

Macroeconomic Dynamics of Foreign Portfolio Investment in India: An Empirical Analysis

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Abstract

Developing nations like India have been growing with adequate flows of foreign capital in their respective countries. Foreign Portfolio Investment helps to supplement domestic savings and meet the capital requirements. While India is one of the attractive destinations of foreign capital, these capital flows are volatile in nature. The present work aims at exploring the various macro-economic variables affecting the flow of Foreign Portfolio Investment (FPI) in India, by taking monthly data for a period of twenty two years. The causal factors of Foreign Portfolio Investors in India can be dissected with the assistance of Auto Regressive Distributed Lag model (ARDL). Indian stock market (BSE Sensex return) has positive Impact and macroeconomic determinant like Economic Growth (IIP) has substantial positive impact on FPI in India. But all other macroeconomic variables like Wholesale Price Index, Exchange Rate and dummy variable like financial crisis are insignificant with respect to the flows of FPI in India. In short, this study concludes that FPI inflows in India are determined by both stock market characteristics and dynamics of macroeconomic variables of Indian economy.

Keywords: *Sensex, ARDL, ADF, AIC, Short-run Dynamics, Long-run Equilibrium*

Introduction

Foreign capital is the non-domestic source of financing for an organization or the government. It is an indispensable element for the development of emerging economies like India, China, Brazil etc. These emerging host countries have been evolving liberal economic policies to attract Foreign Capital/ Investors to invest in their economies with the expectations of growth and overall development. Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI) are the major forms of Foreign Capital. Foreign Portfolio Investment (FPI) was permitted to invest in Indian capital market from 1992 as a consequence of liberalization of SEBI regulations. Foreign Portfolio Investors are not interested in the management and control of the investing company. They are interested on returns

or price appreciation from capital market like any other investors.

SEBI registration is compulsory Foreign Portfolio Investment for entering into Indian capital market. SEBI has to check KYC as well as eligibility before allowing registration of Foreign Institutional Investors under SEBI (FPI) regulation 2014. SEBI restricts the investment by one FPI to ten per cent of the paid up capital and investment by all FPI taken together to 24 per cent of the paid up capital of an Indian company. Again, SEBI does not allow FPIs to invest in unlisted shares. Any investment in unlisted entities will be treated as FDI. After the economic reforms, the regulations related to FPI investment has become more liberal. It is now easier and faster for Foreign Investors to access Indian capital market and result in a positive development of the economy. Under the FPI regime, Securities and Exchange Board of India (SEBI) has categorised investment groups of Foreign Institutional Investors (FIIs), Qualified Foreign Investors (QFIs), subaccounts,

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GDRs/ADRs, Offshore funds etc.

India is an attractive destination of foreign capital because of positive fundamentals combined with fast growing market (Saha, 2009). Domestic funds alone cannot be sufficient to meet the investment needs in India. Hence, it has become necessary to liberalize the regulation of foreign capital. The inflow of FPI investment has helped the stock market to grow tremendously. The participation of foreign funds in the stock markets helps to develop the capital market that leads to increase in equity price, lower the cost of equity capital and encourage investment by Indian firms. FPI flows have positive and negative impact on the host economy. On the positive side, these foreign investments help to boost the economic development and overall development of the host economy or the financial system. But this foreign capital, especially Foreign Institutional Investment causes several damages to the host economy like raise in Inflation, Exchange Rate volatility, increasing money supply and the possibility of sudden withdrawal of investment that means the volatility of foreign capital. In short, FIIs investments are relatively fluid and more volatile than FDI. So FIIs investment is termed as 'hot money'.

As the fastest growing major economy in the world, India is an important participant in global investment flows. It is necessary to understand various macro-economic factors affecting FPI flows in India. Some macro-economic factors have positive and others have negative influence on FPI in India. This study is an attempt to identify key macroeconomic variables which have a greater stimulus in determining FPI flows.

