

## Foreign Capital Inflows (FII and FDI) and its Impact on BSE Sensex

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### ABSTRACT

*A Developing country like India has emerged as one of the favored destination for foreign investments like FDI and FII. The study makes an effort in order to investigate the relation between foreign capital (FDI and FII) and the Indian stock market (BSE Sensex) between the years 2000 to 2017. Study makes use of the statistical tools such as Karl Pearson Correlation test as well as the Multiple Regression Model to understand the relations between FDI, FII and BSE Sensex in a better way. The correlation from the study shows that there is a strong positive correlation between FDI and Sensex and also a statistically insignificant relationship between FII and Sensex. Further Multiple Regressions shows that there is an impact of FDI and FII on the BSE Sensex.*

**Keywords:** BSE (Bombay Stock Exchange), FDI (Foreign Direct Investment), FII (Foreign Institutional Investor).

### INTRODUCTION:

Both FDI or Foreign Direct Investment and FII or Foreign Institutional Investor are the investment which is related to an investments in a foreign country. An investment that a parent company makes in a foreign country is known as FDI. On the contrary, an investment made by an investor in the markets of a foreign nation is known as FII. In FII, to make investments the companies in the stock exchange only need to get registered .As FDI invest in a foreign nation it is quite different from FII.

As the investors have the liberty to sell the investments and take the investments back, the FII's is also known as hot money. But when it comes to FDI, this is not possible. But in simple words it can be said that, FII can easily enter the stock market and also can withdraw from stock market easily. But in case of FDI it cannot exit or enter that easily. And hence in order to choose FDI's more than then FIIs, This is the difference what makes the nations to select between FDI and FII.

As FDI is considered to be the most beneficial kind of foreign investment for the whole economy, hence FDI is more preferred to the FII. Only a specific enterprise is targeted by FDI. It aims to increase the enterprises change its management control or productivity or capacity. The inflow of capital is translated into additional production, In case of FDI. The flows of FII investment is only into the secondary market. In general, it helps in increasing the availability of capital rather than enhancing of a specific enterprise capital.

Rather than the Foreign Institutional Investor, the Foreign Direct Investment is considered to be more stable. The flow of FDI not only brings in the capital flow but also helps in better management skills and good governance practices and even the transfer of technology. FII does not come out with any other benefits of the FDI, Even though the FII helps in promoting the good governance and also improving accounting. The FII flows into secondary market while the FDI flows into the primary market . The FDI's are long term investments, while FIIs are short-term investments.

### Summary:

- An investment that a parent company makes in a foreign country is commonly known as FDI. On to the contrary, FII is an investments made by a particular investor in the markets of a foreign country.

- FDI cannot enter and exit that easily, whereas FII can enter into the stock market easily and also withdraw from it easily.
- A specific enterprise is targeted by Foreign Direct Investment. Whereas in general the FII increasing capital availability.
- Than Foreign Institutional Investor, the Foreign Direct Investment is considered to be more stable.

## **LITERATURE REVIEW:**

Pramjeet and Sachin(2018): The Indian markets were opened for foreign capital with the advent of LPG policies in India, in order to take the advantage of latest as well as the upgraded technology and also to maintain the equilibrium in balance of payment account. By the route of Foreign Direct Investment (FDI) and also through the Foreign Institutional Investment (FII) foreign capital enters into a particular nation. As the FII has an easy exit route than the FDI, hence FDI is more advantageous rather than the FII. The study is undertaken to study the correlation among the Indian stock markets, as the stock markets works as the economic barometer of a nation and the foreign inflows such as FDI, FII. The CNX Nifty and S&P BSE Sensex are taken to study the impact of flow of FII and FDI on stock markets of India. And the study shows that the flow of FDI has a high degree of positive correlation with Nifty and Sensex, whereas the flow of FII has a moderate level of positive correlation with Nifty and Sensex.

