

# Government Policy And Foreign Portfolio Investment Challenges In Indian Stock Market: A Scientific Approach

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**ABSTRACT** - The portfolio is an appropriate mix or collection of investments, held by an institution or a private individual. Holding portfolio is part of an investment and risk-limiting strategy called diversification. By owning several assets, certain types of risk (in particular, specific risk) can be reduced. The assets in the portfolio could include stocks, bonds, options, warrants, gold certificates, real estate, futures contracts, production facilities, or any other item that is expected to retain its value. In this paper, the factors that influence the investment decision of FPI and the influence of FPI on BSE Sensex and CNX Nifty were analysed was found that co-efficients of all selected variables were negatively recorded whereas creditworthiness and FII were positively coefficient, under the vector error correction model.

**Key Words:** BSE Sensex, NSE Nifty, FPI, FII, ADR/GDR

## I. INTRODUCTION

**Portfolio investment** is a grouping of assets such as stocks, bonds, and cash equivalents. Portfolio investments are held directly by an investor or managed by financial professionals. Portfolio investments typically involve transactions in securities that are highly liquid, i.e. they can be bought and sold very quickly. A portfolio investment is an investment made by an investor who is not involved in the management of a company. This is in contrast to direct investment, which allows an investor to exercise a certain degree of managerial control over a company. Equity investments, where the owner holds less than 10% of a company's shares, are classified as portfolio investment. These transactions are also referred to as "portfolio flows" and they are recorded in the financial account of a country's balance of payments.

Portfolio flows arise with the transfer of ownership of securities from one country to another. Foreign portfolio investment is positively influenced by high rates of return and reduction of risk through geographic diversification. The return on foreign portfolio investment is normally in the form of interest payments or non-voting dividends. Economies like India, which offer immense growth potential, are emerging as favourite investment destinations for Foreign Institutional Investors (FIIs). With a rising conviction about the performance of Indian debt securities, FIIs are gradually increasing their investments as Indian bonds are likely to outperform other emerging markets in the medium-term, according to some of the global fund managers. Investors are highly optimistic on India because their sentiments ride high, following the

government's announcement of a series of reform measures in recent months.

According to a poll conducted by the Bank of America Merrill Lynch (BofA-ML) recently, in which 50 investors participated, India was the most favoured equity market for the global investors, for the year 2015, at 43 percent, followed by China at 26 percent. The global investment bank is of the view that India remains in a structural bull market. Significantly, India saw 800 new technology start-ups—taking the total number of start-ups to 3,100—setting up their ventures so far in 2014-15, as per IT-BPO industry body, Nasscom. India is poised to become the second biggest eco-system option, after the US, in the next two years on account of the ongoing high growth rates. Such start-ups have received over US\$ 2.3 billion in funding since 2010 while over 70 Private Equity (PE) and Venture Capital (VC) funds remain active in the segment. Apart from this, there were over 62 angels active in 2014 and there are over 80 incubators and start-up accelerators operating in the country at present.

## II. REVIEW OF LITERATURE

The study entitled, 'Impact of foreign portfolio investments on market co movements: Evidence from the emerging Indian stock market', by Sunil Poshakwale and Chandra Thapa (2007) examines the influence of foreign institutional investments in explaining the short and long run relationship of the Indian equity market with the main developed equity markets of the US and the UK. The study concluded that the rapid growth in the flow of the foreign portfolio investments is leading to greater integration of the Indian equity market with the main developed markets and this may have significant

implications for asset pricing and international portfolio diversification benefits.

The dissertation entitled, '**Foreign Portfolio Investment Flows to India: Determinants and Analysis**', by **Reetika Garg and Pami Dua** (2014), analyses the macroeconomic determinants of portfolio flows to India and finds that lower exchange rate volatility and greater risk diversification opportunities are conducive to portfolio flows. An analysis of disaggregated portfolio flows shows that determinants of FIIs are similar to aggregate portfolio flows while ADR/GDRs are significantly influenced only by domestic equity returns, exchange rate, domestic output growth, and foreign output growth.

