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Title

GLOBALISATION: IMPACT OF FII'S INVESTMENT ON STOCK INDICES, EQUITY AND DEBT MARKETS ,MARKET CAPITALISATION OF BSE AND NSE AND EXCHANGE RATES OF INDIA –(1999–2009).

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Abstract:

After the introduction of New Economic Policy in India in 1991,foreign investment could face renewed vigour in terms of FII and FDI and hence ,the study analyses the impact of FII on Indian stock market indices of BSE and NSE particularly during the period between 1999 and 2009. It also critically examines the relationship among FII total purchase in Indian equity and debt market, market capitalization of BSE and NSE and exchange rates of Indian rupee in terms of dollar)

International capital flows have changed dramatically over the recent decades and, as a result, the cross-border port-folio investment has been increasing to a remarkable extent among different countries. As such, Ms.Anne O.Krueger(IMF), underlines that "Capital flows play an important role in capturing the benefits of globalisation"[1].International capital flows are highly appreciated in emerging market economies if they are absorbed without causing reversal of capital flows. In this situation, Marc Faber (2004) opines "Asia will be the economic hotspot for the next fifty years" and the emerging big stock markets in Asian regions are Hong Kong, China, South Korea, Taiwan and India.

In recent decades, apart from FDI, FII,s investment, foreign edge funds ,offshore funds etc are also pumped into Asian markets and have caused growth in investment of different nature. . The trade deficit in US may attract funds from the developing

1.Y.V.Reddy "Capital flows and Indian policy response" Reserve Bank of IndiaBulletin Vol.LVIII Number 3, March 2004 p-314.

Countries and may cause volatility to in both foreign exchange and stock exchange markets in Asian countries including India. According to US treasury data, released on June 15, 2010, China invested $900.2 billion in US treasury out of its foreign exchange reserves which amounted to $2.45 trillion. Regarding the Indian foreign currency assets, that was, 264.1 billion as on end of September 2009, were invested in multi-currency and multi-asset portfolios ,of which, the investment in US securities was $US 148 billion and the investment in other central banks, BIS and IMF was $US 111 billion and the investment in deposits with foreign commercial banks and external asset management companies was US$5.1 billion. However, the interest in investing in US treasury by developing countries slowly tends to flucuate a declining trend due the instability in the value of US dollar in the recent periods.

India is seen as promising investment destination for foreign countries and , as a result ,foreign funds are being attracted by India for one reason or another . For instance, in Brazil, that is in November 2002, when Luiz Inacio Lula Da Silva took office as President, there was confusion in the stock market. But, in the subsequent short period, the government attracted foreign investors again by restructuring institutions and by creating favorable situation. In the similar way, in India, growing infrastructure, development of telecommunication, IT and IT enabled services, tourism, health care, pharmaceutical industries, mergers and acquisition ,development in educational activities,upgradation of management education etc are attracting foreign funds in one way or another .

As regards FII, Kishor C Samal[2](1997)asserts that, in India, hot money movement by foreign institutional investors must be counteracted by the encouragement to small investors to participate in the emerging domestic equity market to withstand any kind of unexpected reversal of capital flows. Reena Aggarwal[3],Leora Klapper and Peter D.Wysocki(2005) analysed the investment allocation choices of actively managed US mutual funds in equities in emerging markets after 1990s and found that US funds were invested in emerging market countries which had good accounting standards, legal frameworks, shareholders rights at the country level and transparency in the issue of ADR at the firm level.

2-Kishor C Samal, Emerging Equity Market in India: Role of Foreign Institutional Investors, Economics and political Weekly,October18,1997,P-2729

3.Reena Aggarwal, Leora Klapper and Peter D.Wysocki(2005),Portfolio Preferences of Foreign Institutional investors, Journal of Banking and Finance,Vol.29,Issue 12,December,2005,pages-2919-2946)..

Magnus Dahiqist[4] and Goran Robertson(2001) examined the relationship between foreign ownership and attributes of Swedish firms and concluded that foreigners preferred large firms with low dividends and large cash in the balance sheet and underweighted firms with a dominant owner. Stuart Gillan &Laura T.Starks[5] (2005),analysed the relation between FII and Corporate governance and ownership structure and stated that FII,s became the dominant players in many countries. Hyuk Choe[6], Bong-Chan Kho&Rene M.,Stulz(1998) examined the impact of foreign investors on stock returns in Korea during the period between November 30,1966 and December

1997 and found that there was no evidence of destability effects of foreign investors on Korean stock. Eric C.chang[7],Joseph W,Cheng and Ajay Khorana(2000) examined the investment behavior of market participants in investment markets in US, Hong Kong, Japan, South korea and Taiwan and opined that the evidence of herding was found in US and Hong Kong ,partial herding was found in Japan and full-herding was found in South Korea and Taiwan..In the light of the above critical observations , the study aims to analyse the relationship among FII investment in debt and equity, exchange rate, market capitalization, indices of Nifty and Sensex with respect to India.

