



FDI, FII AND INDIAN STOCK MARKET: A CORRELATION STUDY

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ABSTRACT

With the advent of LPG policy in India, the Indian markets were opened for foreign capital to take the advantage of latest and upgraded technology and to maintain the equilibrium in Balance of Payment account. Foreign capital can enter into a nation by the route of Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII). The FDI is more advantageous for a particular nation rather than FII as the later has an easy exit route than the former. The current study is undertaken to study the correlation among the FDI, FII and Indian stock markets as the stock markets works as economic barometer of a nation. The S & P BSE SENSEX and CNX Nifty are taken to study the impact of flow of FDI and FII on Indian stock markets. The study shows that the flow of FDI has a high degree of positive correlation with SENSEX and Nifty whereas the flow of FII has a moderate level of positive correlation with SENSEX and Nifty.

Keywords: FDI, FII, NIFTY

INTRODUCTION

With the inception of New Industrial Policy (Liberalization, Privatization and Globalization policy) in India in 1991, Indian markets were opened for foreign capital to take the advantage of new technology and to meet out the Balance of Payment problem. Earlier many restrictions were imposed upon the foreign capital in India but after year 1991, the doors of Indian economy were opened for foreign capital and know-how. Foreign capital can enter into Indian market through two ways namely FDI and FII. FDI i.e. Foreign Direct Investment is related to set up the industries in India with the help of foreign capital. The Foreign Direct Investment is used for installing new production facilities. The technical know-how and new technology is also transferred from one nation to other nation with the help of FDI. In case of the Foreign Institutional Investment i.e. FII, the foreign investors invest in shares of an already established/new company through the stock market operations. No additional production facilities are created in case of investment through FII whereas FDI is directly related to creation of production facilities. Hence, FDI is more beneficial than FII for a particular nation. The FII has an easy exit route and can be withdrawn by selling the securities in stock markets at any time but FDI doesn't has such type of feature. It is difficult to exit without incurring heavy losses in case of investment has been made through FDI. The current study is undertaken to find the relationship between FDI, FII and stock markets. Two major indices namely S&P BSE SENSEX popularly known as SENSEX and CNX Nifty known as Nifty are taken to represent the stock market fluctuations.

SHAREHOLDING PATTERN IN STOCKS OF BSE SENSEX AND CNX NIFTY

The shareholders are divided into various groups consisting of sub-groups. These are as follows:

- 1) Indian promoters

- 2) Foreign promoters
- 3) Foreign Institutional Investment
- 4) Domestic Institutional Investment
- 5) Non Institutional Investment
- 6) Bodies Corporate
- 7) Custodians groups.

The shareholding pattern shows that the FIIs hold 2nd position in most of cases in the shareholding of companies included into SENSEX and Nifty. FIIs hold 1st position in HDFC, Coal India, ICICI Bank, HDFC Bank, Infosys, DR. Reddy, Mahindra & Mahindra (M&M), AXIS Bank, IDFC and IndusInd Bank i.e. in 10 companies out of 50 companies of Nifty.

Table1. Showing percentage of shareholding of FIIs in Companies of SENSEX and Nifty

Sr. No.	Name of Member Company	% shareholding of FII in Company (Dec-2013)	Rank as per shareholding pattern	% shareholding of FII in Company (Dec-2012)	Rank as per shareholding pattern	Name of Indices in which company is member
1	BHEL	15.63	2ND	14.92	2 ND	SENSEX & Nifty
2	HEROMOTOCO	30.63	2ND	31.99	2 ND	SENSEX & Nifty
3	HUL	14.83	2ND	21.68	2 ND	SENSEX & Nifty
4	L&T	17.85	2ND	16.73	2 ND	SENSEX & Nifty
5	TATAPOWER	26.03	2ND	24.95	2 ND	SENSEX & Nifty
6	HDFC	74.25	1ST	73.17	1 ST	SENSEX & Nifty
7	COALINDIA	34.92	1ST	33.66	1 ST	SENSEX & Nifty
8	NTPC	10.32	3RD	8.99	3 RD	SENSEX & Nifty
9	TATASTL	16.1	4TH	14.79	4 TH	SENSEX & Nifty
10	MARUTI	21.47	2ND	23.13	2 ND	SENSEX & Nifty
11	SBI	9.02	3RD	10.74	3 RD	SENSEX & Nifty
12	ICICIBANK	38.41	1ST	37.09	1 ST	SENSEX & Nifty
13	ITC	19.26	3RD	18.77	3 RD	SENSEX & Nifty
14	BHARTIARTL	15.92	3RD	17.28	3 RD	SENSEX & Nifty
15	CIPLA	23.79	2ND	22.24	2 ND	SENSEX & Nifty
16	TATAMOTORS	28	2ND	29.01	2 ND	SENSEX & Nifty
17	HDFCBANK	34.92	1ST	33.66	1 ST	SENSEX & Nifty
18	SUNPHARMA	22.49	2ND	21.45	2 ND	SENSEX & Nifty
19	TCS	16.33	2ND	14.96	2 ND	SENSEX & Nifty