**Agarwal R.N** (1997) in the study on '**Foreign Portfolio Investment In Some Developing Countries: A Study of Determinants and Macroeconomic Impact**', examines the determinants of foreign portfolio investment (FPI) and their impact on the national economy in six developing Asian countries. Regression results show that inflation rate, real exchange rate, index of economic activity and the share of domestic capital market in the world stock market capitalization are four statistically significant determinants of FPI. The first variable reported a negative coefficient while the last three variables recorded positive coefficients. Foreign direct investment, total foreign trade and current account deficit variables were found to be statistically insignificant.

**Parthapratim Pal** (2018) in the study '**Foreign Portfolio Investment in Indian Equity Markets Has the Economy Benefited?**', argues that the entry of foreign portfolio investors, boosting a country's stock market and economy, does not seem to be working in India. The influx of FIIs has failed to invigorate the stock markets. The supposed linkage, effects have not worked in the way the mainstream model predicted. Instead there have been increased uncertainty and scepticism about stock markets. The view that the influx of portfolio investment leads to economic development was not supported by this study.

The dissertation entitled, '**Influence of Foreign Portfolio Investment on Stock Market Indicators**', by **Prof. Dr. Mahesh S. Halale** (2014) is an attempt to understand the role of FPI and its degree of influence on stock market indicators such as Price Earnings multiple (PE), Dividend Yield (DY), Book Value (BV) of NIFTY.

### STATEMENT OF THE PROBLEM

It requires systematic investigation to find out whether the benefits of FPI pushed down the growth of real economy. It is also the need of hour to examine whether the stock market beneficial aspects are being realized in India. Therefore, the present study empirically investigates the Indian policies, increase of inflow (investors) and economic growth rate in the past, present and future perspective of foreign portfolio investments.

### NEED OF THE STUDY

In economics, **Foreign Portfolio Investment** is the entry of funds into a country where foreigners deposit money in a country's bank or make purchases in the country's stock and bond markets, sometimes for speculation. The foreign portfolio investment includes, in addition to equity securities and debt securities in the form of bonds and notes, money market instruments and financial derivatives such as options. The foreign portfolio investment is a cross-border investment in securities, with the intention of profit-making rather than management or legal control.

### OBJECTIVES OF THE STUDY

1. To study the tendency and implication of FPI in India during the two consecutive period from 01<sup>st</sup> April 2008 to 30<sup>st</sup> March 2018.
2. To analyze tendency and implication of FPI in India during the two consecutive period from 01<sup>st</sup> April 2008 to 31<sup>st</sup> March 2018.
3. Comparatively analyse successive flow of FPI, past present and future with advanced countries like USA.

### III. HYPOTHESIS OF THE RESEARCH

**Null Hypothesis (H01):** There is no tendency and implication of FPI in India during the two consecutive periods from 01<sup>st</sup> April 2008 to 31<sup>st</sup> March 2018.

**Null Hypothesis (H02):** There is no tendency and implication of FPI in India during the two consecutive periods from 01<sup>st</sup> April 2008 to 31<sup>st</sup> March 2018

**Null Hypothesis (H03):** There is no comparative analysis of successive flow of FPI, past present and future, with the advanced countries like USA.

#### A) SAMPLE SELECTION

In this study, the sample consisted of the economic variables and the foreign investments in India. The following criteria were considered in the selection of the sample. The research considered the factors, necessary for studying the impact of the foreign investment on the Indian economy. The present study proposes to examine the impact of foreign portfolio investment, on the stock market performance and economic growth of the country. Monthly data were collected for the period from 01<sup>st</sup> April 2008 to 31<sup>st</sup> March 2018. The focus of this study was to investigate the role and trend of the foreign investments in Indian stock market. In this study, the following variables were selected for the study as follow.

#### DEPENDENT VARIABLES

- ❖ Foreign portfolio investment
- ❖ Foreign institutional investment
- ❖ ADR/GDR

**INDEPENDENT VARIABLES**

- ❖ Domestic stock market performance
- ❖ Exchange rate
- ❖ Credit worthiness indicators
- ❖ Regional factors
- ❖ Excess of domestic interest rate over foreign interest rate
- ❖ Domestic output growth
- ❖ Foreign output growth

**B) SOURCES OF DATA**

This research paper was based on secondary data. The data were collected from various data Repositories such as RBI, SEBI, moneycontrol.com and several other financial institution sites. The scope of the study covered FPIs investment in the Indian Stock market, from 2008 to 2018. The data analysis assessed the association amongst the stock market indicators and FPI investments for the corresponding period. The study was supported by information collected from internet, books, magazines, journals. Inductive inferences were drawn from the data collected and analysed. To be precise, the study delves into the role played by FPI investment in the stock market activity in particular.

