Analysing the Way FDI Inflow Impacts Indian Stock Market: An Empirical Study

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Abstract
In 1991, FDI was introduced as part of Foreign Exchange Management (FEMA). Given that similar measures had already been taken by other developing economies, it was decided to implement these measures in India. In both industrialized and emerging countries, the foreign investment inflow has become a striking indicator of economic growth. Since the emergence and integration of the global equities market, emerging economies have noticed shifts in the mix of capital flows into their economies. Secondary data of 22 years (2000-01 to 2021-22) was gathered from Database of Department for Promotion of Industry Internal Trade & respective official website of NSE & BSE. The effect of foreign direct investment (FDI) on Indian stock market return (BSE SENSEX and NSE Nifty 50) has been examined using descriptive statistics binary linear regression and correlation analysis. The Indian government and executionary authorities have been urged to increase their efforts to attract foreign direct investment (FDI) to strengthen the economic system of India.

Keyword
FDI, NIFTY 50, SENSEX, Indian Economy

Introduction

Foreign investors in the Indian stock market now have more and better opportunities thanks to the economic reforms of 19. Essentially, FDI is money invested by a foreign entity in a domestic enterprise. Capital market route, or the purchase of shares of companies, is the most common method by which foreign investors enter the Indian economy. Foreign institutional investors can now register with the Securities and Exchange Board of India (SEBI) in order to participate in the secondary and primary stock markets in India via portfolio investment plan, which was made possible by the Reserve Bank of India (RBI). Regulations enacted in 2014 gave F.I.I.s (Foreign Institutional Investors) the new name of F.P.I. (FPI). Foreign Portfolio Investments (FPI) refer to capital inflows from outside India into various asset classes, including Indian stocks, securities, infrastructural & government bonds. One definition of FDI is the practise of companies or individuals from one country investing in the businesses of another country. Competitive environment and faster innovation are two outcomes of the double-digit economic growth many countries have experienced owing to unprecedented globalizations. In light of this exceptional growth, the influx of FDI has become a notable indicator of economic progress in many countries. Direct foreign investment (FDI) in India allows multinational corporations to take advantage of India's enticingly low labour costs and dynamic market condition by funding private Indian firms with rapid expansion plans.

The correlation among institutional investment from abroad and firm-specific variables such as eqity structure, profitability, and share prices is also explored. Generally speaking, companies with a larger number of publicly held shares attracted more investment from overseas investors. There is a negative correlation between the founders' shareholding and the overseas investments. To avoid conflicts of interest, international investors favour enterprises in which the founders' immediate families hold a less stake. Their investing selection is heavily weighted by financial performance criteria such as stock return & earnings per share. It was a core element of India's reforms to loosen restrictions on FDI, with the hope that doing so would boost the country's total investment quantity, modernize its industrial infrastructure, and ensure presence in foreign markets.

Among the most striking changes over the past twenty years is the rise of foreign direct investment (FDI). FDI refers to any form of long-term investment made by a non-domiciled entity into a domestic company or economy. The demand side might also be affected by a robust stock market. It offers numerous investment options that range in return, risk, & liquidity. Because investors have more options to choose from and access to greater liquidity thanks to a thriving stock market, they are more likely to put money aside. Foreign financial companies entering the market means more competition for the derivatives market, but it also means that foreign entities can invest for longer periods of time in the host country. A first investment is made, and further investments are made in accordance with the demands and requirements of the host country. This might include gaining access to more advantageous resources, entering a new consumer market, or making contact with expertise that is unique to the host nation.

Literature Review

(Lakshmi & Chowdappa, 2021) researched the effect of foreign direct investment (FDI) on the Indian stock market. We used several statistical methods, such as correlation and regression, to examine data from 2001 to 2019 covering a 19-year time frame. Because they are widely used indicators of the health of the Indian economy, the Sensex and Nifty were selected for this analysis. Their research indicates that between 2001 and 2019, India received a large amount of FDI, and that this influx of foreign investment is crucial to understanding the nature of the Indian financial system.

(Kumar & Saini, 2018) investigated interrelationship between mutual funds, FPIs, FDI, and NIFTY returns using Regression. Impact of FPI and FDI was studied on return of NIFTY during 2012-16. The results showed that foreign direct investment, foreign portfolio investment, and mutual funds all have an influence upon Nifty's returns, as did the Nifty's intrinsic lagging value and the value of mutual funds. Finding showed Nifty returns had a significant effect on the FDI.

