Chapter-4

FII's OPERATIONS IN INDIAN CAPITAL MARKET & TESTING OF HYPOTHESES
Chapter is broadly divided into two sections. The first section comprises of trend analysis of FIIs investments in equity and debt and examines their overall impact on the promotion of Indian capital market. Section two is based on the hypotheses frame for the present study which has been tested by using statistical tools including Karl Pearson's Coefficient of Correlation, Multiple Linear Regression Model and t-test.

Section One: Trend analysis of Foreign Institutional Investments in Indian Capital Market.

On Sep 14, 1992, the Govt. of India announced guidelines regarding investment in the primary and secondary markets by foreign institutions. The guidelines were liberal enough now. FIIs could trade in all securities after obtaining SEBI registration. They could sell the shares at market rates and repatriate the proceeds without a lock-in-period. No wonder Dalal Streets visualized the greenback rolling into the country's bourses, sending the BSE sensitive Index into the new heights. The sensex rose 135 points in the day after the guidelines were announced Stock market pundits predicted that investment to the tune of $2 billion would come to the country in one year. But the reality was different from expectations. In the beginning, there was slow entry of FIIs. After that there had been mixed trend of FIIs investment in India, sometimes FIIs investment is upward or sometimes downward for various reasons.
FIIs Operations:

The operations of FIIs could better be discussed periodically, this approach will be helpful in describing their participation in the Indian Capital market.

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Year-wise investment by FIIs 1992-93 to 2009-10

Source: self compiled
Monthly investment by FIIs from 1992-93 to 2009-10

Source: self compiled

The Table gives the broad view of flow of funds from the FIIs. The flow has not been uniform. There has been both upward and downward swings. These are being analyzed in the periodically as follows:
Net FII (equity) investment for the year September 1992 to October 1993

Source: self compiled

Domestic sources of outside finance are limited in many countries, particularly those with emerging markets. Through capital market liberalization, foreign capital has become increasingly significant source of finance. In developing countries like India foreign capital helps in increasing the productivity of labour and to build up foreign exchange reserves to meet the current account deficit. Foreign Investment provides a channel through which country can have access to foreign capital (Prasanna P K, 2008). For the first time FIIIs made their debut in Sep 1992. Despite the official permission, not much interest was evidenced by the foreign investors. Till July 1993, only 49 FIIIs got themselves registered with the SEBI. At this year net investment of FIIIs in the capital market was 5445 crores. They were probably testing the waters due to the following hurdles:
(a) Capital gains tax was thorny issue. FIIs found the short-term tax of 30% and long-term of 10% high. They wanted zero level taxation. According to them, though there is no lock-in-period for investment in the guidelines, the high tax burden certainly acts as a lock-in disguise.

(b) Settlement procedure was another grey area. Indian capital market was plagued by a stamp duty and transfer form mechanism. Foreign investors were not used to such procedures. As most of the foreign countries abandoned such procedures at least two decades ago. In such a settlement procedure, transferring a share to the buyer’s name took at least two or three months. The other peculiarities of the Indian markets were two week settlement and the effect of Badla trading on prices.

(c) FIIs were skeptical of the capacity of the Indian brokers through whom they had to buy shares in the Indian markets was too expensive compared to most markets worldwide. The most Indian brokerage firms were closely held and their balance sheets were not available for credit evaluation.

(d) At the time, most of the scrips had high price-earning (P/E) ratio i.e. High prices in relation to their earnings. FIIs complained that the Indian market was too expensive compared to most market worldwide, for example, in 1992, Nestle was quoting at a P/E of around in 45 in India, when abroad it was ruling between 15 and 20.

In spite of these glaring obstacles, there was a noticeable tendency displayed by FIIs to get themselves registered and India was spotted by them as an emergent market.
They saw the potential for the activities. This period could be characterized as a period of slow entry of FIIIs in the country.

**Nov 1993-Sep 1994**

![Net FII (Equity) In cr.](image)

**Net FII (Equity) In cr.**

Net FII (equity) investment for the year November 1993 to September 1994

Source: self compiled

This was the period of real activities. In Jan 1994, alone there was FII inflow (gross purchase) of funds to the tune of Rs 9455 crores and the outflow (gross purchase) was Rs 1613 crores and total net investment by FIIIs in this period was Rs 7842 crores. Basically the movements in the Asian markets are inextricably linked to the US economy and the movement of the Dow jones index and Nasdaq. In 1993-94 falling interest rates in the US has sent up markets in Asia as well as in India. The volume of purchases was so high that it had thrown the local custodial system completely out of gear. The main culprit was outdated clearing and settlement system that made the job of custodians very difficult. The basic infrastructure was missing but funds were pouring in Indian Stock markets.
**Oct 1994-Dec 1995**

**Net FII (Equity) In cr.**

Source: self compiled

FIIs reduced their purchases after Oct 1994, they bought scrips worth only Rs 339.5 crores and 371.5 crores in November and December. Their sales reached to an all time high of Rs 322.9 crores in Dec 1994 since FIIs invested in Indian capital market.

Total inflow of FIIs in this period was Rs 8210.70 crores and outflow for the same period was Rs 3711.90 crores. The net investment by FIIs in this period was Rs 4498.80 crores. FIIs were disinvesting due to the following reasons:

(a) There was uncertainty in the Indian capital market after the scam. The minority shareholders were sceptical about the functioning of the stock market. In such situation FIIs could not remain unaffected.

(b) There was bursting of Mexican, Brazil and Argentina (MBA bubble). The foreign exchange reserve of these countries dwindling leading to devaluation of their currency and there was loss to FIIs.
Besides this, the American stock markets were scaling new heights and it made sense for the fund managers to pull of the Asian markets and be where the action was the hi-tech rally, hi-tech rally so called because of the strong following in technology scrips. The wave of mergers, acquisition and restructuring added to the momentum, so this was period of declining FII inflows.
FIIs kept low for the better part of the year 1995. But in Feb 1996 their gross investment as well as net investment reached to an all time high of Rs 1838 crores and 1566.50 crores respectively beating the previous record of net investment of Rs 1278 crores in Jan 1994. Two factors working in close conjunction were responsible for their buying spree lately. Firstly, the Dow jones shot through the roof and secondly, the Rupee has depreciated vis-à-vis the dollar i.e. the American fund managers had money to invest.

- The strong bull run on the Dow Jones, which crossed the 5000 barriers in Nov 1995, left stocks in the US highly overvalued. Fund managers were then apprehensive that the bubble would burst anytime. It was, therefore once again, time to focus on Asian markets. The stock market across Asia were being fuelled by the reallocation and risk diversification strategies of fund
managers who were in complacent mood after having booked profits on wall street. As a result, most Asian markets including India had been rising, despite the uncertainty that loomed ahead on the political horizon in India.

- On the other hand, devaluation of rupee made investments more attractive.

The beginning of 1996 was a flood of investments in the Indian markets. Thereafter, it had been a downhill journey. Net investment in July 1996 slides to Rs 1093.50 crores, Rs 288.40 crores in Aug 1996, Rs. 438.30 in Sep 1996, Rs. 831.40 crores in Oct 1996, Rs. 406.50 crores in Nov 1996, Rs. 365.80 crores in Dec 1996 as FIIs turned net sellers. The reasons was that the allocations available for India in the second half of the year 1996, had to be split between PSU (public sector undertaking) shares being divested along with the number of GDR (global depository receipts) issues and last of course, equity and increasingly debt offerings in domestic markets.

In 1996, FIIs made the history of record net investment amounting to Rs. 10803.60 crores particularly due to the new centralized depository system. The depositories provided the much needed impetus to FIIs and amounted to a quantum change in the history of the Indian capital market.
Jan 1997-Dec 1997

**NET FII INVESTMENT (EQUITY) IN CRORES**

During this period what was happening on the BSE was proof that movements in the Asian markets are linked to the US economy and the movement of Dow jones index. FII's investment in the Indian bourses was slowed down, particularly after Aug 1997. There were several reasons for that, firstly in early August the sensex reached its 34 month high around of 4276, a far more from around 2919 in Dec 1996. The market rose quite a bit and a correction was expected anyway.

Secondly, investors had become cautious after some of the policies, economic development like the withdrawal of the insurance bill.
Thirdly, the reason for the slowdown in Investment was the South East Asia experienced the crisis in South East Asian markets resulted in fear of an imminent devaluation of the rupee. As a result, a lot of investors having exposures in the Indian market called back their investment. This action was driven by redemption pressure from investors who sought safe haven in more familiar markets and currencies.

In August 1997, FIIs ended up investing Rs 1601.4 crores as inflow and outflow (sales) was Rs. 1063.4 crores resulting Rs 538.1 crores as net investment in equity compared to Rs 979.9 crores in July 1997. Due to this declining trend they turned net sellers in November 1997, for the first time in India since they were allowed to operate in India. Net investment of this month was recorded at Rs -411.9 crores. Net investment was negative in the month of December also and recorded at Rs 526.2 crores which was higher than previous month. This period could be characterized as a period of negative investment. This slack in investments by FIIs was primarily due to the South-East Asian Crisis and the period of volatility experienced between November 1997 and February 1998.
Like in other countries, the restrictions on FI investments have been progressively liberalized. From November 1996, any registered FIi willing to make 100 per cent investment in debt securities were permitted to do so subject to specific approval from SEBI as a separate category of FIIIs or sub-accounts as 100 per cent debt funds. Such investments by 100 per cent debt funds were, however, subject to fund-specific ceilings specified by SEBI and an overall debt cap of US$ 1-1.5 billion. Moreover, investments were allowed only in debt securities of companies listed or to be listed in stock exchanges. Investments were free from maturity limitations. But the Foreign Institutional Investments made their debut in debt from March 1997 onwards. The total investment by FIIIs in 100% debt was Rs 28.9 crores for that month and the first time the net investment in debt have reached triple figure in June 1997. The total purchase by FIIIs in 100% debt was Rs 302.6 crores and total sales were Rs 139 crores.
resulting Rs 163.7 crores net investment by FIIs in 100% debt for the month June 1997. The South Asian crisis also affected the debt investment by FIIs for the next subsequent month. The debt investment was recorded Rs -31.6 crores, Rs -31.1 crores, in August and September 1997 respectively. But in October debt investment made progress and record Rs 351.3 crores that was also all time high since they allowed to invest in debt. Again in November and December FIIs turned net sellers and recorded Rs -138.3 crores and Rs -52.4 crores respectively.

