

A Study on FII's Investment in Equity Market and its Impact on BSE SENSEX

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ABSTRACT

Foreign Institutional Investors have picked up a critical part in Indian capital markets. Accessibility of outside capital relies on upon numerous firm particular variables other than monetary improvement of the nation. In this connection this paper inspects the commitment of Foreign Institutional Investors especially among organizations incorporated into sensitivity Index (Sensex) of Bombay Stock Exchange. Likewise inspected is the relationship between Foreign Institutional Investors and firm particular attributes as far as possession structure, monetary execution and stock execution. It is watched that Foreign Institutional Investors put more in organizations with a higher volume of shares claimed by the overall population. The promoters' property and the Foreign Investors are conversely related. Remote financial specialists pick the organizations where family shareholding of promoters is not considerable. Among the money related execution variables the offer returns and income per offer are critical elements impacting their speculation choice.

Key words: *Foreign Institutional Investors, Bombay Stock Exchange, Sensex.*

Introduction

Economies like India, which offer relatively higher growth than the developed economies, have gain favour among investors as attractive investment destinations for foreign institutional investors (FIIs). Investors are optimistic on India and sentiments are favourable following government's announcement of a series of reform measures in recent months. According to a poll conducted by Bank of America Merrill Lynch (BofA-ML) recently, in which 50 investors participated, India was the most favourite equity market for the global investors for the year 2015 at 43 per cent, followed by China at 26 per cent. The global investment bank is of the view that India remains to be in a structural bull market. India is poised to become the second biggest ecosystem option after the US in the next two years on account of the ongoing high growth rates. Several technology based 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.

Market Size

FII's net investments in Indian equities and debt have touched record highs in the past financial year, backed by expectations of an economic recovery, falling interest rates and improving earnings outlook. FIIs have invested a net of US\$ 89.5 billion in 2014-15— expected to be their highest investment in any fiscal year. Of this, a huge amount—US\$ 57.2 billion—was invested in debt and it is their record investment in the asset class, while equities absorbed US\$ 32.3 billion. India continues to be a preferred market for foreign investors. India-focused offshore equity funds contributed US\$ 0.5 billion, whereas India-focused ETFs added a much higher US\$ 1.2 billion of the total net inflows of about US\$ 1.7 billion into the India-focused offshore funds and ETFs during the quarter ended June 2015.

India companies signed merger and acquisition (M&A) deals worth US\$ 31.16 billion in January-November 2015. The total M&A transaction value for the month of November 2015 was US\$ 2.97 billion involving a total of 47 transactions. In Private Equity, a total of 91 deals worth disclosed

value of US\$ 1.43 billion were reported in November 2015.

Investments

- ✦ Singapore-based investment firm, Temasek Holding, has acquired 73 per cent stake in Hyderabad-based Care Hospitals, India's fifth largest private healthcare network, for Rs 1,800 crore (US\$ 268.7 million).
- ✦ Macquarie Infrastructure and Real Assets (MIRA), the realty investment arm of Australian Macquarie Group Ltd, plans to invest in real estate projects in India and is in talks with Tata Housing Development Co. to jointly set up an investment platform to invest in luxury residential projects.
- ✦ KKR India, the Indian arm of global private equity firm KKR & Co. L.P., has planned to raise its second alternative investment fund (AIF) of Rs 1,500 crore (US\$ 226.4 million) which will offer credit solutions to Indian companies.
- ✦ Global private equity major Warburg Pincus plans to invest Rs 1,800 crore (US\$ 283 million) in Piramal Realty, which will help the real estate company to expand its portfolio and to acquire land parcels in and around Mumbai.
- ✦ Sequoia Capital, one of the leading venture capital firms, will invest Rs 125 crore (US\$ 20 million) in Bengaluru-based MedGenome, a genomics-based diagnostics and research firm specialising in DNA sequencing and data analytics.
- ✦ Viacom, one of the leading American global mass media companies, has acquired 50 per cent stake in Prism TV for Rs 940 crore (US\$ 153 million). Prism TV owns and operates regional entertainment channels under the 'Colors' umbrella.
- ✦ Global funds such as Macquarie Infrastructure and Real Assets (MIRA), I Squared Capital, Brookfield Asset Management Inc. are investing in Indian road construction and power projects as a result of government's efforts to improve infrastructure and ease the operating environment for such projects.
- ✦ Japanese conglomerate SoftBank has led a group of investors to pump Rs 630 crore (US\$ 100 million) in Gurgaon-based OYO Rooms,

which helps local hotels and select set of vendors to spruce up room amenities.