(Babu, 2019) investigated at how companies in the Sensex index of the National Stock Exchange benefited from FII, and how FII was related to equity structure, profitability, and share price of those companies. Findings revealed FIIs have performed in the Indian stock market over the past 5 years as well as how investors have reacted to the major shareholders on the National Stock Exchange.

(Bihari & Das, 2020) stated since the global equities market has grown and become more integrated, emerging economies have seen a shift in the mix of capital flows into their economies. Secondary data from various sources (websites, journals, publications, etc.) were used to compile this analysis, which covers the years 2008–09 through 2019–20. The effect of foreign direct investment (FDI) on the growth of stock market of India (BSE SENSEX and NSE CNX Nifty) was examined using correlation, trend analysis and linear regression. In order to hasten the expansion of India's economy, it was urged that the government itself and implementing institutions do more to lure foreign direct investment.

(Gupta, 2017) made an effort to examine how foreign direct investment (FDI) inflows affected the performance of the Bombay Stock Exchange (BSE) SENSEX and the National Stock Exchange (NSE) CNX Nifty during the time frame of the study. The research relied heavily on secondary sources covering the ten-year timeframe from 2006 to 2016. Researchers conclude that FDI entering India is a major factor in the ups and downs of the BSE SENSEX and the NSE Nifty. The research found that if the Indian government wants to see its stock market and economy develop rapidly, it needs to attract more and more FDI (FDI).

Objectives

- To analyse FDI trend in India during 2000-01 to 2021-22
- To analyse Nifty 50 trend and SENSEX trend in India during 2000-01 to 2021-22
- To study impact of FDI upon stock market return

Research Method

Source of Data: The data used in this study came from the Department for the Promotion of Industry and Internal Trade Database and the NSE & BSE websites.

Time Period: The present research takes into account 22 years of information spanning from 2000 to 2021 in India.

Statistical tools and Techniques: Mega stat add-in of Microsoft Excel 2021 was used to analyze the data. Numerous descriptive and inferential statistics like Correlation Analysis, Binary regression etc. were used to analyse the timeseries data.

