Recent Volatility in Stock Markets in India and Foreign Institutional Investors

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Section 1. Introduction

After the first few phases of polling of the general election in India, there was a sudden and sharp increase in stock market volatility in this country. Apparently, the prospect of a non-BJP government in the center made the big players in the stock market nervous about the continuation of the ongoing reform measures in India. Largely owing to selling pressures from foreign institutional investors (FIIs), the Bombay Stock Exchange Sensitivity Index (Sensex) declined from about the 5,900 on 22nd April to around 4,500 on May 18th. On 17th May, it registered a record 800 point decline, which is the steepest fall in the 130-year-old history of the stock exchange, before recovering to close 564 points lower. To calm these investors, senior Congress leaders had to issue statements reaffirming their faith in the market oriented 'reform' measures. Even though the verdict of the general election was seen as a mandate against the neo-liberal economic policies pursued by the outgoing government, the upheavals of the stock markets managed to influence the new government's policies even before the new ministry was formed.

The apparent ease in which the stock market and institutional investors managed to influence policymaking created a debate in India. In the financial media there was a view that the decline of the Sensex happened because major 'market' players was wary about the political stability of the new regime and they did not approve of the policy statements made by some of the leaders of the United Progressive Alliance. These investors showed their disapproval and lack of confidence in the new government by withdrawing from the market. However, many analysts suspected that it was an attempt by financial rentiers, particularly foreign institutional investors, to overrule the anti-reform verdict delivered in the election and nudge policy makers towards adopting neo-liberal policies which essentially suit these investors.

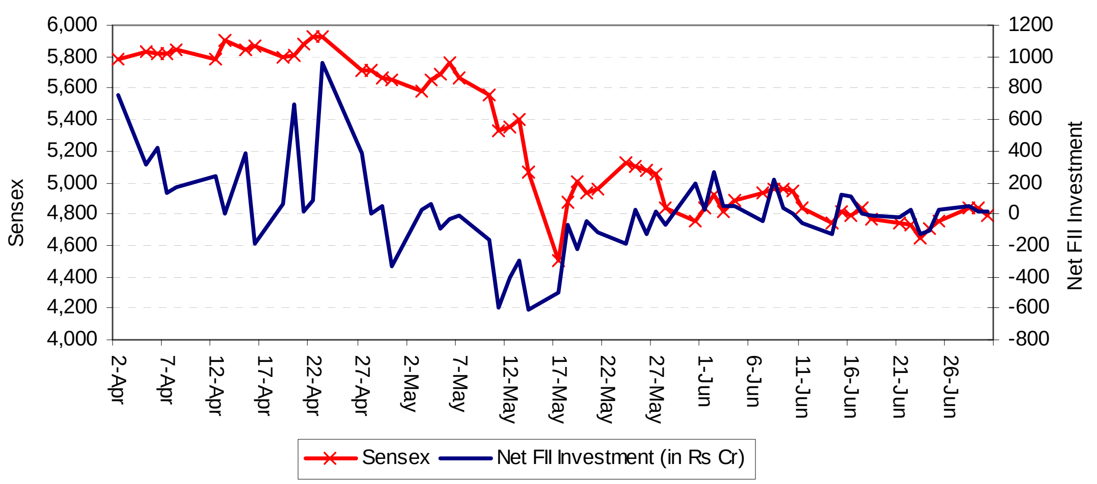
Given this controversy, this paper aims to take a detailed look at the stock market and the behavior of different investor groups, especially the FIIs, in India for the period March 2004 to June 2004. The objective of the paper is also to investigate how the withdrawal of foreign portfolio capital in the post election phase has affected the price and equity holding pattern of different Sensex companies. This will help us understand the dynamics of the stock market crash in the post election period. This paper is organized in the following manner. Section 2 looks at the movement of the Sensex and measures its volatility in the recent months, section 3 investigates the pattern of foreign portfolio investment and its influence on the Sensex, section

4 looks at the change in shareholding pattern of Sensex companies and section 5 concludes the study.

Section 2. Movement of Sensex and Volatility in the Stock Market

To recapitulate the events, the general election was held in four phases-the dates of polls being 20th April, 26th April, 5th May and 10th May. The counting started on 13th May and because of use of electronic voting machines, most results were declared on that day. However, the exit polls conducted by the media started to give an indication of a non-NDA government from the second phase of polling. If one looks closely at the behaviour of the Sensex during this period, it shows that the downward movement of the Sensex started around 23rd April, that is between the first and second phase of polling and kept declining till the middle of May. The behaviour of the foreign portfolio investors matched the behaviour of Sensex during this period. Net FII investment in the Indian capital markets started fluctuating sharply from 23 April and from 30th April it turned negative. Net FII investment in the Indian stock market continued to be negative till the middle of May. During this period, the Sensex and net FII investment showed very high degree of correlation. For the period 23rd April to 17th May, the correlation between daily net FII equity investment and the Sensex was as high as 0.70. Figure 1 shows daily movements of Sensex and Net FII investment in India during the months of April, May and June. A somewhat different trend is observed from 18th May to the end of that month. The Sensex started a recovery from 18th May and the declining trend of net FII investment also reversed from that day.

Figure 1. Movement of Sensex and Net FII Investment in India



Source: Sensex data from BSE website (www.bseindia.com), FII investment data from SEBI website (www.sebi.co.in)

The churnings of stock prices led to a sharp rise in stock market volatility in May. To measure how much the volatility increased during that month, the following two methods of estimating inter and intra day stock market volatility is used here. These measures are suggested in a recent SEBI Publication on volatility by Raju and Ghosh (2004).