**Jan 1998-Dec 1998**

![Net equity and debt investment by FIIs in the year 1998](chart.png)

*Source: self compiled*

It was a year of mixed fortunes for both the Sensex and FII investment in 1998. Unit Trust of India decided to reduce its equity exposure in its flagship scheme US-64 and the Vajpayee led government executed the Pokhran nuclear tests. FIIs turned big sellers with net investments in equity and debt for 1998 was Rs. (739.8) crores and
(740.1) crores respectively (lowest in the last eight years). The Sensex also touched a
2784 in October 1998, the lowest in the past years. The fall was the result of political
uncertainty and the testing of nuclear devices by India that resulted in several
countries imposing bans on lending to projects in India. Despite these developments,
the much-needed trigger came in the latter half of the year as the Sensex was
revamped through inclusion of software companies.

The three stock market indicators, viz, size, liquidity, and volatility were considered
and two time series trend break techniques of Perron were applied on monthly data
of Bombay Stock Exchange, by Biswal and Kamaiah (2001) and it was found that the
Indian stock market grew and became more liquid after liberalization. However, in
respect of volatility the market had not exhibited any significant changes. The period
covered by them was up to 1998.

![Net FIIs (Equity) In cr.](image)

*Net FIIs (equity) Investment for the year January 1998 to December 1998*

Source: self compiled
The impact of South-east Asian crisis was felt even in 1998. In January 1998, FIIs funds outflow was Rs. 1074.7 crores whereas the inflow was Rs. 772.9 crores. FIIs invested Rs. 734.6 crores in February 1998 on expectation of a stable government, but the South-east Asian crisis was far from over, which along with another favorable development like the economic slowdown, depreciation of the rupee in the aftermath of nuclear tests and political instability hurt their confidence. They increased their withdrawals from the Indian capital markets. The total inflow of FIIs for the year amounted to Rs. 13245.3 crores instead Rs. 13985.2 crores as total outflow of FIIs in that year. Their net investment amounting to Rs. -739.8 crores for the year ended December 1998 as against net investment of Rs. 5760.2 crores.

![Net FII (Debt) In cr.](image)

Net FII (Debt) Investment for the year January 1998 to December 1998

Source: self compiled

The total debt investment was also affected worse in that year due to South-east Asian crisis. It was the first time that in June, July, October, and November of this
year the FIIs did not show confidence in the Indian capital market and the investment in 100% debt was nil in that period. From April 1998, FII investments were also allowed in dated Government securities. Treasury bills being money market instruments were originally outside the ambit of such investments, but were subsequently included from May, 1998. Such investments, which are external debt of the Government denominated in rupees, were encouraged to deepen the debt market. From April, 1997, the aggregate limit for all FIIs, which was 24 per cent, was allowed to be increased up to 30 per cent by the Indian company concerned by passing a resolution by its Board of Directors followed by a special resolution to that effect by its General Body. The total inflow in Debt by FIIs in the year 1998 amounted to Rs. 654.5 crores and outflow Rs. 1394.6 crores and resulted in a net investment in negative that was Rs. -740.1 crores. This could be characterized as a period of declining investment.

Jan 1999-Mar 2000
Net equity and debt investment by FIIs in the year
January 1999 to March 2000

Source: self compiled

There was a period of upswing in FIIs inflow at the beginning of the year 1999. India had attracted significant allocation. That reason was the partial lifting of sanctions by the United States towards the end of the year 1998 and calming down of the crisis hit Asian market. FIIs also seemed to be comfortable with the political configuration of the new government upgrading of India’s rating by Moody’s as an investment destination had also reinforced their perception about India’s political and economic stability. They made killing investment in Indian Information Technology (IT) and Pharma shares. The year 1999 witnessed a sharp upward movement in FII inflow. During the Kargil war (May 1999), FIIs made net investment to the tune of Rs. 10578.6 crores (included till March 2000) in equity and Rs. 597.3 crores in debt investments. This led to 19% rise in Sensex despite border tensions. The Kargil issue and the elections in the month of September/ October increased the government’s non-plan expenditure. This pushed India’s fiscal deficit to 5.1% of GDP from 4.7% in 1998. Nevertheless, the Indian software boom started in 1999, making our markets attractive for FIIs.
The net investments by FIIs in equity for the whole period amounted to Rs. 10578.6 crores. The net inflows in this period was positive except three months. But as soon as millennium was approaching there was decline in FIIs investment. They turned net sellers for three months i.e. from August to October 1999, in this month the net inflow of FIIs was negative i.e. Rs. 115.6 crores, 739.4 crores, 713.7 crores respectively. The only reason for the negative investment by the investors was that they were facing dilemma from the clients about millennium (Y2K). They pulled out Rs. 1568.7 crores. However there was net inflow in equity investments in the subsequent period.

Source: self compiled
Net FII investment for the year January 1999 to March 2000

Source: self compiled

The net FII investment in debt for this period amounted to Rs. 597.3 crores. In comparison to equity investments by FII in this year amounted to Rs. 10578.6 crores, which is far better than debt investments. The FII become net sellers in February, 1999 and from June, 1999 to September, 1999 i.e. Rs. 14.8 crores, 259.7 crores, 49 crores, 6.4 crores, and Rs. 1.1 crores respectively. It was due to the negative investment by FII in equity in that period also i.e. from Aug, 1999 to Oct, 1999. But the faith of investors in debt also rose due to the equity investments in FII by the investors.

Apr 2000-March 2001
The BSE Sensex touched an all time high to 6150 led by Rs 2727 crores investment by FIIs in February 2000. The movement in the markets was highly related to tech heavy Nasdaq, as Sensex showed some hint of co-relation with US indices. Since the beginning of the year till March 2000 Nasdaq gained 11%, though the upbeat sentiment in the market was dampened by the budget. The finance minister increased the FII investment limit in companies coupled with special tax rebates for venture capital funds in India.

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

But, in the beginning of April 2000, the Sensex lost more than 360 points single day due to concerns regarding the double taxation treaty for FIIs based in Mauritius. Although this issue got resolved later, selling continued unabated. The total net investment in equity and debt by the FIIs in this period amounted to Rs. 10260.70 crores and (384.9) crores respectively.

Source: self compiled

The equity investments by the FIIs in this financial year amounted to Rs. 10260.70 crores which is low compared to previous year. FIIs become net sellers in the month
of June, July, October and December and the Sensex was recording in this month were 4675.4, 4676.34, 3819.69 and 4081.42 respectively. As on September 2000, the Sensex lost 32% compared to its all-time high of 6000 in February. Except from the negative investment in four months the FIIs have kept faith in Indian equity market and pumped the investment in consecutive three months i.e. January to March 2001 and at some extent saved the Indian market.

![Net FII (Debt) in Cr.](chart.png)

**Net FII (Debt) Investment for the year April 2000 to March 2001**

Source: self compiled

The debt investment by the FIIs in this year was not convincing. The FIIs become net sellers in debt investment throughout the year, the net investment in debt amounted to Rs. (384.9) crores. The FIIs in this period were net sellers except in five months i.e. June, July, September, January and February amounting to Rs. 24.2 crores, 15.9 crores, 76 crores, 228 crores, 44.3 crores respectively. The FIIs lost faith in debt
investment in this period and touched more than 100 crores mark only in January i.e. Rs. 228 crores, whereas the net debt outflow touched 100 crores in three months i.e, April, May and March amounted to Rs. (103.9) crores, (231.2) crores and (207.2) crores respectively. Apart from this it was found to be the shocking period for Indian capital market relating to debt investment by the FIIs.

**April 2001-March 2002**

![Net equity and debt investment by FIIs for the year April 2001 to March 2002](image)

Source: self compiled

The period Apr 2001-Mar 2002 was a good year for Indian Capital market due to positive investment by FIIs throughout the year, and the annual Sensex for this period was 3331.95 which is lower than 937.74 points in the previous year but FIIs showed confidence in Indian Capital market throughout the year. The net investment in equity and debt by the FIIs in this period was Rs. 8072.2 crores and Rs.
1179.8 crores respectively. Decline in FII inflow in 2001 is largely attributed to 9/11 attacks on USA. However, the effect has tended to be short lived and FII flows did not respond to short-term changes or technical position of the market and they were more driven by fundamentals (Kumar, 2001). Evidently, FII flows turned negative in September 2001 i.e. Rs. (415.6) crores following the terrorist attacks but recovered after a month. Thereafter, FIIs shifted their position significantly, except for the a few instances of net outflows, often coinciding with the external shock or a domestic political event.