**C) PERIOD OF THE STUDY**

The monthly data were considered for the period from 01<sup>st</sup> April 2008 to 31<sup>st</sup> March 2018.

**TOOLS USED FOR THE STUDY**

The following tools were used for the analysis :

- ❖ Descriptive Statistics- Mean, Standard Deviation, Skewness and Kurtosis.
- ❖ GARCH (1,1) model
- ❖ Unrestricted co-integration
- ❖ Granger causality
- ❖ Vector Error Correction Model

**Descriptive Statistics**

The descriptive statistics was used to analyse to quantitatively describe summarize features of a collection of sample data, which included mean, median and mode. The measures of dispersion or variability included standard deviation, minimum and maximum values of the variables, kurtosis and skewness.

**a. Mean**

The mean is used as a central tendency of descriptive statistics and it also reveals the arithmetic average. The mean value is obtained by dividing the total of the value of various given items in a series, by the total number of items

Formula: 
$$\text{Mean } \bar{X} = \frac{\sum X_i}{N}$$

Where

$\bar{X}$  is the symbol we use for mean (pronounced as  $\chi$  bar)

$\sum$  is symbol of summation

$X_i$  is value of the items  $\chi, I=1,2,\dots,n$   
 $n$  is total number of items

**b. Standard Deviation**

The standard deviation was used to measure the amount of variation of a set of sample data values. High standard deviation exhibits that the sample data values spill over a wide range of values.

Formula: 
$$\sigma = \sqrt{\frac{\sum (X - \mu)^2}{N}}$$

Where,

- $\sigma$  Population of standard deviation
- $X$  Observation
- $\Sigma$  summation of  $x$
- $\mu$  population mean
- $N$  Total number of

elements in the population

**c. Skewness**

In descriptive statistics, skewness is used to measure the sign of asymmetry or otherwise called as absolute measure. If the value of skewness is zero it represents that un-skewed distribution or symmetric distribution.

Formula: 
$$S = \frac{\bar{u}^3}{(\bar{u}^2)^{\frac{3}{2}}}$$

Where,

- $u^3$  is the unique symmetric unbiased estimator of the third cumulant.
- $u^2$  is the symmetric unbiased estimator of the second cumulant.

**d. Kurtosis**

The kurtosis measures the degree of distribution, as a sign of flattening or "peakedness" of a distribution, which means whether data are heavy tailed or light tailed relatively to the normal distribution. If value of kurtosis is three then the distribution is normal, bell shaped curve.

Formula: 
$$S = \frac{\bar{u}^4}{(\bar{u}^2)^2}$$

Where,

$\mu_i$  denotes the  $i^{\text{th}}$  central moment and particular,  $\mu_2$  is the variance.

**GARCH (1,1) Model**

The Generalized Auto Regression Conditional Heteroskedasticity (GARCH) Model estimates the volatility in the set of data and it is specially used to identify the volatility of financial markets. The significance of coefficient in the model indicates the tendency of the stock to persevere.

Formula:

$$\sigma_t^2 = \omega + \alpha_1 \epsilon_{t-1}^2 + \dots + \alpha_q \epsilon_{t-q}^2 + \beta_1 \sigma_{t-1}^2 + \sigma_p \sigma_{t-p}^2$$

$y_t$  is the y variable, t time and  $x_t$  is X variables, t time  
 $\epsilon_t$  is the error term value

Where,

$\alpha$  is the constant,

$\beta$  is the beta value

p is the order of the GARCH terms  $\sigma^2$

q is the order of the ARCH terms  $\epsilon^2$

$\epsilon_t$  is the error term value, returns residual

**Wald Test**

The Bound Test Approach is measured by the Wald test and the F- statistic value computes the long run equilibrium relationship between the selected sample variables. If upper bound critical values are assumed that Xt are integrated of order I (1),

Null hypotheses are as follows:

$$H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 \neq 0$$

**Granger Causality**

The Granger Causality is a statistical technique to test the causal relationship between variables.

