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Integration of World Economies with the Help of Foreign Institutional Investment and Stock Market: A Survey of Literature

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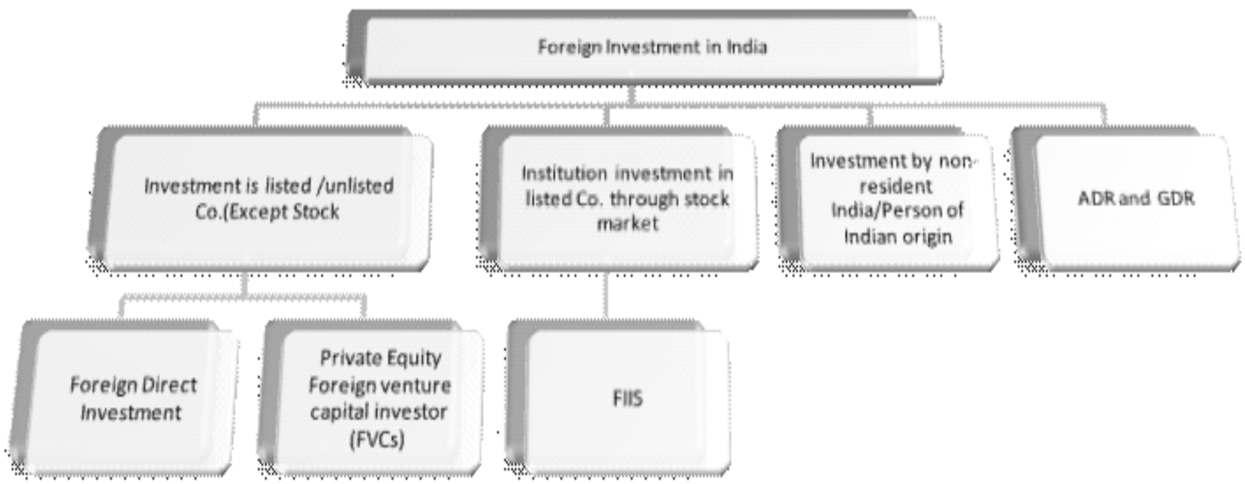
Abstract

The scenario of investment has transformed in due to integration of different nations of the world. The investment is between the globes as a single community. Investors rummage around new potential of investments and economies seek to have large investors. Moreover the investors are always willing to invest in uncorrelated securities which can also diversify the proportion of threat (Markowitz, 1952). Foreign institution investors (FIIs) have emerged as mines of funds for the developing countries like Bangladesh, India, Malaysia, Sri Lanka etc. FIIs have huge investment to put on in these economies, now the question arises- Do FIIs have hand in fluctuating Stock Market and affect its performance? The position of FIIs is not much understandable. With the help of literature view, the current paper help to analyze the psychology behind the investment of FIIs , while they are making decisions for their money and to find out the impact on the volatility of Indian Securities Market especially equity and debt market . The finding reveals that FIIs follow herding behavior and due to bulk investment made by them it leads to knock off the balance of stock market. Inspite of the uncertainties in investments, FIIs also leads to various reforms in the market.

Introduction

Before liberalization, Indian Stock Market is confined to domestic customers only. But now it has a diversified customer's base throughout the different economies of the world. There are different kinds of investors and one of the major parts of investment in Indian stock market is Foreign Institutional Investors (FIIs) (Admati and Pfleiderer, 2009). Foreign capital inflows link the gap between the need of funds by emerging economies and the flow of saving by foreign institutions. Developing countries welcomed the foreign flows during liberalization since 1990s and thus witnessed the exposure at global platform and after then the Stock market has achieved new skies. Foreign money can flow in the form of different forms of investment.