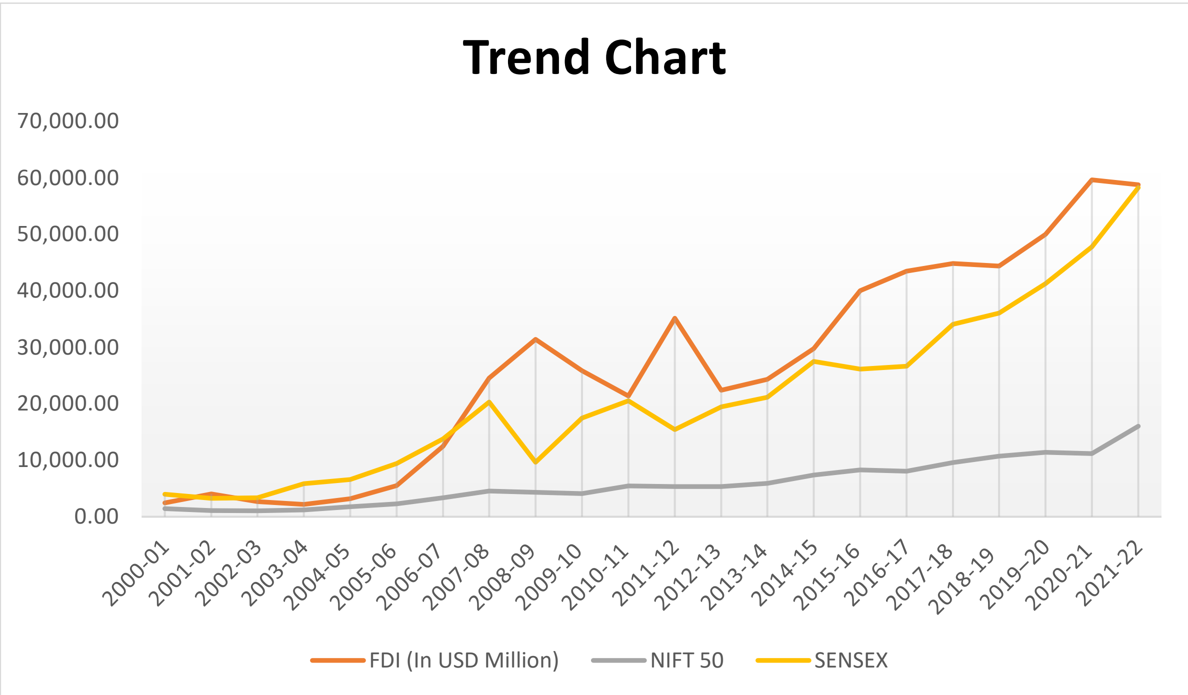
Result and Discussion

Trend Analysis of FDI, NIFTY 50 and SENSEX during 2000-01 to 2021-22

Table 1: Trend of FDI, NIFTY 50 and SENSEX during 2000-01 to 2021-22

Year	FDI (In USD Million)	NIFT 50	SENSEX
2000-01	2,463.00	1417.590	3972.120
2001-02	4,065.00	1121.530	3262.330
2002-03	2,705.00	1056.005	3377.280
2003-04	2,188.00	1233.683	5838.960

2004-05	3,219.00	1755.846	6602.690
2005-06	5,540.00	2268.885	9397.930
2006-07	12,492.00	3357.068	13786.910
2007-08	24,575.00	4571.268	20286.990
2008-09	31,396.00	4339.089	9647.310
2009-10	25,834.00	4113.935	17464.810
2010-11	21,383.00	5461.102	20509.090
2011-12	35,121.00	5335.887	15454.920
2012-13	22,423.00	5343.749	19426.710
2013-14	24,299.00	5915.882	21170.680
2014-15	29,737.00	7360.280	27499.420
2015-16	40,001.00	8285.894	26117.540
2016-17	43,478.00	8092.169	26626.460
2017-18	44,857.00	9590.551	34056.830
2018-19	44,366.00	10749.392	36068.330
2019–20	49,977.00	11432.632	41253.740
2020-21	59,636.00	11161.475	47751.330
2021-22	58,773.00	16026.761	58253.820
Mean	26,751.27	5,908.67	21,264.83
SD	18330.956	3953.2073	14653.682
CV	0.69	0.67	0.69
CAGR	12.91%	12.85%	14.00%