Dr.R. Siva Rama Prasad and Guntupalli Lakshmi Vishali (2017): The Indian economy has been fluctuating like ever, since decade and the majority of the influences are caused in the volatility of the capital market. And the known fact is that the index for any economy is capital market , so the focus have turned on the secondary and primary markets through which the economy of the country is going to initiate. This was ultimately witnessed by the inflow of capital investments tremendous in to its markets. It is not only the effect of investments from domestic, but also truly from the international investments. Study focuses on the current scenario of major contributions and on the role of FII investments and hence for this purpose the economic indicators such as GDP are considered for the study. Study focuses on the nature as well as pattern of FII investments on capital market of India and also the sector wise investments are revealed of FII into the different investment segments of the stock markets which is especially focused on the NSE.

Tanu Aggarwal and Dr. Priya Solomon (2017): The outlook of the Indian economic system have become more depressive because of the financial crisis in the global markets but the idiosyncratic globalization and liberalization gave the emanation to the phenomena of the foreign investments which is FII and FDI in India. A vital role is played by the economic integration internationally in the overall economic development of the country. The two important investments in the global capital markets are FII and FDI. The Multiple Regressions and the Karl Pearson Correlation are used in the study to study the relation and impact of FII, FDI and BSE Sensex. The correlation of the study shows that there is a strong positive correlation between Sensex and FDI and a weak negative correlation between Sensex and FII. Whereas on the other hand, Multiple Regressions results shows that there is no impact of FDI and FII on BSE Sensex.

Ankur Bushan and Dr.Ishwar Mittal (2015): The stability of the FDI emerges as an effective channel to the faster growth in developing countries, in the era of the volatile flows of the global capital. There was a massive increase in the flow of FDI, after globalizing and liberalizing the economy to the outside world. FDI is often seen as important catalysts for economic growth, in the developing countries such as India .By stimulating the domestic investment the economic growth is affected by the FDI. And by facilitating the technology transfer in the host countries, and also increasing the human capital formation .The impact of FDI on the economic growth of India, is an attempt made by the study to investigate.

Anubha Shrivastav (2013): In Indian market, the major part of investment is attributed to the institutional investors among whom the investors from foreign are of the primary importance. And the study makes an attempt to check whether these investors explain the market movement and also their impact on the stock markets. For any emerging economy, understanding the determinants of FII is very important as on the domestic financial market FII exerts the real impact in the long run and a large impact in the short run. Whether there exists relationship between FII and Indian stock market is the objective of the study. And the observation made by the study is that the movements of Sensex and investments by FII quite closely correlated in the context of India.

## **OBJECTIVES OF THE STUDY:**

- To analyze the impact of foreign capital inflow (FDI and FII) on BSE Sensex.
- To examine the correlation between foreign capital inflows (FDI and FII) and BSE Sensex.
- To highlight the amount of foreign capital inflows (FDI and FII) into India between the years 2000 to 2017.

## HYPOTHESIS OF THE STUDY:

**FDI:** H<sub>0</sub>: - There is no significant impact of FDI on BSE Sensex.

H<sub>1</sub>: - There is significant impact of FDI on BSE Sensex.

**FII:** H<sub>0</sub>: - There is no significant impact of FII on BSE Sensex.

H<sub>1</sub>: - There is significant impact of FII on BSE Sensex.

**FDI and FII: ( Multiple regression Model)**

H<sub>0</sub>: - There is no significant impact of FDI and FII on BSE Sensex.

H<sub>1</sub>: - There is significant impact of FDI and FII on BSE Sensex.

## DATA COLLECTION AND RESEARCH METHODOLOGY:

- The research design for the current study is descriptive and exploratory in nature for which the quantative approach is been used.
- Study is based on the secondary sources of data. The statistical data which is pertaining to FDI and FII for various years is collected through the RBI bulletin for 18 years.
- The closing index value of BSE Sensex is collected from the historical data of BSE website respectively.