The net inflow in equity investment by the FIIs for this period stood to Rs. 8072.2 crores. The FIIs showed a confidence in equity investments in Indian Capital market.
throughout the year and became positive investors for the whole period except September 2001, and the sole reason for net outflow by the FIIs was 9/11 terrorist attacks in the USA. But FIIs coped with the situation very well and continued confidence in Indian capital market and pumped money back in next months and thus in February 2002 FIIs invested Rs. 1966.3 crores in equity investment in Indian Capital market which was higher for that financial year and ended the year on a good note.

![Net FII (Debt) in cr.](image)

**Net FII (Debt) investment for the year April 2001 to March 2002**

Source: self compiled

The FIIs investment in debt was far better than the previous year and amounted to Rs. 1179.8 crores. The FIIs were net sellers in the previous year 2000-2001 to the tune of Rs. (384.9) crores but keep faith in this period and showed a high level of confidence in debt investment in Indian Capital market. The FIIs pumped back their
money and become net sellers in the start of the year but remained positive investors throughout the year. FIIs were net sellers in the month of May, September, November, December and March i.e. Rs. (369.3) crores, (117.7) crores, (46.7) crores, (22.3) crores, and (62.4) crores respectively. The FIIs was net sellers in these months only due to terrorist attacks 9/11 in USA. The equity investments by FIIs coped well after the incident but in debt investment lost the track and pumped money back but in smaller amounts. Apart from these the debt investment in this period was far better than previous year and Indian stock forecasters showed the hope that the investment in debt securities would go higher in next year and so on.

**April 2002-March 2003**

![Net equity and debt investment by FIIs for the year April 2002 to March 2003](image)

Source: self compiled
Year 2002-03 proved to be unfavourable as compared to previous year. The FIIs invested their money in Indian Capital market amounting to Rs. 2527 crores and Rs. 162 crores in equity and debt respectively. The number of FIIs registered with SEBI increased from just 10 in January 1993 to about 500 in the year 2002 (Mehta, 2002). The total investment made by the FIIs in Indian Capital market as on 31st March 2003 stood to Rs. 6048.80 crores and Rs. 884.40 crores in equity and debt respectively. At the end of this year, the total FIIs registered in India stood to 502 which was 12 more than previous year. The annual sensex for this period was 3206.29 which was lower than previous year’s annual sensex i.e. 3331.95. The net investment made by the FIIs in equity and debt in Indian Capital market was positive but it was the year of disappointment for Indian market because FIIs did not show usual confidence. The reason for low confidence was the uncertainty of stable government and policies and caps, and lack of sound information system regarding the foreign investment in India and it was evident from past studies that FIIs would react more to bad news than to good news (Rai and Bhanumurthy, 2004). But unlike many emerging markets the portfolio flows in India were not vulnerable to external shocks and the volatility of portfolio flows into India was small in comparison to other emerging markets (Gordon and Gupta, 2003). The low volatility of portfolio flows to India attributed to the strong economic performance of the country since the last decade and the low integration of the Indian economy and the global economy (Gordon and Gupta, 2003).
Equity investment in this year amounted to Rs. 2527 crores which was much lower than previous year i.e. Rs. 8072.2 crores with almost 300% major fall on net investment. The sensex was affected from the investment by the FIIs and recorded annual average 3206.29 which is somewhat lower than previous financial year. The FIIs were positive investors throughout the year except for three months i.e. May, June, and October. The FIIs become net sellers in these months and the net investment stood at Rs. (56) crores, (381.1) crores and (776.4) crores respectively. The major inflow by the FIIs in this year was in the month of January 2002 which amounted to Rs. 882 crores. The equity investment in last quarter of the year was convincing and was expected to be better in next year and provide stability to Indian Capital market.
The net investment in debt by FIIs in this period amounted to Rs. 162 crores which was far lower than the previous year i.e. Rs. 1179.8 crores and almost 700% drop in debt investment. The FIIs become net sellers in six months i.e. April, June to October amounting to Rs. (124.6) crores, (484.9) crores, (110.1) crores, (30.2) crores, (146.2) crores, and (98.7) crores respectively. From November onwards FIIs showed some faith in debt investment in Indian Capital market till the end of financial year. The major inflow in debt amounted to Rs. 555.1 crores in the month of March and there was sign of more investment in debt by FIIs in next year and contribution to stability of Indian Capital market.
April 2003-March 2004

This year was a fantastic year in relation to bumper investment by the FIIs. FIIs stormed the Indian Capital market after the hiatus of four years since 1998-99. The total net investment made by the FIIs in this year was amounted to Rs. 39959.7 crores and 5805 crores in equity and debt respectively.

Underlying the current FII and stock market surge was, of course, a continuous process of liberalization of the rules governing such investment: its sources, its ambit, the caps it was subject to and the tax laws pertaining to it. It could, however, be argued that the liberalization began in the early 1990s, but this surge was a new phenomenon which could be related to the returns available to investors that made it worth their while to exploit the opportunity offered by liberalization. The point, however, was that while the good profit performance of domestic firms may partly
explain the high returns of recent times, there were other factors that might have been more crucial. To start with, current account surpluses, higher remittances and rising inflows on account of exports of software services had ensured the strengthening of the Indian rupee, despite the RBI’s effort to manage the exchange rate with large purchases of foreign currency. A stronger rupee implies better returns in dollar terms, encouraging foreign investors looking for capital gains. This possibly even triggered a speculative surge in inflows because of expectations that the rupee would rise even further. Given the role of FII investments in increasing the supply of foreign exchange, such expectations tend to be self-fulfilling at least for a period of time. Returns on stock market investment were also hiked through state policy. Just before the FII surge began, and influenced perhaps by the sharp fall in net FII investments in 2002-03, the then Finance Minister declared in the Budget for 2003-04: “In order to give a further fillip to the capital markets, it is now proposed to exempt all listed equities that are acquired on or after March 1, 2003, and sold after the lapse of a year, or more, from the incidence of capital gains tax. Long term capital gains tax will, therefore, not hereafter apply to such transactions. This proposal should facilitate investment in equities.” Long term capital gains tax was being levied at the rate of 10 per cent up to that point of time. The surge was no doubt facilitated by this significant concession. Once the FII increase resulting from these factors triggered a boom in stock prices, expectations of further price increases took over, and the incentive to benefit from untaxed capital gains was only strengthened. In the circumstances, there is reason to believe that the herd instinct so typical of financial investors played a role in sustaining the boom, with a rush of investors into
the country. The number of FIIs registered in India stood at 502 at the end of March 2003, many of whom had registered immediately after the rules were liberalised to permit their entry and FIIs registration rose to 540 in this period.

The net equity investment by the FIIs in this whole period amounted to Rs. 39959.7 crores which was far better than the previous financial year i.e. Rs. 2527 crores. The sensex rose from 3206.29 to 4492.19 in this period due to heavy investment made by FIIs in the Indian Capital market. The FIIs were positive throughout the year and touched 5000 crores mark in three months i.e. October, December, and March and net investment by FIIs in these month amounted to Rs. 6797.5 crores, 6161.1 crores and 5604.04 crores respectively and BSE Sensex in these month rose to 4742.32, 5424.67 and 5612.92 respectively. It was evident in this period that FIIs played an
important role in promotion of Indian Capital market because whenever FIIs pumped money in the Indian Capital market, the market touched new high and showing stability and also improves investor’s confidence. This indicates that, at the margin, FIIs are becoming more important and their influence on the market is significant (Pal parthapratim, 2005)

\[\text{Net FII (Debt) in cr.}\]

Source: self compiled

Net investment by FIIs in debt was also encouraging this year and amounted to Rs. 5805 crores and erased all bad memories of the previous year. The previous year was a bad phase of debt investment by the FIIs and amounted to Rs. 162 crores only and this was far from the expectations but FIIs bounced back in this period and invested 35 times of the previous investment. The FIIs were net sellers in just two months i.e. July and October amounting to Rs. (185.6) crores and (74.7) crores respectively.
Except these two months FIIIs were buyers throughout the year and touched Rs. 1000 crores mark in beginning of the year i.e May amounting to Rs. 1839.7 crores. As far debt investment is concerned FIIIs, it was encouraging year and was expected to be more investment in debt by the FIIIs in the next year.

**April 2004-March 2005**

![Net equity and debt investment by FIIIs for the year April 2004 to March 2005](chart.png)

**Source:** self compiled

It was the good year relating to FIIIs investment norms which got revised in this year focusing on the following main point was

- The MFs and the FIIIs were asked to enter the unique client codes (UCCs) pertaining to the parent MF and parent FII at the order entry level and enter the UCCs for their schemes of the MFs and sub-accounts of the FIIIs in the post closing session.
The cap of FII investments in dated Government securities and Treasury bills was raised from US $ 1 billion to US $ 1.75 billion, both under 100 per cent debt route and general 70:30 route. A cumulative sub-ceiling of US $500 million outstanding was fixed on FII investments in corporate debt. This was over and above the ceiling of US $1.75 billion for the Government debt. Both the sub-ceilings were separate and not fungible.

The process of registration of FIIs was streamlined and time required for the same was reduced.

The liberalization and consequent reform measures drew the attention of foreign investors leading to a rise in portfolio investment in the Indian capital market. The FIIs emerged as the largest institutional investors in the Indian equity market, apart from providing institutional character to the capital markets, the FIIs injected global liquidity in the markets and reduced the cost of capital. From the perspective of the FIIs, investments in various countries provided an excellent measure of portfolio diversification and hedging as also taking advantage of arbitrage opportunities.