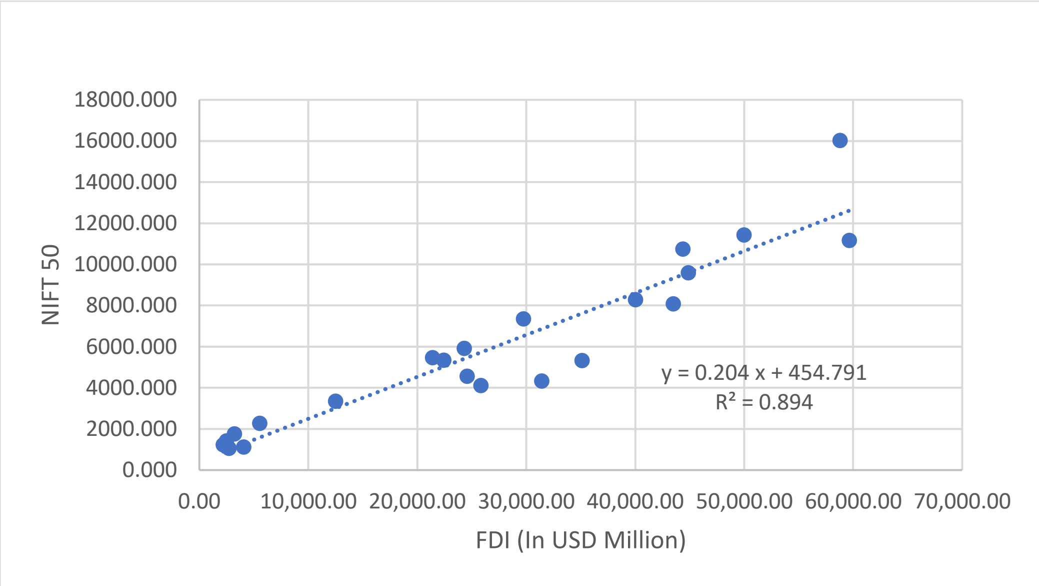


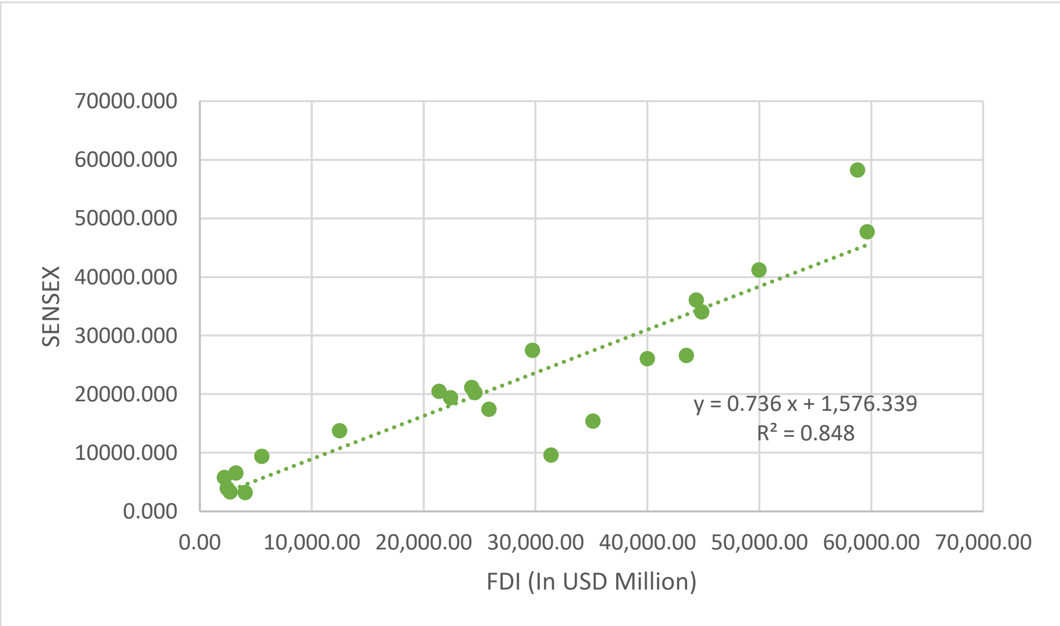
Upward trend can be observed for FDI, NIFTY and SENSEX during the period of study i.e., 2000-01 to 2021-22. FDI in India has grown with a CAGR of 12.91% during these timespans of 22 years. While, in these years SENSEX (14%) has grown with higher CAGR than NIFTY 50.

Correlation between FDI and capital market indices in India

Table 2: Correlation amongst FDI and capital market indices in India

	FDI (In USD Million)	NIFT 50	SENSEX
FDI (In USD Million)	1.000		
NIFT 50	.945	1.000	
SENSEX	.921	.982	1.000





P value<0.05 suggests significant and positive correlation between FDI and selected capital market indices. Positive & strong correlation can be observed amongst FDI inflow and NIFTY 50 (Correlation Coeff, 0.945) & SENSEX (Correlation Coeff, .921) indices.

Impact of FDI inflow on Capital market indices

Table 3: Impact of FDI on NIFTY 50

Multiple R	0.95
R Square	0.89
Adjusted R Square	0.89
Standard Error	1351.79
P Value	0.00

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	454.79	509.86	0.89	0.38	-608.75	1518.34
FDI (In USD Million)	0.20	0.02	12.97	0.00	0.17	0.24

Table 4: Impact of FDI on SENSEX

Multiple R	0.92
R Square	0.85
Adjusted R Square	0.84
Standard Error	5998.96
P Value	0.00

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	1576.34	2262.64	0.70	0.49	-3143.45	6296.13
FDI (In USD Million)	0.74	0.07	10.55	0.00	0.59	0.88

P<0.05 suggests significance of statistical models and it can be inferred that FDI inflow has significant impact of capital market indices. FDI inflow in India has respectively 89% (Adj. R^2, 0.89) & 84% (Adj. R^2, 0.84) impact upon NIFTY 50 & SENSEX return.

Therefore, it can be inferred that FDI has significant role upon Indian Stock Market.

Findings

• Overall, an increasing trend of FDI was found during period of study.

• The benchmark stock indices on the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE), the BSE Sensex and the NSE Nifty 50, respectively, have historically tracked the volume of foreign direct investment (FDI) in India.

• Inflows of FDI into India have had a notable effect on the Sensex and Nifty 50 return, two key indicators of the health of India's stock market.

Discussion

There is a strong positive correlation and direct relationship between FDI and the BSE Sensex and the NSE Nifty 50, as shown by the data. Analysis of regression residuals demonstrated that FDI was a significant predictor of future gains in the Indian stock market. Foreign direct investment (FDI) can be seen as one of the many potential causes of stock market volatility in India, despite the fact that the determination coefficient is non-zero. Inferences about the impact of FDI on the performance of Indian stock market indices can be drawn. Based on the results, it has been suggested that the government of India, both at the federal and state levels, and at the level of implementation and regulation, increase their efforts to attract FDI in order to stimulate the expansion of India's stock market and economy.

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