4.Magnus Dahiqist and Goran Robertson (2001)Direct ownership,Institutional Investors and Firms Charectoristics ,Journal of Financial Economics,Vol.59.Issue 3,March 2001 –Pages 413-440

5.Stuart Gillan &Laura T.Starks(2005),Corporate governance, Corporate ownership and the role of Institutional investors: A global Perspective, Journal of Applied Finance,Vol.13.,No.2,Fall/winter,2003

6.Hyuk Choe,Bong-chan Kho &Rene m.Stulz (1998) 'Do foreign destabilize stock markets?The Korean Data set in 1997,Journal of Financial Economics,Vol. 55,Issue 1,January 2000,pages 43-67

7.Eric C.Chang,Joseph W.Cheng and Ajay khorana(2000) An examination of herd behavior in equity markets:An International Perspective,Journal of Banking and Finance, Vol 24, issue 10,October 2000 pages 1651-1679

I Growth of FII and Foreign Investment in India

Global investment trends and macro economic fundamentals of India determined the level of foreign institutional investment in India. Though private capital flows to India have also been increased due to globalization, multilateral lending is sometimes resorted to adjust insufficient international capital flows[8].Again,the private equity investment attained a remarkable place in the total FDI inflows to India[9] With regard to FDI,as per RBI statistics, the FDI flow to India was $2.14 billion in1995-96 increased to $22.8billion in 2006-07 and $35.1 billion(Rs1,61,481 crore) in 2008-09, and it is expected to increase in the future years due the of liberalization of

foreign investment in different sectors and related economic activities in India.But the portfolio investment which was 6 US $ million(Rs.11 crore) in 1991 increased to 27.2 US $ billion (Rs 109741 crore) in 2007-08.

As far as FII investment in India is concerned, transparency, predictability and accountability do matter. Therefore, SEBI has banned the issue of PNS to unregulated overseas entities by capping the extent of PNS that can be issued by Foreign Institutional Investors registered in India. Foreign institutional investors are mainly routing their investment to India through Mauritius, which is one of the low tax regime countries with favorable tax policies .Considerable level of FII inflows are also from the countries such as Singapore,US, etc apart from other tiny countries such as Cyprus,Caymen Island etc.

8.Dani Rodrik: "Why is there multilateral lending" Edited by Michael Bruno and Boris Pleskovic Annual World Bank Conference on Development Economics 1995, World Bank Washington DC 1996 p-189

9.Arun Duggal ' Public benefit of private equity' The Economic Times 21, January 2005 p-6

. FII's interest in investment in India can be better understood from the fact that during the three months period between February and March 2004, about 50 foreign institutional investors including the high profile California Public Employees Retirement System, Calpers, BNP Paribus., CDC, DBS Bank, AIG, ING Group, HSBC, Goldman, Sachs, Alliance, Allianz Dresdner, Lombard, Merrill Lynch and Oppenheimer registered with the Securities and Exchange Board of India. As compared to earlier period, it was the highest number in the short period. Foreign Institutional Investors registered with SEBI in India which was just 3 in 1994 increased to 540 in 2004 and considerable level of funds were also routed through sub accounts numbered 412 during the same year. It should be noted in this context(Table No 1), that about 1297 foreign institutional investors (FIIS) registered with SEBI till March 2008 and 1609 investors till March 2009 as against 731 till June 2005, 680 as on March 31, 2005, and 353 till March 1996.

II Growth of Indian stock markets   and FII's Investment

The Indian stock market was initiated in 1850 when the companies Act introducing limited liability was passed[10] However, there are evidences for transaction of loan securities by East India Company at the close of the 18 th century.   In fact, brokers could

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10. Investment Encyclopedia: Investor insight, INDMARK Research, Banglore, 1993,p-B-3

not organize themselves to meet at a common place till 1874 and thereafter they met at a building in the Dalal street which was the office of the Advocates of India. Later on, the formal stock market in India namely 'Native Share and Stock Brokers Association' was established in Bombay on Feb 5 1887.) As a result of subsequent developments, the total number of stock exchanges which was 7 in 1961 increased to 22 in 1991 and 23 in 2003 and, at percent, a large volume of stocks is traded in two stock exchanges and a very lesser stocks are traded in large number of other stock exchanges. The total number of listed companies which was 1203 in 1961 increased to 6229 in 1991 and 9413 in 2003[11] The number of companies listed in the BSE which was 992 in 1980 increased to 3200 in 1994 , 5276 in October 1995.[11] and 7353 in March 2005 and the number declined to 4900 in July 2010.At present,the Indian security market is subject to (a)The Company,s Act 1956 (b)The Securities Contacts (Regulation) Act 1956(SCRA ACT) and The Exchange Board of India Act 1992.