20	ONGC	6.74	5TH	5.79	5 TH	SENSEX & Nifty
21	BAJAJAUTO	18.68	3RD	17.04	3 RD	SENSEX & Nifty
22	GAIL	17.03	3RD	15.59	3 RD	SENSEX & Nifty
23	INFY	40.65	1ST	40.55	1 ST	SENSEX & Nifty
24	HINDALCO	26.88	2ND	27.16	2 ND	SENSEX & Nifty
25	AXISBANK	43.18	1ST	40.94	1 ST	SENSEX & Nifty
26	DRREDDY	33.35	1ST	26.17	1 ST	SENSEX & Nifty
27	M&M	36.68	1ST	32.86	1 ST	SENSEX & Nifty
28	SSLT	16.99	2ND	27.31	2 ND	SENSEX & Nifty
29	WIPRO	10.09	3RD	7.02	3 RD	SENSEX & Nifty
30	RIL	18.26	3RD	17.79	3 RD	SENSEX & Nifty
31	DLF	19.95	2ND	14.87	2 ND	Nifty
32	JINDALSTEL	21.93	2ND	22.8	2 ND	Nifty
33	RANBAXY	10.74	3RD	10.55	3 RD	Nifty
34	BPCL	10.14	4TH	10.04	4 TH	Nifty
35	POWERGRID	25.37	2ND	14.26	2 ND	Nifty
36	PNB	17.51	3RD	18.02	2 ND	Nifty
37	LUPIN	31.92	2ND	27.76	2 ND	Nifty
38	KOTAKBANK	31.76	2ND	30.42	2 ND	Nifty
39	GRASIM	22.92	2ND	23.39	3 RD	Nifty
40	ASIANPAINT	19.47	3RD	18.64	3 RD	Nifty
41	ULTRACEMCO	21.01	2ND	20.17	2 ND	Nifty
42	NMDC	6.04	4TH	4.4	4 TH	Nifty
43	IDFC	51.39	1ST	53.16	1 ST	Nifty
44	CAIRN	16.32	3RD	14.97	4 TH	Nifty
45	BANKBARODA	15.54	3RD	16.12	3 RD	Nifty
46	JPASSOCIAT	27.41	2ND	22.02	2 ND	Nifty
47	INDUSINDBK	41.13	1ST	39.05	1 ST	Nifty
48	HCLTECH	28.05	2ND	21.8	2 ND	Nifty
49	ACC	19.99	2ND	19.97	2 ND	Nifty
50	AMBUJACEM	30.5	2ND	28.84	2 ND	Nifty

Source: BSE and NSE web sites as on 4th April, 2014.

The Table 1 shows that the companies included in SENSEX and Nifty are more attractive destinations for the investment by FIIs than the other ones. The same is proved from the peer group comparison of these companies. In the peer group comparison, the shareholding pattern of other peer companies of same industries was studied and found that in most of the cases the FII shareholding in peer companies was

much less than the companies forming part of SENSEX and Nifty. Due to the above reason, it is appropriate to take the SENSEX and Nifty for finding out the impact of FDI and FII in Indian stock markets.

S&P BSE SENSEX

S&P BSE SENSEX was first compiled in 1986 representing 30 stocks of large, well established and financially sound companies across various key sectors. It was based upon the “Market Capitalization-Weighted” methodology with 1978-79 as base year. Since 2003, S&P BSE SENSEX is being calculated on a free-float market capitalization methodology which is also used in MSCI, FTSE, STOXX and Dow Jones. Free float market capitalization takes into consideration only those shares which are readily available for trading in the market. It excludes promoters holding, government holding and other locked-in-shares that will not come to the market for trading in the normal course.

CNX Nifty

The CNX Nifty is a well diversified 50 stock index accounting for 22 sectors of the economy. The CNX Nifty Index represents about 69% of the free float market capitalization of the stocks listed on NSE. The total traded value for the last six months ending Dec-2013 of all index constituents is approximately 59.01% of the traded value of all stocks on the NSE. It is used for a variety of purposes such as derivatives trading and index funds. It is professionally maintained by IISL and is ideal for derivatives trading.

