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Foreign Institutional Investment and Development of Indian Stock Market

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Abstract

This paper explores the impact of market opening to FIIs, on Indian stock market. India announced its policy regarding the opening of stock market to FIIs for investment in equity and related instruments on 14th September 1992.The present paper empirically investigates the short run and long run impact between FFIs and Indian stock market capitalisation viz., BSE (Bombay Stock Exchange) and NSE (National Stock Exchange). For the analysis, Researcher used monthly data during April 1995 to March 2015. To test our results researcher employ correlation test, multivariate cointegration framework, Vector Auto Regressive error-correction model and Granger causality tests. We found that while there is a significant change in the Indian stock market capitalization through foreign financial institutional investment. The present study recommends that one way of reforming the financial sector reforms in India is to subject it to increase the flow of foreign investment automatically market improved in highest manner.

Key Words: Foreign Institutional Investors; Market Capitalisation, VECM, Granger Causality.

I. INTRODUCTION:

As well realized by the government during 1990s that the foreign investment can play significant role to promote economic growth. It was the time when the wave of economic reforms also touched the capital market. The objective was all clear, i.e., to fasten the pulse of development in all economic activities. At the initial stages of reforms with regard to FIIs the credit can be given to the New Industrial Policy, 1991 framed by the government to focus on the importance of foreign direct investment in order to augment technological updating in a globalized world. In order to give further push to foreign investment, Government of India permitted the portfolio investment made by foreign institutional investors in India. The initial guidelines regarding the flow of capital by FIIs was suggested by Narsimhan Committee Report on financial system of India.

Institutional investors will have a lot of influence in the management of corporations because they will be entitled to exercise the voting rights in a company. They can actively engage in corporate governance. Furthermore, because institutional investors have the freedom to buy and sell shares, they can play a large part

in which companies stay solvent, and which go under influencing the conduct of listed companies, and providing them with capital are all part of the job of management. One of the most important features of the development of stock market in

India in the last 20 years has been the growing participation of FIIs. Since September, 1992 when FIIs were allowed to invest in India, the no. of FIIs has grown over a period of time. At end march 2012, there were 1765 FIIs registered with SEBI.

The foreign investment is necessary for all developing nation as well as developed nation but it may differ from country to country. The developing economies are in a most need of these foreign investments for boosting up the entire development of the nation in productivity of the labour, machinery etc. The foreign investment or foreign capital helps to build up the foreign exchange reserves needed to meet trade deficit or we can say that foreign investment provides a channel through which developing countries gain access to foreign capital which is needed most for the development of the nations in the area of industry, telecom, agriculture, IT etc. The foreign investment also affects on the recipient country like it affects on its factor productivity as well as affects on balance of payments. Foreign investment can come in two forms: foreign direct investment and foreign institutional investment.

II. REVIEW OF LITERATURE:

The nature of relationship between FII flows and Indian stock market returns can been explained in terms of 'cumulative informational disadvantage' of foreign portfolio investors vis-v-vis local investors. The theory says that local investors possess greater knowledge about Indian financial markets than foreign investors and this information asymmetry leads to 'Positive feedback trading' by the foreign portfolio investors. Feedback trading or 'return chasing behavior' refers to investors' reaction to recent changes in stock prices. A positive feedback trading strategy leads to buy or (sell) decisions following a rise (or fall) in stock prices and hence brings in more portfolio inflows into the market after a gain in market values.

In 1990s, several research studies have explored the cause and effect relationship

between FII flows and domestic stock market returns but the results have been mixed in nature. Tesar and Werner (1994,1995), Bohn and Tesar (1996), and Brennan and Cao (1997) have examined the estimates of aggregate international portfolio flows on a quarterly basis and found evidence of positive, contemporaneous correlation between FII inflows and stock market returns. Douma, Pallathiatta and Kabir (2006) investigated the impact of foreign institutional investment on the