Over the recent years, India has emerged as a major recipient of portfolio investment among the emerging market economies. Apart from such large inflows, reflecting the confidence of cross-border investors on the prospects of Indian securities market, except for one year i.e. 1998, India received positive portfolio inflows in each year. The stability of portfolio flows towards India is in contrast with large volatility of portfolio flows in most emerging market economies. The FII investment in equities in 2004-05 was Rs.44122.7 crores, which was one of the highest investments in
equities in a single year by FIIs. The total investment for the year amounted to Rs. 45881.3 crores also including net debt inflow by the FIIs.

The stock markets witnessed a long and sustained rally starting from May 2003, which continued throughout 2004 notwithstanding intermittent bouts of disturbance. Notably, unlike the past, this rally has been broad-based, encompassing almost all the sectors. And FII flows enhanced liquidity in the Indian stock market but not much evidence is there to support the hypothesis that FII flows have generated volatility in the returns (Mazumdar 2004). The BSE Sensex closed at 5740.99 to 4492.19 from previous year mainly on the back of strong buying support from domestic and foreign institutional investors, strong industrial growth, and satisfactory progress of monsoon. The linkages between the FIIs inflows and the performance of Sensex are robust and significant. The performance of Sensex in terms of market capitalization, movement of Sensex, Returns on Sensex, Trading Turnover and Sensex P/E ratio are significantly related to the surge in FIIs inflows. The behavior of Returns on Sensex and Volatility has been more stabilizing due to external inflows and the fluctuations are largely due to withdrawals by the domestic equity holders during the period 1992-2004 (Kumar, Saji 2006). The registered FIIs also rose from 540 to 685 in this year and net additions in FIIs during the year was 145 which was 107 more than from the previous year and it was a good sign for Indian Capital market and once again FIIs proved that they are contributing in promotion of Indian Capital market.
Net FIIs (equity) investment for the year April 2004 to March 2005

Source: self compiled

The net equity investment made by FIIs in this year amounted to Rs. 44122.7 crores which was almost 4000 crores more than the previous year. The FII investment in equities in 2004-05 was Rs. 44122.7 crore, which was one of the highest investments in equities in a single year by FIIs. The FIIs became net seller in the beginning of the year for just month i.e. May amounting to Rs. (3246.9) crores except from this negative outflow the FIIs invested positively throughout the year and touched more than Rs. 5000 crores net investment in equity in five months and even touched Rs. 8000 crores mark in March, the investment in the month of April, November, December, February and March amounted to Rs. 7638.2 crores, 6740.8 crores, 6683.8 crores, 8376.3 crores and 7502.2 crores respectively and the sensex was recorded 5809.01, 5960.75, 6393.83, 6595.05 and 6679.18 respectively. It was due the large
investment made by the FIIs in these months and recorded new heights by BSE Sensex indices and contributing in promotion of Indian Capital market.

Net FII (Debt) in cr.

Net FII (Debt) investment for the year April 2004 to March 2005

Source: self compiled

This year did not prove to be much encouraging from the point of view of debt investment made by the FIIs. The total net investment by FIIs in debt securities amounted to Rs. 1758.6 crores which was lower than the previous year i.e. Rs. 5805 crores. FIIs were net sellers throughout the year except in September, November, December, February, and March amounting to Rs. 189.7 crores, 1444.5 crores, 3455.9 crores, 833.1 crores and 424.4 crores respectively. The FIIs did not show confidence in debt securities rather pumped major inflow in equities in the same period. FIIs were net sellers from April to August but bounced back and pumped Rs. 1444.5 crores and 3455.9 crores in next two months i.e. November and December respectively. But there was sign of improvement next year because FIIs after
invested positively in last two months of this financial year i.e. February and March amounting to Rs. 833.1 crores and 424.4 crores respectively.

**April 2005-March 2006**

![Net equity and debt investment by FIIs for the year April 2005 to March 2006](image)

Source: self compiled

It was also a good year relating to net investment made by the FIIs in the equity market but the FIIs were net sellers throughout the year in debt segment.

FIIs invested more in Indian equities than in Korean or Taiwanese equities. Korea and Taiwan have always been the leading recipients of FII's money. It was only in 2004 that India received the second highest inflow at over Rs. 44122.7 crores. However, since their entry in India, in all the years, FIIs have injected positive net inflows into the country in the year 1998, when it turned negative to the extent of Rs. (739.8) crores. After that, FIIs recorded minimum positive net inflows of Rs. 2527 crores in the calendar year 2002. Since then, there has been substantial increase in the flow of foreign investment and Rs. 48800.5 crores worth of net equity inflows was
injected during the year 2005. There was more than 900% increase in the net foreign inflow within a period of less than three years from 2002 to 2005.

The numbers of FII registered with SEBI till March 2006 was 882 of which 197 was registered in the year 2005-06. India was the second biggest recipients of offshore fund money in Asia so far in the current year 2005-06, next only to Taiwan $1 bn. Earlier, the investment by the FIIs was basically from the US, the UK and Hong Kong. These days, the FIIs from Oman, Sweden and Luxembourg are also finding place in India for their investment. And the FII investment in most of the leading companies has reached the maximum limit.

The BSE Sensex rose to highest in this year from 5740.99 in the 2004-05 to 8278.55 in this financial year and touched the historical point of 10,000 in February and March of this year recording at 10,090.08 and 10,857.03 respectively. A study by Panda (2005) also shows FII investments do not affect BSE Sensex. Inherent strength of the Indian economy is characterized by the ongoing reforms, good economic growth, cheaper valuations, strong rupee, abundant forex reserves, good corporate performance, good corporate governance practices, skilled manpower and cheap professional management services, and it is the main cause for the rapid inflow of FII investment into the country. Ahmed et al (2005) also confirms that there has been very little destabilizing effect of FII flows on individual equity returns of the firms during 2005.
The net equity investment made by the FIIs in this year was recorded at the tune of Rs. 48800.5 crores. There were few instances of net equity outflow in this year i.e. April, May and October amounted to Rs. (654.1) crores, (1140.1) crores and (3693.9) crores respectively. Except these months the FIIs led positive inflows throughout the year and touched Rs. 5000 crores mark in six months and even touched Rs. 9000 crores mark in February of this year amounting to Rs. 9335 crores. Sensex also touched the historical height of 10090.08 in the February of this period.

Foreign institutional investors usually prefer investments in equity to debt, which is in line with our government’s objective to receive funds from non-debt foreign flows. This preference of FIIs to equities help in reducing the yield differences between equity and bonds, which in turn helps in improving the capital structures of corporations.
As professional bodies, the FIls emphasize on the transparency in the corporate activities and information disclosure norms. This compels Indian corporates to follow stringent corporate governance practices. The FIls with different risk and return parameters have access to abundant information. This helps in aligning the asset prices with fundamentals, thereby, bringing in efficiency and reducing the volatility in the market.

Their significant contribution to the Indian market is liquidity. Furthermore, the entry of FIIs in the Indian market significantly contributed to the financial innovation and engineering and the development of Indian Capital market i.e., the development of zero-coupons bonds, introduction of online trading, dematerialization of securities, rolling settlement and introduction of derivatives instruments.

There is cause-effect relationship between FII investment and market movement. On the other hand, the acts of FIIs impact forex markets and capital markets. On the other hand, the payoff of their investment depends upon both exchange rate movements and stock price movements. Various recent research studies on the relationships between net investments by FIIs and market movements explain that there is positive correlation between them. It can be directly observed from the fact that the liquid flow from foreign investment is taking the benchmark indices in Sensex and the Nifty to an all-time new high.
Net FIIs (debt) investment for the year April 2005 to March 2006

Source: self compiled

It proved to be a depressing year from the point of view of debt investment made by the FIIs in the Indian Capital market. The net outflow in debt for the period 2005-06 amounted to Rs. (7333.8) crores as compared to previous year i.e., Rs. 1758.6 crores. The FIIs were net sellers in debt throughout the year and was not a positive investors in a single month of this period. It was far from the expectations and FIIs did not show confidence whereas they invested in equity at the highest level since they are allowed invest in Indian Capital market. However, even the heavy equity investment by the FIIs was not help in building confidence in the mind of investors to invest in debt. As equity investment was at highest in this period, it gave hope that the next year would be good as compared to this year in debt investment by the FIIs.

April 2006-March 2007
FII like last year again showed less interest in this year and the total investment made by the FII in the equity and debt amounted to Rs. 30840.4 crores which is the lowest investment made by the FII after 2002-03.

Fortuitous combination of comfortable monetary situation in the country and low interest rates at the global level (which facilitated capital flows) and the era of cheap money effectively ended with major central banks tightening monetary policy was could be a reason for the low investment by FII.

The registered FII till March 2006 were stood at 997 and the net additions in FII during the year were 115. The BSE Sensex touched 14000 mark in this year and the annual sensex for this period was 12277.3 more than 4000 points from the previous year.
FIIs have been important players in the Indian equity market since allowing them to invest in India but since 2003-04 they are taking much interest in the Indian equity market and investing more except the year 2006-07 when their investment drastically came down in comparison to the corresponding figure in its preceding year. Yet their importance in the Indian equity market cannot be overlooked. FIIs have often been blamed for their pull back of money at the little hint of trouble in the recipient country and they not only destabilize the market but also exert bad effect on the economy. Their sudden withdrawal of money from the market had often led to the critical situations in the past especially Mexican crisis and Asian crisis.