NEED OF FDI AND FII IN INDIA

Being the developing country, the need of funds for investment in various infrastructural projects can be fulfilled with the help of foreign capital. The interest rates in India are very high in comparison to the developed nations. The foreign capital is a cheap alternative to fund the heavy investment needs in various sectors. The foreign capital is attracting towards the developing nations to find more return on their investments in comparison to investment in their own countries. It is also helpful in balancing the BoP Account. Further in many areas where new technology is required, FDI is an appropriate way to commensurate with the new technology available in foreign nations. In some areas government impose the condition of transfer of technology with the FDI to take advantage of new research and development in the specific area. The foreign capital is an additional source for funding various projects in addition of domestic capital.

REVIEW OF LITERATURE

Patel (2012) investigated the effect of macroeconomic determinants on the performance of the Indian Stock Market. The empirical analysis found three interesting results. First, Interest Rate is I(0); SENSEX, Nifty, Exchange Rate, Index of Industrial Production, Gold Price, Silver Price and Oil Price are I(1); Inflation and Money Supply are I(2). Second, there exists a long run equilibrium relation between stock market indices and all macroeconomic variables. Third, it provides evidence of causality running from exchange rate to stock market indices to IIP and Oil Price. The findings of this study have some important policy implications. First, exchange rate contains some significant information to forecast stock market performance. Therefore, Reserve Bank of India should try to maintain a healthy exchange rate. Second, as Index of Industrial Production is a highly significant factor, policy makers should try to support industrial growth through appropriate policy measures. Third, Money supply and Inflation are major factors affecting stock markets, so the regulatory body should try to control them through Repo and Reverse Repo rates. Fourth, commodity prices like Gold, Silver and Oil are also major determinants of stock markets. Mostly prices of these commodities are determined at the global level, but still by proper import duty and local taxes, policy makers should try to maintain competitive price levels. Finally, autonomous regulatory bodies and visionary system of government can definitely contribute in efficient working and development of the Indian Stock Market.

Srikanth and Kishore (2012) found that economic growth is a function of, among other things, capital formation. Portfolio inflows from FIIs inject global liquidity into capital markets and raise the price-to-earnings ratios, thereby reducing the cost of capital. This leads to further issues of equity capital and stimulates investment growth in the host economy apart from bringing in best corporate governance practices. FII inflows offer dual advantages, i.e., they are a source of non-debt creating capital flow into the economy and the exchange rate risk is borne by the foreign investor. Yet, FIIs have been targets of

criticism for characteristics such as return chasing and herd behavior; hot money inflows; short-term, speculative gains; and their influence on domestic policy-making. The study revealed that there was bi-directional causality between net FII inflows and the BSE SENSEX-which mutually reinforced each other. Net FII inflows resulted in the accumulation of foreign exchange reserves, thereby enhancing India's image in international financial markets. Interest rates in India propelled FIIs to invest further on account of the positive interest rate differential. The study also found that growth in the Index of Industrial Production improved market sentiment and increased net FII flows into India. On the whole, it was observed that net FII inflows had a positive impact on the Indian stock market and foreign exchange reserves. Further, higher IIP and interest rates acted as catalysts for FII flows into India. Clearly, policy-makers are encouraged to continue the existing policy norms on portfolio investments from FIIs without any reservations.

Jain, Meena, and Mathur (2012) diagnose that the FIIs are influencing the SENSEX movement to a greater extent. Further it is evident that the SENSEX has increased when there are positive inflows of FIIs and there were decrease in SENSEX when there were negative FII inflows. The Pearson correlation values indicate positive correlation between the foreign institutional investments and the movement of SENSEX.

Chaitanya (2003) in his research work titled 'Foreign Institutional Investments' discussed in length about the FIIs and their impact on the Indian economy. Analyzing daily flow data, he concludes that the stock market performance has been the sole driver of FII flows, though monthly data in the pre-Asian crisis period suggests some reverse causality.

Rao (1999) found that the net FII investments influence the stock prices in India positively.

Chakrabarti and Vimal (2001) concluded in their study that in the pre-Asian crisis period any change in FII was found to have a positive impact on the equity returns, whereas in the post- Asian crisis the reverse relationship was noticed. FII's were a major portion of investments and their roles in determining the movement of share price and indices is considerably high. The movement of indices in India depends only on the trade done in limited number of stocks. Thus, when the FII's frequently buy and sell stocks, it leads to volatility of the market.