The first formula measures inter day volatility by computing standard deviation of daily returns on stock prices. In this method, the formula used for calculating volatility is

$$\sigma = \sqrt{(1/n-1)\sum(r_t - r^*)^2}$$

where… $r_t = ln(I_t/I_{t-1})$

I_t is the closing value of the stock market index at time t,
ln is natural logarithm

The second formula uses intra day High and lows of stock market prices and estimate intra-day volatility. The following formula is used in this case:

$$\sigma = k\sqrt{1/n(\log(H_t / L_t)^2}$$

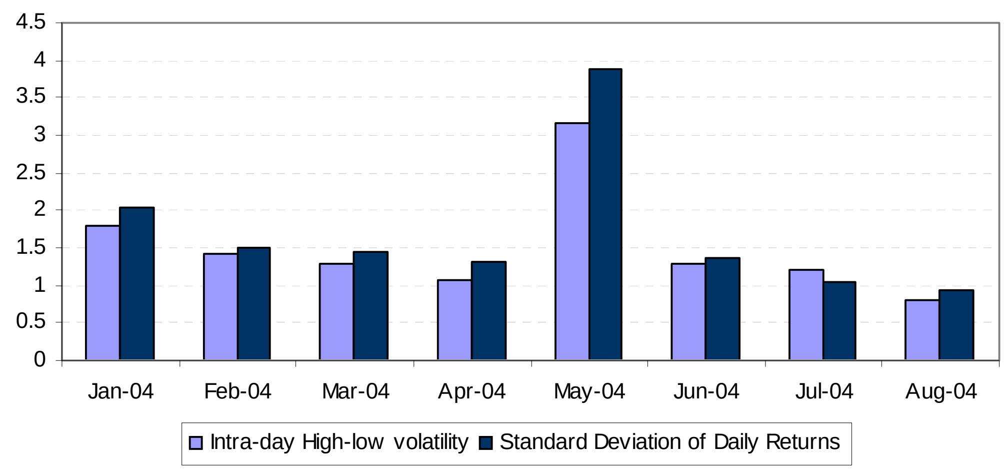
where H_t and L_t are intra day high and low prices,

and following Parkinson (1980), k is taken as 0.601

Daily Sensex data are used for estimation of volatility. Data are taken from the Bombay Stock exchange website (www.bseindia.com)

Calculations show that both inter and intra day volatility of BSE Sensex followed similar trend during 2004. From January to April, both intra and inter day volatilities of Sensex were on a decline and were below the 1.5 mark. Suddenly in May there was a spike in volatility and both inter and intra day volatility almost doubled for that month. However, after May, volatility has again subsided and has settled down to levels observed during the earlier part of the year (Figure 2).

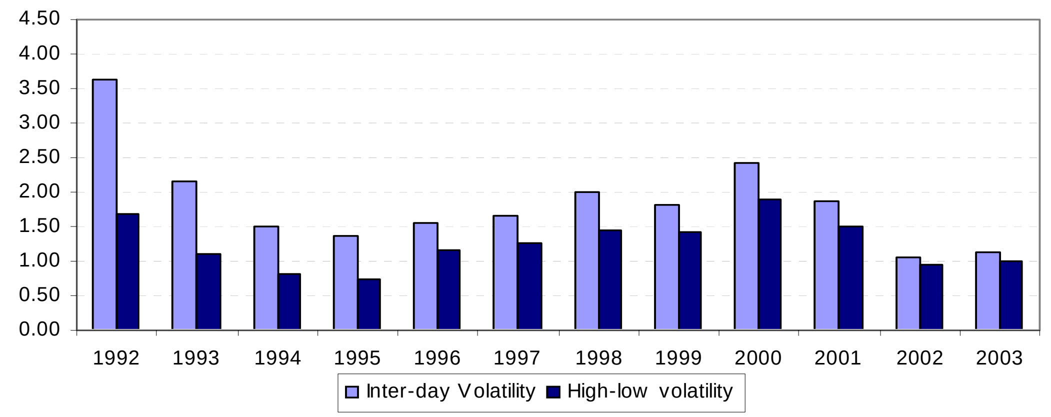
Figure 2. Volatility of BSE Sensex in 2004



Source: author's calculation from daily Sensex data

The level of volatility observed during May is unusually high even in the context of historical stock market data. Figure 3 shows that average intra and inter-day volatility in the Indian stock market for the period 1992-2003. From the figure it can be seen that annual stock market volatility in India has been low and since 2000 there has been a steady decline of volatility in India. However, it should be noted that though the average level of volatility has been low, periodic high volatility in Indian stock market is not unprecedented as bouts of sudden stock market volatility had occurred in the past. Interestingly, in most cases of high stock market volatility, subsequent investigations have revealed the presence of price manipulation and irregularity in the stock market.

Figure 3. Annual Inter and Intra-day Volatility of Sensex



Source: Raju and Ghosh (2004)

To further analyze the unusual movement of Sensex since the middle of April 2004, share price movements of the thirty Sensex companies are studied here. Average monthly closing prices of these thirty companies are used for this analysis. Table 1 shows the frequency distribution of price movements of Sensex companies for the period March 2004 to June 2004.

Table. 1. Frequency Distribution of Price Movements of Sensex Companies
(Average closing prices for the month)

	March-April	**April-May**	**May-June**		**March-June**	**April to June**
Price increased	26	2	4		6	2
Price Declined < 10 percent	4	15	14		9	6
Price Declined >10 and <20 percent	0	11	11		5	11
Price Declined >20 percent	0	2	1		10	11
	30	**30**	**30**		**30**	**30**

Memo Item: Movement of Sensex

Movement of Sensex in percentage (average of monthly closing prices)	3.49	-10.40	-7.32		-14.06	-16.96

Source: Calculated using data from CMIE Prowess database

From the table it can be seen that between March to April, most Sensex companies experienced price increase and the Sensex increased by about 3.5 percent, however, between April to June, the Sensex declined by about 17 percent and twenty eight of the thirty Sensex companies experienced a decline in price. Only Infosys and Wipro, the two companies dealing with Information Technology (IT), did not experience a price decline over this period. It also shows that twenty two of the thirty companies have experienced more than 10 percent decline in price during the same period. More than 25 percent price drop has been observed for 6 companies: Tata Power Co. Ltd, Hindustan Petroleum Corpn. Ltd, Reliance Energy Ltd, State Bank Of India, Maruti Udyog Ltd and Tata Iron & Steel Co. Ltd. The price decline of the Sensex companies is in stark contrast with the period just before the election when the stocks of 26 of the 30 constituent companies experienced a price increase.

If one looks at how the price decline has affected companies with different market capitalization and weightage in Sensex, some other interesting facts appear. It should be noted that Sensex is a weighted average of the share prices of the 30 constituent companies. Prior to September 2003, companies' weightage in Sensex was based on the total market capitalization of companies. A company's weightage in Sensex was proportional to its share in total market capitalization of the constituent companies. But currently the BSE Sensex is calculated on a free float basis where weightage is assigned depending upon the value of free float shares of the company. According to the BSE website:

"Free-float market capitalization is defined as that proportion of total shares issued by the company, which are readily available for trading in the market. It generally excludes promoters' holding, government holding, strategic holding and other locked-in shares, which will not come to the market for trading in the normal course. Thus, the market capitalization of each company in a Free-float index is reduced to the extent of its Free-float available in the market". From BSE website.