Formula:  $y_t = \alpha_0 + \alpha_1 y_{t-1} + \dots + \alpha_i y_{t-i} + \beta_1 x_{t-1} + \dots + \beta_i x_{t-i} + \epsilon_t$

Formula:  $x_t = \alpha_0 + \alpha_1 x_{t-1} + \dots + \alpha_i x_{t-i} + \beta_1 y_{t-1} + \dots + \beta_i y_{t-i} + \epsilon_t$

Where,

$\alpha$  is the constant,

$\beta$  represents the beta value

**Table-1 Results of Descriptive Statistic of Foreign Portfolio Investment in Indian stock market During a Study Period of 1<sup>st</sup> April 2008-31<sup>st</sup> March 2018**

Descriptive Statistics	ADR	CRT	DIR	DOPG	BSE Sensex	EXR	EXRV	FII	FOPG	MSCI
Mean	-0.0001	0.0056	0.0005	0.0051	0.0074	-0.0022	-0.0012	-6.0622	0.0009	0.0020
Maximum	0.1453	0.2325	0.4825	0.1494	0.2826	0.0358	0.0177	34.4238	0.0483	0.1666
Minimum	-0.2240	-0.2509	-0.3111	-0.1426	-0.2389	-0.0549	-0.0278	-668.0000	-0.0387	-0.2750
Std. Dev.	0.0550	0.0905	0.0800	0.0563	0.0627	0.0169	0.0085	61.3975	0.0135	0.0647
Skewness	-0.5017	0.0351	1.4908	-0.1350	0.1207	-0.6852	-0.7145	-10.6609	0.1163	-0.5015
Kurtosis	4.8327	2.8728	16.7459	3.4470	7.2496	3.7659	3.8178	115.4663	4.0720	5.5622
Jarque-Bera	21.6474	0.1046	980.9596	1.3522	89.8332	12.2194	13.4412	64970.4800	5.9665	37.5399
Probability	0.0000	0.9490	0.0000	0.5086	0.0000	0.0022	0.0012	0.0000	0.0506	0.0000

Source: Data collected from Bloomberg database and computed using E-views 7.

**Note:** CRT (CREDITWORTHINESS), DIR (DOMESTIC INTEREST RATE), DOPG (DOMESTIC OUTPUT GROWTH), BSE Sensex (DOMESTIC STOCK MARKET), EXR (EXCHANGE RATE), EXRV (EXCHANGE RATE VOLATILITY), MSCI (REGIONAL FACTOR), FOPG (FOREIGN OUTPUT GROWTH), FII (FOREIGN INSTITUTIONAL INVESTMENT)

**Analysis of Descriptive Statistic Foreign Portfolio Investment During a Study Period of 1<sup>st</sup> April 2008-31<sup>st</sup> March 2018**

The Table-1 exhibits that the mean returns values of ADR at -0.0001, EXR at -0.0022, EXRV at -0.0012, and FII at -6.0622 were negative whereas CRT at 0.0056, DIR at 0.0005, DOPG at 0.0051, BSE Sensex at 0.0074, FOPG at 0.0009 and MSCI at 0.0020 were positively recorded during the study period. The standard deviation depicts the risk value of the selected variables and the values of ADR at 0.0550, CRT at 0.0905, DIR at 0.0800, DOPG at 0.0563, BSE Sensex at 0.0627, EXR at 0.0169,

**Vector Error Correction Model (VECM)**

In statistics, there can be many co-integrating relationships when all variables are treated as independent variables, tests relating to the long-run parameters are possible. The resulting model is known as a vector error correction model (VECM). Thus VECMs directly estimate the speed at which a dependent variable returns to equilibrium after a change in other variables.

**IV. LIMITATIONS OF THE STUDY**

This paper concentrated only on Indian Stock market and foreign portfolio investment over a decade of 1<sup>st</sup> April 2008 to 31<sup>st</sup> March 2018. There could be a number of other factors which might influence the stock market movements. Since FPI was analysed as a major factor, other factors were ignored. Also this period under consideration may not be all inclusive as it covered the most volatile monetary and fiscal situation all over the world.