performance of emerging market firms and found that there is positive effect of foreign ownership on firm performance. They also found impact of foreign investment on the business group affiliation of firms. Aggarwal, Klapper and Wysocki (2005) observed that foreign investors preferred the companies with better corporate governance. Investor protection is poor in case of firms with controlling shareholders who have ability to expropriate assets. The block shareholders affect the value of the firm and influence the private benefits they receive from the firm. Companies with such shareholders will find it expensive to raise external funds. Li (2005) observed that in case of poor corporate governance the foreign investors choose foreign direct investment (FDI) rather than indirect portfolio investment. It is generally believed that FDI could be better protected by private means. Leuz, Nanda and Wysocki (2003) further asserted that the information problems cause foreigners to hold fewer assets in firms. Firm level characteristics can be expected to contribute to the information asymmetry problems. Concentrated family control makes it more likely that information is communicated via private channels. Informative insiders have incentives to hide the benefits from outside investors by providing opaque financial statements and managing earnings. Haw, Hu, Hwang and Wu, (2004) also found that firm level factors cause information asymmetry problems to FII. Their paper found evidence that US investment is lower in firms where managers do not have effective control. Foreign investment in firms that appear to engage in more earnings management is lower in countries with poor information framework.

On the contrary, Gordon and Gupta (2003) have shown that lagged domestic stock market returns are an important determinant of FII flows. Bekaert and Harvey (1998), and Errunza (2001) have found evidences that FII flows do not have significant impact in increasing volatility of stock returns. In Indian context, Chakrabarti (2001) has observed that foreign institutional investors do not appear to be at an informational disadvantage compared to domestic investors in the Indian markets. Using a monthly data-set for the period May 1993 to December 1999, he has found that FII net inflows are not only correlated with the returns in Indian equity market but are more likely the effect than the cause of the Indian equity market returns. Contrary to the general perception of foreign investors' activities having a strong demonstration effect and driving the domestic stock market in India, evidence from causality tests conducted by Mukherjee, Bose and Coondoo (2002) suggests that FII flows to and from the Indian market tend to be caused by returns in the domestic equity market and not the other way round. In a subsequent study, Bose and Coondoo (2004) have found mild evidence of bi-directional causality

between returns on the BSE stock index and FII net inflows and reasoned that it may have been due to heightened FII inflows caused by an upsurge in global equity markets.

III. SCOPE AND OBJECTIVES:

Following the research question, the broad objective of this study is to determine the Foreign Financial Investment impact on stock market development in India using BSE and NSE as a case of study. The specific objectives are as follows:

1. To determine the impact of Foreign Financial Investment on capital market development in India.
2. To determine the direction of causality between Foreign Financial Investment and capital market development in India.
3. To determine the transmission mechanism between Foreign Financial Investment and capital market development in India.

The researcher intends to review the structure and relevant aspects of operations and developments in the Indian capital market, with main focus on the determination of the impact of Foreign Financial Investment on capital market development in India.

Therefore, the study is not to compare the Indian capital with those of other countries, because theoretically and practically, capital market are basically the same but may differ in their levels of developments.

The major limitation in this study is that it will rely only on secondary data generated from the publications of Securities and Exchange Board of India and Reserve Bank of India as well as other materials relevant to the study as access to these materials is difficult.

IV. METHODOLOGY:

Data Sources and Data

The data used in this study was mainly sourced from the RBI Annual Reports and the SEBI. For this article, the data that is available is the data for the period 1995 April to 2015 March. Data availability therefore played a critical role in the choice of the sample period studied; otherwise, the article could as well have incorporated the pre independence era in the study. The article uses BSE market capitalization and NSE market capitalization and Foreign Financial Investment proxies for economic growth (EG) and we have use the Dummy variable to the foreign financial investment impact on financial intermediaries and as a percentage of Indian market capitalization as proxies for financial development.