Table 2 reports how the price cut has affected companies with different market capitalization and (free float adjusted) weightage in Sensex[1]. The table shows that, on an aggregate basis, companies with higher market capitalization and weightage in Sensex have suffered progressively higher price decline in the April-June quarter. Twenty-two companies, which account for more than 75 percent of total market capitalization of Sensex and have more than 71 percent (free-float adjusted) weightage in Sensex, have experienced more than 10 percent

[1] The free float factors of the Sensex companies are available here: www.bseindia.com/about/abindices/bse30.asp#list

price decline in this three month period. In fact, the average price decline[2] for these 22 companies is more than 21 percent. The two companies which did not experience a price decline had about 11.3 percent share in total market capitalization of Sensex companies and account for less than 10 percent weightage in the Sensex index. These observations show that the decline of Sensex in the post election period has been quite sharp, pervasive in nature and affected almost all the constituent companies.

Table. 2. Price Decline, Market Capitalization and Weightage of Companies in Sensex

	Based on monthly average closing prices, April to June		
	Number of Companies	Share in total market capitalization of Sensex companies	Free Float adjusted wieghtage in Sensex
Price increased	2	11.3	9.40
Price Declined < 10 percent	6	12.4	18.83
Price Declined >10 but <20 percent	11	23.8	33.13
Price Declined >20 percent	11	52.5	38.64
	30	**100**	**100**

Note: Free float weightage is taken from the BSE website and it shows free float weightage of end-August. Market capitalization ratios are of June end. It is assumed here that free float ratios have not changed during this period.

To investigate the reason behind the sharp and pervasive decline in share prices and the sudden increase in volatility in share markets in India, it is important to look at foreign portfolio capital has behaved during the post election period in India.

Section 3. Foreign Portfolio Investment and Its Influence on Sensex

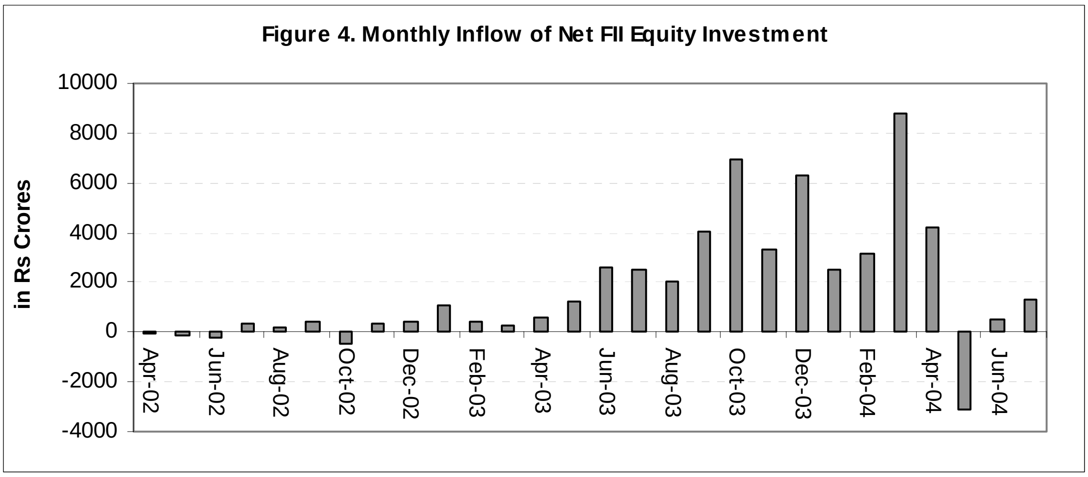
If one looks at the trend of portfolio equity investment in the Indian stock market since 2002-03, it shows that there has been a very sharp increase in the net FII investment in India since April 2003. For the financial year 2003-04, FIIs have invested more than Rs 44,000 crore of portfolio capital in the Indian stock market. To put this figure into perspective, for the period 1992-93 to 2002-03, the maximum annual net investment by FIIs in India was in the year 1999-2000 and for that year, total net FII investment in India was Rs 9,765 crores[3]. This rising trend of portfolio investment continued in 2004 also. In fact, in March 2004, a record Rs 8.800 crores of net foreign portfolio investment came into the Indian equity market. This trend continued till the end of April and more than Rs 4,200 crores of portfolio investment was made in the Indian stock market in that month. However, for the month of May, FIIs turned net sellers in the Indian equity markets. In 17 of 22 trading days between 30th April 2004 and 31st May 2004, net FII investment was negative. During this period, FIIs withdrew more than Rs 3,500 crores from the Indian equity market. In June, net FII investment turned positive, however, net FII investment for the month of June was only Rs 516 crores which is much lower than the average

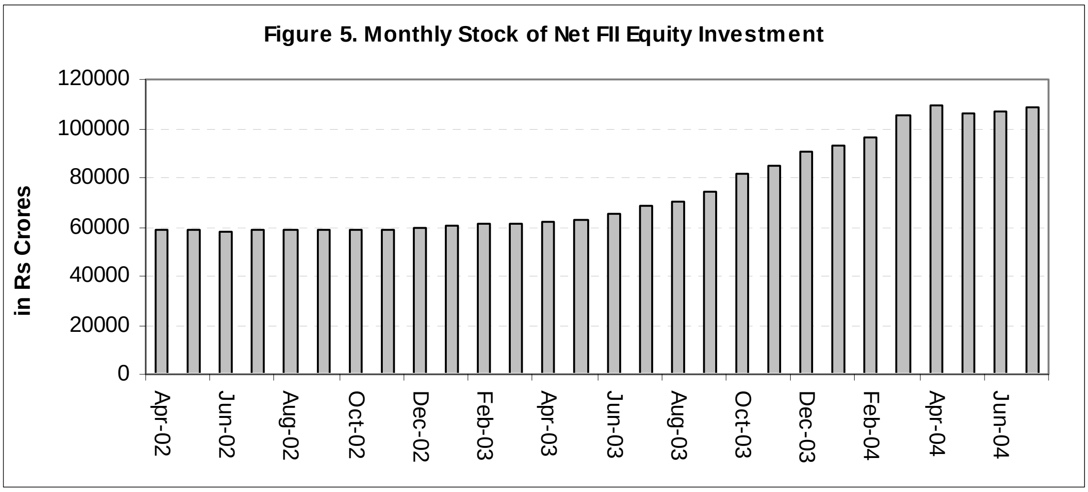
[2] Average here denotes the arithmetic mean of price decline of these companies
[3] Table 182, RBI Handbook of Statistics 2003

monthly net FII investment of around Rs 14,485 crores experienced during the first quarter of the year.