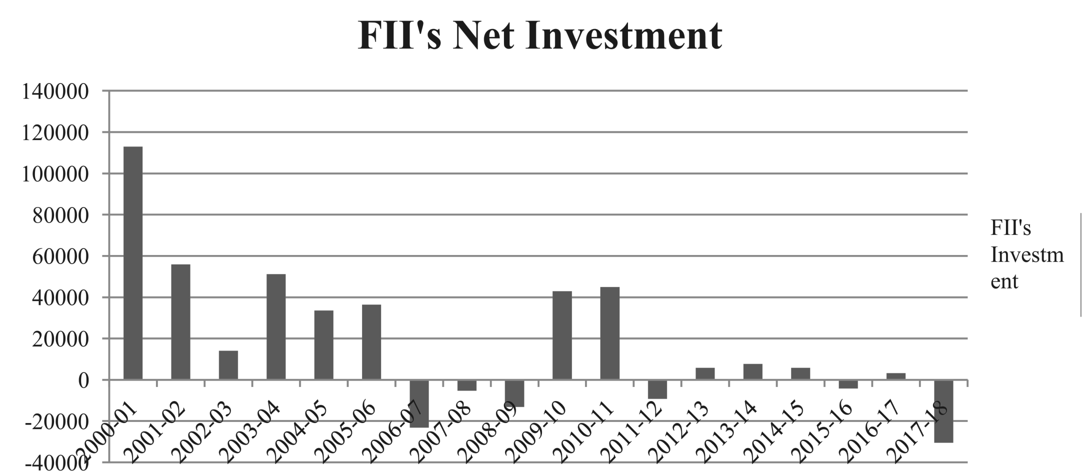
FOREIGN INSTITUTIONAL INVESTORS

Foreign institutional Investor refers to an institution which is established or incorporated outside India and which intends to invest in Indian Securities Market (Joshi M. et al, 2014). FIIs have to follow the registration process suggested by SEBI and they cannot invest directly in Indian Stock Market. They can invest as FIIs and as their sub-accounts. These entities includes international and multilateral organization, overseas pension funds, mutual funds, charitable trusts, university funds etc and sub accounts as partnership firms, private companies, public companies, foreign corporate, foreign individuals etc. FIIs have to take various permissions from FERA from RBI and SEBI under single window procedure. The registration is legitimate for five long years and after that it will be revitalized again. The grant of certificate to FIIs will be on the basis of track records, competence and soundness of those institutions (SEBI Regulations).

Foreign portfolio investors are the institutional investors who are backed by various experts and after analysis the ups and lows of stock market, they invest in very money-making stocks. They are always on toes to make profit. When the price rises they flood the market with inflows and famine it up, when the price turn down. This would undeniably lead to chances of volatility in the securities market (Gupta A., 2011).

Now the question arises - What the volatility is? The answer to this question is same as if we flip a coin and the chances of win & loss is alike. The ambiguity of losing the wishful outcome, which can be said as risk of not knowing the probability distribution, is same as volatility in the stock market (Schwartz Robert A., 2011).

Graph 1: Data of FIIs from January 2000-2001 to December 2017-2018.



Source: Data is collected from the site of SEBI. https://www.sebi.gov.in/statistics/fpi-investment/latest.html

After liberalization, the foreign investors also showed interest in Indian economy. The Indian Market was at growing stage that time and fighting with the defects, essentials and few market restructuring were needed, which eventually will give market a better structure for making it capable in front of international economies and to match their levels and expectations. In the wake of monetary liberation, it definitely leads the market to greater efficiency. The reforms by Rajiv Gandhi in 1984 were also market oriented and it enhanced the growth of Indian stock market and in that period volatility is also there. But that volatility was only time specific volatility. The reform helps the market to revive (Basu P. et al., 1998).

The economies of the world are integrated now and its effects can be seen by the bubble explode of 2008, the Asian economies demonstrate the market capitalization in 2008 at dollar 9.9 trillion and which was almost 15% decline in comparison of 2007. In the financial disaster of 2008, the stock markets of the world had lost the market capitalization by 12 trillion dollars in which China has 41% loss; USA has 21% and Indian economy has 3.7% loss in market capitalization. Do you notice how the markets of the world are connected? The year 2007 was the time of investment by FIIs in India and market touches new highs but the turmoil of 2008-09 again slows down the market but Indian stock market was not much affected by the crisis as compare to other economies (Srinivas V.A., 2016).

