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FOREIGN INSTITUTIONAL INVESTMENT AND ITS RELATIONSHIP WITH VARIOUS ECONOMIC INDICATORS WITH SPECIAL REFERENCE TO INFLATION AND GDP

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Abstract

In India various economic indicators play a significant role in attracting the Foreign Institutional Investment inflows. The present study tries to examine the impact of significant macroeconomic variables; Inflation and GDP on the inflows of Foreign Institutional Investment in India. In this research paper, effort has been made to develop a theoretical framework to analyze the inter-relation between Foreign Institutional Investment, Inflation and GDP.

Keywords: FII; Economic Indicators; Inflation; GDP

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INTRODUCTION

FII flows to India have consistent growth since the beginning of liberalization. A Foreign Institutional Investor (FII) is an investment fund or investor registered in a country outside of the one in which it is investing. The most frequently used term FII refers the companies investing in the financial market of India. The purpose of FII is to make an investment in securities in India. For this investment, these companies have to register themselves with the Security and Exchange Board of India (SEBI) in accordance with section 2(f). In India, through Portfolio investment scheme (PIS) FII's are allowed to invest in the primary and secondary capital markets. PIS is regulated by the Reserve Bank of India (RBI). There is a great need of foreign capital in various developing countries like India. India has come out as one of the favored destinations for global investment. A poll conducted by Bank of America and 50 investors have participated in it. It is revealed that India among all the countries was the most favored nation for the investors at 43% and China was at 26%. Foreign capital embraces FDI, FPI, External Commercial Borrowings (ECB) and NRI deposits. Foreign Portfolio Investment encompasses Foreign Institutional Investors (FII), Global Depositary Receipts (GDR), and American Depositary Receipt (ADR). Foreign Institutional Investors include Mutual funds, insurance companies, pension funds and hedge funds. FDI (Foreign Direct Investment) is different from FII (Foreign Institutional Investors). FII mainly invest the flows in the secondary market to increase capital in general as compare to one particular enterprise. On the other hand, FDI target a particular enterprise. With the help of FII India's financial conditions has been improved. There are many advantages of FII in India, some of them are as follows.

- 1) Enhanced flows of equity capital.
- 2) Improvements to market efficiency.
- 3) Knowledge flows.
- 4) Imparting stability to India's balance of payment.
- 5) Reduced cost of equity capital.
- 6) Managing uncertainty and controlling risk.
- 7) Improved corporate governance.
- 8) Improving capital market.

Foreign Institutional Investors' inflows in India have increased or decreased during various years. In addition to this, it is also pertinent to know the relation of FII with various economic indicators. There are many economic indicators which constitute financial stability in India. Some of them are as 1) Inflation 2) GDP 3) Economic growth. Inflation means general increases in price and fall in the purchasing value of money. The exchange rate is the value of one currency for the purpose of conversion to another. Economic growth is an increase in the amount of goods and services produced per head of the population over a period of time. In our country

FII, Exchange rate and inflation are integrated and therefore, a long-term relationship exists between them. In long-run the Foreign Institutional Investors (FII) flows are positively related to exchange rate. With the help of monthly data, we found that flow of FII depends on inflation rates (both domestic and foreign), the stock market and on some others. When FII create a big demand for Indian currency (rupees) then Reserve Bank of India (RBI) print more currency for regulation of foreign flows in the market. This situation leading to inflation, there are some other factors which effect FII. 1) Economic Growth: If the developing countries like India growing at a fast rate then the FII will invest in that country. 2) Some other factors like Balance of Payment if there is a deficit in Balance of Payment in any country then FII will avoid to investing in that very country and vice versa. 3) If there is a country with high-interest rate then FII will always want to invest in that country for the good capital gain. So, it can be safely said that foreign institutional investment plays a role in the financial stability of the country. In this paper, researchers focused on the relationship between FII and various economic indicators in India and examined the changes respectively.

LITERATURE REVIEW

Raj kumar Goyal [1], in his research he mainly focused on Impact of FII on Indian capital market. Researcher evaluate whether FII makes effect on rate of inflation or not. For this he takes the monthly data from the RBI books of statistics. He revealed in his research that FII does not cause inflation. He mentioned that change in rate of inflation is not due to FII but at specific occasions it can be seen that FII follow the pattern of Inflation. In his study, he concluded on the basis of monthly data that we cannot establish a strong relationship between Rate of inflation and foreign institutional investors. He also focused his research on relationship between foreign institutional investor and exchange rate in India.