Econometrics Methodology:

1. Unit Root Test For Stationarity

$\Delta yt=\gamma y_{t-1}+\nu_t$ No constant and No trend (1.1)

Recall the FFIs plot, which is slightly quadratic in time, so you would choose the regression model that included a constant and a trend to conduct the unit root test. The test is conducted by estimating the regression and

implementing a t-test for the following hypothesis:

H0: $\gamma = 0$
H1: $\gamma < 0$

The augmented version of the DF test (ADF) adds lagged differences to the model and the models become:

Dickey-Fuller regressions

$$\Delta y_t = \alpha + \gamma y + \lambda t + \sum_{s=1}^{m} a\Delta y_{t-s} + \nu_t \ldots. \quad (1.2)$$

$$\Delta y_t = \alpha + \gamma y + \sum_{s=1}^{m} a_s \Delta y_{t-s} + \nu_t \quad (1.3)$$

$$\Delta y_t = \alpha + \gamma y_{t-1} + \lambda t + \sum_{s=1}^{m} a\Delta_{t-s} + \nu_1 \quad (1.4)$$

You have to pick a lag length to implement this test. The lag length should be enough to ensure that the residuals are not autocorrelated.

Since the series fluctuated from a non-zero mean and didn't seem to have trend, we will use the model with a constant but no trend. We will use one lag for the ADF test. So we will be estimating the following regression model for both the Ft and the BT

$$\Delta y = \alpha + \gamma y_{t=1} + a\Delta y + \nu_t \quad (1.5)$$

2. Granger Causality test:

$$FFINVST = \sum_{i=1}^{n} \alpha BSE_{t-i} + \sum_{j=1}^{n} \beta_j FFINVST_{t-j} + \mu_{1t} \quad (1.6)$$

$$BSE = \sum_{i=1}^{n} \lambda_i BSE_{t-i} + \sum_{j=1}^{n} \delta_j FFINVST_{t-j} + \mu_{2t} \quad (1.7)$$

$$NSE = \sum_{i=1}^{n} \phi NSE_{t-i} + \sum_{j=1}^{n} \zeta_j FFINVST_{t-j} + \mu_{3t} \quad (1.8)$$

3. Vector Error correction Model:

$$\Delta y = \Pi y_{t-k} + \Gamma_1 \Delta y_{t-1} + \Gamma_2 \Delta y_{t-2} + \ldots\ldots + \Gamma_{k-1} \Delta y_{t-(k-1)} + \mu_t \quad (1.9)$$

Where $\Pi = \left(\sum_{i=1}^{k} \beta_i\right) - I_g$ and $\Pi = \left(\sum_{j=1}^{i} \beta_i\right) - I_g$

$$\Delta FFINVST = \Pi_{t-k} + \Gamma_1 \Delta BSE_{t-1} + \Gamma_2 \Delta NSE_{t-2} + Z_1 * ECT_{t-1} + Z_2 * Dummy\ldots\ldots + \Gamma_{k-1} \Delta y_{t-(k-1)} + \mu_t \quad (1.10)$$

Where y is the vector (FFINVST, BSE, NSE) respectively Δ is the symbol of difference operator, μ_t is a vector of residuals. The VECM model information about the short term as well as long term adjustment changes in Δy, via the estimated parameters Γ and Π, respectively. Here the expression Πy_{t-k} is the error correction term and Γ can be factor into two separate Metrecs α and β, such as $\Pi = \alpha\beta'$, where β' denotes vector co-integration parameters while α is the vector of error correction confidents measuring the speed convergence to the long run steady state.

We are construction the dummy variable the equation is
For example g=2

$$\Pi\begin{pmatrix}\Delta\ln FFINVST\\ \Delta\ln BSE\\ \Delta\ln NSE\\ \Delta Dummy\end{pmatrix}=\begin{pmatrix}\alpha_1\\ \alpha_2\\ \alpha_3\\ \alpha_4\end{pmatrix}+\begin{pmatrix}\beta_{11} & \beta_{12} & \beta_{13} & \beta_{14}\\ \beta_{21} & \beta_{22} & \beta_{23} & \beta_{24}\\ \beta_{31} & \beta_{32} & \beta_{33} & \beta_{34}\\ \beta_{41} & \beta_{42} & \beta_{43} & \beta_{44}\end{pmatrix}\begin{pmatrix}\Delta\ln FFINVST_{t-1}\\ \Delta\ln BSE_{t-1}\\ \Delta\ln NSE_{t-1}\\ \Delta Dummy_{t-1}\end{pmatrix} \quad (1.11)$$