The reversal of net portfolio capital inflow during the post election period reduced the stock of foreign portfolio investment from Rs 109,513 crores at the end of April to Rs 106,873 crores at the end of June, which is a decline of about 2.4 percent. However, if one looks at the data on a quarterly basis, it shows that during the second quarter of 2004, that is, between March and June, the stock of FII investment has actually increased by about 1.5 percent (Figure 4 and 5). But during the same period, the Sensex witnessed a 14 percent decline.

Monthly Net FII Equity Investment in India (April 2002 to July 2004)



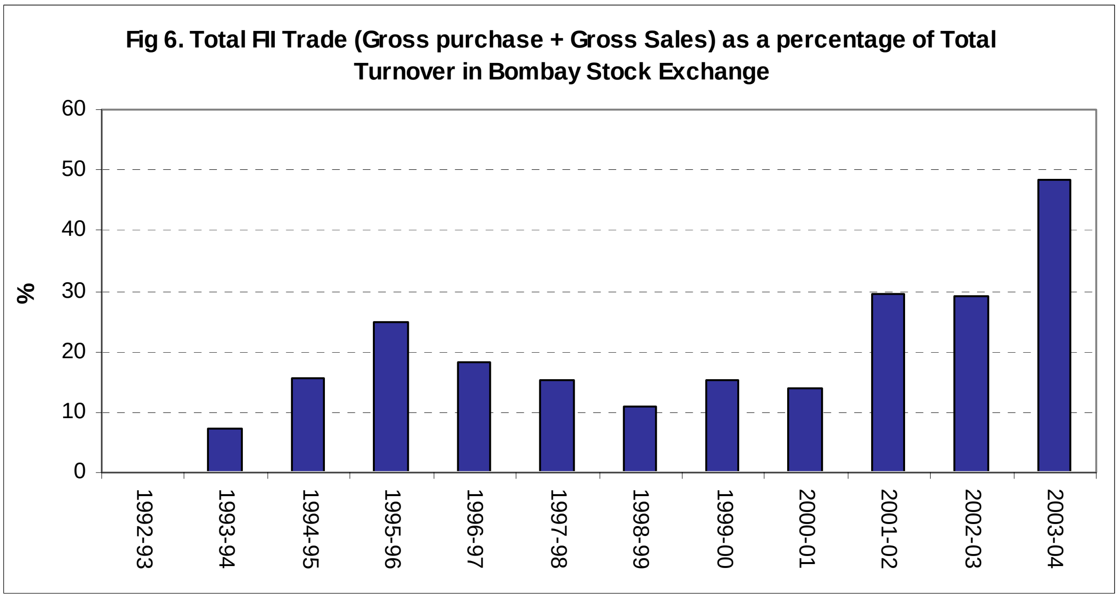


Source: FII investment data from SEBI website (www.sebi.co.in) and RBI Handbook of Statistics 2003

The movement of the Sensex and net foreign portfolio investment highlights the importance of FIIs at the margin. It can be seen from the graph (Figure 5) that in the context of the total stock of FII investment in India, the decline observed during the month of May is not very high. But even a temporary reversal of FII flows for a few days managed to create panic in the stock market which triggered the stock market crash.

It is an accepted fact now that FIIs have significant influence on the movements of the stock market indexes in India. If one looks at the total FII trade in equity in India and its relationship with the stock market turnover, it shows a steadily growing influence of FIIs in the domestic stock market. Figure 6 shows total trade (gross purchase + gross sales) of FIIs in Indian equities as a percentage of total turnover of the Bombay Stock Exchange.

It should be noted here that the figure may not be an accurate measure of FII dominance because it suffers from two shortcomings. First, it takes into account the turnover of only the Bombay Stock Exchange and secondly, if one uses gross sales plus gross purchase by FIIs to measure FII turnover then it double counts the intra-FII trading. Therefore, the figure shows an upward bias in the measure of FII dominance[4]. However, if one uses time series data, the total FII trade to BSE turnover ratio, in spite of its limitations, gives us an idea about the trend of FII dominance in the domestic stock market.



Source: RBI Handbook of Statistics and SEBI Annual Reports, various issues

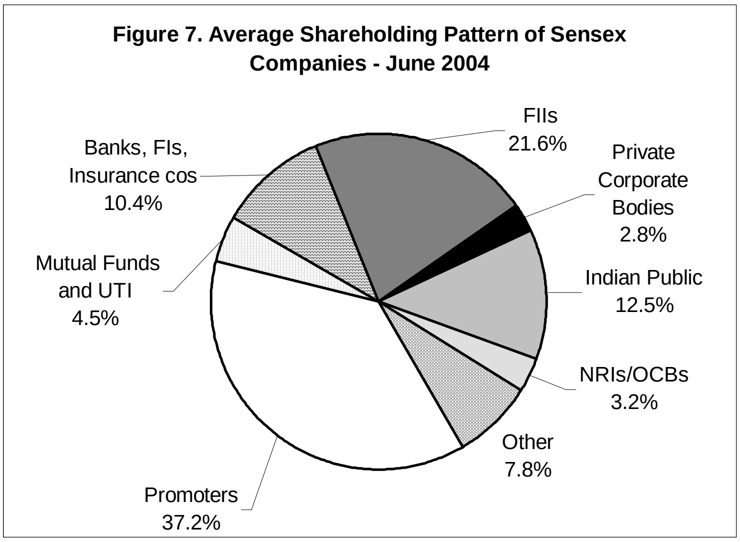
Figure 6 shows that the influence of FIIs in the domestic stock market is on a steady increase over the last few years and in 2003-04 the share of total FII trade in domestic stock market turnover has increased very sharply. This indicates that, at the margin, FIIs are becoming more important and their influence on the market is significant.

In fact, even in 2000-01, when the share of FII trade in domestic turnover was much less, it was recognized that the FIIs have disproportionately high level of influence on the movement of

[4] Also, some amount of FII investment can be in the primary market as well, however, FII investments in primary market generally have been quite low in India.

stock indices in India. The 2001 edition of National Stock Exchange's annual publication, Indian Stock Market Review says:

"Though the volume of trades done by FIIs is not very high as compared to other market participants, they are the driving force in determination of market sentiments and price trends. This is so because they do only delivery-based trades and they are perceived to be infallible in their assessment of the market." Pg. 125



Apart from the psychological factors mentioned in NSE (2001), the influence of FIIs on the movement of Sensex will also become clear if one looks at the shareholding pattern of the 30 companies that constitute the index. Shareholding data is available on a quarterly basis from the CMIE Prowess database and the SEBI EDIFAR website. Figure 7 shows average shareholding data for the 30 Sensex companies for the latest quarter (June 2004). It shows that average equity holding by the FIIs is more than 20 percent in the Sensex companies[5]. It also shows that as an investor group, FIIs are the biggest non-promoter shareholders of the Sensex companies[6].