FII flows into India have risen sharply since 2003-04. Over the past decade or so, FIIs have displaced domestic mutual funds in importance in the equity market. Their shareholding in the sensex companies is large enough for them to be able to move the market and it is evident from the upward movement in the sensex in the last couple of years since 2003-04 and touched historical points for the first time in Indian Capital market. The presence of FIIs have in improving standards of disclosure and governance generally but their dominant presence in the market gave rise to concerns that they may be a source of excess volatility and could end up destabilising the market and the economy at large.

While, in theory, this is possible, FIIs behaviour in emerging markets does not point to FIIs exciting markets easily. By and large, FII inflows into emerging markets, including India, has been positive, except in Malaysia and Indonesia at the time of Asian crisis. The size of inflows could vary and this itself could lead to market volatility. But such variations are unlikely to be destabilising in nature.
In India, volatility in portfolio inflows has been modest compared to other emerging markets. As domestic funds grow in size and pension funds enter the equity market, this would provide a measure of self-insurance against volatility occasioned by FII flows. The real problem caused by variations in FII inflows from year to year is not stock market volatility but difficulties posed in management of money supply and the exchange rate.

It is therefore obvious that the net FII inflow investment in the Indian Capital market is satisfactory and helped in establishing Indian capital markets. The upward movement in Sensex every month of the period 2006-07 and also resulted at a higher annual Sensex average recorded at 12277.33 hinted at more inflows by the FIIs in next year and led to the good promotion of Indian Capital market.

![Net FII (Equity) In cr.](image)

Net FIIs (equity) investment for the year April 2006 to March 2007

Source: self compiled
The net FII equity inflow for this period amounted to Rs. 25235.7 crores which is far more from the expectation steady and good investment was made by the FIIs since 2002-03. This year experienced few instances of net outflow in the months of May, December, and March which amounted at Rs. (7354.2) crores, (3667.4) crores and (1082) crores respectively. The sensex touched new high in this period and touched three milestones in the same year i.e., 12000\textsuperscript{th} in September, 13000\textsuperscript{th} in November and 14000\textsuperscript{th} in February and net FII equity inflow for these month amounted to Rs. 5424.7 crores, 9380.1 crores, and 7239.6 crores and it was evident from these facts that whenever FIIs pumped money in the Indian Capital market the sensex rose to the highest level for the first time in its history, contributed towards promotion of Indian Capital market.

Source: self compiled
It was a very good year relating to net debt investment by FIIs in the Indian Capital market and amounted to Rs. 5604.7 crores which was far better than previous year. The net debt investment made by the FIIs in the previous year was at the tune of Rs. (7333.8) crores and FIIs were net sellers in every month of previous year but in this period there was only one instance when FIIs became net sellers in January 2007 i.e., Rs. (2174) crores. Therefore except for one instance of net outflow, the FIIs were positive inflow contributors throughout the year and erased the worst memory of the past year and helped in building the faith of the FII investors towards the debt investment in the Indian Capital market. This trend showed a hope for more investment in debt by the FIIs in coming year and helped in the promotion of Indian Capital market.

April 2007-March 2008

![Net equity and debt investment by FIIs for the year April 2007 to March 2008](image-url)
Foreign Institutional Investors (FIIs) were permitted to invest in all the listed securities traded in Indian capital market for the first time in September, 1992. As per the RBI, Report on Currency & Finance (2003-04), since 1991 there has been continuous move towards the integration of the Indian economy with world economy. Since then the regulations with regard to FIIs investment become more liberal. As a result of abolishment of barriers to capital inflows in the form of FIIs investment, India attracted huge amount of foreign capital particularly from developed countries. The cumulative net investment by FIIs in Indian stock market since 1993 crossed Rs. 292473.60 crores (US$ 50 billion) at the end of March 2008.

International capital inflows have both positive as well as negative impact on the health of the recipient economy. On the positive side, these capital inflows raise the level of economic development by augmenting the domestic investment and widen financial intermediation. But these capital inflows also pose several threats to the domestic economic and financial system of the recipient economy like inflation, appreciation in exchange rate, overheating of the economy and possibility of sudden withdrawal. FIIs investment is volatile by nature and is often termed as ‘hot money’. The hot money character of FIIs investment adds to the possibilities of ‘contagion’ (Contagion effect refers to the common shocks in the form of financial crisis signals that arise due to commercial linkages and financial integration. The causes behind this effect may be for example as a result of crisis in a certain country, investors may face the financial losses which in turn forces the investor to sell their assets in other
countries to cover up their net positions and asymmetric information due to which investor links the occurrence of financial crisis in one country with other country).

Inflows from foreign institutional investors (FIIs) so far in the year 2007-08 topped with record Rs. 66179.6 crores (including equity and debt investment) and the rupee are up 4.4 per cent. For the first time in this year, the Reserve Bank of India intervened and bought dollars from the market to cool the rupee appreciation. The sharp pick-up in daily inflows has largely been due to the impressive initial public offers in the primary market. This suggests that a slowdown may be in the offing once the major IPOs are completed and the focus shifts to the impending monetary policy meetings of the RBI and the U.S. Federal Bank. The speed and the volume of current inflows caught the market by surprise. India's capital account outlook remained optimistic, but some market watchers felt that the pace of equity FII inflows would not be sustainable. Once the major IPOs were completed, valuations would come into investor focus, leading to a lull in equity inflows. Therefore in the light of huge and growing FIIs investment inflows to India, appropriate policy formulation very much needed for reducing the impact of possible threats and maximizing the benefits from the same to enhance economic and financial development. This emphasized the need to estimate the determinants of FIIs investment. Available empirical evidence suggests that FIIs inflows by and large are determined by the performance of stock markets and macroeconomic aggregates of the host country. Thus, FIIs investment is attracted toward an economy with sound macroeconomic factors, high returns, lesser risk and growing stock markets in terms of rising market capitalization and turnover. FIIs, give due consideration to risk-
return characteristics in the home (source) country while investing in emerging markets. The profit booking tendency of FIIs depends on the difference in the home country risk-return and host country risk return. Besides this, official policies of the host and home country i.e. degree of financial liberalization, also determine the size of FIIs inflows.

As far as the equity investments by FIIs are concern, this was the year of record breaking investment made by the FIIs. The total equity investment recorded at March 2008 was 53404.3 crores. The FIIs surged their money like a boom and total investment was at highest since they were allowed to enter in the Indian Capital market. The heavy investment by FIIs also affected the BSE Sensex and touched many milestone this year i.e., 15000\textsuperscript{th} mark, 16000\textsuperscript{th} mark, 18000\textsuperscript{th} mark and 19000\textsuperscript{th} mark in July, September, October, and November in this year respectively. When the Sensex crossed 17,000\textsuperscript{th} mark, the net FII investment strangely had fallen down to Rs. 10.04 billion. At 19,000\textsuperscript{th} mark, FII investment was lower at Rs. 7.81 billion. But suddenly, when the Sensex breached the 20,000, net FII investment was at Rs. 18.48 billion. That confirms the theory that FIIs have mostly been reason for the rise in the Sensex (Moin, 2010). FIIs contribution to the rise of the Sensex is more psychological than real. The total registered FIIs till March 2008 were 1329 and the net additions in FII registration during the year were 322 which were more than any previous year since 1992-93.
Net FIIs (equity) investment for the year April 2007 to March 2008

Source: self compiled

Net equity investment made by the FIIs in this period was Rs. 53404.3 crores and it was the record breaking investment made by the FIIs since they were allowed to invest in Indian Capital market. The equity investment was at boom except few instances when FIIs becomes net sellers in August, November, January and March amounting Rs. (7770.) crores, (5849.9) crores, (13035.7) crores and (130.4) crores respectively. The FIIs touched down the 20000 crores mark in July and October in this year and resulted in soaring the sensex at his peak and touched down the historical point of 19000 in the same year. It was the result of the large investments made by the FIIs and soaring sensex that FIIs help in building the Indain capital market and fully contributed in the promotion of Indian Capital market.
The net investment in debt by the FIIs in this year amounted to Rs. 12775.3 crores which was 7000 crores more than the previous year. The FIIs became net sellers in four months i.e., June, July, November and March amounting Rs. (541.3) crores, (1263) crores, (469.3) crores and (879.7) crores respectively. Apart from these months FIIs remained positive investors throughout the year and contributed in building the stabilising the Indian Capital market, it is also evident from the all time high index of the BSE Sensex during this period.
The FIIIs have been playing a significant role in the process of capital formation and economic growth of the country. There has been a dramatic increase in net FII flows to India over the period 2003-2007, and especially over the bull rally that climaxed in January 2008 when the Sensex reached a lifetime high of 21,206.77 points. FIIIs invested Rs. 66179.6 crores in Indian stocks in 2007-08 only. However, the onset of the recent global financial crisis saw FIIIs pulling out a record Rs. 47706.2 crores in 2008-09, the largest outflows since India opened its doors to FIIIs 15 years ago. A major chunk of FII selling of over Rs. 15347.3 crores in equity and Rs. 1858.1 crores in debt had taken place in October (2008) alone, which saw the Sensex going to its
lowest level in the last three years. The benchmark index had plunged to a low 7,697 points in October amid sharp outflow from FIIs.