Frimpong (2009) concluded that with the exception of exchange rate all other macroeconomic variables impact stock prices negatively.

Aydemir and Demirhan (2009) reported bidirectional causal relationship between exchange rate and all stock market indices.

Ali (2010) found that co-integration exists between industrial production index and stock prices. However, no causal relationship was found between other macro-economic indicators and stock prices in Pakistan.

Sultana and Pardhasaradhi (2012) found the positive correlation between flow of FDI and FII with SENSEX and Nifty.

HYPOTHESES

The null and alternative hypothesis with respect to FDI, FII and SENSEX and Nifty can be stated as follows: -

H₀₁: Flow of FDI in India and trends of SENSEX are independent.

H₀₁: Flow of FII in India and trends of SENSEX are independent.

H₀₁: Flow of FDI in India and trends of Nifty are independent.

H₀₁: Flow of FII in India and trends of Nifty are independent.

H_{a1}: Flow of FDI in India and Trends of SENSEX are dependent.

H_{a1}: Flow of FDI in India and Trends of SENSEX are dependent.

H_{a1}: Flow of FDI in India and Trends of Nifty are dependent.

H_{a1}: Flow of FDI in India and Trends of Nifty are dependent.

OBJECTIVES OF THE STUDY

The present study is undertaken to with the following objectives:

- 1) To study the quantum, trend & pattern of foreign capital in India in the form of FDI and FII.
- 2) To study the relationship between FDI and BSE SENSEX and CNX Nifty.

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- 3) To study the relationship between FII and BSE SENSEX and CNX Nifty.

PERIOD OF THE STUDY

The data of 13 years from 2000 to 2013 is undertaken to study the relationship of FDI, FII with BSE SENSEX and CNX Nifty. The present study covers the different phases of Indian economy. Year 2000-01 is related to technology boom and tech bursting period. Years from 2001 to 2003 represent the slow global recovery from recession. Years from 2003 to 2007 are related to investment boom period especially in developing economies and stock markets attained a new high during this period. The year 2008 witnessed the tragic sub-prime crises and global melt down. From Year 2008, the economies are in global slow-down mode.

RESEARCH METHODOLOGY

Data Collection

The present study is based on secondary data. The data related to FDI and FII are collected from the website of SEBI and RBI. The data of SENSEX and Nifty is taken from the websites of BSE and NSE respectively. The data of SENSEX and Nifty is taken as the average of daily close of both the indexes to make them more representative instead of taking the indices of last working day of financial year. The present study considers 13 years data starting from year 2000 to 2013.

Analytical Tools & Techniques

The correlation and Multi regression OLS model is used to analyze the collected data. The degree of relationship between the variables under consideration is measured through the correlation analysis. The measure of correlation called the correlation coefficient or correlation index summarizes in one figure the direction and degree of correlation. The correlation coefficient value ranges from -1 to +1. Whether correlation is positive or negative would depend upon the direction of change of the variable. If both the variables are varying in the same direction, i.e. if one variable is increasing and the other variable is also increasing in same direction or if one variable is decreasing and the other variable is also decreasing, correlation is said to be positive. If, on the other hand, the variables are varying in opposite directions, i.e. as one variable is increasing the other is decreasing or vice versa, correlation is said to be negative. In the present study the correlation is studied between FDI, FII and stock market indices. The Multiple Regression Analysis is a technique to find out the effect of two or more independent variables on a single dependent variable. In the present study, the FDI and FII are independent variables and their effect is to be traced out on stock market indices. Two different models have been framed to study the impact of FDI & FII on SENSEX (Model 1) and Nifty (Model 2).

Model Building

To study the impact of FDI and FII on Indian stock market, two models were framed and fitted. Model 1 depicts S&P BSE SENSEX as dependent variable; whereas independent variables are FDI & FII. Model 2 depicts CNX Nifty as dependent variable; whereas independent variables are FDI & FII.