Naveen Sood [2], Economic growth of our country has been improved with the help of both FDI and FII. In his paper, he tried to find out the significance of both Foreign Direct Investment (FDI) and Foreign Institutional Investors (FII) for the economic growth of our country in the last decade. To achieve the objective, he has been collected the data from secondary sources and he used two statistical tools these are correlation and regression. Both FDI and FII affects the economic growth of India but FDI affects significantly whereas FII is insignificant for economic growth of India. In India, only 35% changes in economic growth are due to changes in Foreign Institutional Investors and remaining 65% changes in GDP (Gross Domestic Product) are due to the exchange rate, interest rate, governance, inflation etc. In this paper, he concluded that FDI is most preferred over FII investment because FDI investment considered being more beneficial for our country. He finds out in his study that there is a positive and high correlation between economic growth and FDI inflow in India. The association is statically significant whereas the associate between FII and economic growth is statically insignificant. He focused on both FDI as well as on FII in his paper.

Gurmeet Singh [3] has conducted a study to investigate the cause and effect relationship between foreign institutional investors and exchange rate in India. He tries to focus on interrelationship between foreign institutional investors and exchange rate. For this he used granger causality test. He revealed in his paper that there is a long run relationship exists between them. In our nation, exchange rate affected by Foreign Institutional Investors. There is a positive relation in both.

Jasneek Arora, Santhosh Kumar [4] both the researchers try to find out in their study the Impact of Foreign Institutional Investors (FII) on Indian Capital market. In this paper researcher study the effort FII trading behavior on Indian Capital market. This paper revealed that there are no any major changes in Indian capital market due to FII. In their study, they examine that the market of developing countries like India whether they have also being dominated by Institutional Investors or not. However, there is limit for flow of FII in our nation.

Devi Dao, did a study to find out the relationship between Net Foreign Institutional Investors, Stock Market and Market capitalization. They find out that there is Uni-directional causality between return and Foreign Institutional Investor. There is bi-directional causality between market capitalization and Foreign Institutional Investors.

Kulwant Rai and Bhanumurthy [5] have conducted a study on determinants of foreign institutional investors (FII) in India. The Researchers found that FII inflows basically depends upon three main economic indicators that are stock market returns, Inflation rates (both domestic and foreign) ex-ante risk. In their study, they have not found any causative link in between inflow of foreign institutional investors to stock returns. They tried to observe the effect of three major determinants of foreign institutional investor (FII) i.e. return risk and inflation. The researchers have found that the FII flows of domestic country adversely affected by the relation of inflation and risk in domestic the country and return in the foreign country and vice versa.

Narayan Sethi and Uma Shankar Patnack, in their study the researchers tried to find out the impact of international capital flow that is foreign flow on economic growth of India. Foreign flows in India by Foreign Direct Investment (FDI) and Foreign Institutional Interest (FII). Researchers revealed by using monthly data that FDI is affecting India's economic growth in a positive manner. On the other hand, FII is negatively affecting the economic growth of India [6,7].

Himachalpathy conducted a study to find out the various determinants of Foreign Institutional Investment inflow in India. FII is that fund that is registered outside the country where they are investing. His study is based on secondary data and the tools which he used are Pearson's correlation analysis. For his study, he has taken exchange rates, inflation, industrial production, foreign exchange, reserves and return of BSE SENSEX as determinants of FII flows. He revealed FII inflows is a

mixed pattern of inflows and high volatility. He shows in his paper that IIP, REER and FER were determinants of FII inflows. On the other hand, Inflation and BSE returns were insignificant determinants. He advised to follow the favorable measures should be taken for increased FII inflows [8,9].

OBJECTIVES OF THE STUDY

1. To analyze the trends in FII, GDP and Inflation since 2000.
2. To study the relationship between FII and various economic indicators i.e. inflation, GDP in India

RESEARCH METHODOLOGY

Research Design

A research design is simply the structure of plan for a study that guides the collection and analysis of data. In this study exploratory research has been used.

Sources of Data

Secondary data has been collected from various sources like Handbook of statistics on Indian economy published by RBI, SEBI, Ministry of Commerce and other online publications.

Statistical Tool Used

Various tools are used for different studies. In this study researchers used two tools. For first objective figures and tables has been used. For second objective granger causality test has been used.