However, this figure masks the fact that FIIs hold a much higher percentage of shares that are normally available for trading in the market (free float shares). For example, in Bharat Heavy Electricals Limited, FII shareholding was 20.6 percent in June 2004, but free float adjusted shareholding of FIIs is more than 58 percent in that company. As mentioned before, share holding by promoters, government, strategic investors and other some other investments like holdings through FDI route, strategic stakes by private corporate bodies and individuals and equity held by employee welfare trusts do not normally enter the open market and therefore do not directly influence share prices. Therefore, to judge the real influence of the FIIs on the share prices of Sensex companies, it is important to see what percentage of free-float shares of

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[5] It is notable here that RBI's ceiling for overall investment limit for FIIs is 24 per cent of the paid up capital of a company. But there are numerous exceptions, which allow Indian companies to raise this limit to even 100 percent of the paid up capital. See the following link for more detail:
http://www.rbi.org.in/personalised/personalisation.asp?filename=fiilist/index.html&secid=14#NR24PERCENT

[6] It is interesting to note here that as late as in December 2002, FII shareholding in Sensex companies was only about 16.5 percent.

these companies are controlled by FIIs. Table 3 shows the frequency distribution of free float adjusted equity holding pattern of FIIs in the Sensex companies.

This table shows that FIIs control a very high percentage of tradable shares in a majority of Sensex companies. On an average basis, FII own more than 36 percent of tradable shares of these companies. Comparisons also show that as far as the free-float shares of the Sensex companies are concerned, FIIs are the most dominant investor group. The second most dominant investor group-the Indian retail investors ('Indian public'-in SEBI terminology) hold about 20.5 percent of total free-float shares of these companies. Company-wise comparison (using June 2004 data) also shows that in 25 of the 30 Sensex companies, FIIs control more tradable shares than 'Indian public'. Only in five companies, i.e. Cipla, HLL, TISCO, Tata Power Co. Ltd and Wipro, Indian investors own more free-float shares than FIIs.

Table. 3. Frequency Distribution of FII Equity Holding Pattern in Sensex Companies
(Number of companies)

	March 2004		June 2004	
	Unadjusted	**Free Float Adjusted**	**Unadjusted**	**Free Float Adjusted**
Less than 10 percent	3	0	5	0
10 to 20 percent	13	3	12	3
20 to 30 percent	9	11	8	11
30 to 40 percent	1	5	2	6
Greater than 40 percent	4	11	3	10
Total	30	30	30	30
Average Share	22.04	36.79 percent	21.57 percent	36.03 percent

Source: CMIE Prowess Database and BSE website

Given the high degree of control of the tradable Sensex shares by the FIIs, it is only likely that they exert significant influence on the share price movement of Sensex companies. The fact that only about 500 registered FIIs control such a significant section of the share market, gives them more market power than most other market participants. Under these circumstances, it is not surprising that a sudden reduction of FII investment in the Indian stock market led to the kind of chaos that took place during the month of April and May.

Under these circumstances, it is imperative to ask the question how this has changed the shareholding pattern of these companies. Investigating this topic can also shed some light about how FIIs and other investor groups have behaved during the post election period when the stock markets were in turmoil.

Section 4. How the Shareholding Pattern of Sensex Companies Has Changed

Information on the equity holding pattern of the Sensex companies is available from the CMIE Prowess database as well as from the SEBI EDIFAR website[7]. This information is available on a quarterly basis. Availability of data on quarterly basis will not allow us to study the impact of stock market crash on the equity holding pattern for the month of April and May, but comparing equity holding pattern between the first two quarters (end of March and end of June) of the year will give us an idea about the behaviour of the major stock market participants in the intervening period. Unless otherwise mentioned, the CMIE Prowess database is the source of information for the tables and figures of this section.

To reiterate our earlier findings, net stock of FII investment in the Indian equity market at the end of June was slightly higher than the net stock that was there at the end of March. However, the Sensex has declined by more than 14 percent during the same period. Table 4 shows the quarterly shareholding pattern of Sensex companies for the last four quarters. It shows that though there has been a lot of churning in the stock market, the equity holding pattern of the Sensex firms has not changed in any significant way between March and June 2004. Particularly interesting is the fact that in spite of significant movements of various stock market indicators, the average share of FIIs in Sensex companies has declined only marginally by 0.47 percentage points. During the same period banks, financial institutions and insurance companies have increased their share by 0.65 percent. Apart from nominal changes in shareholding pattern for these two investor groups, shareholding pattern of Sensex companies between March 2004 and June 2004 has remained practically unchanged for others.

Table. 4. Quarterly Equity Holding Pattern of Sensex Companies (in percentage)

	Promoters	Mutual Funds and UTI	Banks, FIs, Insurance cos	FIIs	Private Corporate Bodies	Indian Public	NRIs/OCBs	Other
Sep-03	36.09	4.84	11.63	19.18	3.40	13.97	3.39	7.50
Dec-03	35.79	4.34	11.22	21.59	3.35	12.77	3.32	7.63
Mar-04	37.35	4.43	9.73	22.04	2.75	12.35	3.25	8.10
Jun-04	37.23	4.49	10.38	21.57	2.77	12.53	3.18	7.85