The two model equations are expressed below:

$$\text{S\&P BSE SENSEX} = a + b_1 (\text{FDI}) + b_2 (\text{FII})$$

$$\text{CNX Nifty} = a + b_1 (\text{FDI}) + b_2 (\text{FII})$$

DATA ANALYSIS

Table2. Showing the FDI, FII, BSE SENSEX and CNX Nifty

Year	FDI Rs. Billion	FII Rs. Billion	BSE SENSEX (Based on average of daily close)	CNX Nifty (Based on daily close)
2000-01	184.04	102.07	4269.68	1334.76
2001-02	292.45	80.72	3331.94	1077.02
2002-03	243.97	25.27	3206.28	1037.22
2003-04	198.30	399.6	4493.53	1427.5
2004-05	269.47	441.23	5740.98	1805.26
2005-06	394.57	488.01	8280.08	2513.44

2006-07	1026.52	252.36	12277.32	3572.44
2007-08	1394.21	534.04	16568.88	4896.59
2008-09	1907.00	-477.06	12365.55	3731.02
2009-10	1578.00	1102.2	15585.21	4657.76
2010-11	1324.00	1101.21	18605.17	5583.54
2011-12	1548.16	437.38	17422.88	5242.74
2012-13	1465.82	1400.33	18202.10	5520.34
2013-2014	1868.30	855.22	20120.12	6009.51
2014-2015	2158.93	1102.44	26550.74	7967.34
2015-2016	2942.58	-48.82	26322.1	7984.80
2016-2017	2832.92	583.26	27338.22	8421.19
CAGR	0.19	0.12	0.12	0.12

Source: The data of FDI & FII are taken from the web-site of RBI

SENSEX and Nifty data from BSE and NSE websites

The Table 2 shows the data of FDI, FII, BSE SENSEX and CNX Nifty. The flow of FDI shows an increasing trend except for the year 2000 to 2004 and fluctuating trend after the year 2010. The flow of FII shows fluctuating trend during the period of study. In year 2008-09, the flow is negative which means that the sales of securities is more than purchase of same by FIIs due to sub-prime crisis. The flow of FDI is more than flow of FII in India. During the period of study the CAGR of SENSEX is 12% however it gives heavy negative returns during the year 2008-09 due to fall of stock markets in response of sub-prime crises. The same trend is shown by CNX Nifty as well with CAGR of 11.54%.

Correlation between FDI, FII and SENSEX & Nifty

Pearson's coefficient of correlation is calculated to study the relationship between different variables under study. The correlation coefficients are shown in table 3 given below:

Table3. Showing Pearson's Correlation Coefficient

	FDI	FII	S&P BSE SENSEX	CNX Nifty
FDI	1	0.179	0.944*	0.946*
FII	0.179	1	0.432#	0.427#

* Correlation is significant at the 0.01 level (2 tailed)

Correlation is significant at the 0.05 level (2 tailed)

The Table 3 shows that there is high degree of positive correlation between FDI & SENSEX and FDI & Nifty. The correlation is significant at the 0.01 level (2-tailed). The correlation between FII & SENSEX and between FII & Nifty is of moderate level but it is significant at 0.05 levels.

Relationship between flow of FDI & FII and SENSEX

To find out the impact of flow of FDI & FII on BSE SENSEX, Multiple Regression OLS Model is used. The FDI and FII are taken as independent variable whereas BSE SENSEX is taken as dependent variable. The results are summarized as follows:

Table4. Showing Model 1. (FDI, FII and SENSEX)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.981 ^(a)	.963	.958	1707.69279	1.681

a Predictors: (Constant), FII, FDI

b Dependent Variable: SENSEX

The Table 4 shows the multiple correlation coefficients between FDI & FII (independent variables) and SENSEX (Dependent variable). The high value of R shows strong positive relationship between the independent variable and dependent variable. The value of R², coefficient of determination is .963 means 96.3% variations in dependent variable are explained by the independent variables. The Durbin Watson value shows the information about the independent error. The closer the value of Durbin Watson to 2,

the independent error will be tenable. The current value i.e. 1.68 is closer to 2 hence, the independent error is tenable.

The ANOVA table tests the acceptability of the model from a statistical perspective. The regression row displays information about the variation accounted for by the model. The Residual row displays information about the variation that has not been accounted by the model.

Table5. Showing ANOVA (FDI, FII and SENSEX ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1065094781.037	2	532547390.519	182.616	.000 ^b
Residual	40827005.369	14	2916214.669		
Total	1105921786.406	16			

a. Dependent Variable: Sensex

b. Predictors: (Constant), FII, FDI

The residual sum of square is much less than the regression sum of square and indicates that almost 93% of the variation in SENSEX is explained by the model. However, F statistics is found significant at 1 percent level of significance as the p value is less than .01.