DATA ANALYSIS AND INTERPRETATION

Graphical Analysis

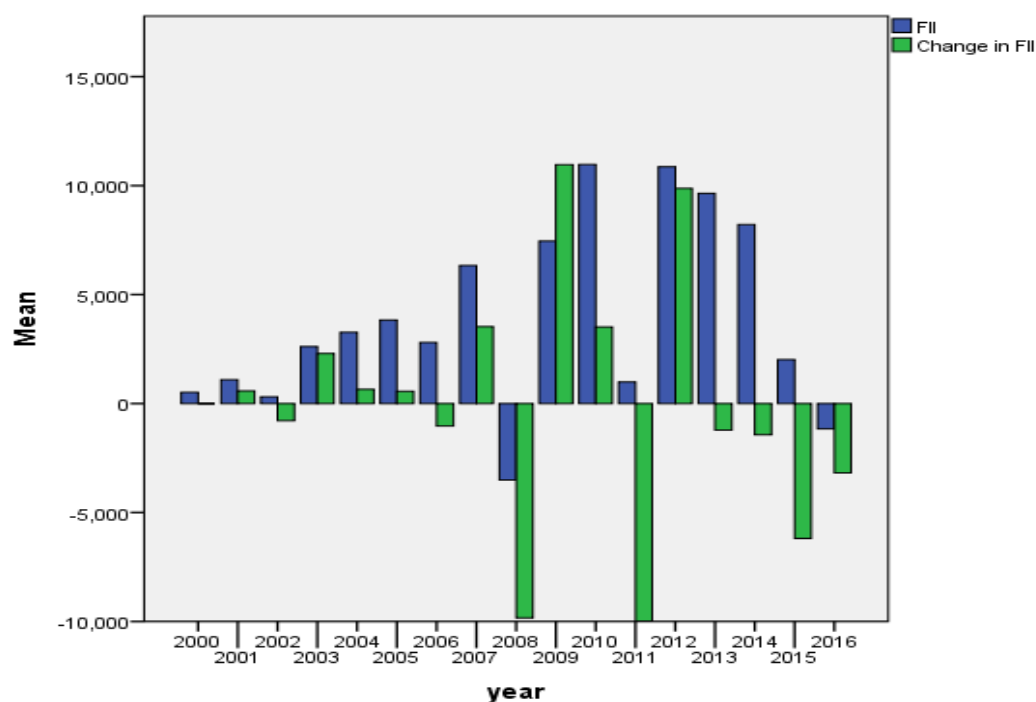
Interpretation: With the help of Table 1, FII flows can easily depicts. In 2001 FII investment in India were increased and changes occurred in positive way. In 2002 inflow of FII goes decreased. Till 2005 inflows of FII were increased and again in 2008 FII fall with huge difference. In 2010 FII again grows but in 2011 inflows again decreased. Years 2012 were good year for inflow of FII.

Table 1: The FII and changes in FII during the year 2000-2016.

Years	FII (in crores)	Changes in FII
2000	516.88	0
2001	1095.37	578.49
2002	311.28	-784.09

2003	2610.45	2299.17
2004	3266.69	656.24
2005	3830.78	564.09
2006	2801.44	-1029.34
2007	6330.57	3529.13
2008	-3505.51	-9836.08
2009	7457.64	10963.15
2010	10970.28	3512.64
2011	990.87	-9979.41
2012	10864.67	9873.8
2013	9644.25	-1220.42
2014	8211.17	-1433.08
2015	2021.15	-6189.67
2016	-1162.23	-3183.73
Source: RBI publications.		

Figure 1: FII and changes in FII during 2000-2016.



Interpretation: FII is essential for the growth of our country. With the help of Figure 1 it can be easily revealed that in which year FII increased and vice versa. In year 2008-2011 FII decreased the most and in year 2009 and 2012 FII increased most. The small changes in FII would be easily understood by Figure 1 (Table 2).