Review of Literature

There are many studies on determinants of Foreign Portfolio Investment and its impact on economic development of the host countries. In the line of

the recommendations of the Rangarajan's high level committee on Balance of Payments, FIIs were allowed to invest in the Indian equity and debt market. According to Anyanwale (2007) and Ezirim (2005), Foreign Direct Investment and Foreign Portfolio Investment are the main channels of Foreign Investment in India. They also identify that Foreign Portfolio Investment is volatile as compared to Foreign Direct Investment. This means Foreign Direct Investment is more desirable in developing countries. Vinod (2011) analyses the behaviour of FIIs investment during the post liberalization period and their stock market returns (BSE return). He concludes that there is a positive relationship between FIIs investment and returns of BSE enlisted stocks. Prasuna (2000) studies various macro-economic factors affecting FIIs investment in India. From this analysis, domestic stock market return attracts FIIs investment and this is the most prominent factor compared to other macro-economic factors. Chakrabarti (2001) also finds that the FIIs flows are mainly focused on domestic equity market returns.

Kaur and Dhillon (2010) identify various factors affecting Foreign Institutional investment in India. FIIs investment mainly is focused on the size of the market (Market Capitalization) and liquidity (stock market turnover) of Indian capital market. Economic growth, usually measured through the Index of Industrial Production (IIP) has affected the flow of foreign investment. According to Maheswari (2015) the strength of the prospect and trend of industrial production in the post reform years initiate the inflow of foreign investment in the economy. In this study, economic growth of an economy, has strong positive impact of FIIs investment in both long run and short run but all other macroeconomic variables like Exchange Rate, Wholesale Price Index and market return have significant influence only in long run. Mishra (2010) investigates how Economic Growth rate

affects FIIs investment in India. The statistical results shows that FIIs flows have positive influence on the economic development of the host nation.

The exchange rate of the host country is a crucial dynamic factor for influencing the foreign investment decision. So the exchange rate should be stable. Exchange rate fluctuation occur due to demand and supply of currencies of concerned countries. Srinivasan and Kalaivani (2013) argue that the exchange rate volatility has significant negative impact on FIIs inflows both in the short-run and long-run, implying that depreciation of currency adversely affects the FIIs flows into India. Investigation of Muhammad et al (2016) find that the exchange rate, and external debt have significantly affected the Foreign Portfolio investment of China.

Teddy (2015) investigates the impact of the exchange volatility on foreign capital flows in Zambia using GARCH model to estimate volatility in the exchange rate using Johansen test (1989) of maximum likelihood for determining the cointegration and long run relationship between variables of the model. The study identifies that the volatility of the nominal exchange rate exerts significant negative impact on the flows of Foreign Portfolio Investment in Zambia. Nwosa and Amassona (2014) analyse the relationship between capital inflows and the exchange rate in Nigeria which covered 1986 to 2011 with the use of both granger causality and error correction modelling techniques. The study finds that Foreign Portfolio Inflows have little positive impact on exchange rate. So the expected relationship between foreign portfolio investment and the exchange rate can be both positive or negative.

The rate of inflation which is measured by the Wholesale Price Index (WPI) is a crucial factor influencing the inflow of foreign investment. Low inflation or the price stability is one of the main indicators of a stable macroeconomic situation of

a country. Akinboade et al. (2006) state that the low inflation is assumed to be a sign of internal economic stability in the host nation. A high rate of inflation signifies economic instability associated with inappropriate government policies, especially the monetary fiscal policy mix. Khan and Mitra (2014) argue that high rate of inflation distort the economic activities contributing to lesser inflow of capital. It affects profitability as higher costs lead to lower earnings. Hence, low inflation rate is desirable to attract foreign capital (Aijaz et,al 2014).The high price level in the country results in rising cost of production, increase in input prices: like wages, cost of raw material, land price and cost of capital leads to a high price of the product which in turn will adversely affect the domestic as well as international demand of the product. All these factors ultimately lead to the reduction in business profits and in turn discourages foreign investment in the countries having a high inflation rate. However, a certain level of inflation, normally a single digit, is desirable to stimulate investment in an economy. Kaur and Dhillon (2010) explore the determinants of Foreign Institutional Investment in India. The study reveals that inflation in US has a positive influence whereas inflation in India has a negative influence on FII flows into India. Kinda (2013) has studied on 58 developing countries, between 1970-2003 and have shown a positive and significant relationship between inflation, financial structure and development and Foreign Portfolio Investments. Onuorah and Akujuobi (2013) examine the impact of macroeconomic variables on Foreign Portfolio Investments in Nigeria between the time periods of 1980-2010 and find that the inflation has significant positive impact on foreign portfolio investment flows.