Since the economic reforms in 1991, Indian economy has been increasingly integrated into the global economy and hence, Foreign Institutional Investment (FII) is largely open to the India’s equity, debt and derivatives markets. It is clear from the past investments data that there is an increase in net investments by FIIs till 2002 in which year such flow experienced a break. After 2002, FII flow shows a steep ramp. Again there was a small decrease in net investments in the year 2006. But there was a steep increase in the year 2007. The net FII increased to Rs. 66179.6 crore (including debt investments by the FIIs) till March 2008. This was the best period in the Indian capital market during which stock prices were increased and the market witnessed a Bull Run. And, FII investment treated as ‘Hot Money’ that ‘Fuel the Market Run’. Till
end of 2007 FIIs have been the Net Buyers. But they became Net Sellers in 2008-09. In January 2008, the US financial crisis came into light with sub-prime effect, which led to the major financial companies to post heavy losses. In September 2008, this crisis worsened with some of the companies had to file for bankruptcy and some had to take financial aids from government to continue their business operations. This crisis had significant impact on FII investment in India, as investors all over the world lacked confidence on the market. The crisis in confidence resulted in the selling of equities of Rs. 47,706.3 crore in April 2008-March 2009 by FIIs which comes to around 15% of net investment of Rs. 2,84,942 crore as on 1st January 2008 of last eight years. This had significant impact on India's stock market. When FIIs started withdrawing money from the financial market, the domestic investors became fearful and they also withdrew money from the market. Thus, the Sensex which touched above 21,000 mark in January 2008, has plunged as below as 8160 mark in March 2009. In fact, major falls in stock market has been accompanied by the withdrawal of money by FIIs. This confirmed positive relationship between FIIs' equity investments and the stock market performance in India.

After a long spell of growth, the Indian economy experienced a downturn. Industrial growth was faltering, inflation remained at double-digit levels, the current account deficit widened, foreign exchange reserves depleted, the rupee got depreciated, and the Sensex had crashed. All of these developments were not unrelated to the financial crisis in the markets of the developed countries, which affect India in many ways. The most immediate effect has been an outflow of foreign institutional investment from the equity market. Faced with the need to retrench assets in order
to cover losses in their home countries and seeking havens of safety in an uncertain environment, foreign institutional investors were major sellers in Indian markets in the financial year 2008-09. Over the financial year 2007-08, net FII investment inflows into India amounted to Rs. 66179.6 crores. As compared with this, FIIs pulled out record breaking outflow of Rs. 47706.2 crores in equity alone. Given the importance of FII investment in driving Indian stock markets and the fact that cumulative investments by FIIs stood at Rs. 271968.60 crores in equity and Rs. 19495 crores in debt at the beginning of this financial year, this pullout triggered a collapse in Indian stock markets. The Sensex fell from its closing peak of 20,873 on August 1, 2008, to around 10,500 by the middle of October 2008. Besides driving stock indices down, the exit of FIIs led to a sharp depreciation of the rupee.

The sensex during the year was downward throughout the year and closed at 12365.55 which is more than 4000 points below than the previous financial year 2007-08. Movements in the Sensex during these years were clearly driven by the behavior of FIIs, who were responsible for net equity purchases. At one level, this influence of the FIIs is puzzling. The cumulative stock of FII investment does not amount much when seen in terms of the percentage of the total market capitalization on the Bombay Stock Exchange. However, FII transactions are significant at the margin. The cumulative turnover by FIIs amounted to a substantial per cent of the total volume of turnover whenever the Sensex sees high volatility. Not surprisingly, there has been a substantial increase in the share of foreign stockholding in leading Indian companies, even exceeding 40 per cent of the total free-floating shares in some of the companies. Such presence of FIIs gave them a considerable role in
determining share price movements. Traditionally, Indian stock markets are known
to be narrow and shallow in the sense that there are few companies whose shares are
actively traded. Thus, though there are nearly 5,000 companies listed on the stock
exchange, the BSE Sensex incorporates just 30 companies, trading in whose shares is
seen as indicative of market activity. This shallowness also means that the effects of
FII activity is exaggerated by the influence their behavior has on other retail
investors, who, in herd-like fashion tend to follow the FIIs when making their
investment decisions. These features of Indian stock markets induce a high degree of
volatility for four reasons. In as much as an increase in investment by FIIs triggers a
sharp price increase, it in the first instance encourages further investments so that
there is a tendency for any correction of price increases unwarranted by price
earnings ratios to be delayed. And when the correction begins, it would have to be
led by an FII pull-out and can take the form of an extremely sharp decline in prices.
Secondly, as and when FIIs are attracted to the market by expectations of a price
increase that tend to be automatically realize, the inflow of foreign capital can result
in an appreciation of the rupee vis-a-vis the dollar. This increases the return earned
in foreign exchange, when rupee assets are sold and the revenue converted into
dollars. As a result, the investments turn even more attractive, triggering an
investment spiral that would imply a sharper fall when any correction begins.
Thirdly, the growing realization by the FIIs of the power they wield in what are
shallow markets, encourages speculative investment aimed at pushing the market
up and choosing an appropriate moment to exit. This implicit manipulation of the
market, if resorted to often enough, would obviously imply a substantial increase in
volatility. Finally, in volatile markets, domestic speculators too attempt to manipulate markets in periods of unusually high prices. The last few years have been remarkable because, in spite of high volatility, there have been more months when the market has been on the rise rather than on the decline. This clearly means that FIIs have been bullish on India for much of that time. The problem is that such bullishness is often driven by events outside the country, like the performance of other equity markets or developments in non-equity markets elsewhere in the world.

It is to be expected that FIIs would seek out the best returns as well as hedge their investments by maintaining a diversified geographical and market portfolio. However, when they make their portfolio adjustments, which may imply small shifts in favor of or against a country like India, the effects it has on host markets are substantial. Those effects can then trigger a speculative spiral resulting in destabilizing tendencies. For example, expectations of an interest rate rise in the US can slow FII investments and thus trigger the end of a bull run. It has very little to do with the performance of the companies listed on the stock exchange. Further, financial liberalization has meant that developments in equity markets can have major repercussions elsewhere in the system, including banks. Hence, any slump in those markets can affect the functioning of parts of the banking system. The forced closure (through merger with Punjab National Bank) of the Nedungadi Bank is an example of how a bank can suffer losses because of overexposure in the stock market. Similarly, if any set of developments encourages an unusually high outflow of FII capital from the market, it can impact adversely on the value of the rupee and set of speculation in the currency that can, in special circumstances, result in a
currency crisis. There are now too many instances of such effects worldwide for it to be dismissed on the ground that India's reserves are adequate to manage the situation. Thus, the volatility being displayed by India's equity markets warrant returning to a set of questions that have been bypassed in the course of neo-liberal reform in India. The most important of those questions is whether India needs FII investment at all. The capital accrued by FII flows does not help finance new investment either, as it is focused on secondary market trading of pre-existing equity. Also, shoring up the Sensex, which is inevitably volatile, merely helps create and destroy paper wealth and generate, in the process, inexplicable bouts of euphoria and anguish in the financial press. In the circumstances, the best option for the policymakers is to find ways of reducing substantially net flows of FII investments into India's markets. This would help focus attention on the creation of real wealth as well as remove barriers to the creation of such wealth, such as the constant pressure to provide tax concessions that erode the tax base and the persisting obsession with curtailing fiscal deficits, both of which are driven by dependence on finance capital. Measures are needed to prevent the market from being excessively vulnerable to global weaknesses.
The net equity investment by FIIs was badly affected by the global crisis and the FIIs were the net sellers throughout the year except few instances of net inflow by the FIIs. It was the worst year from the point of view of equity investment made by the FIIs. In this whole financial year FIIs were net sellers and their net outflow in equity amounted to Rs. 47706.2 crores which was more than any previous year since 1993 when they allowed to enter in the Indian capital market. This can be attributed to the generally weak sentiments of investors following the global credit crisis, which not only engulfed the developed countries but also affected the developing countries. The FIIs were net sellers throughout the year and even touched 15000 crores mark in outflow in October 2008. But at the end of financial year FIIs once again became...
positive buyer and invested Rs. 530.3 crores in the March 2008 and were expected to invest more on next year and contributed in the promotion of Indian Capital market.

Net FII (Debt) investment for the year April 2008 to March 2009

Source: self compiled

Net investment in debt by the FIIIs was good compared to equity investment and amounted to Rs. 1895.2 crores. The FIIIs investment in debt was positive in 6 months i.e. July, August, September, November, December and January and total net inflow in these months amounted to Rs. 13724.7 crores and the net outflow of the other six months amounted to Rs. 11829.5 crores. The global crisis which occurred in September 2008 had a minimal effect on the debt investment by the FIIIs and on the basis of it was expected that coming out the investment in debt by the FIIIs would go higher in next year and further contribute in stabilising the Indian Capital market and from the worst phase of global crisis.

April 2009 - March 2010
India, among the world investors, is believed to be a good investment destination in spite of political uncertainty, bureaucratic hassles, shortages of power supply and infrastructural deficiencies. Despite the Asian financial turmoil, India improved its position among the most attractive foreign investment destinations in the world. India presented a vast potential for overseas investment and actively encouraged the entrance of foreign players into the market. No company, of any size, aspiring to be a global player could no longer ignore this country, which is expected to become one of the top emerging economies (Bardhan, 2000). India, which is the second fastest growing economy after China, has lately been a major recipient of foreign institutional investor (FII) funds driven by the strong fundamentals and growth opportunities (Banaji, 1998). FIIs have recognized the fact and unlike other countries where FDI has gained predominance, India has seen significant growth in FII
investment (Chakrabarti, 2001; Khanna, 2002). Since the beginning of liberalization in 1990s, FII flows to India have steadily grown in importance. But, India’s attractiveness as a destination for foreign investment is a relatively recent phenomenon, barely a few years old. After their flight last year, foreign institutional investors flocked back to bet on the India’s growth story by pouring in a record over Rs. 90,292.4 crores in domestic equities and Rs. 32,437 crores in debt securities in the financial year 2009-10. The late revival of monsoon, upward revision of economic growth from 5.8 per cent to 6.1 per cent, better-than-expected performance of companies in the quarter ending June 30, 2009, the new direct taxes code, leading to savings in the tax payer’s money, the trade policy with an ambitious target of US$ 200 billion exports for 2010-11 have all revived the confidence of FIIs investors in India. Both consumption and investment led industries linked to domestic demand, such as auto, banking, capital goods, infrastructure, retail, etc are likely to continue attracting FII funds (Rao, 2008). FIIs have made net investments of US$ 10 billion in the first six months (April to September) of 2009-10, major portion of these investments have come through the primary market, more than through secondary markets.