1. The study was based on secondary data and limitations of secondary data were applicable to the study also.
2. Limitations associated with various statistical tools, were applicable to this study also



EXRV at **0.0085**, FII at **61.3975**, FOPG at **0.0135**, MSCI at **0.0647** were higher than the mean returns values of all selected variables.

The skewness value indicates the distribution of symmetric or skewed. The skewness values of CRT at 0.0351, DIR at 1.4908, BSE Sensex at 0.1207, FOPG at 0.1163 were positively skewed or skewed right. An asymmetrical distribution with a long tail to the right (higher values) indicated that they were positively skewed. ARD at -0.5017, DOPG at -0.1350, EXR at -0.6852, EXRV at -0.7145, FII at -10.6609, MSCI at -0.5015 were negatively skewed. An asymmetrical distribution, with a long tail to the left (lower values) indicated that they were negatively skewed. The peak was towards the right and the left tail was longer.

The kurtosis value reveals the statistical measure to describe the distribution. The kurtosis values of ARD at **4.8327**, DIR at **16.7459**, DOPG at **3.4470**, BSE Sensex at **7.2496**, EXR at **3.7659**, EXRV at **3.8178**, FII at **115.4663**, FOPG at **4.0720** and MSCI at **5.5622**, were higher than kurtosis value of three, and it indicated that these variable were distributed leptokurtic (peaked distribution), only CRT only secured value below 3 and it was distributed as platykurtic (flat distribution).

The probability values of Jarque Bera of all selected variables were less than the significant value at 0.05 (5 percent) and 0.10 (10 percent) and except the CRT at 0.1046 and DOPG at 1.3522 which recorded values higher than the significant value. Hence this analysis concluded that the selected variables were normally distributed during the study period. Thus the null hypothesis, "There is no normality of selected macroeconomic variables", was rejected and the accepted alternative hypothesis was accepted. Further analysis would provide more validity. All mean values were lower than the standard deviation values and it indicated that the returns values were lower than the risk values. In other words, the selected variables were associated with high risk. The results revealed that investors need to study the performance of selected financial variables and it would assist them to make better investment.

**Table-2 Results of Unit Root Test of Foreign Portfolio Investment in Indian stock market During a Study Period of 1<sup>st</sup> April 2008-31<sup>st</sup> March 2018**

**Unit Root Test**

**ADR, CRT, DIR, DOPG, BSE Sensex, EXR, EXRV, FII, FOPG, MSCI**

Variables	ADF Test (t-statistics)	1% Level	5% Level	10% Level	Prob.
ADR	-9.4713	-3.48655	-2.88607	-2.57993	0.0001
CRT	-12.963	-3.48655	-2.88607	-2.57993	0.0001
DIR	-10.1935	-3.48655	-2.88607	-2.57993	0.0001
DOPG	-4.35977	-3.49252	-2.88867	-2.58131	0.0001
BSE Sensex	-9.43854	-3.48655	-2.88607	-2.57993	0.0001
EXR	-9.24395	-3.48655	-2.88607	-2.57993	0.0001
EXRV	-9.23987	-3.48655	-2.88607	-2.57993	0.0001
FII	-10.8791	-3.48655	-2.88607	-2.57993	0.0001
FOPG	-9.74962	-3.48705	-2.88629	-2.58005	0.0001
MSCI	-8.43603	-3.48655	-2.88607	-2.57993	0.0001

Source: Data collected from Bloomberg database and computed using E-views 7.

**Note:** CRT (CREDITWORTHINESS), DIR (DOMESTIC INTEREST RATE), DOPG (DOMESTIC OUTPUT GROWTH), BSE Sensex (DOMESTIC STOCK MARKET), EXR (EXCHANGE RATE), EXRV (EXCHANGE RATE VOLATILITY), MSCI (REGIONAL FACTOR), FOPG (FOREIGN OUTPUT GROWTH), FII (FOREIGN INSTITUTIONAL INVESTMENT)

**Analysis of Unit Root Test of Foreign Portfolio Investment in Indian Stock Market During a Study Period of 1<sup>st</sup> April 2008-31<sup>st</sup> March 2018.**

According to the Table-2, ADF test values of ADR at -9.4713, CRT at -12.963, DIR at -10.1935, DOPG at -4.35977, BSE Sensex at -9.43854, EXR at -9.24395, EXRV at -9.23987, FII at -10.8791, FOPG at -9.74962, MSCI at -8.43603 were less than one percent, five percent and 10 percent values. The probability values of selected variables were less than five percent (0.05) significant value. Thus, the results evidenced that all the selected variables were stationary at level difference. Hence the null hypothesis, "There is no stationary of selected macroeconomic variables", was rejected and the alternative hypothesis was accepted. Further results of this study would be more reliable and valid.