Kumar (2011) also analyses the determinants of Foreign Institutional Investors in India. He finds that the stock market return, Nominal Effective Exchange Rate and Economic Growth are primary

determinants of FIIs flows in India. Rai and Bhanumurthy (2004) find that FIIs inflows to India mainly depend on NSE Return and Wholesale Price Index (both domestic and international). On the basis of review of literature, FPI investments are largely influenced by the performance of domestic stock market and the stability of macro economy of the host countries. Thus, FPI is pulled towards an economy with sound macroeconomic factors. So this study focuses on the various macroeconomic determinants influencing the flow of FPI in India.

Research Gap

From the review of literature, it appears that results are highly fragmented. Different studies have identified different variables as governing factors of Foreign Portfolio Investment in India. Further, the nature of relationship of such variables associated with FPI also is found to be varying. Hence, this generates the question – what are the factors which make FPI in India sensitive? Though plenty of studies were conducted on the underlying subject in the past, still the issue is unresolved and the existing literature do not provide satisfactory answer to the question. This necessitates a fresh study. The present study makes an attempt empirically to fill the void. The scope of the study is extended to track down the factors influencing the decisions of foreign portfolio investors towards investing in Indian capital market. Furthermore, the present study examines a wider variety of potential determinants of FPI flows to India Compared to other studies pertaining to the Indian economy such as Chakrabarti (2001), Kaur and Dhillon (2010), Rai and Bhanumurthy (2004), Srinivasan and Kalaivani (2013). But the authors like Gordon and Gupta (2003) include a wide range of determinants of portfolio flows, using OLS methodology to estimate the factors or determinants of foreign portfolio investment. The present study adopt the advanced econometric analysis like Auto Regressive Distributed Lag (ARDL) model for

estimating the long-run and short run dynamics coefficients of Foreign Portfolio Investment in India.

Problem Statement

Liberalization policies initiated in India in the early 1990s brought a radical change in the behaviour of Foreign Portfolio Investment and the stock market. As a part of economic reforms, India opened the capital market for Foreign Portfolio Investors in 1992. This research paper attempts to investigate the relationship between macroeconomic variables that capture the potential determinants of Foreign Portfolio Investment in India which in turn supports the economic growth and financial market development. Theoretically, wide verities of studies focused on determinants of Foreign Direct Investment, while Foreign Portfolio Investment did not receive enough attention. This study provides an empirical evidence regarding the factors that contribute in attracting Foreign Portfolio Investment to India. Beneath liberalization there must be other factors too which promoted Foreign Investment in India. This study attempts to trace the reason for huge amount of Foreign Portfolio Investment in India or in other words to identify the real macroeconomic determinants of Foreign Portfolio Investment in India.

Objective of the Study

- To examine the structure, composition and trends of Foreign Portfolio Investments in India.
- To empirically evaluate the explanatory role of macroeconomic variables affecting Foreign Portfolio Investment in India.

Research Methodology

Data Source

Data for the study are collected from secondary sources. The analysis is based on time series data on

FPI inflows and its macroeconomic determinants in India. Most of data are collected from the RBI Database, Handbook of Statistics on Indian economy and Indian securities market review. Monthly data are gathered for the study covers from 1995-2019.

Data Analysis

Descriptive Statistics have been practiced to know the structural attributes of data. Auto Regressive Distributed Lag (ARDL) model is applied to define the determinants of macro-economic variables of FPI in India. The Augmented Dicky Fuller (ADF) is employed for testing the stationary properties of data. Akaike Information Criteria (AIC) is used for the ARDL specification by using Eviews 9.