The investments of FIIs are significant and the stock held by institutional holders generally have high turnover as compare to individual investors who have limited funds to invest (Sias R. W. et al, 1995). Thus FIIs being the important part in today world, the present paper is an effort to analyze the investment made by FIIs and the pattern they follow to invest in Indian securities market. The various literatures was reviewed and analyzed to conclude the behavior of FIIs with respect to Indian stock market.

Objective of Study

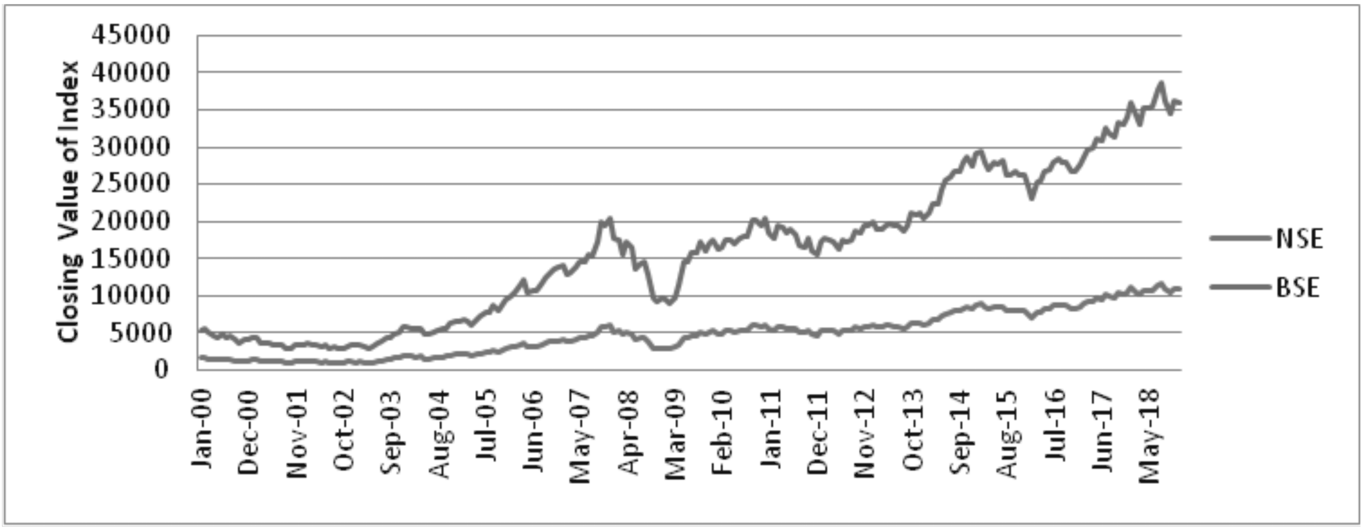
To identify the impact on the volatility of Indian Stock Market with respect to the investment made by FIIS.

To evaluate the literature associated with the FIIs and to know the measurement tools used in the previous studies.

Review of Literature

FIIs plays crucial role in shaping the price movement of equity market. With the time, Indian stock market has grown with various experiences of leads and lags. At the present time, the Indian market is among grown-up economies and not equity debt various different categories were being introduce like pension funds, mutual funds, insurance firms and hedge funds in which FIIs can easily invest their funds. Following is the graph showing ups and downs in Indian Stock Market from January 2000 to December 2018.

Graph 2: Fluctuations in BSE and NSE for the January 1st, 2000 and December 31st, 2018.



Source: Data is collected from the website of Bombay Stock Exchange (BSE) and National Stock Exchange (NSE).

FIIs have a large share in companies and this shareholding is large enough. We can see the effect of FIIs from the instance - it has been seen that even the company is performing good but the scrip of that company may be falling due to the steady outflow. Moreover FIIs are accountable for the trouble like Mexican crisis 1994 and Thailand problem 1997. Undoubtedly FIIs effect the growth of stock market and puts the market on ground. The strategy makers encouraged home investors to participate in stock market so that the FIIs tendency of destabilizing will be reduce and the research study has included the factors of home countries economy as a key role in movement of Indian securities market (Kishor C.S., 1997).