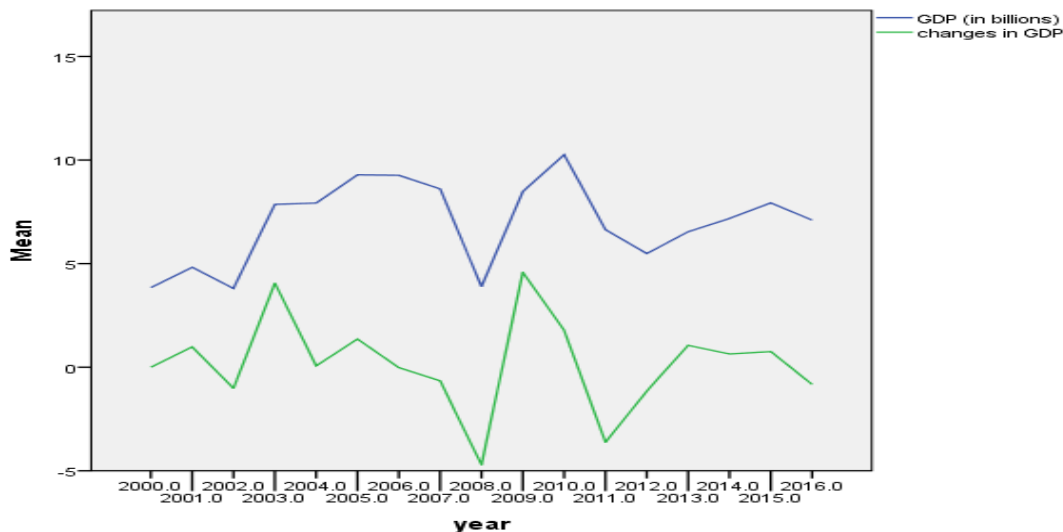
Table 2: The GDP and changes in GDP during the year 2000-2016.

Years	GDP (%)	Changes in GDP
2000	3.841	0.00
2001	4.824	0.983
2002	3.804	(-)1.02
2003	7.86	4.056
2004	7.923	0.063
2005	9.285	1.362
2006	9.264	(-)0.021
2007	8.608	(-)0.656
2008	3.891	(-)4.717
2009	8.48	4.589
2010	10.26	1.78
2011	6.638	(-)3.622
2012	5.484	(-)1.154
2013	6.54	1.056
2014	7.179	0.639
2015	7.934	0.755
2016	7.1	(-)0.834
Source: world Bank publication.		

Interpretation: With the help of above Table 2 it can be easily depict the changes in GDP in previous years. (2000-2016). Researchers consider 2000 as a base year so that year is neutral year. In 2002 GDP were decreased by 1.02%. Afterward till 2005

GDP grew up upon 9.235. In 2006 GDP diminished by 0.021%. In next two preceding years GDP again falls down. In 2010 GDP were maximum 10.26% which is highest in previous years. GDP again decreased in 2011 and 2012 which were 6.638 and 5.484. Till 2015 there were increment in GDP and in 2016 GDP again fall down and reached 7.1%.

Figure 2: GDP and changes in GDP during 2000 to 2016.



Interpretation: In which year, how much changes occur in GDP can easily depict from the above Figure 2. It can easily show that in year 2002 there were decreases in GDP. In year 2006 GDP started its downfall which continued till 2008. In 2008 there were maximum decreases in GDP and it can easily show in the Figure 2. In 2009 and 2010 again rises. In next year's GDP again diminished. After the growth in three years GDP again falls down in 2016 (Table 3).

Table 3: The Inflation Rate and changes in Inflation rate during the year 2000 to 2016.

Years	Inflation rate (CPI%)	Changes in Inflation rate
2000	3.48	0.00
2001	5.16	1.68
2002	3.20	(-)1.96
2003	3.72	0.52
2004	3.78	0.06
2005	5.57	1.79
2006	6.53	0.96

2007	5.51	(-)1.02
2008	9.70	4.19
2009	14.97	5.27
2010	9.47	(-)5.5
2011	6.49	(-)2.98
2012	11.17	4.68
2013	9.13	(-)2.04
2014	5.86	(-)3.27
2015	6.32	0.46
2016	2.23	(-)4.09
Source: Authors own calculation.		

Interpretation: Inflation rate must be low or stable only then FII wants to invest in any country. In the Figure 3 the rate of inflation in particulars years can easily depict. In 2001 inflation rate were 5.16% which were more than% of year 2000. In 2002 inflation rate falls down by 1.96%. Till 2006 there was increment in the percentage of inflation which is not beneficial for the flow of FII. In 2007 inflation rate diminishes with 1.02%. In next two preceding year inflation rate were again grow. In 2010 and 2011 inflation diminishes by 5.5% and 2.98%. In 2012 there were maximum percentages of inflation 11.17%. 2013 and 2014 year was good due to low inflation. In 2015 inflation again rises and reduced in 2016 (Figure 3).