Though Indian capital market was opened up for FII in 1992,the FII investment actually started in January 1993.Though,the Indian corporate are attracting foreign capital through ADRS,GDRS,foreign currency covertible bonds,commercial borrowing, FII enjoy full capital account convertibility in all types of securities including government securities. Particularly after the involvement of FII in the Indian stock market in 1993, the investment in stock market gained additional strength in the investment scenario. However, in India, BSE sensex registered fluctuation in the following periods inspite of the increasing trend. BSE Sensex , which crossed 6100 mark in February 2000 and January 2004 and 6600 mark in February 2005, was believed to be the result of reform and healthy fundamentals of the economy. However, it should be weighed on the fact that sensex dropped 600 points in May 2004 and 380 points in June 2004.

11.CMIE:Center for Monitoring Indian Economy Pvt Ltd,Economic Intelligence Service: The Secondary Capital Market, November ,1995-p-1

The Indian equity market,after a sustained bull run, fell sharply in July 2004.It was much perceived on Black Monday, May 17[th]2004 and in that particular day, the market plunged 565 points and the trading was halted twice on that day bringing panic to the mutual funds and investors... However,it should be noted that the sensex which was 1007.97 level on July 25, 1990 reached 7000 mark in June 21,2005 , 7859.53 in August 17,2005 and 8381 in September 16,2005, 13000 in October 30, 2006 and 14000 in December 2006 and the year 2006 recorded 5000 points increase which is a remarkable one. In recent periods, investors particularly retail and HNI's show much interest in mastering the skill of trading and hence, there was growth in online trading which accounted for 17 percent of NSE total volume of sales in November 2006. Whatever may be the level of investment by FII during this period, strong macro economic fundamentals are the basic causes for such increase in stock prices during these periods .

As regards NSE, "The NSE was originally conceived and recommended by the Pherwan committee and incorporated in November 1992 with Industrial Development Bank of India with big Indian financial markets in line with international markets"[12] The NSE, which has now become a dominant exchange , has 1810 listed companies and it is the second largest stock exchange in South Asia. According to SEBI's Annual Report of 2002-03, "the BSE and NSE together account for more than 95 percent of the total

12.N.J.Yasaswy:Personal Investment & Tax Planning Year Book, Vision books, New Delhi,1994 –p-44.

business transacted on all stock exchanges of the country"[13]   .Next to United States, India has the largest shareholders and Indian equity market is one of the best performing Asian markets though the rise in the crude oil has very often resulted in distortion in equity markets

13. Harvinder Kaur, "Time Varying Volatility in the Indian Stock Market" Vikalpa, The Journal of Decision Makers, The Indian Institution of Management, Ahmedabad, India volume 29,Number-4, October- December 2004,P-26.

.The Table No I reveals the trend of FII registeration,FII total purchase in debt and equity market,BSE sensex and NSE Nifty, exchange rate during the period between1999 and 2009

Table No 1.

Trend of FII purchase in equity and debt market, Exchange Rates and Stock Indices of BSE and NSE-1998-2009.(Rs in crores)(End March of respective years)

Year	no. of FII	BSE SENSEX X1	NSE NIFTY X2	Exchange rate INR/ $ X3	FII Purchase of Equity and debt Yt
1998-99	450	3739.96	1078.05	42.08	16507.7
1999-20	506	5001.28	1528.45	43.28	57430.4
2000-01	527	3604.38	1148.2	45.61	73269.3
2001-02	490	3469.35	1129.55	47.55	50184.4
2002-03	502	3048.72	978.2	48.3	46772.1
2003-04	540	5590.6	1771.9	45.92	148514.3
2004-05	685	6492.82	2035.65	44.95	214524.1
2005-06	882	11279.96	3402.55	44.28	347850.6
2006-07	996	13072.1	3821.55	45.28	522417.8
2007-08	1297	15644.44	4734.5	40.24	947770.5
2008-09	1609	9708.5	3020.95	45.92	612406.5

Source:1.FII purchase in equity and debt-Economic Intelligence Service-CMIE.