Table 1: Previous Studies show that Volatility of Indian Stock Market increases by the investment of FIs.

Author of the study	Year of the study	Market of the study	Empirical tools used in the study
Yadav S.	2017	NSE, USA, Tokyo, Korea, Hong Kong, Moscow Stock Exchanges	Exploratory and descriptive Research
Dhingra V.S et al	2016	Nifty	ARCH, GARCH, Cross correlation, Granger Causality, vector Auto Regression.
Loomba J.	2012	Sensex	Correlation
Rajput N. et al	2012	Nifty	Co integration & error correction models, ADF, EGARCH.
Biswas J.	2006	Sensex and Asian Countries market	Ratios and Descriptive Analysis
Mukerjee P. et al	2002	Sensex, S&P 500, MSCI WI	Correlation, regression & Granger Casuality

Data for 1st January 2004 to 30 September 2012 has been collected for the variables FIII, FIIO, FIIN, FIIFB, FIIFOI and Nifty returns. The data set was analyzed and it was found that there is a strong association between FIIs & market returns and FIIs & market volatility of market returns ((Dhingra V.S. et al, 2016). The FII have capability to destabilize the market and it comes up with the positive feedback trading while investing and negative trading while withdrawing flows from the market (Walid M.A. Ahmed, 2014, Kumar S. et al, 2012). This statement can be explained as - Buying when the prices are high and sell away when the prices are low is called as positive feedback trading and it can destabilizes stock markets by driving away from the fundamentals (De Long J.B. et al, 1990).

One more aspect of FIIs reaction in the Stock Market which causes volatility is information transmission. The open information which is more than two quarters and before litigation is highly correlated with the institutional ownership (Barabanov S.S. et al, 2008). One of the research had found that the magnitude of reaction of FIIs on the bad news is quite higher and significant as compare to the impact of good news for the period of 2001 to 2004 in Taiwan securities market (Yang T.Y. et al, 2015).

The movement of Indian stock market and investment of FIIs are highly correlated. The investment of FIIs has significantly related to the movement of Indian stock market and high degree of volatility was being attributed to foreign institutional investments (Mohanamani P. et al, 2012, Bohra N.S. et al, 2011). Subsequently there is a need to develop an understanding of the behaviour of FIIs and its effect on the Indian equity and debt market. The data set on Sensex and FII action over a period spanning from 1st January, 2001 to 31st December, 2011 has been composed. It has been scrutinized that there is an alliance between FII activity and effects on Indian investment Market. The FII net inflows reasonably elucidate the movements in the Indian investment Market (Loomba, 2012).

To check volatility daily stock return in the Indian stock market over the period from the 1961-2005 explored. The index of economic times & CNX NIFTY were appraised together and it was found that market is Tranquil and volatile. The conservative and simplest way to gauge the variability is standard deviation but nowadays there is a need to envisage volatility. To envisage volatility GARCH model is imperative model. It was discovered that from 1961 to 1970, the volatility was modest in the Indian stock market but from the 1980 to 1992 the volatility was to a certain extent higher. 1992 year was the full of fluctuations and societal cost associated with volatility was fairly high. The volatility decline in the year 2000-05 and does it leads to fuel the investment of foreign patron (Karmakar M., 2006).

Likewise the data from May 1993 to August 2009 was studied and it was analyzed that causal relationship exist between the investment of FIIs and Indian Investment Market. The prices moves lofty and stumpy by repeated buying and selling by the FIIs and the huge investment leads the market towards BULL & huge withdrawal in the path of BEAR. The disposable investment made by FIIs is fairly volatile during crisis but later the market starts fortifying (Mishra P.K. et al, 2009). FIIs vigorously influence the bear market for short period of time but the correlation reduces with the bull market as the involvement of other participants increases which reduces the overall effect of FIIs. FIIs take up itself as a host job in debut the economic reforms in Indian market (Morgan S., 2002).