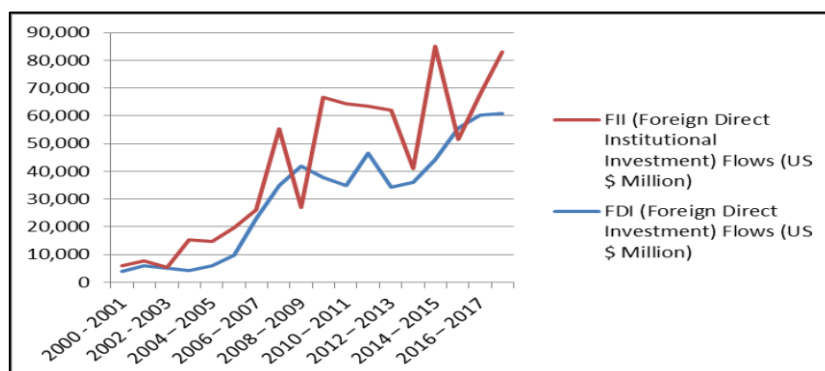
## ANALYSIS AND INTERPRETATION:

**Table 1.1: Foreign capital Flows (FDI and FII) between years 2000 to 2017**

Years	FDI (Foreign Direct Investment) Flows (US \$ Million)	FII (Foreign Direct Institutional Investment) Flows (US \$ Million)
2000 - 2001	4,029	1,847
2001 - 2002	6,131	1,505
2002 - 2003	5,035	377
2003 - 2004	4,322	10,918
2004 - 2005	6,051	8,686
2005 - 2006	9,697	9,926
2006 - 2007	22,826	3,225
2007 - 2008	34,843	20,328
2008 - 2009	41,873	-15,017
2009 - 2010	37,745	29,048
2010 - 2011	34,847	29,422
2011 - 2012	46,553	16,813
2012 - 2013	34,298	27,582
2013 - 2014	36,046	5,009
2014 - 2015	44,291	40,923
2015 - 2016	55,559	-4,016
2016 - 2017	60,220	7,766
2017 - 2018(Till dec 2017)	60,974	22,165

**Source:** RBI bulletin

**Graph: 1.1 shows the flow of FDI and FII for various years from 2000 to 2017**



**Table 1.2: Foreign capital Flows (FDI and FII) with BSE Sensex (Closing Values)**

Years	FDI (Foreign Direct Investment) Flows (US \$ Million)	FII (Foreign Direct Institutional Investment) Flows (US \$ Million)	BSE Sensex (Closing Values)
2000 - 2001	4,029	1,847	3,972.12
2001 - 2002	6,131	1,505	3,262.33
2002 - 2003	5,035	377	3,377.28
2003 - 2004	4,322	10,918	5,838.96
2004 - 2005	6,051	8,686	6,602.69
2005 - 2006	9,697	9,926	9,397.93
2006 - 2007	22,826	3,225	13,786.91
2007 - 2008	34,843	20,328	20,286.99
2008 - 2009	41,873	-15,017	9,647.31
2009 - 2010	37,745	29,048	17,464.81
2010 - 2011	34,847	29,422	20,509.09
2011 - 2012	46,553	16,813	15,454.92
2012 - 2013	34,298	27,582	19,426.71
2013 - 2014	36,046	5,009	21,170.68
2014 - 2015	44,291	40,923	27,499.42
2015 - 2016	55,559	-4,016	26,117.54
2016 - 2017	60,220	7,766	26,626.46
2017 - 2018 (Till dec 2017)	60,974	22,165	34,056.83

Source: RBI bulletin and BSE website

**Table 3: Descriptive Statistics**

	Mean	Std. Deviation	N
FDI (Foreign Direct Investment) Flows (US \$ Million)	30296.6667	20102.00981	18
FII (Foreign Direct Institutional Investment) Flows (US \$ Million)	12028.1667	14067.78110	18
BSE Sensex (Closing Values)	15805.4989	9390.76970	18

Source: Output of SPSS

**Karl Pearson Correlation Coefficient**

		FDI Flows (US \$ Million)	FII Flows (US \$ Million)	BSE Sensex
FDI Flows (US \$ Million)	Pearson Correlation	1	.260	.900**
	Sig. (2-tailed)		.298	.000
	N	18	18	18
FII Flows (US \$ Million)	Pearson Correlation	.260	1	.495*
	Sig. (2-tailed)	.298		.037
	N	18	18	18
BSE Sensex	Pearson Correlation	.900**	.495*	1
	Sig. (2-tailed)	.000	.037	—
	N	18	18	18

Source: Output of SPSS

#### Interpretation for FDI:

- The correlation between Sensex and FDI is positive that is  $r$  (correlation) = 0.90 with  $P = 0.00$  which is less than 0.05.
- The test is significant at 5% levels, which means that it is highly significant and also positive correlation exists between Sensex and FDI.