2 Capital market,May 2009 p-306to 308,282-285 and 253 to 256

3. Exchange rate Rs/$ data obtained from CMIE

4.No FII Registered obtained from SEBI

5.BSE Index-CMIE-prowess

NSE Index- Nifty-prowess

Y1=f(,X1,X2,X3)The regression analysis of these variables reveals the following

Total purchase of equity and debt Yt =100709.8-275.147X1+1142.647X2-8197.483X3

$$t = (.136) \qquad (2.165) \qquad (-1.751) \qquad (-.154)$$

R^2 =.92 .Critical value at 5 percent significance=2.228.The calculated t values is lesser than the critical values ,the coefficients are insignificant at 5 percent significant level.

Since the calculated F value=29.75. is much larger than the critical F value(4.35) for a 5 percent significance level ,the entire equation is significant

TESTING UNIT ROOT has been applied whether there is any stability in the series of data involved in this regression model and the results are as follows.

Yt=101736.3+.826Yt-1(Total purchase)

X1=2185.02+.776X1-1(Sensex)

X2=684.733+.773X2-1(Nifty)

X3=35.466+.216X3-1(Exchange rate)

Table No.2.Testing Spurious regression among the variables

Year	Yt	Yt^	et	et-1	Δet
1998-99	16507.1	41429.70	-24922.6		
1999-20	57430.4	117978.29	-60547.89	-24922.0	-35625.89
2000-01	73269.3	47092.87	26176.43	-60547.89	86724.32
2001-02	50184.4	47031.67	3152.73	26176.43	-23023.7
2002-03	46772.1	16322.85	30449.25	3152.73	27296.52
2003-04	148514.3	210727.65	-62213.35	30449.25	-92662.6

2004-05	214524.1	271813.69	-57289.59	-62213.35	-4923.76
2005-06	347850.6	522046.92	-174196.32	-57289.59	-16906.73
2006-07	522417.8	499526.20	22891.6	-174196.32	197087.92
2007-08	947770.5	876261.06	71509.44	22891.6	48617.84
2008-09	612406.5	504943.13	107463.37	71509.44	35953.95

Co-integration and Error Correction Mechanism(ECM);

The possibility of combining k regressors spurious ,the unit root test on the residuals has been applied

R^2=.643   F=5.646,The critical F value is 5.32,which is lesser than the computed value,the equation is significant. Durbin=1.213; DL=0.879 andDU=1.324.Since d lies between lower and upper limit ,there is inconclusive evidence regarding presence or absence of positive first order serial correlation.

ΔU_t=5849.694-.729ut-1

t=.272   -2.376

Since the critical value is 2.306at 5 percent significancde,the coefficient "a" is insignificant and the coefficient "b" is significant. Since the b=.729, the model shows stability in the error term which proves white noise.

When the variables of regression are cointegrated, there will be long and short run equilibrium and therefore the error rerm is treated as equilibrium error.The error correction mechanism which was first used by Sargan and later by Engle and Granger has been estimated as follows

Table No- 3.Co-integration and Error correction mechanism

Year	ΔY_t	$\Delta X1$	$\Delta X2$	$\Delta X3$	Et-1
1998-99					

1999-20	40923.3	1261.32	450.4	1.2	-24922.0
2000-01	15838.93	-1396.9	-380.25	2.53	-60547.89
2001-02	-23084.9	-135.03	-18.65	1.94	26176.43
2002-03	-3412.3	-420.63	-151.35	0.75	3152.73
2003-04	101742.2	2541.82	793.7	-2.38	30449.25
2004-05	66009.8	902.22	263.75	-0.97	-62213.35
2005-06	133326.5	4787.14	1366.9	-0.67	-57289.59
2006-07	174567.2	1792.14	419.0	1.00	-174196.32
2007-08	425352.7	2572.34	912.95	-5.04	22891.6
2008-09	-335364.0	-5935.94	-1713.55	5.68	71509.44

R^2=.936:   F=18.132   k-1=4;n-k=10-5=5 the critical value F is 5.19.The computed value is larger than the critical value ,the entire equation is significant.   Dl=0.286 and du=2.030 since the computed Durbin statistics is=1.320,the autocorrelation is inconclusive.

$\Delta Y_t = \alpha_0 + \alpha_1 \Delta X_1 + \alpha_2 \Delta X_2 + \alpha_3 \Delta X_3 + \alpha_3 e_{t-1} + \varepsilon$

$\Delta Y_t = 31261.979 - 222.432 \Delta X_1 + 775.404 \Delta X_2 - 45548.764 \Delta X_3 - 1.282 e_{t-1} + \varepsilon$

   t =.979   -1.577   1.571   -2.797   -2.735

The coefficients show the short term changes in sensex , nifty and exchange rates that quickly reflected in the changes in the total purchase. The critical t value at 5 percent significance is 2.571 which is more than the t values ,the coefficients are not significant