International capital investment can play a useful role in development by adding to the savings of low and middle- income developing countries (Michael and Menkhoff, 2003; Mody et al, 2001) in order to increase their pace of investment. However, foreign investment can also prove unproductive to developing economies by exposing them to disruptions and distortions from abroad, and by subjecting them to surges of capital inflows or massive outflows of capital flight (Dodd, 2004).
Thus, foreign capital has several implications for any economic system. But, implications of foreign capital largely depend on many factors like absorption capacity of host country, size of investment and above all nature of investment. After significant outflows of FIIs in 2009, FIIs have made net investments of Rs. 90,292.4 crores in equities and Rs. 32,437 crores in debt securities in April 2009 to March 2010. For the long-term investment there is little reason for worry, but short-term traders are adversely getting affected by the role of FIIs are playing at present. Rakshit (2006) have argued that, far from being healthy for the economy, FIIs inflows have actually imposed certain burdens on the Indian economy. Sudden fall and sudden increase in FIIs in India has raised several issues before the policy makers regarding the real implications of FIIs. Impact of FIIs can largely be observed at: (1) stock market (2) exchange rate and (3) forex reserves.

Institutional investors have enormous financial clout in the world’s financial markets, especially in BRIC (Brazil Russia, India, and China) nations. India, which opened its gates to foreign institutional investors in September 1992, in the wave of economic reforms, has seen the impact of institutional investment. It has also witnessed their strategies, trading techniques both in financial markets and business sectors. Their investment strategies have seen a profound impact on financial infrastructure and functioning of Indian Capital Markets. For the two consecutive years in 2004-05 and 2005-06, net investment in equity showed year on year increase of 10 percent. When there is huge investment by FIIs, sentiments in the market are very positive, triggering all round buying by investor and market goes up. The FIIs hold huge fund as an investment and because of this whenever the FIIs starts pulling
their funds from the market there is panic in the market triggering all round selling by the investors and the market falls which creates the volatility. Due to presence of the FIIs, Indian capital markets are highly synchronized with global markets since the integration of Indian Financial Markets with their global counterparts, any negative developments in international scene can trigger the shock waves in domestic market. The developments in international market, especially NASDAQ, have significantly influenced movements of share prices and indices in Indian market.

After the global crisis in 2008, the FIIs once again showed confidence in Indian Capital market and surge their money in Indian Capital market like a thunder and invested at a tune of Rs. 122729.4 crores (including debt) and revived the Indian Capital market, in this period BSE sensex rose to 15581.21 which is more than 3000 points from the previous year which was affected by the global crisis. According to the BSE category-wise turnover data (which captures secondary market investments on both the exchanges) net investments by FIIs in the stock markets have been only Rs 22,849 crores. QIP offers raised around Rs 42,000 crores (Venkatasubramanian, 2009), most of which has been subscribed by FIIs. This suggests that FIIs invested far more through the QIP route than through the secondary market route. The net additions in the registration of FIIs recorded in this period were 78 and at the end of year, March 2010, total registered FIIs were 1713. On the whole it was the good year relating to FIIs investment in the Indian Capital market and contributing in revival of Indian Capital market.
The net investment in equity made by the FIIs amounted to Rs. 90292.4 crores which was far better than the previous year which was also affected by global crisis and FIIs were net sellers throughout the year amounted to Rs.(47706.2) crores. But FIIs pumped the investment in equities a record high since 1992-93. The FIIs investment touched the 20000 crores mark in May 2009 and revived the Indian Capital market, the sensex rose from 12365.55 from previous year to 15585.1 at the end of March 2010. The FIIs were positive investors throughout the year except one instance of net outflow recorded in January 2009 amounting to Rs. (500.3) crores. Therefore, it was evident from the performance of FIIs in this financial year that it helped contributing in promotion of Indian Capital market. Thus, FII flow can be considered one of the factors driving the performance of Indian capital market. It is also found that the FII net inflows are not only correlated with the stock market return but fairly explains
the movements in the Indian capital market. Although FIIs were the net sellers in the financial year 2007-08 due to global crisis, but they resumed their investment activities in a big manner and the stock market barometer touched 15,000 after 9 months of downsizing. This reflected the strong economic fundamentals of the country, as well as the confidence of the Foreign Institutional Investors in the growth and stability of the Indian capital market. Besides, improved regulatory standards, high quality of disclosure and corporate governance requirement, accounting standards, shortening of settlement cycles, efficiency of clearing and settlement systems and risk management mechanisms led FIIs to perceive great potential for investment in the Indian economy (Mishra P K et al, 2009).

Net FII (Debt) in cr.

![Net FII (Debt) in cr.](image)

Source: self compiled

The long moribund Indian debt market sprung to life in April 2009-March 2010. Total investment by foreign institutional investors (FIIs) reached Rs 32,437 crores in
this financial year, this was more than 24,000 crores from the previous financial year and it was a good sign for Indian Capital market. Once again FIIs showed interest in debt securities and surged a record investment in debt securities. There were few instances when FIIs become net sellers in three months i.e., May, August and December to the tune of Rs. (2711.4) crores, (379.4) crores and (1522.4) crores respectively. Except from these months FIIs was net buyers throughout the year.

Debt market dealers said investors have been attracted by the stability of returns commanded by some corporate groups. Even if spreads have been comparable to paper from other emerging markets, this has been a differential factor. There are some very good names in the corporate sector, so investors are content to part funds with them even if the yields are only marginally higher. The Higher interest rate was also a good reason for overseas investors to invest in the debt market. On the whole it was a better year for the Indian Capital market due to record breaking investment made by the FIIs in equity and debt for the financial year 2009-10 after a discouraging previous year due to global crisis.
REFERENCES


TESTING OF HYPOTHESES

Section Two: FIIs operations in Indian Capital Market- Testing of Hypotheses

1. Null hypothesis: There is no significant impact of FIIs in the promotion of Indian capital market.

Alternate hypothesis: There is significant impact of FIIs in the promotion of Indian capital market.

For the above hypothesis, market capitalization of both major indices of Indian capital market i.e. BSE Sensex and NSE Nifty as a dependant variables and Net FIIs Investment as an independent variable have been analyzed. The sample data of FIIs investments and market capitalization of both indices consists of yearly basis from 1992-93 to 2009-10. To test the above-mentioned hypothesis, we are using 2-tailed Karl Pearson correlation technique has been used.

Thus by applying 2-tailed Karl Pearson correlation on net FII investment and BSE Sensex market capitalization, the following summary table has emerged.

**Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Capitalisation-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSE (In crores)</td>
<td>17</td>
<td>368071</td>
<td>6164157</td>
<td>1.73E6</td>
<td>1808197.511</td>
</tr>
<tr>
<td>NET FIIs INVESTMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(IN CRORES)</td>
<td>17</td>
<td>-43337.8</td>
<td>114901.1</td>
<td>2.070E4</td>
<td>34231.7268</td>
</tr>
</tbody>
</table>

**Correlations**
<table>
<thead>
<tr>
<th>Market Capitalisation-BSE (In crores)</th>
<th>Market Capitalisation-BSE (In crores)</th>
<th>NET FIIs INVESTMENT (IN CRORES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.683**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.003</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>NET FIIs INVESTMENT (IN CRORES)</td>
<td>Pearson Correlation</td>
<td>.683**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.003</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>

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

From the above table, it is evident that correlation between market capitalization of BSE Sensex and the net FII investment is 0.683 at a significant level of 1 percent. This shows that there is a good relationship between these two variables and both are positively correlated, and thus proves that there is a good impact of FIIs investment in the promotion of Indian capital market.

Now, applying 2-tailed Karl Pearson correlation on net FII investment and NSE Nifty market capitalization, the following summary table has emerged.

**Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P CNX NIFTY AVERAGES (ANNUAL)</td>
<td>17</td>
<td>864.6</td>
<td>4896.6</td>
<td>1.971E3</td>
<td>1370.7157</td>
</tr>
<tr>
<td>NET FIIs INVESTMENT (IN CRORES)</td>
<td>17</td>
<td>-4337.8</td>
<td>114901.1</td>
<td>2.070E4</td>
<td>34231.7268</td>
</tr>
</tbody>
</table>

**Correlations**

<table>
<thead>
<tr>
<th></th>
<th>S&amp;P CNX</th>
<th>NET FIIs</th>
</tr>
</thead>
</table>
From the above table, it is found that correlation between market capitalization of BSE Sensex and the net FII investment is 0.532 at a significant level of 5 percent. This shows that there is a good relationship between these two variables and both are positively correlated, and therefore, there is a good impact of FII's investment in the promotion of Indian capital market.