**Table-3 Results of vector error correction model of ADR during a study period of 1<sup>st</sup> April 2008-31<sup>st</sup> March 2018**

Dependent Variable: ADR

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	<b>-0.04549</b>	<b>0.035727</b>	<b>-1.27323</b>	<b>0.2061</b>
C(2)	-0.90052	0.212921	-4.22933	0.0001
C(3)	-0.42215	0.211397	-1.99694	0.0487
C(4)	-0.10094	0.064841	-1.55671	0.1229
C(5)	-0.00823	0.054986	-0.14972	0.8813
C(6)	0.00456	0.065647	0.069462	0.9448
C(7)	0.134012	0.062107	2.157766	0.0335
C(8)	0.099874	0.097078	1.028796	0.3062
C(9)	0.097971	0.09188	1.066296	0.289
C(10)	0.141562	0.151197	0.936274	0.3515
C(11)	-0.1465	0.132758	-1.1035	0.2726
C(12)	127.9549	54.76984	2.336229	0.0216
C(13)	143.9009	52.28133	2.752434	0.0071
C(14)	-253.941	109.0505	-2.32866	0.022
C(15)	-287.248	104.2106	-2.75641	0.007
C(16)	-5.83E-05	9.43E-05	-0.61806	0.538
C(17)	-2.70E-05	9.11E-05	-0.29696	0.7672
C(18)	0.433245	0.347464	1.246876	0.2155
C(19)	0.148009	0.335362	0.441342	0.66
C(20)	0.128651	0.257467	0.499679	0.6185
C(21)	0.094214	0.227742	0.413687	0.68
C(22)	0.000792	0.005374	0.147308	0.8832

Source: Data collected from Bloomberg database and computed using E-views 7.

**Analysis of vector error correction model of ADR during a study period of 1<sup>st</sup> April 2008-31<sup>st</sup> March 2018**

The Table-3 shows the results of the error correction model. The C (1) is the error correction term (ECT) and the coefficient value should be negative and also insignificant. According to the table-3 ECT coefficient value was -0.04549 and probability value was 0.2061. It revealed that coefficient value was negative but at insignificant level. The speed of adjustment towards long run existed was insignificant. The correction of past corrected the present at an insignificant level during the study.

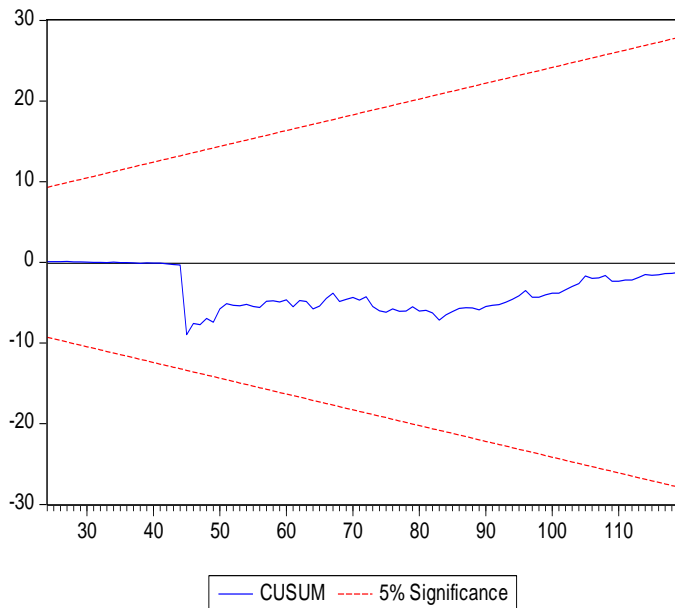
**Analysis of Correlation between FII and Financial Variables during the Study Period from 1<sup>st</sup> April 2008 to 31<sup>st</sup> March 2018**

The correlation Table reveals the existence of high positive and significant relationship between MSCI index and ADR, at the value of 0.906. This both variables have direct proposition and move together. BSE Sensex recorded high positive and significant correlation with ADR at 0.721 and with MSCI index at 0.798 whereas low negative and significant relationship with creditworthiness at -0.77 and -0.31. The changes of BSE Sensex, ADR and MSCI index were moving mutually whereas BSE sensex and creditworthiness were moving inversely. The exchange rate

recorded low positive and significant relationship with ADR at 0.0231, MSCI at 0.301 and BSE Sensex at 0.294. These four variables were parallel correlated during the study period.