III FII'S EQUITY AND DEBT MARKET

It is generally agreed that stocks deliver the best average returns over the long period and fluctuate most in the short period. But bond and money market is subjected to lower fluctuations and deliver lower return over the long period. In India, there are limits on foreign participation in bond market: the cap is pegged at $4.7 billion* , of which ,government securities account for $3.2 billion and corporate debt $1.5 billion. The FII investors resort to a comparatively higher investment in equities than debt during the period under study. The prediction of yield from bonds and equities is perplexing very often and it should be noted in this context that a study undertaken by Elroy Dimson, Paul Marsh and Mike Staunton of the London School of business titled 'Triumph of Optimist' covering a period of 100 years from 1900 to 2000 reveals that "in all major markets in the world it is equities that outperformed bonds and bills and Australia, Sweden and United states topped the real returns on equities whereas Sweden and Switzerland topped the real returns from bonds"[14]

14.B.S.E.Mumbai: Annual capital Market Review,2001-02 p-31

The Indian stock market ,which gives scope for short and long term traders, mutual funds, pension funds and insurance companies, may be able to stabilize the market to a certain extent. However, the Indian stock market in 2003-04 is much stronger than that of the conditions prevailed in1999-2000.[15] . The rising of FII ceiling in debt funds is the positive feature in encouraging large inflow of investment by FII. Inspite of situation, India should be cautious about the fact that if the foreign investors start selling their stock either equity or debt market, it is very hard to find equivalent Indian institution to buy these stocks.

In the stock market, portfolio risk not only depends on the riskness but also the relationship of the different type of securities comprising the portfolio[16] Considering the risk involved in portfolio investment,it should also be noted in this context that "inflation is like a slow cancer that eats away at the real purchasing value of a portfolio"[17] and, in this sense, Indian inflation trend has not maintained stability during the period between 1998 and 2009.but the fluctuations in infalation is not very high and is tolerable.to foreign investors   However, the modern portfolio theory has changed the evaluation process dramatically from crude return to evaluation of risk and return in equity and bond market and has made evaluation of risk as an integral part of portfolio performance.[18]

15. Reserve bank of India Bulletin June 2004,P-564.

16.James C. Van Horne: Financing Management and policy, Prentice-Hall of India, New Delhi 1993 p-53

17. Martin J.Spring:The All-Season Investor:Successful Strategies for every stage in the business cycle,John Wiley & Sons Inc,New York 1992 p-83.

18. Edwin J.Elton & Martin J.Gruber 4 th Edition,Modern Portfolio theory and investment Analysis, John Wiley & sons ,New York 1991 –p-641.

IV FII& Market capitalisation

In India,the market value of equity accounted for 8.6 percent of GDP in 1986-87, increased to 9.0 percent in 1987-88.[20]   According to the Reserve Bank of India, the percentage of capitalization of stock market was 12 percent of GDP in 1990 increased to 41 percent in 1999.   But, market capitalization-GDP ratio in 1991 was 203 percent in U.K, 184 in Malaysia and 182 in USA. The BSE market capitalization which was Rs.5,45,361 crore in 1998 increased to 30,86,075 crore in 2009 whereas the NSE market capitalization which was Rs.4,91,175 crore in 1999 increased to Rs.28,96,194 crore in 2009.

Table No.4

Market capitalization of BSE and NSE &FII's Total purchase of equity and debt(Rs in crores at the end of March of respective years)

Year	FII total purchase of equity and debt	BSE Market Capitalisation	NSE Market Capitalisation
	Y1	X1	X2
1998-99	16507.7	545361	491175
00	57430.4	912842	1020426

01	73269.3	625553	657847
02	50184.4	612224	636861
03	46772.1	572197	537133
04	148514.3	1201207	1120976
05	214524.1	1698428	1585585
06	347850.6	3022189	2813201
07	522417.8	3545041	3367350
08	947770.5	5138015	4858122
09	612406.5	3086075	2896194

Source:1.Data on market capitalization obtained from CMIE-Economic Intelligence Service

2.Capital Market,May 2009-p306to 308,282to285 and 253to 256.

The regression model $Y=f(X1,X2)$ shows that $R^2=.952.,F=79.279$ since the critical F value is 4.46 and is lesser than the computed F value, the equation is significant and Durbin Watson statistics =1.054;N=12 and the number of regressors=2 the critical value at 5 percent=dL=.95 and du=1.54..d*>du, there is no evidence of positive first order autocorrelation.

$Y= -86531.268 +0.131X1+ 0.062X2$ and both X1 and X2 are not significant.

$t= -2.160$ 0.328   0.146

The critical t value is 2.365.The computed t values are less than the the critical t values ,the variables are insignificant

Unit root test:

$Yt=101736.3+.826Yt-1$(Total purchase)

$X1t=627616.1+.791X1t-1$(market capitalization BSE)

$X2t=625552.3+.775X2t-1$(market capitalization NSE)

The unit root test shows that there is stability in the series of data of the above variable.