There are different types of investors exist in the market. The comparison is done between various types of investors such as individual & foreign investors and foreign institutional investors, domestic investors. Previous research discovered that institutional investors and foreign investors outperform due to institutional sophistication whereas individual investors and local investors has few inadequacy. The actions of investor acts as a peculiar role in stock market inconsistency and the investor activities are caused by public event based on the return inescapability, variance for short time periods, extensive tenure problematic variance, high volatility of underlying asset prices and short run post earnings share. The essential reasons lead the shareholder towards biasness and the behavioral prejudice become the reason for stock market up beat and down hit (Shahid I. et al, 2013).

Relatively the behavioral decisions of FIIs effects the flows and thus it impacted market liquidity, capitalization, price traded and size in Indian Market. FIIs invest in bulk thus little change in gross purchasing & selling effects the stock market liquidity in negative direction and an increase in gross purchases significantly reduces future market liquidity and sales guide to raise spread and foreign patron granger cause liquidity in the market (Prasanna K. et al, 2014, Joshi K. et al, 2011).

Thus after reviewing the researcher papers it has been analyzed that FIIs contributes volatility in the capital market. The foreign investors' temperament is quite volatile and it deficiently affects the return of stock market.

Table 2: Previous Studies show that the volatility of Indian Stock Market reduces by the investment of FIs.

Investigator of the research	Time of the research	Marketplace of the research	Empirical tools used in the research
Wazal M. S.	2017	Indian Securities Market	Descriptive Research
Prasad R.S.R. et al	2017	NSE	Descriptive Statistics
Garg A. et al	2011	Sensex	ARMA, GARCH
Schuppi M. et al	2010	Shangai & Shenzhen Share Market	Volatility clustering, GARCH, Chow, CUSUM
Khan A.Q. et al	2010	NSE & BSE	Karl Pearson, Linear regression equation
Kumar S.	2009	Nifty	Cointegration and Granger Causality

Proudly, India is the most attractive destinations for investment by FIIs among Asian economies. It is not always that FIIs imbalanced the market, it endow liquidity to the market as well and Indian market is providing good quality equity products to FIIs which thus leads to reduce volatility and encourage FIIs to invest in Indian stock market through the channel of stock market's instruments. Volatility turns down after giving chance to FIIs by Indian economy (Garg A. et al, 2011).

Chinese market does not isolate itself from the effect of FIs investment and it is found out that Chinese market stabilizes after the investment of FII in the post liberalization period and they didn't engage in any feedback trading (Schuppli M. et al, 2010).

It is agreed that the dominance by FIIs leads to volatility and variations are likely to destabilizing in nature. But the actual difficulty face by foreign institutional investors was not volatility for Indian Stock Market but difficulty in creating money supply and exchange rates (Mohan Ram, 2005).

The reforms helped the Indian economy and volatility of cross border investment is quite less than other rising market in Asian continent. FIIs flows were having seasonal affect and inflows were significantly higher in the starting month of calendar year. FIIs flows were positively interrelated with BSE Sensex. The capital flows and short term debt were volatile in nature but it were curb by efficient management of the Indian economy (Singh, S., 2004).

We further explore three possible underlying mechanisms through which foreign institutional investors promote innovation: foreign institutions emerge as active superintendent, to grant insurance for the compensation of modernism failures to firm managers, and to promote technology transfers from highly innovative economies. It provides new approach into the real consequence of foreign institutions.

FIIs follow the herding behavior but in the normal time the FIIs investment in Indian stock market reduces fluctuations and returns. FIIs have shoot up the productivity of labour and build up foreign exchange measures and governance in Indian market structure. FIIs are liberal and they are impulsive to book profits from dynamic portfolios across different emerging & rising economies. The profits for FIIs & net investment made by them are significantly in very smaller extent because there are lot more determinants which effects the investment of FIIs in India and such determinants are risk oriented and associated with the economy as well as type of market in which investment is made by FIIs (Arora J. et al, 2015).