Testing for Co linearity in the data

The Table 6 given below presents the coefficient and Co linearity statistics when multi regression OLS model is applied. The two Co linearity statistics are Tolerance and Variable Inflation Factor (VIF). A value of VIF higher than 10 and tolerance less than 0.2 indicates a potential problem. For our current model the VIF values are all well below 10 and the tolerance statistics is as well above 0.2 for all the independent variables. Hence, there is no problem of co linearity among the variables used in the model and multi regression model is appropriate.

Table 6 showing Co linearity between variables Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1471.225	796.224		1.848	.086		
fdi	8.201	.478	.895	17.157	.000*	.968	1.033
ffi	4.571	.876	.272	5.217	.000*	.968	1.033

a. Dependent Variable: sensex

* Significant at 1 percent level of significance.

Results

The p value for FDI and SENSEX is .000 which is less than .01 so null hypotheses is rejected and alternative hypothesis holds good. Similarly, the p value for FII and SENSEX is .001 which is less than .01 so null hypotheses is rejected. Hence, it can be concluded that the flow of FDI and FII and trends of BSE SENSEX are dependent.

Impact of flow of FDI & FII on CNX Nifty

To find out the impact of flow of FDI & FII on CNX Nifty, Multiple regression OLS model is used. The FDI and FII are taken as independent variable whereas CNX Nifty is taken as dependent variable. The results are summarized as follows:

Model 2. FDI, FII and Nifty

Table7 : Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.982 ^a	.964	.959	508.11361	1.619

a. Predictors: (Constant)FFI, FDI

b. Dependent Variable: CNXNIFTY

The table 7 shows that the value of multiple R is very high which shows the high degree of positive correlation between FDI, FII and Nifty. The value of coefficient of determination i.e. value of R^2 is .959 means almost 95.9 percent of variations in Nifty are explained by the independent variables. Similarly Durbin Watson statistic value is 1.619 which is closer to 2 and shows that independent error is tenable.

The table 8 tests the acceptability of the model from a statistical perspective. The regression row displays information about the variation accounted for by the model. The Residual row displays information about the variation that has not been accounted by the model.

Table 8 showing ANOVA (FDI, FII and Nifty)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	96168541.348	2	48084270.674	186.244	.000 ^b
	Residual	3614512.136	14	258179.438		
	Total	99783053.484	16			

a. Dependent Variable: CNXNIFTY

b. Predictors: (Constant), FFI, FDI

The residual sum of square is much less than the regression sum of square and indicates that almost 94% of the variation in Nifty is explained by the model. However, F statistics is found significant at 1 percent level of significance as the p value is less than .01.

Testing for Co linearity in the data

Table 9 presents the coefficient and Co linearity statistics when multi regression OLS model is applied. The two Co linearity statistics are tolerance and Variable Inflation Factor (VIF). A value of VIF higher than 10 and tolerance less than 0.2 indicates a potential problem. For our current model the VIF values are all well between 10 and the tolerance statistics is as well above 0.2 for all the independent variables. Hence, there is no problem of collinearity among the variables used in the model and multi regression model is appropriate.

Table 9 showing Co linearity statistics

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	474.320	236.912					
	fdi	2.471	.142	.898	17.377	.000	.968	1.033
	ffi	1.345	.261	.267	5.159	.000	.968	1.033

a Dependent Variable: NIFTY

Results

The p value for FDI and Nifty is .000 which is less than .01 so null hypotheses is rejected and alternative hypothesis holds good. Similarly, the p value for FII and Nifty is .001 which is less than .01 so null hypotheses is rejected. Hence, it can be concluded that the flow of FDI and FII and trends of CNX Nifty are dependent.

FINDINGS OF THE STUDY

- 1) The flow of FDI in India shows increasing trends except for years 2001 to 2003 and year 2009
- 2) The flow of FII in India shows fluctuating trends during the period of study.
- 3) The SENSEX and Nifty provided almost 11.5 percent CAGR during the period of study
- 4) The flow of FDI in India and SENSEX has high degree of positive correlation and correlation is significant at 1 percent level of significance.
- 5) The flow of FDI in India and Nifty has high degree of positive correlation and correlation is significant at 5 percent level of significance.
- 6) There is high level of positive correlation between FII and SENSEX and is significant at 1 percent level of significance whereas moderate level of positive correlation exists between FII and Nifty which is significant at 5 percent level of significance.
- 7) The flow of FDI in India and SENSEX trends are dependent.

- 8) The flow of FII in India and SENSEX trends are dependent.
- 9) The flow of FDI in India and Nifty trends are dependent.
- 10) The flow of FII in India and Nifty trends are dependent.

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