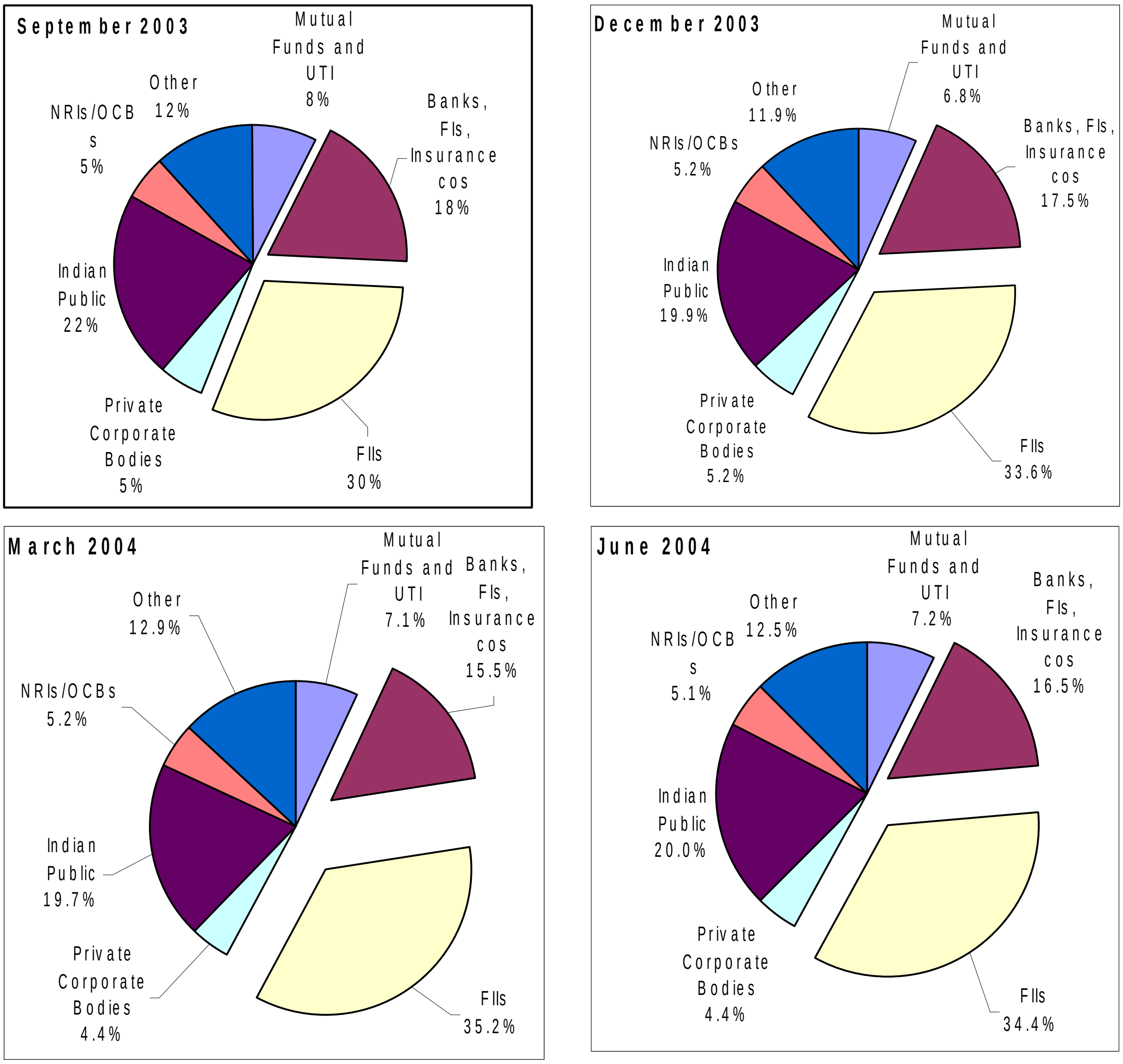
Source: CMIE Prowess database

If one only looks at the non-promoter shareholding pattern in the Sensex companies, the average shareholding of FIIs has come down marginally from 35.2 percent to 34.4 percent. Shareholding of banks, financial institutions and insurance companies in Sensex has gone up slightly. It is interesting to note that the combined shareholding of FIIs and bank, FIs and

[7] http://sebiedifar.nic.in

insurance companies has remained almost identical for the last three quarters (Figure 8). For other investor groups, the shareholding pattern has remained virtually the same for the concerned period

Figure 8. Average Shareholding Pattern of Non-Promoter's Share of the Sensex Companies



Source: CMIE Prowess database

To further probe this result at a more disaggregated level, this study looks at the changes in shareholding pattern of FIIs (shares held by FIIs as a percentage of total shares) in all the constituent companies of Sensex. Company level analysis shows that the decline in FII shareholding in Sensex companies has been much less than expected. Among the 30 Sensex companies, 11 companies have actually registered an increase in FII shareholding. For one company there was no change in shareholding by FIIs and in another 12 Sensex companies FII shareholding has declined but the decline has been less than 1 percentage point. It can be mentioned here again that share prices of all these 24 companies have declined during the March–June phase.

Four Sensex companies witnessed a decline of FII shareholding between 1 to 3 percentage points. Interestingly, Wipro and Infosys belong to this set of companies and it can be pointed out here that these are the only two Sensex companies which did not witness a price decline between March and June 2004. For only 2 Sensex companies (TISCO and Dr. Reddy's), FII shareholding declined by more than 3 percentage points. This result is summarized in Table 5a.

As these findings are not on the expected line, to further probe into the matter, the number of equities held by the FIIs over the reference period is looked at. These results are summarized in Table 5b. It can be seen from the table that the absolute number of equities held by the FIIs have increased for 10 companies. And only for one company, the number of equities held by FIIs has actually declined by more than 3 percent.

Table 5a. Change in FII Shareholding in Sensex Companies

As a percentage of Total Shareholding	
FII shareholding not decreased	12
Decreased by less than 1 percentage point	12
Decreased by more than 1 percentage point but less than 3 percentage point	4
Decreased by more than 3 percentage point	2
Total	**30**