If r=2, so that there is one co integrating vector, then α and β will be (4×2)

$$\Pi=\begin{pmatrix}\alpha_1\\ \alpha_2\\ \alpha_3\\ \alpha_4\end{pmatrix}\left(\ln FFINVST_{11}+\ln BSE_{12}+\ln NSE_{13}+Z_2*Dummy_{14}\right)\begin{pmatrix}y_1\\ y_2\\ y_3\\ y_4\end{pmatrix}_{t-k} \quad (1.12)$$

And written as

$$\Pi=\begin{pmatrix}\alpha_1\\ \alpha_2\\ \alpha_3\\ \alpha_4\end{pmatrix}\left(\ln FFINVST_{11}+\ln BSE_{12}+\ln NSE_{13}+Z_2*Dummy_{14}\right)+\begin{pmatrix}\lambda_1\\ \lambda_2\\ \lambda_3\\ \lambda_4\end{pmatrix}\left(ECT_{t-1}\right)\begin{pmatrix}\vartheta_{1t}\\ \vartheta_{2t}\\ \vartheta_{3t}\\ \vartheta_{4t}\end{pmatrix} \quad (1.14)$$

Where FFINVST is Foreign Financial Investment, BSE is Bombay Stock Exchange capitalisation, NSE is National Stock Exchange market capitalization and Dummy is the Low amount of Market capitalization of stock market in India. ECT_{t-1} is error correction term lagged one period. $\vartheta_1, \vartheta_2, \vartheta_3$, and ϑ_4 are mutually uncorrelated white noise residuals. Z2 is the coefficient of Dummy variable.

V. EMPIRICAL RESULTS AND DISCUSSION:

Descriptive statistics for the variables are presented in the table below. The probability associated to the Jarque Bera test highlights that Foreign Financial investment, BSE market capitalisation and NSE market capitalisation are normally distributed.

Table 1.1: Descriptive statistics

	LFFINVST	LNSE	LBSE
Mean	7.300075	14.00679	14.07469
Median	7.323822	13.64295	13.59021
Maximum	10.29238	15.78113	15.80294
Minimum	2.459589	12.65661	12.94024

Std. Dev.	1.444908	0.984789	0.974030
Skewness	-0.160458	0.458296	0.491973
Kurtosis	2.594583	1.700768	1.633827
Jarque-Bera	2.138802	20.22516	22.67663
Probability	0.343214	0.000041	0.000012
Observations	192	192	192

Unit root test results:

Table 2. ADF unit root test results for level, first and second difference

Augmented Dickey-Fuller test statistic (ADF)					
Variables	Levels data	Stationary status	Ist Difference	IInd Difference	Stationary status
LBSE	0.366507	Non stationary	-13.46130*	-12.05471***	Stationary
LFFINVST	-3.827124*	Stationary	-12.61676*	-8.086592***	Stationary
LNSE	0.9735	Non stationary	-18.65976***	-14.69306***	Stationary
Phillips-Perron test statistic(PP)					
LBSE	0.120665	Non sta	-13.55160*	-58.37775*	Stationary
LFFINVST	-8.016349*	Stationary	-42.47250***	-82.04002***	Stationary
LNSE	0.134264	Non stationary	-18.57246*	-95.79684*	Stationary
Kwiatkowski-Phillips-Schmidt-Shin test statistic(KPSS)					
LBSE	1.392732***	Stationary	0.025702	0.070245	Non stationary
LFFINVST	1.442150***	stationarity	0.034234	0.013019	Non stationary
LNSE	1.384851***	Stationarity	0.026709	0.180096	Non stationary

Notes: FFINVST: Foreign Financial Investment, BSE: Bombay Stock Exchange Market Capitalisation, NSE: National Stock Exchange Market Capitalisation, * indicates statistical significance at (*)1%, (**)5% and (***) 10% significance level by MacKinnon (1996) one-sided p-values and (KPSS) Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

The ADF test, PP test and KPSS tests are implemented to conclude whether the series are stationary or not and the results showed that FFINVST growth rates are stationary at second difference being second order integrated I (2), while the other variables are I (1).

Cointegration Tests: To test for cointegrating relationships we first need to decide whether deterministic components such as constant, time trend and dummy variables should be included in the model. Using the general to specific approach, a model with five lags, a constant and trend was chosen as the most appropriate model for the cointegration space. The cointegration tests, using the trace and the maximum eigenvalue methods in table 1.3 show that all the variables included in the model are not cointegrated. This means that we have to use the VAR methodology and not the VECM to do

our estimations. The article uses the variables in their stationary levels.