Foreign Portfolio Investment in India

As a part of economic reforms, India has opened its stock market to Foreign Investors with liberal policies and regulations to stimulate the economy. Since 1995, huge flow of foreign portfolio investment was received in Indian equity market. During 1995 -2019, major portion of foreign investment in India came from FPI. Another notable feature of FPI flows is that they have been the most unstable component of foreign capital flows in India which directly influences the overall balance of payment positions. This is proven by the huge reversal or withdrawal of FPI flows during the Asian Crisis and the recent Sub-Prime Crisis that led to the deterioration in the overall balance of payments of the economy. This is an indication of the fact that the ultimate aims of the FPI are profit maximisation and risk diversification with little long lasting interest in the economy.

Figure 1: Flow of Foreign Portfolio Investment in India in Appendix

Component Wise Analysis of FPI Flows

The component wise analyses of foreign portfolio

flows are given to understand the nature of these flows. Figure 2 shows the Foreign Portfolio flows to India through its three routes i.e., the Foreign Institutional Investment, Global Depository Receipts (GDRs) /American Depository Receipts (ADRs) and Offshore Funds. Offshore Funds, were first to invest in the Indian market since the economy was opened to portfolio flows. Portfolio investment by institutional investors and Global Depository Receipts (GDRs), American Depository Receipts (ADRs) have commenced only in 1992-93, two years after the liberalization of capital flows.

Out of the cumulative portfolio investment, FIIs contribution is 83 per cent. The main component of FPI, GDR/ADR constitutes 16 percent and offshore fund contribute only 1 percent of the total FPI in India. Therefore, while comparing the components of FPI, offshore funds has been negligible compared with the other two forms of portfolio investment. FIIs is treated as the star of Foreign Portfolio Investment in India.

Figure 2: Composition of FPI in Appendix

Empirical Model

Macroeconomic factors play a pivotal role in attracting foreign investment in the host economy. This study investigates the relationship between macroeconomic factors and Foreign Portfolio Investment volatility in India. The model of macroeconomic determinants of FPI inflows in India is formulated by five independent variables such as Index of Industrial Production (IIP), Wholesale Price Index (WPI), Exchange Rate (NEER), Domestic Stock Market Return (MR) i.e. Sensex return and financial crisis as Dummy Variable (DV). The period before the crisis has been coded as 1 and the period after the crisis has been coded as 0. IIP is a proxy for measuring Economic growth (GDP). IIP is a composite index, measures the short term changes in the quantum of production of a

basket of industrial products during a given period with respect to a chosen base year. WPI is used as a measurement of inflation in India which projects the changes in the prices of a representative basket of wholesale goods. The Nominal Effective Exchange Rate (NEER) is an indication of a country's international competitiveness in terms of forex market. It is a measure of the value of a currency against a weighted average of several foreign currencies. The Table 1 describes the expected relationship between FPI and macro-economic variables in India. Assuming these macroeconomic variables as the pull factors of net FPI inflows in the country, the following linear equation model is developed.

$$\text{FPI} = f(\text{NEER}, \text{WPI}, \text{IIP}, \text{MR}, \text{DV})$$

Table 1: Expected relationship of FPI and macro-economic variables in India in Appendix

Unit Root Test

The Augmented Dickey-Fuller (ADF) test and Phillips-Perron (PP) test are applied to verify the stationary properties of the data. Table 2 shows the Foreign Portfolio Investment and BSE Sensex return are stationary at levels. But Wholesale Price Index (WPI), Exchange Rate (NEER), Economic Growth (IIP) are integrated of order I (1) i.e., non-stationary at levels but stationary at first differences. Therefore, all variables of the model are not integrated in the same order. Thus, all the series considered for estimating the model, are found not integrated of the same order. Since as per Engle and Granger (1987) method for determining long-run and short-run impact fails to find out the determinants of FPI, the series considered for the study are not integrated of the same order. Therefore ARDL model is selected.

Table 2: Augment Dickey Fuller Unit Root Test in Appendix

Optimum Lag Criteria: FPI and Macroeconomic Variable in India

Akaike Information Criterion (AIC) is a model selection criteria or tool by Akaike (1973). It helps to determine the optimum lag length of the model. Empirical analysis shows 20 best models with the lowest AIC values. As seen in Figure 3, the lowest AIC value shows that the optimum lag length is ARDL (3, 1, 0, 0, 0 and 1).