Table 5b. Change in Number of Shares Held by FIIs in Sensex Companies

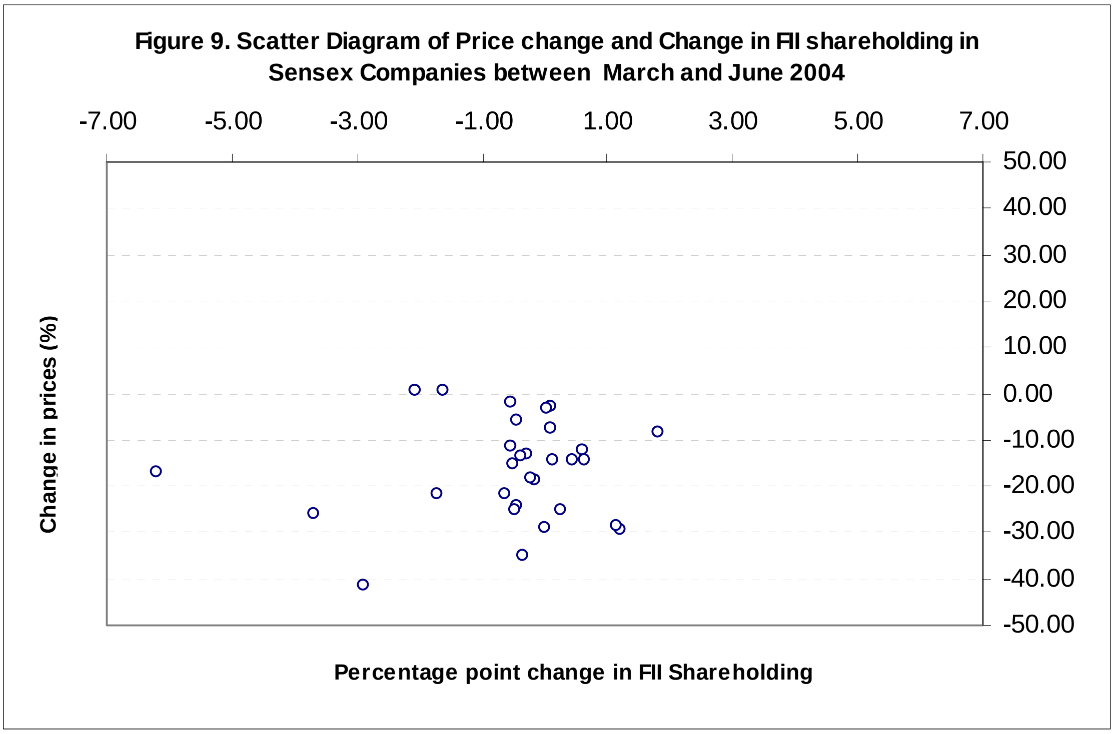
(in percentage)	
FII shareholding not decreased	10
Decreased by less than 1 percent	13
Decreased by more than 1 percent but less than 3 percent	6
Decreased by more than 3 percent	1
Total	**30**

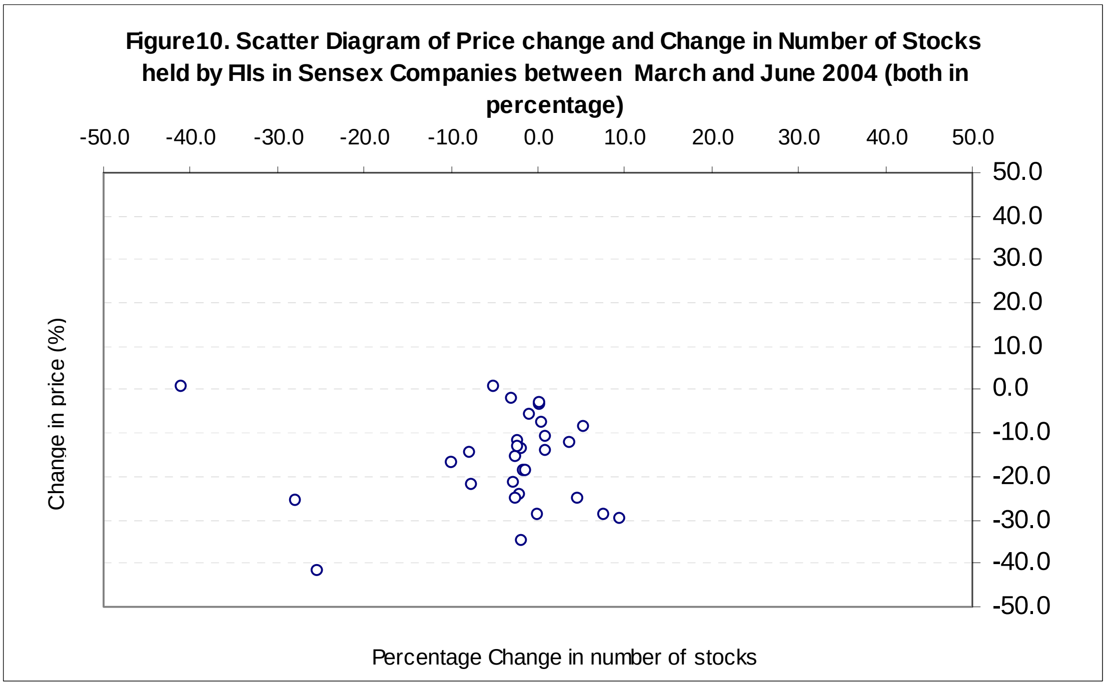
Note: Between March and June, the total equity bases of some companies have changed. For example, Wipro declared a bonus issue in April 2004 and ICICI bank has new issued new equity share during this period. Adjustments have been made to take these factors into account.

Given the fact that shareholdings of FIIs in Sensex companies have not changed significantly, the relationship between price change of the Sensex companies and change in FII shareholding is investigated. The findings are presented in figure 9 and figure 10. It is to be noted here that for both figure 9 and 10, adjusted closing prices of Sensex companies are taken. Adjusted prices are reported by the Prowess database[8]. Figure 9 shows the relationship between price changes of Sensex companies with change in FII shareholding pattern in these companies.

[8] According to the Prowess manual "Share prices are adjusted when there is a change in face value of the scrip or the company makes a bonus issue or a rights issue. In the case of a rights issue, the adjustment is done only when the rights issue is that of equity shares or convertible debentures. There is no adjustment for a rights issue of non-convertible debentures. Adjustments are carried out as given above and the following fields stand for, the adjusted closing, opening, high and low price, respectively".

Figure 10 shows how the percentage change in the number of equities held by FIIs is related with the price change of Sensex companies for the concerned period.





These scatter diagrams clearly reaffirms the fact that though most Sensex companies have experienced significant price decline during the concerned period, change in FII shareholding is much less pronounced for these companies. It is also clear from these diagrams that no correlation can be observed between price change and change in relative or absolute FII shareholding for these 30 companies.

Section 5. Conclusion

A number of studies in the past have observed that investments by FIIs and the movements of Sensex are quite closely correlated in India and FIIs wield significant influence on the movement of Sensex (Rangarajan 2000, Samal 1997, Pal 1998). NSE (2001) also observes that in the Indian stock markets FIIs have a disproportionately high level of influence on the market sentiments and price trends. This is so because other market participants perceive the FIIs to be infallible in their assessment of the market and tend to follow the decisions taken by FIIs. This ‘herd instinct’ displayed by other market participants amplifies the importance of FIIs in the domestic stock market in India.