Table 1.3:Johansen cointegration tests for D(FFINVST) D(BSE) D(NSE), D(FFINVST,2) D(BSE,2) and D(NSE,2)

Trace statistics					Max-Eigen Statistics				
H_0	H_1	Eigenvalue	Trace	CV	H_0	H_1	Eigenvalue	Trace	CV
r=1	r≥0	0.260544	77.55126*	29.79707	r=1	r≥0	0.260544	56.44421*	21.13162
r≤1	r≥1	0.106250	21.10704*	15.49471	r≤1	r≥1	0.106250	21.00546*	14.26460
r≤2	r>1	0.000543	0.101580	3.841466	r≤2	r>1	0.000543	0.101580	3.841466

Note: r stands for the number of cointegrating vectors, Trace test indicates 2 cointegrating eqn (s) at the 0.05 level. H0: Null hypothesis, H1: Alternative Hypothesis, CV: Critical Value. The lag structure of VAR is determined by the highest values of the sequential modified LR test statistic (each test at 5% level) criterion. The critical values are taken from Johansen and Juselius (1990). *: Indicates Statistical Significance at 5%.

Having confirmed that all variables included in the causality test are integrated of order one, the next step is to test for the existence of cointegration relationship between Foreign Financial Investment and stock market development. The Johansen-Juselius cointegration technique, based on maximum likelihood estimation, is deployed for the same. The test basically depends upon two statistics, known as trace statistics and maximum eigenvalue statistics. If cointegration is detected between these variables, then the existence of Granger causality either way cannot be ruled out. The results of both the tests, under both bivariate and trivariate framework, are given in Table 1.3. The results indicate the existence of a stable long run relationship between financial development and economic growth and among financial development, economic growth and stock market development. Both the trace statistics and maximum eigenvalue statistics reject the null hypothesis of no cointegration. In particular, the results show that there is one cointegrating vector between financial development and economic growth and two cointegrating vectors between financial development, economic growth and stock market development.

Granger Causality Test:

variable are long run relation and they are moving same director, meaning that we find the long run model there is a relation between FFINVST and BSE market capitalisation and inverse relationship between FFINVST and NSE market capitalisation in india.2 variable are long run coefficient.

Table 1.4: Granger Causality test

Null hypothesis	F statistic	Prob.	Results
Foreign financial investment versus BSE market capitalisation			
BSE does not Granger Cause FFINVST	20.8877	7.E-09	Reject
FFINVST does not Granger Cause BSE	4.52477	0.0121	Do not Reject
Foreign financial investment versus NSE market capitalisation			
NSE does not Granger Cause FFINVST	18.9716	3.E-08	Reject
FFINVST does not Granger Cause NSE	4.87339	0.0087	Do not Reject

Note: (*) 1% significant level data

The results indicate the absence of a direct causal relationship in long term between FFINVST growth rates, BSE market capitalization and NSE market capitalization, but do confirm the bidirectional correlation between GDP growth rates and turnover ratio, for 1% levels. The findings also emphasize the unidirectional causality from Foreign Financial investments to Indian stock market growth rates. Granger causality has also showed that, at a 1 % level, foreign financial investment influences stock market capitalisation and indirectly, growth rates.

Is it Foreign financial investment that "causes" the BSE Market capitalisation BSE(FFINVST→BSE) where the arrow points to the direction of causality. The Granger causality test assumes that the information relevant to the prediction of the respective variables, FFINVST and BSE, is contained solely in the time series data on these variables. The test involves estimating the following pair of regressions:

The Foreign financial investment that "causes" the NSE market capitalisation NSE (FFINVST→NSE) where the arrow points to the direction of causality. The Granger causality test assumes that the information relevant to the prediction of the respective variables, FFINVST and NSE, is contained solely in the time series data on these variables. The test involves estimating the following pair of regressions:

Where it is assumed that the disturbances μ_{1t} and μ_{3t} are uncorrelated. In passing, note that, since we have two variables, we are dealing with bilateral causality. we will extend this to multivariable causality through the technique of vector autoregression (VAR).