The exchange rate volatility recorded low positive and significant co-movement with ADR at 0.301, creditworthiness at 0.321 and BSE Sensex at 0.295 while there was strong positive connection with exchange volatility at 0.999. The relationships between these variables were moving collectively. The other variables were not significantly correlated during the study period. Hence, this analysis results evidence the existence of low and positively correlation between the selected variables during the study period. Therefore the null hypothesis “There is no relationship between selected macroeconomic variables” was partially rejected. The correlation results exhibited strong and significantly positive relationship between MSCI and ADR, exchange rate and exchange rate volatility whereas none of the variables was correlated with FII. Since no selected financial variables was correlated with FII, investors should look at other factors like market information.

**Figure-1 Stability Test of FII and Financial Variables during the Study Period from 1<sup>st</sup> April 2008 to 31<sup>st</sup> March 2018**



Note: Analysis is computed in Eview-7.

Source: Data collected from www.rbi.org, Bloomberg database, and in.investing.com.

**Stability Test of FII and Financial Variables during the Study Period from 1<sup>st</sup> April 2008 to 31<sup>st</sup> March 2018**

Figure 1 explains that under the CUSUM test, the CUSUM line was within 5 percent of the upper bound and lower bound significant level during the study period. It indicated the presence of stability in coefficient during the study period. Hence this model was stable.

**V. SUMMARY OF THE FINDINGS**

- ❖ The mean returns values of ADR, EXR, EXRV, and FII were negative whereas CRT, DIR, DOPG, BSE Sensex, FOPG and MSCI were positively recorded during the study period.
- ❖ The null hypothesis “There was no stationary of selected macroeconomic variables” is rejected the alternative hypothesis was accepted, to make further results of this study more reliable.
- ❖ The coefficients of all the selected ten variables were significantly co-integrated in the long run during the study period.
- ❖ There was casual bidirectional relationship between domestic interest rate and foreign output growth, at 5 percent and 10 percent significant levels.
- ❖ The foreign institutional investment was significant and highly volatile during changes in selected macroeconomic variables.
- ❖ The ADR was insignificant and moderatly volatile by the change of selected macroeconomic variables.
- ❖ The coefficients of all selected variables were negatively recorded whereas creditworthiness and FII were positively coefficient, under the vector error correction model.

**VI. SUGGESTIONS OF THE STUDY**

- ❖ According to the results of granger causality, changes of domestic output growth, exchange rate, exchange rate volatility, foreign output growth, ADR and domestic stock market significantly caused other variables returns and hence investors need to consider the movement of these variables, to predict the flow of FII in the capital market.
- ❖ ADR was insignificant and moderately volatile by the change of selected macroeconomic variables. Thus, the null hypothesis, there is no significant volatility of selected financial variables on ADR was rejected. Therefore, investors need not bother about the volatility shock of selected financial variables which would not significantly affect the ADR investment.
- ❖ All mean values were lower than the standard deviation. Therefore, the investors should study the performance of the stock market in terms of risk and return.
- ❖ The financial markets in India are of vital importance and the government should try to shield the real economy from FPIs vagaries.

**VII. CONCLUSION**

According to the study, it is not surprising that these business enterprises have focused their attention on emerging Asian markets, particularly India and China. India is in a better position as it has a strong technical manpower base and large number of English speaking population. The future of the India is bright and due to FIIs, the economy will gain a swing in the short run as well as in the long run. India is a pool of various resources and their effective utilization is possible only with investments, in the large sum. The prosperity of India will soon be visible in the near future. By evolving the strategy to improve the competitive position in these areas, overall competitiveness can be raised, thereby enhancing the export potential of the country.

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