GRANGER CAUSALITY TEST - TOTAL PURCHASE AND BSE MARKET CXAP

BSE AND FII PURCHASE`

Equation 1

FII Purchase= -112796.567+ 0.423 BSE Market cap lag- 1.403 FII purchase lag

t=   -1.104   2.627   - 1.623

R^2= 0.820

D= 2.977

F change= 15.896

T Test

N= 10, K= 3

So N- K= 10- 3= 7

So the critical T value is 2.365. From the above calculated t value, calculated β1 and β3 are less than the critical t value, 2.365. So β1 and β3 are not significant. But the calculated β2 is greater than the critical t value, 2.365. Hence β2 is significant.

Equation 2

BSE MARKET CAP= -263759.547+ 2.733 BSE Market cap lag- 10.638 FII purchase lag

t=   -0.461   3.032   - 2.195

R^2= 0.787

D= 2.759

F change= 12.907

T Test

N= 10, K= 3

So N- K= 10- 3= 7

So the critical T value is 2.365. From the above calculated t value, calculated β1 and β3 are less than the critical t value, 2.365. So β1 and β3 are not significant. But the calculated β2 is greater than the critical t value, 2.365. Hence β2 is significant.

So the above equations FII purchase to BSE Market capitalization and BSE Market capitalization to FII purchase are unidirectional causality.

NSE AND FII PURCHASE

Equation 1

FII Purchase= -121236.030+ 0.435 NSE Market cap lag- 1.321 FII purchase lag

t=   -1.068   2.384   - 1.440

R^2= 0.802

D= 2.768

F change= 14.193

T Test

N= 10, K= 3

So N- K= 10- 3= 7

So the critical T value is 2.365. From the above calculated t value, calculated β1 and β3 are less than the critical t value, 2.365. So β1 and β3 are not significant. But the calculated β2 is greater than the critical t value, 2.365. Hence β2 is significant.

Equation 2

NSE MARKET CAP= -210704.102+ 2.561 NSE Market cap lag- 9.141 FII purchase lag

t=   -0.340   2.569   - 1.493

R^2= 0.743

D= 2.493

F change= 10.110

T Test

N= 10, K= 3

So N- K= 10- 3= 7

So the critical T value is 2.365. From the above calculated t value, calculated β1 and β3 are less than the critical t value, 2.365. So β1 and β3 are not significant. But the calculated β2 is greater than the critical t value, 2.365. Hence β2 is significant.

So the above equations FII purchase to NSE Market capitalization and BSE Market capitalization to FII purchase are unidirectional causality.

In India, both the stock markets BSE and NSE, are efficient and effective since the short term and intermediate goals are achieved as they strive to attain its long term objectives.[19] However, as reiterated by the Boton Report 1971, the size of the companies affects the cost of acquiring capital and small firms have to face various

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19. H.R.Machiraju: "The working of stock exchange in India, Wiley Eastern Limited, London 1995 p-7.

kinds of hurdles in raising finance.   Notwithstanding these facts,in India, the blue-chip companies may be in a better place to attract FII investment.[20] Some companies seek second round financing which aims at raising additional capital to finance products or enterprises already launched[21] Notwithstanding these facts, "the Indian Corporate sector has historically preferred raising equity to debt for resource mobilization from the capital market."[22] In Indian stock exchange, a single share holder's share is limited to 5 percent of the total equity and 10 percent cap is mandated for a single FII's investment in any listed company's equity. Besides, FDI upto 26 percent of the paid-up capital in as stock exchange is allowed at present and the remaining 23 percent can be invested by FII. For public issue by companies, 50 percent is reserved for Qualified Institutional buyers (QIB), mutual funds, and domestic and foreign institutions, 15 percent for High Net worth Individuals and 35 percent for retail investors.

20. P.J.Devine, N.Lee,R.M.James and W.J.Tyson:An Introduction to Industrial Economes (4 th edition)George Allen and Unwin, London 1985 pp292-294