- ✦ Acumen, a not-for-profit global venture fund, has invested US\$ 1.8 million in Sahayog Dairy, an integrated company that sources milk from 272 centres across five districts adjoining Harda district in Madhya Pradesh.
- ✦ Global infrastructure investment manager I Squared Capital, has decided to invest US\$ 150 million in Amplus Energy Solutions Private Ltd, which sets up distributed solar power generation projects in India.
- ✦ Zomato, a restaurant search and discovery platform, has raised US\$ 60 million from Singapore government-owned investment company Temasek, along with existing investor Vy Capital, in order to explore new business verticals.

Government Initiatives

Government of India has accepted the recommendation of A.P. Shah Committee to not impose Minimum Alternate Tax (MAT) on overseas portfolio investors retrospectively for the years prior to April 01, 2015, thereby providing significant relief to foreign portfolio investors (FPIs). The RBI has also allowed a number of foreign investors to invest, on repatriation basis, in non-convertible/redeemable preference shares or debentures issued by Indian companies listed on established stock exchanges in India. The investment should be within the overall limit of US\$ 51 billion allocated for corporate debt. Long-term investors registered with SEBI will also be deemed as eligible investors. The Government of India is also planning to relax some of the safe harbour rules set for offshore fund managers, in order to allow private equity investors to shift their base to India without attracting a tax on capital.

METHODOLOGIES APPLIED

The study is based on the secondary data and it collected from secondary source. There are two type of data used for the study first FIIs investments as independent variable and Indian stock indexes BSE SENSEX as dependent variables. In data classification, researcher has endeavoured 15 years Net FIIs investments in terms Equity Investment on year wise and its impact on BSE SENSEX for the period from 2000-

01 to 2014-15. Researcher employed Statistical tools Coefficient of correlation and coefficient of determination employed in the variables for purpose of measure the effect of independent variables FIIs investments on dependent variables Indian stock indexes BSE SENSEX and study the association with independent and dependent variables. Regression residual model exploited to examine cause and effect relationship between FIIs investment and Indian stock indexes BSE SENSEX. The regression analysis predicts the performance of Indian stock index BSE SENSEX owing to FIIs investment in Equity, Debt and Total investment trend for the period from 2000-01 to 2014-15. F-test established the overall

significance of the regression model. This F-test determines endure regression coefficients are different from zero. Regression provides only one predictor and only one regression coefficient test. The regression coefficient is the slop of the regression line, the F-test for overall significance is testing the same thing as the t-test in regression. Consequently, methodologies applied in this research study to investigate the main objectives that is cause of volatility in Indian stock indexes; BSE SENSEX. Due to the effect of FIIs investments in Indian stock market, there is a suitable result found with proper methodologies employed in this research study.

OBJECTIVE OF THE STUDY

The present study mainly aims to know the exact impact of FIIs on the Indian stock market. To Study the impact on BSE SENSEX on the Equity Investment made by FIIs during the period of 2000-01 TO 2014-15 Years wise

PERIOD OF STUDY

The study period is to be converted 15 years; from 2000-01 to 2014-15.

TOOLS & TECHNIQUES

For the present study, Regression Model in four Parts have been considered as a Tools and Techniques which are as follows

- (a) Overall Regression Equation’s Accuracy (Multiple R; R Square and Adjusted R Square)
- (b) Probability that this output was not by chance (ANOVA –Significance of F)
- (c) Individual Regression Coefficient and Y-Intercept Accuracy
- (d) Visual Analysis of Residuals (Graphical Presentation)

HYPOTHESIS

A hypothesis is a special proposition, formulated to be tested in a certain given situation as a part of research which states what the researcher is looking for the broader hypothesis for the research Have been included as follows

H0: There is no significant impact on SENSEX for FII’s Equity investment in India.

H1: There is significant impact on SENSEX for FII’s Equity investment in India.

Table 1
FII’s Investment in Equity From 2000-01 To 2014-15

Year	FII’s Equity Investment	SENSEX
2000-01	-2003.4	3604.38
2001-02	111881.3	3469.35
2002-03	30139.8	3048.72
2003-04	226174	5590.60
2004-05	214812.7	6492.82
2005-06	245498.2	11279.96
2006-07	110773	13072.1
2007-08	484745	15644.44
2008-09	-342509	9708.5
2009-10	748638	17527.77
2010-11	726731.7	19445.22
2011-12	123356.2	17404.2
2012-13	167968.3	18835.77
2013-14	75334.4	22386.27
2014-15	111345.8	27957.49

Table 2
Regression Statistics for the of the year 2000-01 to 2014-15

Multiple R	0.317962862
R Square	0.101100382
Adjusted R Square	0.031954257
Standard Error	7545.894488
Observations	15

(i) **Multiple R:** This is the Correlation Coefficient. it show how strong the linear relationship is. For the period from 2000-01 to 2014-15 the value of it shows 0.317962862 that means 31.80% relationship exist on FII’s Investment in Equity on SENSEX for the period 2000-01 to 2014-15.