Figure 3: Akaike Information Criterion (AIC) in Appendix

Table 3: Breusch-Godfrey Serial Correlation LM Test in Appendix

The Breusch-Godfrey (BG) LM Test (Breusch, T.S., 1978) is used for testing Serial Correlation and result is given in Table 3. And If F-statistic P value is greater than 0.05, which indicate that there is no auto correlation problem. That means the results indicate that there is no problem of Serial Correlation.

Table 4: Ramsey RESET Test in Appendix

RESET Test stands for Regression Specification Error Test propounded by Ramsey in 1969. This statistical test can be analysed with the help of t-statistic and F –statistic are reported. As Table 4 indicates that there is no apparent non – linearity in the Regression Model and it can be concluded that the linear model of Foreign Portfolio Investment is appropriate. The Table 4 gives the results of estimated probability value as 0.54 which is greater than 0.05. This suggests that the model is well specified and without significant omitted variables.

ARDL Model: Determinants of FPI in India

The Auto Regressive Distributed Lag (ARDL) is a technique that allows to estimate simultaneously the short-run and long-run coefficients of our model. To demonstrate the existence of the long - run relationship among the variables in the model,

Pesaran et al (2001) has introduced Auto Regressive Distributed Lag (ARDL) model. The computed F-statistic is 11.87 which is more than the upper bound (refer Table 5). This indicates that there is a long-run co-integration relationship among Foreign Portfolio Investment inflows into India and its determinants consisting of Economic Growth (IIP), Inflation Rate (Wholesale Price Index) and Exchange Rate (NEER), Domestic Stock Market Return (MR) and Dummy Variable.

Table 5: Results of Bounds Test for FPI Investment on its Determinants in India in Appendix

Null Hypothesis: No long-run relationships exist

Table 6: Estimated Co-integrating Form and Long-run coefficients using ARDL Approach for FPI and its Determinants in Appendix

ARDL model is estimated the macroeconomic determinants of FPI and analyses the short run and the long run effect on FPI in India. Results illustrated in Table 6 indicate that two explanatory variables, the Domestic Stock Market Return (MR) and Index of Industrial Production (IIP) have positive and statistically significant for determining FPI in India. Research of Agarwal (1997) supports findings of the present research. Furthermore, the remaining variables are statistically insignificant. Foreign portfolio investment flows in India is not affected or insignificant relationship between other macroeconomic determinants such as the Wholesale Price Index (WPI), Exchange Rate (NEER) and Financial Crisis as Dummy Variable (DV).

The Short Run Coefficient and Error Correction Term

The Table 6 presents the short-run coefficient and Error Correction Term (ECT) of the macroeconomic variables or determinants of Foreign Portfolio Investment. Domestic Stock Market Return (MR),

Index of Industrial Production (IIP) and Exchange Rate (NEER) are statistically significant. But at the same time Wholesale Price Index (WPI), and financial crisis as Dummy Variable (DV) are statistically insignificant in short run.

The co-efficient of the coefficient of Error Correction Term (ECT) is negative (-0.90) and is highly significant at 1 percent level (Prob. 0.0000) indicates speed of adjustment any disequilibrium towards long run equilibrium state. In other words, the Error Correction Term guides the variables of the model to regenerate back to equilibrium from a previous period's disequilibrium. Thus, there is a long run causality running from macro-economic variables to Foreign Portfolio Investment in India. The bigger the error correction coefficient the faster will be the return to balance. The equilibrium correlation coefficient is estimated -0.90 is highly significant at one percent. It too indicates the speed of adjustment towards long run equilibrium. In other words nearly 90 percent of any disequilibrium between these variables is corrected within one period (One month). The system is getting adjusted towards long run equilibrium at the speed of 90 percent.

Figure 4: Cumulative Sum of Recursive Residuals (CUSUM) of FPI and its determinants in India in Appendix

CUSUM test (Brown, Durbin, & Evans, 1975) helps to show if the coefficient of regression is changing systematically or not. The null hypothesis is that parameters are stable or desirable. If the blue line lies between or within red line, implying that the parameters are stable. The Figure 4 depicts the long run stability of the model as CUSUM statistic lies between the critical bounds at the 5% level of significance.