Vector Error correction Model:

Where FFINVST is Foreign Financial Investment, BSE is Bombay Stock Exchange capitalisation, NSE is National Stock Exchange market capitalisation and Dummy is the Low amount of Market capitalization of stock market in India. ECTt-1 is error correction term lagged one period. ϑ_1,ϑ_2, ϑ_3, and ϑ_4 are mutually uncorrelated white noise residuals. Z2 is the coefficient of Dummy variable.

Vector Error Correction Model:

$$\Pi = \begin{pmatrix} \alpha_1 \\ \alpha_2 \\ \alpha_3 \\ \alpha_4 \end{pmatrix} \left(\ln FFINVST_{11} + \ln BSE_{12} + \ln NSE_{13} + Z_2 * Dummy_{14} \right) + \begin{pmatrix} \lambda_1 \\ \lambda_2 \\ \lambda_3 \\ \lambda_4 \end{pmatrix} \left(ECT_{t-1} \right) \begin{pmatrix} \vartheta_{1t} \\ \vartheta_{2t} \\ \vartheta_{3t} \\ \vartheta_{4t} \end{pmatrix}$$

D(FFINVST) = C(1)*(FFINVST(-1) + 0.00598775503351*BSE(-1) - 0.00786842182926*NSE(-1) - 622.120032162) + C(2) *D(FFINVST(-1)) + C(3)*D(BSE(-1)) + C(4)*D(NSE(-1)) + C(5) + C(6)*DUMMY

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.768463	0.091220	-8.424305	0.0000
C(2)	-0.034738	0.073400	-0.473276	0.6366
C(3)	0.005546	0.001372	4.042348	0.0001
C(4)	-0.004012	0.000967	-4.150349	0.0001
C(5)	-989.5100	529.2632	-1.869599	0.0631
C(6)	1334.032	617.3036	2.161064	0.0320

Trace statics is more than critical value we normally reject null hypothesis. If the variables are cointegrated we can run the VECM. Dummy is significant meaning that dummy is positively impact on independent variable coefficient is positive impact on the independent variables. There is a long run relationship between and Dummy. Validity among long relation because and relation is negative. C2 is not significant show that FFINVST does not impact on market capitalisation and dummy variable also significant impact on BSE and NSE market capitalisation in Indian stock market development. The Vector Error Correction model spells that Foreign Financial Investment negatively impact on Indian stock market.

VECM Lag Order Selection

Table 3 shows the results of the lag length selection test. The article uses several criteria

to determine the maximum lag length. In particular, the Akaike Information Criteria (AIC), the sequential modified LR test statistic and the Schwarz Information Criterion (SIC) are used in order to determine the appropriate

maximum lag length to use for each of the endogenous variables. All these criteria concur that the maximum lag length for the two endogenous variables is two (2). This implies that one should estimate the vector autoregression for this study using the lag length of two (2) for each endogenous variable.

Variance Decomposition:

These above results are vindicated by the impulse response functions in Figure 1.1 below.

Figure 5 shows that a one percentage variance shock to foreign Financial Investment has a positive impact on economic growth up. After the eighth quarter the impact of stock market growth on itself becomes positive again. In the same vein, a one standard deviation shock to market development shows that it has a positive impact, and then it generally becomes positive again.

Figure 1.1 also shows that a one standard deviation shock to financial development does not have a noticeable impact on stock market growth and this appears to be in support of the block Granger causality tests which show that financial development does not Granger cause economic growth. Similarly, a one standard deviation shock to economic growth has a positive impact on market development. Than the impact is negative after which it generally becomes positive again. This is also in support of the block erogeneity tests which show that economic growth Granger causes financial development.