#### Interpretation for FII:

- The correlation between Sensex and FII is positive with  $r$  (correlation) = 0.49 and  $P = 0.37$ , which is greater than 0.05, which means that it is not significant at the 5% levels.
- In case of FII, it can be clearly said that there is no significance at the 5% levels even though there exists a positive correlation between Sensex and FII.

#### MULTIPLE REGRESSIONS OF FDI, FII AND BSE SENSEX:

##### Multiple Regression Model:

$$\text{BSE Sensex} = b_0 + b_1 (\text{FDI}) + b_2 (\text{FII})$$

The  $b$  values tell that at what degree the dependent variable affects the independent variable, if all other independent variables are held constant.

**Table 5: Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	FII (Flows (US \$ Million), FDI Flows (US \$ Million) <sup>b</sup>		Enter

a. Dependent variable: Sensex

b. All requested variables entered.

**Table 6: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.940 <sup>a</sup>	.883	.867	3419.56987

a. Predictors: (Constant), FII (Foreign Direct Institutional Investment) Flows (US \$ Million), FDI (Foreign Direct Investment) Flows (US \$ Million)

#### Interpretation:

- The obtained R squared value is considerably high with the numerical value 0.883, which explains 88.3% of variation.
- In other words the independent variables FDI and FII are able to explain around 88.3% of the dependent variable which is Sensex.

**Table 7: ANOVA<sup>a</sup>**

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1323769573.052	2	661884786.526	56.603	.000 <sup>b</sup>
	Residual	175401871.463	15	11693458.098		
	Total	1499171444.514	17			

a. Dependent Variable: Sensex

b. Predictors: (Constant), FII, FDI

#### Interpretation:

- According to the F-Statistic (0.00) is lesser than 0.05 levels and is found significant from the Anova table.

**Table 8: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1848.650	1539.730		1.201	.249
	FDI (Foreign Direct Investment) Flows (US \$ Million)	.386	.043	.827	9.041	.000
	FII (Foreign Direct Institutional Investment) Flows (US \$ Million)	.187	.061	.281	3.070	.008

a. Dependent Variable: BSE Sensex (Closing Values)

**Interpretation:**

- For the equation given 
$$\text{BSE Sensex} = b_0 + b_1 (\text{FDI}) + b_2 (\text{FII})$$
$$\text{BSE Sensex} = 1848 + 0.386 (\text{FDI}) + 0.187 (\text{FII})$$
- The above regression equation is significant at 5% levels as it is been mentioned in the ANOVA table.

**CONCLUSION:**

By making an observation of the various extant literatures it can be observed that for the development of Indian economy, the foreign capital inflow (FDI and FII) acts as a catalyst. Which provides various advantages such as exposure to well versed technology, efficiency while utilizing the human resource as well as the natural resources etc. The results of the study support the fact that there is a strong positive correlation between FDI and Sensex and a weak negative correlation between FII and Sensex. By analyzing the Multiple Regression Model it has been found that there is high significant impact between Sensex and FDI and FII as the value obtained is R value obtained is 88.3%.

Since the data considered is for almost 18 years, the government should emphasize on the FDI investments. With which the domestic markets are exposed to new technologies, more employment opportunities is created, competition is given to the domestic markets, more efficient utilization of resources will be there etc. When it comes to FII, there is a positive correlation but it is showing statistically insignificant. Investors can exit at whatever time they prefer to exit in case of FII. But when it is considered for the long term perspective it is better to go for FDI investments.

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