

- To expand the substance of demand in the current situation, administrative authorities should consider the restrictions on scrotal caps.
- The restrictions on FII investment in governmental companies should be relaxed.
- Educate the domestic investor to encourage high-risk investment.
- Retail investors' interests must be safeguarded against market volatility.
- Aside from the rising demand for investable assets, interest in the economy should be increased. This should be possible by attracting more powerful FII inflows into the country, especially given the advantageous position that FII is a type of non-debt inflow and thus does not expand the country's debt.
- Because of the limited restrictions on investment, the FII flow causes volatility in the stock market. This should be scrutinized by regulatory authorities to protect the interests of retail and other domestic investors.
- FIIs' investments should be increased in small and mid-cap companies to improve their liquidity and combat the high lack of capital requirements.

## Conclusion :

As a result of various economic growth factors in the country, Indian stock markets are quickly becoming one of the world's emerging capital markets. The compounded annual growth rate for the last seventeen years has outpaced overseas markets, attracting foreign institutional investors to enter equity and derivative segments with massive inflows, making FII investment a significant factor influencing the stock markets and the economy. The flow of FII has been significantly affected in the last 30 years. However, the COVID pandemic has significantly reduced foreign investors' dominance on the stock market, and there is a negative correlation between the FII flow and stock indexes because of the COVID pandemic, high inflation, and war threats. The recent COVID-19 effect on the global economy and geopolitical clashes reduced FII dominance on the stock market from 2007 to 2023.

Foreign institutional investors (FII) have no significant impact on the Indian capital market, according to findings and results. Other factors influencing market volatility include DII (domestic institutional investor), political policy, inflation rate, interest rate, and international trade policies.

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**REFERENCES :**

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1. Mamta Jain, Priyanka Laxmi Meena, and T. N. Mathur. "Role of Foreign Direct Investment and Foreign Institutional Investment in Indian Economy". Asian Journal of Multidimensional Research, Vol.2 Issue 3, March 2013, ISSN 2278-4853.
2. Murtaza Ali Hajam and SM Shafi. (2021) "Volatility of National Stock Exchange Affected by Foreign Institutional Investors: An Empirical Analysis". Kuwait Chapter of the Arabian Journal of Business and Management Review 10 (1), 16-23, 2021.
3. Patel, S. A. (2013). "Foreign Institutional Investment and Stock Market Return Evidence from Indian Capital Market". IIMS Journal of Management Science, 4(2), 143-151.
4. Pradip S Thombare and Ravikumar Chitnis. (2020) "Impact of FII's on Indian Stock Market." A Literature Review. (UGC Care Journal) ISSN: 2394-3114 Vol-40-Issue-71- March- 2020.
5. Yogendra Sameer Yadav. (2013) "Comparative Study of FDIs and FIIs In the Indian Context" International Journal of Scientific and Innovative Research 2013; 1(1):29-32.

**Websites**

1. <http://www.moneycontrol.com>
2. <http://www.bseindia.com>
3. <https://www.cdslindia.com>
4. <https://www.nseindia.com>
5. <https://www.rbi.org.in>
6. <http://www.researchgate.net>>publication