Figure 3: Inflation and changes in inflation during 2000 to 2016.



Interpretation: Various changes occurred in which year can easily examine from the Figure 3. In 2001 inflation rate has been increased as compare to year 2000. Major changes occurred in the year 2010 and 2012 respectively. In former year inflation rate decreased and laterally inflation rate has been increased.

Unit Root Test

We used the unit root test to check the stationary of the various indicators. We set the hypothesis which is as follow:

Hypothesis

H0: The FII and various economic indicators have Unit Root (Non-Stationary).

H1: The FII and various economic indicators do not have Unit Root (Stationary).

Table 4: ADF test results.

Variables	ADF test statistics (t-statistic)	
	Level	First difference
FII	-8.681393 (0.0000)	-
GDP	-3.89984 (0.0025)	-
Inflation	-2.542274 (0.1071)	-3.15642 (0.0241)

Source: Authors own calculation.

Interpretation: With the help of Augmented Dickey-Fuller Test (ADF), the researchers have found that FII and GDP are stationary at their original level. But Inflation is stationary at its first difference level and non-stationary at its original level. FII and all the economic indicators are significant because the p-value of all the variables is less than 0.05. So, we accept the alternative hypothesis it means the FII, GDP, and Inflation1 are stationary and reject the null hypothesis (Table 4).

Granger Causality Test

We used the Granger Causality test for the purpose of checking the relationship between FII and various economic indicators (GDP and Inflation). For this purpose, the researchers set the following hypothesis:

Hypothesis

H0: The FII does not Granger Cause GDP and Inflation.

H1: The FII Granger Cause GDP and Inflation.

Table 5: Granger Causality Test.

	F-Statistics	p-value	Lags
FII does not Granger Cause GDP	2.89841	0.0575	2
GDP does not Granger Cause FII	1.69751	0.1858	
FII does not Granger Cause INFLATION1	2.72641	0.0679	2
INFLATION1 Granger Cause FII	3.14715	0.0452	
Source: Authors own calculation.			

Interpretation: From the Granger Causality test, it has been found that Inflation1 causes FII. But the remaining variable does not have any relation with each other. The low inflation rate always attracts more FII. So, inflation directly affects the foreign institutional investors (FII). In addition, Inflation1 causes FII because the p-value (0.0452) is less than 0.05. So, we accept the alternative hypothesis. It means Inflation has a significant relation with FII. The FII does not Granger cause GDP because the p-value (0.0575) is a bit more than 0.05. It means FII marginally affect GDP or we can say that GDP is affected by some other variables. In the case of other variables, the p-value is more than 0.05. So, we reject the alternative hypothesis (Table 5).

CONCLUSION

In this study various analysis are performed to understand whether there is a relationship between FII and specific economic indicators. FII is a significant driving force for capital market in India. They also studied how FII makes an effect on economic growth of India. The paper employed granger causality test to find out the relationship. This paper helps to examine how the various economic indicators of Indian economy affected by Foreign Institutional Investors. FII is essential for growth of our economy. India's economic growth is 35% affected by foreign institutional investors (FII). The association between FII and economic growth is statistically insignificant. Foreign Direct Investment (FDI) considered being most favorable as compare to FII. With the help of some researches, we find out that there is no any strong relationship between FII and rate of inflation. Some other researchers mentioned in their studies that there is an interrelationship between foreign institutional investors (FII) and inflation and exchange rate. It is concluded that if any country has a strong economic growth rate than FII will invest over there. With the help of this study it can be concluded that FII does not have the major effect on

changes in Inflation and exchange rates in our country but for SENSEX some affects have been seen. Foreign Institutional Investors is beneficial for our country but Foreign Direct Investment (FDI) is more beneficial as compare to FII. But we cannot say that for the growth of our nation as well as for the financial stability of our economy we require only Foreign Direct Investment. Foreign Institutional Investors also necessary for the overall growth of the nation as well as for the financial stability. At last, we are able to know that there is a strong role of the Foreign Institutional investor in the financial stability of India. Many economic indicators help FII to make the financial stability in India. Different indicators play their role in the financial stability of Indian economy.

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