21. Grewal &NavJot Grewal :Profitable Investment in Shares,Vision Books Pvt Ltd 1984,p-29

22. Praveen N.Shroff :The stock Market Dictionary, Vision books private Ltd Delhi 1990 p-140.

Whatever may be the debt and equity limits evolved by SEBI, the interest rate is playing its own role in the overall investment in stock and debt markets by FII. Irving fisher observed that market rate of interest is determined by the real rate of interest, which, in turn, determined by the supply of savings, the demand for funds and the premium based on inflationary expectation. However, the real rate of interest is also influenced by other factors such as volume of consumer credit, corporate profit and financial requirements, Central bank policy, external trade deficit, national budget deficit, capital inflows etc.[23] Generally interest rate has to play a role in the FII investment in stock since low interest rate prevailing in India as compared to earlier periods will encourage investment in stock markets and further result in industrial development.[24] And again , "low interest rate would be positive for bond market and mutual funds"[25] Contrary to interest rate phenomenon, certain economists namely Kul B.Bhatia, Barry Bosworth and Frederic Mishkin have found evidence that deviate from interest rate phenomenon , that is, there is a significant relationship between aggregate consumption of equities and capital gains, but there is more uncertainty in the relationship between consumption of equity and stock prices. In the light of the above observations, as far as FII in investment stocks are concerned, its behavior FII can not be predicted on the basis of interest rate alone but this depends on many other parameters including mass psychology, risk and return ,business environment.

23.Sidney Cottle, Roger F. Murray 7Frank E. Block: Security Analysis, McGraw Hill International Editions, New York,1992 p-73

24. Tanuj Berry:The Indian Stock Market, Beacon books,New Delhi 1996 p-34.

25.V.P.Chaturvedi: "Early Glimpse of Agricultural Reforms"Dalal street Investment Journal Vol.xvii No.6. Mumbai, March 24,2002 p-12

. As far as India is concerned, a large proportion of savings is from households, of which, around 40 percent is being invested in bank deposits and there is no proportionate increase in investment in stocks. Since the Indian households are much interested in fixed and recurring deposits in view of risk free and certainity of return, the proportion of household savings invested in shares and debentures increased slowly from 1-2 percent in the seventies to 2-3 percent in the first half of the eighties. According to a SEBI-NCAER Survey , of the total 13.1million investor households in India, the investors in bonds was 9.6 million and due to financial illiteracy ,the number of non-investor households was 92 percent. but this kind of savings and investment trend in India has not affected the interests of the FII investors in Indian stock and debt markets. As such, in India ,the major portion of FII's investment is long-term investment and for an average FII investor, the objective should be to earn at least normal profit."[26]

26. Rattan K. Sharma and Ajay Garg: When and How to invest your money in Shares, Debentures, Mutual funds and their Saving Schemes with tax planning 1995-96,A Nabhi Publication 1995 p-95

V FII AND STOCK INDICES:

With regard to Sensex index of BSE which was 2898.69 in 1993-94 increased to16568.89in 2007-08 and further declined to 12365 in 2008-09. In the same way,NSE index increased from 884.60 in 1993-94 to 4896.60 in 2007-08 and further declined to 3731.03 in 2008-09. India has become a destination of international equity funds and for foreign fund managers, apart from hedging, the stability of the government, the fundamentals of the Indian economy and the stock indices are the governing factors for investment in the Indian Stock markets by FII. It is evident from the regression analysis, BSE index has a negative effect on attracting Foreign institutional Inveators while NSE has a positive effect on drawing the attention of FII..

Table No-5

FII investors and Stock indices-1993-94 to 2008-09 (MA)

Year	no. of FII Y1	BSE SENSEX X1	NSE NIFTY X2
1993-94	3	2898.69	884.60
1994-95	156	3974.91	1202.87
1995-96	353	3288.68	965.26
1996-97	439	3469.24	1005.75
1997-98	496	3812.86	1087.34
1998-99	450	3294.78	956.62
1999-2000	506	4658.63	1369.01
2000-2001	527	4269.69	1336.49
2001-2002	490	3331.95	1077.13
2002-2003	502	3206.29	1036.10
2003-2004	540	4492.19	1428.13
2004-2005	685	5740.99	1805.26
2005-2006	882	8278.55	2513.40
2006-2007	996	12277.23	3572.44
2007-2008	1297	16568.89	4896.60
2008-2009	1609	12365.55	3731.03

Source:SEBI

Regressors Sensex indices and Nifty indices on no of FII during the period between 1994 and 2009 reveals the following statistical inference.

$Y=42.040-.341X1 +1.454X2,$

T= 0.462   -1.313   1.647

k-1=2,N-K=13,Crtical F ratio =3.80.The F ratio 29.51 is greater than the critical F value3.80,the equation is statistically significant.

R^2=.820 OR 82 percent.

The Durbin Watson statistic 1.108which is between DLl and DU(.95-1.54)and which lies in the zone of indeterminacy in the case of suspected positive autocorrelation.