Policy Implications

- The policy makers should consider improving

the index of industrial production by offering incentives and attractive benefits for the lagging industries in the economy because IIP has an important factor for determining FPI flow in India.

- The volatility of Indian stock markets will have bearing on the investor's returns and confidence. FIIs investments are the main reason for the volatility of the stock market in India. Therefore, government or other monitoring agencies frame modified regulations related to FIIs investment in India.

Conclusion

Along with financial liberalization, India has adopted a series of reforms in the Indian capital market. These reforms aim at increasing the flow of Foreign Portfolio Investment to India. FPI regulation since the liberalization era are commendable and a right move in rationalizing and simplifying foreign investment in Indian capital market. The empirical study examined the growth, components and various macroeconomic determinants of Foreign Portfolio Investments in India using monthly time series data from 1995 to 2019. Foreign Portfolio Investment flows show increasing trend for the last two decades in the line of financial liberalization requirements in the developing countries like India. These reforms aim at increasing the flow of Foreign Portfolio Investment to India. Thus, FPI has been one of the major reasons for the bull market growth. Auto Regressive Distributed Lag (ARDL) model is used to estimate the short-run and long-run coefficients of determinants of FPI in India and the empirical result shows that FPI inflows are determined by both the domestic stock market return and the macroeconomic factors. Stock market returns in the host country have a positive and significant impact on Foreign Portfolio Investment in India. Among macroeconomic variables, Economic Growth (IIP) has a significant and positive impact on FPI investment into India. Other macroeconomic

variables are not significant for influencing the flow of FPI. The government of India should provide welcoming atmosphere for improving the overall growth of India economy for attracting the Foreign Portfolio Investment in India.

Further Scope for Research

The study gives opportunity for further researchers to do their research using other variables like oil price volatility, external debt position, financial stability, Domestic Institutional investment, stock market volatility etc and can be compared with Asian market. The study can also be done using daily data and the time period may be extended.

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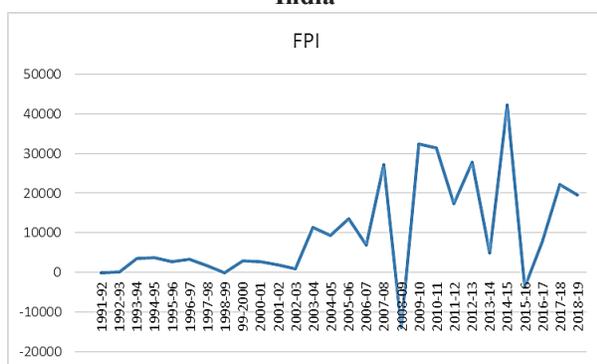
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Appendix

Figure 1: Flow of Foreign Portfolio Investment in India



Source: Compiled from Handbook of Statistics of Indian Economy, RBI

Figure 2: Composition of PFI

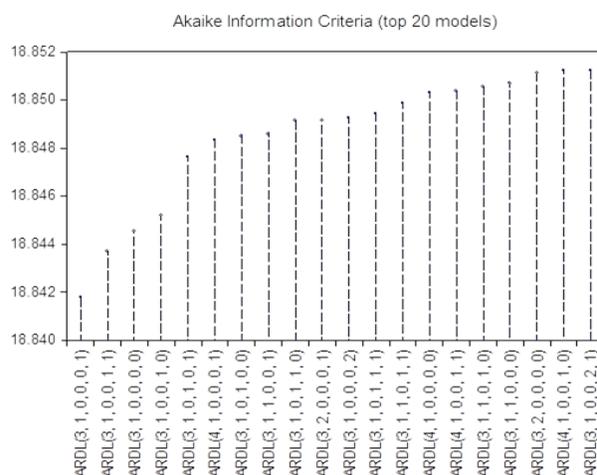
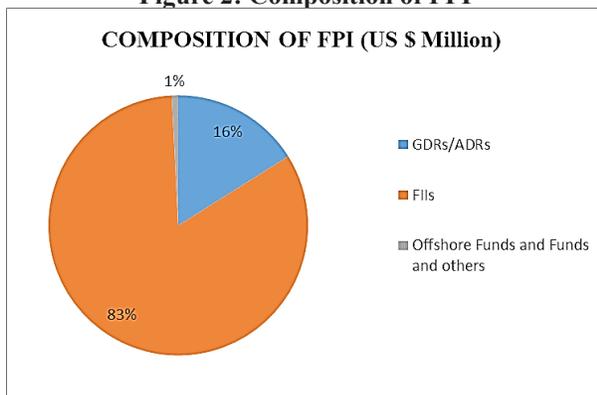