(ii) **R Square:** This is r², the Co efficient of Determination which shows that how many points fall on the regression model that means how well the regression line approximates the real data. For the month of March

2000-01 to 2014-15 the value of it shows 0.101100382 that means 10.11% variation of y-values around the mean are explained by the x-values. In other words, 10.11% of the values fit the model.

(iii) Adjusted R Square: This is quoted most often when explaining the accuracy of the regression equation. Adjusted R Square is more conservative than R Square because it is always less than R Square. For the year from 2000-01 to 2014-15 the value of it shows 0.031954257 that means 3.20%

(iv) Standard Error of the Regression: An estimate of the standard deviation of the error for population mean. This is not the same as the Standard Error in Descriptive Statistics! The Standard Error of the regression is the precision that the regression coefficient is measured which is shown as 7545.894488 for the period from 2000-01 to 2014-15.

(v) Observation: Number of observations in the sample is 15

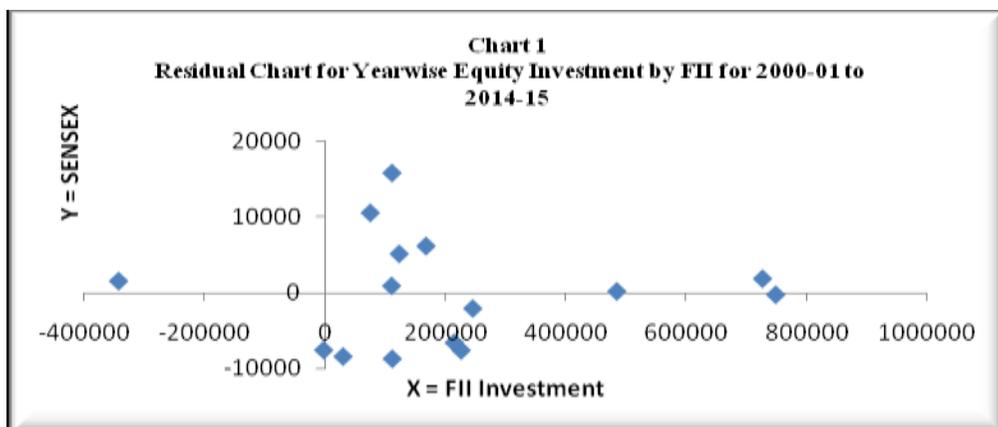
	DF	SS	MS	Fc	Ft
Regression	1	83254249.05	83254249.05	1.462127	0.248125
Residual	13	740226807	56940523.62		
Total	14	823481056.1			

Significance F: This indicates the probability that the Regression output could have been obtained by chance. A small significance of F say Ft confirms the validity of the Regression output. For the period from 2000-01 to 2014-15 Fc =1.462127 while Ft is 0.248125 that means 24.81% SENSEX have significant impact on FII's Investment in India.

	Coefficients	Standard Error	T Statistics	P-Value	Lower 95%	Upper 95%
Intercept -X	11249.68513	2442.670472	4.605486192	0.000493	5972.616	16526.75
Variable	0.008810853	0.007286607	1.209184233	0.248125	-0.00693	0.024553

The most important aspect of this section is that it show the linear regression equation (model) as $y = mx + b$ (it means $y = \text{slope} * x + \text{Intercept}$) as per above Table slope $m = 0.008810853$ while intercept $b = 11249.68513$ Hence Linear Regression Equation is for the period from 2000-01 to 2014-15 is $y = 0.008810853x + 11249.68513$ this model is base for time series analysis for any period.

Visual Analysis of Residuals (Graphical Presentation)



The residual are the difference between the Regression's predicted value and the actual value of the output variable. It is plotted the Residuals on a scatterplot chart. Look the patterns in the scatterplot in the above chart. The more random (without patterns) and centred around zero the residuals appear to be, the more likely it is that the Regression equation is valid it can be seen that Residual patterns is little far to centre around zero on Y axis the residuals appear to be, the more likely it is that the Regression equation is valid which can be shown from the above chart during the period.

Conclusion

In developing countries like India foreign capital helps in increasing the productivity of labour and to build up foreign exchange reserves to meet the current account deficit. Foreign Investment provides a channel through which country can have access to foreign capital. There are speculations of wider range on the expectations of foreign institutional investors. It is required to understand when they withdraw their funds and when they pump in more money. Higher Sensex indices and high price earnings ratio are the

country level factors attracting more foreign investment in India.

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Education is not the filling of a pail, but the lighting of a fire.

~ William Butler Yeats