Variance decomposition separates the variation in an endogenous variable into the

component shocks to the VAR. In other words, variance decomposition provides information about the relative importance of each random innovation in affecting the variation of the variables in the VAR. Below figure further indicates the results that we found earlier using block Granger causality tests and impulse response functions. As Figure 6 shows the percentage variances of economic growth due to random innovations in economic growth and financial development, is zero. In addition, the percentage variance of stock market indicator development indicators such as BSE and NSE due to random innovations to itself approximately ranges between ninety five and eighty eight percent over the ten quarters considered. Furthermore, the percentage variance of Foreign Financial investment due to random innovations to stock market growth approximately range between two and ten percent over the ten months. This further supports the fact that Foreign Financial investment influences Stock market Development in India.

Figure 1.1: variance Decomposition

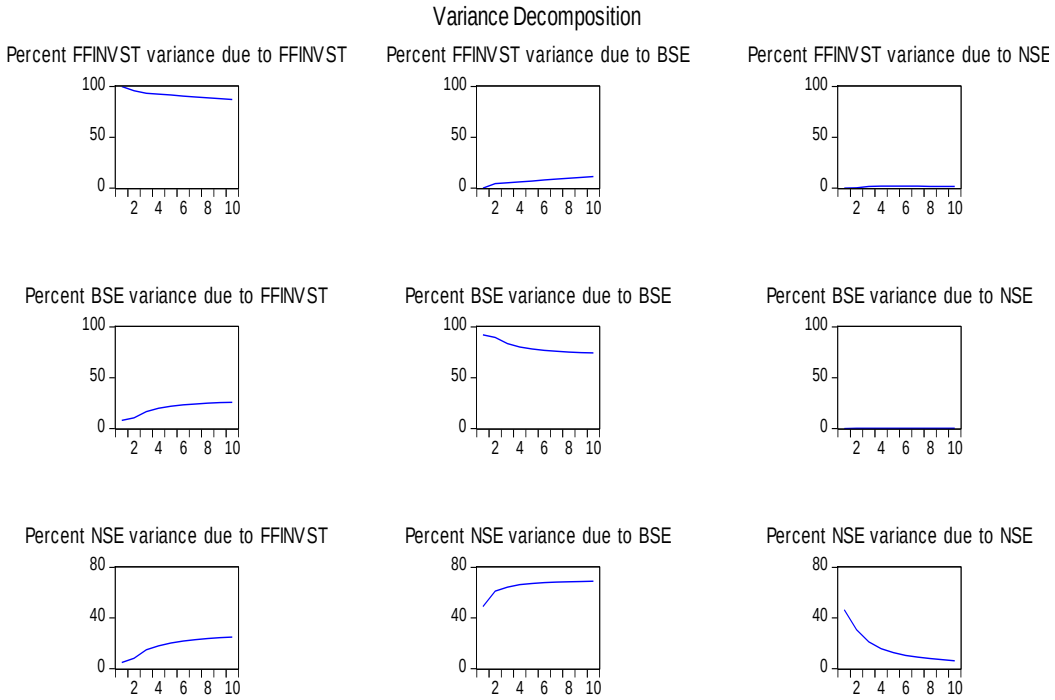
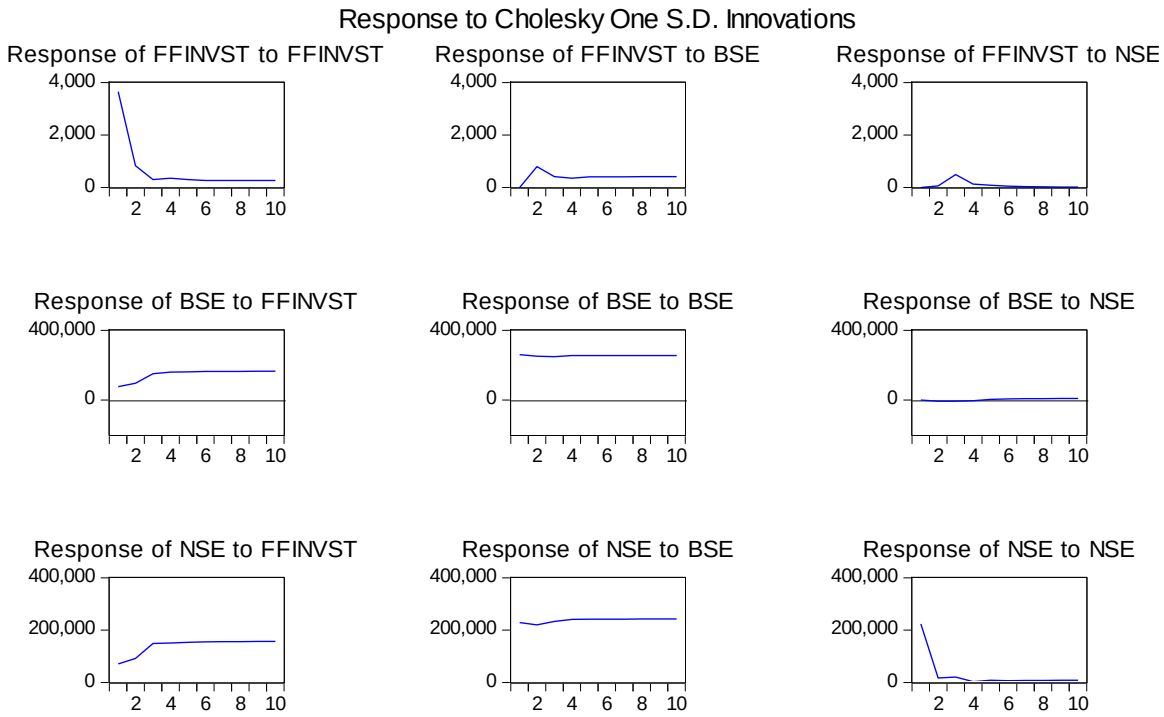