Results of this study show that not only the FIIs are the major players in the domestic stock market in India, but their influence on the domestic markets is also growing. Data on trading activity of FIIs and domestic stock market turnover suggest that FII’s are becoming more important at the margin as an increasingly higher share of stock market turnover is accounted for by FII trading. Moreover, the findings of this study also indicate that Foreign Institutional Investors have emerged as the most dominant investor group in the domestic stock market in India. Particularly, in the companies that constitute the Bombay Stock Market Sensitivity Index (Sensex), their level of control is very high. Data on shareholding pattern show that the FIIs are currently the most dominant non-promoter shareholder in most of the Sensex companies and they also control more tradable shares of Sensex companies than any other investor groups. In most of the Sensex companies, FII holding is more than the RBI prescribed ceiling limit of 24 percent. According to shareholding data of this year, more than 36 percent of non-promoters’ share in Sensex companies are owned by FIIs. It notable here that whereas 500 odd FIIs control more than 36 percent of all non-promoters’ share of the Sensex companies, the 20 million odd Indian retail investors control only about 20 percent of these shares. In comparison, Indian financial institutions, which used to be the largest market movers in India, control only about 16 percent of non-promoters’ shares in Sensex companies.

Given the perception about FIIs as market leaders in the domestic stock market, the increasing importance of FII trading at the margin and the dominant position of FIIs in the Sensex companies, it is not surprising that FIIs are in a position to influence the movement of Sensex in a significant way. The influence of FIIs on the movement of Sensex became apparent after the general election in India when the sudden reversal of FII flows triggered a panic reaction which resulted in very high volatility in the Indian stock market. During this period, the Sensex experienced its worst single-day decline in its history and in the three month period between April to June 2004, it declined by about 17 percent. And it all started because of the selling pressure exerted by the FIIs after the post election phase when they became less confident about ‘the continuation of reform process in India’. However, when we look at the shareholding pattern of FIIs in the Sensex companies, we see that the shareholding pattern of FIIs have remained relatively unchanged between March and June 2004.

To explain the anomaly, one can argue that after the elections FIIs were concerned about the continuation of reform process in India and started withdrawing their investments. This led to the stock market crash and prices of shares tumbled. However, once the assurance about the continuation of reform process was given, FIIs started buying back the shares they sold earlier. Taking advantage of the stock market crash, they managed to regain their portfolio at a much cheaper price. If this chain of events is true then it shows that the FIIs have come out as the clear winner in the post-election turmoil of the stock market. Not only have they gained financially out of the situation, but they have also managed to influence policy making in this country. The pressure exerted by FIIs also allowed them to get some fiscal sops in the recent budget. It needs to be reiterated here that there has been no change in the macroeconomic fundamentals faced by the country before and after the volatile period in the stock market.

It needs to be remembered that in India, almost all previous experiences with high phases of stock market volatility have been associated with some form of irregularities and corruption. Given the frequent occurrences of scams and irregularities in the Indian stock market, the likelihood of market manipulation cannot be totally ruled out. The manner in which record FII investments build up the stock market during the first quarter of the year and the way the stock market was brought down, strengthens this apprehension. It also needs to be considered here that FIIs have emerged as the major market drivers of Sensex companies and, in the past, there have been instances where the nexus between FIIs and big brokers of the BSE was found to be involved in price manipulations in the BSE.

The whole process also highlights another disturbing feature. During the post election period, the sudden volatility in the stock market and the subsequent decline of Sensex was almost treated as a national emergency in India by the financial media and to a certain extent, by the incoming UPA government. It is very difficult to understand why the government feels so concerned about speculative investors and the movements in Sensex. Most studies have shown that Sensex is neither a good barometer of economic fundamentals it is nor an indicator of future growth prospects of the economy[9]. Moreover, this study also shows that even sharp changes in Sensex do not necessarily indicate a significant alteration of actual shareholding pattern of different investor groups even in the Sensex companies. As far as the real economy is concerned, the stock market has a very limited role to play. In India, for the year 2002-03, new capital issues by non-government public limited companies raised a combined capital of Rs 1,878 crores from ordinary shares, preference share and debentures. This amount is only 0.33 percent of gross domestic capital formation of the economy and about 1.6 percent of gross domestic capital formation by private corporate sector for that year. This is not surprising because even in developed stock markets like USA, the stock market has not been a significant source of finance for new investments. Also, stock markets mobilize a very small fraction of household financial saving in India. As the recent RBI Handbook of Statistics shows, investment in shares and debentures[10] and units of UTI account for only 1.37 percent of total household financial savings for the year 2003-04. In comparison, bank deposits account for about 42.8 percent of household financial savings for the same year. Under these circumstances, it is not clear why so much importance is given to the stock market and portfolio investors by policymakers in India. It is high time to realize that in spite of the impression given by the financial media, movements of stock markets and Sensex do not necessarily imply any fundamental changes in the economy and these movements affect a very small minority of the country's population. It will be unfortunate if movements of speculative capital and the resultant stock market gyrations are allowed to influence macro-economic policymaking in India.

References:

Centre for Monitoring Indian Economy (CMIE): *PROWESS Database.*

Chandrasekhar, C. P. (2004): "The Markets vs. The People: A tale of two mandates" - http://www.macroscan.org/the/finance/may04/fin170504Markets_vs.htm

Ghosh, Jayati (2004): "The Stock Market and the Real Economy"- www.macroscan.org/the/finance/may04/fin170504Stock_Market.htm

NSE (2001): *Indian Securities Market: A Review*, Volume IV, 2001, National Stock Exchange, Mumbai.

Pal, Parthapratim (1998): "Foreign Portfolio Investment in Indian Equity Markets: Has the Economy Benefited?" Economic and Political Weekly, Vol. 33, No. 11, March 14.

Pethe, Abhay and Ajit Karnik (2000): "Do Indian Stock Markets Matter? Stock Market Indices and Macro-economic Variables" Economic and Political Weekly, January 29.

[9] See Pethe and Karnik (2000), Ghosh (2004)

[10] Includes investment in shares and debentures of credit/non-credit societies, public sector bonds and investment in mutual funds (other than UTI)

Raju, M.T and Ghosh, Anirban (2004): "Stock Market Volatility – An International Comparison"-Working paper series no. 8, Securities and Exchange Board of India, April 2004.

RBI: *Handbook of Statistics on Indian Economy,* Reserve Bank of India, Mumbai, various issues.

Samal, Kishor C., (1997): "Emerging Equity Market in India: Role of Foreign Institutional Investors" Economic and Political Weekly, Vol. 32, No. 42, October 18.

SEBI: *Annual Report*, Various Issues, Securities and Exchange Board of India, Mumbai.

Singh, Ajit and Weisse, Bruce A. (1998): "Emerging Stock Markets, Portfolio Capital Flows and Long-Term Economic Growth: Micro and Macroeconomic Perspectives", Cambridge Discussion Papers in Accounting and Finance, AF30, University of Cambridge, March 1998.