Measurement Tools used in Past Studies

Standard Deviation (S.D)

The standard Deviation is used to measure the amount of variation and dispersion among data set. It is denoted by σ. A small value of S.D demonstrates that the data is close to mean whereas higher value shows the speckled data points. It is used in fiscal affairs and standard deviation is used to measure volatility with the help of rate of return on the savings. The provisions of this technique is-

$$\sigma = \sqrt{\frac{\Sigma\ (x-\bar{x})^2}{n}}$$

Where σ is standard deviation, x is each value in the data set, x is the mean of all data values and n is the number of all data values.

Garch

The volatility is measured with the help of GARCH (p, q) model given by Robert F. Engle (1982). It is the Generalized Autoregressive Conditional Heteroskedasticity. The plan of this GARCH (p, q) model is - p is the order of GARCH terms σ^2 and q is the order of ARCH terms ε^2. GARCH is the model for the data of time series which provides optimum efficiency as compare to Ordinary Least Square, which aspires to curtail the deviations and used constant volatility but in actual practice the volatility varies with the different segment of time. The model of GARCH (p, q) can be denote as

$$\sigma^2_t = \alpha_0 + \alpha_1\varepsilon^2_{t-1} + \ldots\ldots + \alpha_q\varepsilon^2_{t-q} + \beta_1\sigma^2_{t-1} +$$

$$+ \ldots\ldots + \beta_p\sigma^2_{t-p} = \alpha_0 + \sum\nolimits^q_{i=1}\alpha_i\varepsilon^2_{t-i} + \sum\nolimits^p_{i=1}\beta_i\sigma^2_{t-i}$$

α0, α1 and β1 are the parameters of model, where σ2t is the moving average terms at the value t in which σ2t is dependent on the previous value of data σ2t-p. The value which defines the coefficient of error term suggests the magnitude of volatility and if the coefficient of error term α1 is greater than there exists a higher volatility and if the value of β1 is higher it means there is low volatility.

Granger Causality

Granger Causality was first introduced by Clive Granger in 1969. This statistical technique is used to determine whether one time series can be useful to predict another time series of statistical value. It is an advanced process to set up proper causality between time series. It shows that two series are related to each other at some moment of time.

Presume, there are time series namely X and Y. In this technique, time series X Granger Cause Y, which means X values gives statistically significant information about Y values.

Discussions

After examining the literature, it has been researched that different authors have different aspects regarding the impact of volatility due to investment of FIIs and their choices of instrument they are investing in. There is litigious position that many finds that volatility is increased but others find it as volatility is reduced after the opening of FIIs. Financial system of India is budding system and the capital flows by FIIs are necessary for the growth of Indian Market. The huge amount of inflows which causes variation in Indian Stock Market for short time period, if the authorities keep an eye on the FIIs money and create such environment to cope up with the FIIs with full confidence, then FIIs are not able to stroke Indian Market (Chandra A., 2012). The macroeconomic determinants such as rate of exchange , interest rate, foreign exchange reserves, domestic financial status as well as savings and investments should be stable (Srinivasan P. et al, 2013). The flows of wealth by FIIs are never risk free it resulted in destabilizing the market and the researcher investigated that the co integration and causality between the Indian stock market and FIIs proceeds. This is a notification to manage the foreign resources with strict policies so that the crisis and uncertain behavior of FIIs can be curbed with the help of association of government and stock market authorities and powers. It is recommended that price precincts and size quotas are apparatus which should be useful for Indian nation. When the capital market is vitalizing these devices should be loosened and in the boom time the tools should be applied with larger strength. FIIs investments can be proscribed with the help of these apparatus and hedging instrument (Goudarzi H. et al, 2011).

There should be risk transfer mechanism which can work between stock market & FIIs to control volatility spill out property. The central necessities is to persuade inventive and new products in the market, expand infrastructure, broaden investor base & enlightening investor is the need of the hour to make Indian Stock Market highly and perfectly competitive and the movement of FIIs & Indian stock market will be moved by positive net investment by FIIs (Rajput N. et al, 2012). In the covering up session after assessing the literature, it is concluded that foreign institutional investors plays a very crucial role in Indian security market. It appears as a silver line in the black clouds for the emerging economies like INDIA which needs funds which can be risky at any point of time.

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