Figure 1.2: Impulse Response



Test of Model Stability:

To test the Error Correction model stability of CUSUM test shows appropriate data range, the inference shows that FFINST has significant impact on Indian stock market development. The CUSUM test and CUSUM of Square test shows high stability analysis.

Table 1.3: CUSUM test

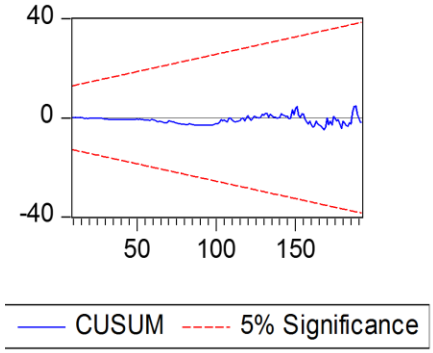
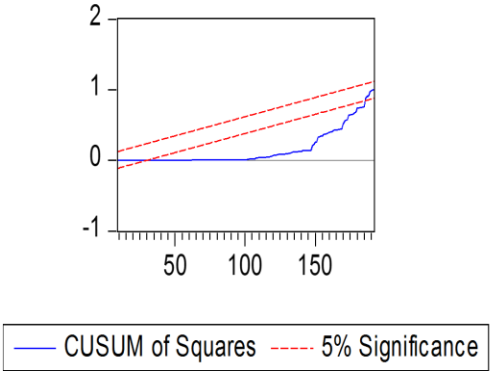


Table 1.4: CUSUM of Square test



VI. CONCLUSION:

The study examines the cointegration and causality relationship between Foreign Financial investment and stock market development in India during the period 1995 to 2015. The empirical investigation has been undertaken by Error Correction Model (ECM). It first explored the stationarity of the variables and their long run equilibrium relationship. The empirical investigations confirm the followings:

Firstly, the time series variables are stationary at the first differences, indicating that they are integrated of order one. Secondly, there is presence of one cointegrating vector between Foreign Financial investment and stock market growth and two cointegrating vectors between foreign flow growth and stock market development. This indicates the presence of long run equilibrium relationship between Foreign Financial flow and stock market development. Lastly, vector error correction model specifies the existence of bidirectional causality between foreign financial investment and stock market growth; and a unidirectional causality from stock market development to economic growth. The study, however, does not find any causality from foreign investment to stock market development in India.

The article recommends that one way of reforming the financial sector reforms in India is to subject it to increase the flow of foreign investment automatically market improved in highest manner. Despite the fact that foreign financial investment does not Granger cause economic growth in India, efforts still need to be made to develop the financial sector and also make it more efficient as this can lead to higher future economic growth rates. This is supported by both theory and empirical studies in both developed and developing countries some of which were cited in this article.

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