VI <u>FII and tax on equities and bonds</u>

Pertaining to tax on equities for FII, turnover tax has already been implemented in many countries and in many emerging economies. In many countries, turnover tax is levied on both sales and purchases of equity and in India, according to the present budget, the seller has to pay a 10 percent short term capital gains tax whereas the buyer has to pay 0.015 basis points transaction tax. For traders and arbitrageurs [30] the tax rate has been reduced from1.5 basis points to 0.015 percent but the delivery based trade in equities will be levied 0.15 percent tax in which both the buyer and the seller will have to share 7.5 paise each. In Asia, the incidence of turnover tax has been varying between 5 and 50 basis points among different countries. Through a low capital gains tax, FII may be attracted and therefore a   concessional tax rate should   also   be provided to long-term capital gains. The turnover tax is ubiquitous due to the reason that it treats all purchases equally and it is argued that a turn over tax is preferable to high capital gains tax. Low level of turnover tax is one of the important aspects which   attracts FII investors to a considerable level. .FII under portfolio investments scheme   can avail a concessional tax regime of a flat rate of tax of 20 percent on dividend and interest income and a tax rate of 10 percent on long term(one year or more)capital gains.

<u>VII</u>

To conclude,   India offers a huge untapped potential for a strong and vibrant equity culture due to globalization and the market has to evolve strategies towards investment to unleash

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strength of all institutions and individuals not only in India but also from other trading countries. Therefore, the creation of highly competitive market conditions in equity, bond and derivative markets in India is very essential and hence the revitalization of participation of FII and the strengthening of FDI and other portfolio investment are highly warranted and again, the encouragement to domestic retail investors including small investors will also pave the way for efficient trading and speedier investment and economic growth.

Since stock markets shows minimum or wide fluctuations in indices day-today basis,it is very difficult to consider stock market as " a borometer of the general economic condition"[27] As such ,in India, FII and the stock markets do not dictate the present economic policy of India and economic policy of India can not be an hostage to the vagaries of stock markets and FII.. Chen, Roll and Ross test shows that the economic variables have more explanatory power beyond a stock market index or in the multiple regression of stock returns.[28]   Bragg, in his book, 'Protecting against Inflation and Marketing Yield', Georgia State university, Business publishing division (1966) states that "a series of economic periods or cycles characterized not by economic indicators but instead by underlying moods or mass psychology"[29] In such scenario,in India,economic conditions are such that the Indian Stock Markets are fortunately less volatile to FII investors and are yielding high returns as comparable to many stock markets in the globe .

As far as equity is concerned, the Indian investors now find a wide choice due to the chances of investing in foreign markets such as NYSE, NASDAQ, LSE etc and therefore, FII investments should be encouraged on par with internationally competitive exchanges by providing various kinds of services to the listing companies and by reducing listing fees in par with the international stock exchanges.Liberal norms for foreign inflows through FII can pave the way for overall improvement in stock market .and , as a consequence,FII will not seek structures behind PNs .and India will continue to be a promising investment destination.

27.. Yasaswy ; Personal Investment and Tax Planning Year book 1996-97, Vision books ,New Delhi p-260.

28. Russell J. Fuller & James L. Farrell, JR: Modern Investment (42 of Shares and Security Analysis, McGraw Hill Book company, New York 1987 p-497

29. Richard J.Maturi: 100 World Stock Market Techniques, Vision Books, New Delhi, 1994-p-5

NOTES

1.FII eligible to invest-Overseas Pension Funds,Mutual Funds, Investment Trust, Asset Management Company, Nominee Company ,Bank, Institutional Portfolio Manager, University Funds, Endowments, Foundations, Charitabe Funds, Charitable Societies, A trustee or Power Attorney holder incorporated or established outside India proposing to make proprietary investments or with single investor holding more than 10 percent of the shares or units of the fund.

2.Sub –account: The sub account is generally the underlying fund on whose behalf the the FII invests.The following entities are eligible to be registered as sub accounts, viz, partnership firms, private company, public company, institution or funds or portfolios established outside India whether incorporated or not, Proprietary fund of FII, foreign corporates, foreign individuals.

3.FII-two categories

*Regular FIIs:those who are required to invest not less than 70 percent of their investment in equity related instruments and 30 percent in non- equity instruments

*100percent debt-fund: those who are permitted to invest only in debt instruments.

FII not permitted to invest in equity issued by an Asset Reconstruction company.

FII are not allowed to invest in any company which is engaged or proposed to engage in the following activities.

1Business Chit Fund

2.Nidhi company

3.Agricultural or plantation activities

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4.Real estate business or construction of farm houses

Currently 49 percent FDI allowed in Asset Reconstruction company which may be increased to 100 percent

4.Portfolio investments in India include investment in American Depository Receipts(ADR),Global Depository Receipts(GDRs), Foreign Instituional Investments and investment in offshore funds.Before,1992,only Non-resident Indians and overseas corporate bodies were allowed to undertake portfolio investments in India.