Figure 4: Cumulative Sum of Recursive Residuals (CUSUM) of FPI and its determinants in India

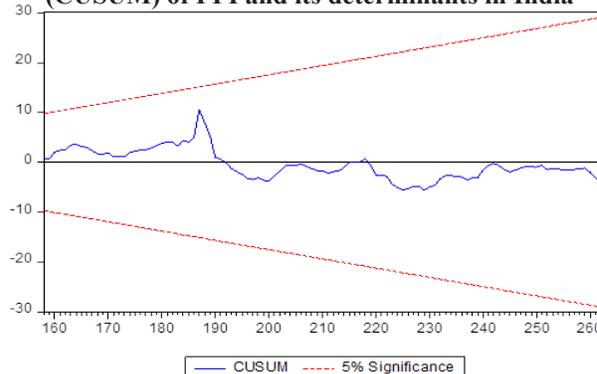


Table 1: Expected relationship of FPI and macro-economic variables in India

Variable Name	Description	Expected Relationship
NEER	Exchange Rate	Positively or Negatively related
WPI	Wholesale Price Index	Positively or Negatively related
IIP	Index of Industrial Production	Positively related
MR	Market Return	Positively related

Table 2: Augment Dickey Fuller Unit Root Test

Variables	Stationary	Results
FPI	I(0)	It is Stationary
ER	I(1)	It is Non Stationary
WPI	I(1)	It is Non Stationary
IIP	I(1)	It is Non Stationary
MR	I(0)	It is Stationary

Table 3: Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.228859	Prob. F(2,247)	0.7956
Obs*R-squared	0.480917	Prob. Chi-Square(2)	0.7863

Table 4: Ramsey RESET Test

	Value	df	Probability
t-statistic	0.601117	248	0.5483
F-statistic	0.361342	(1, 248)	0.5483
F-test summary:			
	Sum of Sq.	df	Mean Squares
Test SSR	3087886.	1	3087886.
Restricted SSR	2.12E+09	249	8523682.
Unrestricted SSR	2.12E+09	248	8545601.

Table 5: Results of Bounds Test for FPI Investment on its Determinants in India

Test Statistic	Value	k
F-statistic	11.87596	5
Critical Value Bounds		
Significance	I (0)Bound	I (1) Bound
10%	2.26	3.35
5%	2.62	3.79
2.5%	2.96	4.18
1%	3.41	4.68

Table 6: Estimated Co-integrating Form and Long-run coefficients using ARDL Approach for FPI and its Determinants

ARDL Cointegrating And Long Run Form				
Dependent Variable: FPI				
Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FPI(-1))	-0.126708	0.083999	-1.508440	0.1327
D(FPI(-2))	-0.204333	0.058594	-3.487292	0.0006
D(NEER)	338.855526	114.489139	2.959718	0.0034
D(WPI)	-0.518854	27.729120	-0.018712	0.9851
D(IIP)	27.518072	16.238428	1.694627	0.0914
D(MR)	154.380093	31.609170	4.884029	0.0000
D(DV)	-4874.434415	3064.60857	-1.590557	0.1130
CointEq(-1)	-0.907822	0.104413	-8.694559	0.0000
Cointeq = FPI - (50.1563*NEER - 0.5715*WPI + 30.3122*IIP + 170.0555*MR + 53.9011*DV - 7679.4970)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
NEER	50.156272	41.293172	1.214638	0.2257
WPI	-0.571537	30.552889	-0.018706	0.9851
IIP	30.312191	17.602931	1.721997	0.0863
MR	170.055474	39.241669	4.333543	0.0000
DV	53.901074	936.818902	0.057536	0.9542
C	-7679.496979	6359.00533	-1.207657	0.2283