The correlation between BSE Sensex and Net FII's investment is 0.683 at a significant level of 1 percent and NSE Nifty and Net FII's investment 0.532 at a significant level of 5 percent are positively correlated. Thus, the null hypothesis i.e. ‘There is no significant impact of FII's in the promotion of Indian capital market’ is rejected and alternative hypothesis i.e. ‘There is significant impact of FII's in the promotion of Indian capital market’ is accepted.

2. **Null hypothesis**: There is no significant impact of FII's investment on BSE Sensex.

   **Alternate hypothesis**: There is significant impact of FII's investment on BSE Sensex.

**Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>NIFTY AVERAGES (ANNUAL)</th>
<th>INVESTMENT (IN CRORES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P CNX NIFTY AVERAGES (ANNUAL)</td>
<td>Pearson Correlation 1</td>
<td>.532*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed) .028</td>
<td>.028</td>
</tr>
<tr>
<td></td>
<td>N 17</td>
<td>17</td>
</tr>
<tr>
<td>NET FIIs INVESTMENT (IN CRORES)</td>
<td>Pearson Correlation .532*</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed) .028</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N 17</td>
<td>17</td>
</tr>
</tbody>
</table>

*. Correlation is significant at the 0.05 level (2-tailed).
<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NET FIIs INVESTMENT (IN CRORES)</strong></td>
<td>17</td>
<td>-43337.8</td>
<td>114901.1</td>
<td>2.070E4</td>
<td>34231.7268</td>
</tr>
<tr>
<td><strong>SENSEX</strong></td>
<td>17</td>
<td>2898.69</td>
<td>16568.89</td>
<td>6.5597E3</td>
<td>4643.56849</td>
</tr>
</tbody>
</table>

**Correlations**

<table>
<thead>
<tr>
<th></th>
<th>NET FIIs INVESTMENT (IN CRORES)</th>
<th>SENSEX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NET FIIs INVESTMENT (IN CRORES)</strong></td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>17</td>
</tr>
<tr>
<td><strong>SENSEX</strong></td>
<td>Pearson Correlation</td>
<td>.527*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.030</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>17</td>
</tr>
</tbody>
</table>

*. Correlation is significant at the 0.05 level (2-tailed).

From the above results, it is found that the correlation between Net FIIs investment and SENSEX is .527. This shows that is a moderate relationship between Net FIIs investment and SENSEX. It shows that there is a moderate impact of FIIs investment in the fluctuation of SENSEX.

This positive correlation establishes the fact that the FII flows are an important driver of Indian Capital Market performance and hence, have a positive impact on country’s economic development. But the extents of the movements in Indian capital market are explained by movements in FII flows and can be examined by running the regression analysis. In running the regression analysis, Sensex based monthly return have been taken as the dependent variable and the net equity investment flow.
by FII s are considered as the independent variable. To test the above-mentioned hypothesis, multiple linear regression model fitted with the econometric technique of ordinary least square (OLS) has been done. Regression equation looking at relationship between BSE returns and FII flows is:

\[ SR_t = \alpha + \beta \text{NFI}_t + \epsilon_t \]

Where \( t \) is the Sensex based monthly return at time \( t \); \( \text{NFI}_t \) is the net equity investment flow by FIIs at time \( t \); \( \alpha \) and \( \beta \) are constants; \( \epsilon_t \) is the white noise.

Thus by applying Linear regressions on net FII investment and SENSEX value the following summary table has emerged.

**Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.527a</td>
<td>.277</td>
<td>.229</td>
<td>4077.29003</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), NET FIIs INVESTMENT (IN CRORES)
### ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>9.564E7</td>
<td>1</td>
<td>9.564E7</td>
<td>5.753</td>
<td>.030</td>
</tr>
<tr>
<td>Residual</td>
<td>2.494E8</td>
<td>15</td>
<td>1.662E7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.450E8</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), NET FIIs INVESTMENT (IN CRORES)
b. Dependent Variable: SENSEX

### Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>5081.396</td>
<td>1165.227</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NET FIIs INVESTMENT (IN CRORES)</td>
<td>.071</td>
<td>.030</td>
<td>.527</td>
<td>.030</td>
</tr>
</tbody>
</table>

a. Dependent Variable: SENSEX

It can be observed from the above table that all explanatory variables, taken together establish a relationship nearly 27.7 percent ($R^2 = 0.277$) of the total variables in the capital market of India in each year. This means that whatever changes have happened in the SENSEX for period under study the FI investments are responsible up to 27.7%. This implies that there are many other macro economic factors which have indirectly affected the SENSEX in India. Therefore, it may be inferred that according to the model made on the basis of linear regression, FII investment have affected the SENSEX value from the coefficients of the model as shown above. It can
be observed from the above table that the value of t statistics is 2.399 which is significant at 3 percent level of significance which means that the null hypothesis is not acceptable and thus alternate hypothesis that there is significant impact of FIIs on the SENSEX is accepted meaning thereby that FIIs are aiding in the promotion of Indian Capital market.

3. **Null hypothesis:** There is no significant impact of FIIs investment on NSE Nifty.
   
   **Alternate hypothesis:** There is significant impact of FIIs investment on NSE Nifty.

### Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
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<td>1.97E3</td>
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</tr>
<tr>
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<td>17</td>
<td>-4337.8</td>
<td>114901.1</td>
<td>2.07E4</td>
<td>34231.7268</td>
</tr>
</tbody>
</table>
### Correlations

<table>
<thead>
<tr>
<th></th>
<th>S&amp;P CNX NIFTY AVERAGES (ANNUAL)</th>
<th>NET FII INVESTMENT (IN CRORES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P CNX NIFTY AVERAGES (ANNUAL)</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>17</td>
</tr>
<tr>
<td>NET FII INVESTMENT (IN CRORES)</td>
<td>Pearson Correlation</td>
<td>.532*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.028</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>17</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).

From the above analysis it is observed that the correlation between Net FII investment and S&P CNX Nifty is .532. This shows that there is a moderate relationship between Net FII investment and S&P CNX Nifty. It’s therefore, evident that there is a moderate impact of FII investment in the fluctuations on S&P CNX Nifty. These positive correlations establish the fact that the FII flows are an important driver of Indian Capital Market performance and hence, have a positive impact on country’s economic development. But extents of the movements in Indian capital market are explained by movements in FII flows and can be examined by running the regression analysis. In running the regression analysis, S&P CNX Nifty based monthly return have been taken as the dependent variable and the net equity investment flow by FII is considered as the independent variable. To test the above-mentioned hypothesis, trend analysis using multiple linear regression model fitted with the econometric technique of ordinary least square (OLS) has been done. Regression equation looking at relationship between NSE returns and FII flows is:
NR_t = \alpha + \beta \text{NFII}_t + \varepsilon_t

Where \( t \) \( NR_t \) is the S&P CNX Nifty based monthly return at time \( t \); \( \text{NFII} \) is the net equity investment flow by FIIs at time \( t \); \( \alpha \) and \( \beta \) are constants; \( \varepsilon_t \) is the white noise.

Thus by applying Linear regressions on net FIi investment and SENSEX value the following summary table has emerged.

### Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.532(^a)</td>
<td>.283</td>
<td>.235</td>
<td>1198.8767</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), NET FIIs INVESTMENT (IN CRORES)

### ANOVA\(^b\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8502201.851</td>
<td>1</td>
<td>8502201.851</td>
<td>5.915</td>
<td>.028(^a)</td>
</tr>
<tr>
<td></td>
<td>2.156E7</td>
<td>15</td>
<td>1437305.394</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.006E7</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), NET FIIs INVESTMENT (IN CRORES)

\(^b\) Dependent Variable: S&P CNX NIFTY AVERAGES (ANNUAL)
<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1530.168</td>
</tr>
<tr>
<td></td>
<td>NET FII investments</td>
<td>.021</td>
</tr>
</tbody>
</table>

It can be observed from the above table that all explanatory variables, taken together establish a relationship explain nearly 28.3 percent ($R^2 = 0.283$) of the total variables in the capital market of India in each year. This means that whatever changes have happened in the S&P CNX NIFTY for period under study the FII investments are responsible up to 28.3%. This implies that there are many other macro economic factors which have indirectly affected the S&P CNX NIFTY in India. Therefore, it may be inferred that according to the model made on the basis of linear regression, FII investment have affected the S&P CNX NIFTY value from the coefficients of the model as shown above. It can be observed from the above table that the value of t statistics is 2.432 which is significant at 3 percent level of significance which means that the null hypothesis is not acceptable and thus the alternate hypothesis that there is significant impact of FIIs on the S&P CNX NIFTY is accepted meaning thereby that FIIs are aiding in the promotion of Indian Capital market.

4. **Null Hypothesis:** There is no significant difference in respect to FIIs investment in debt and equity in Indian capital market.
**Alternative Hypothesis:** There is significant difference in respect to FIIs investment in debt and equity in Indian capital market.

**Group Statistics**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>FII Investment Equity Rs.</td>
<td>13</td>
<td>2.2292E4</td>
<td>35033.04376</td>
<td>9716.41813</td>
</tr>
<tr>
<td>FII Investment Debt</td>
<td>13</td>
<td>2.4815E3</td>
<td>4540.86704</td>
<td>1259.40992</td>
</tr>
</tbody>
</table>

**Independent Samples Test-1**

<table>
<thead>
<tr>
<th>FII Investment Rs</th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>15.519</td>
<td>.001</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>2.022</td>
<td>12.403</td>
</tr>
</tbody>
</table>

As the value of F is greater than 10, the equal variance is assumed. In table-1 the value of t is greater than 2 that is 2.022 which is insignificant at 5.4 percent level of significance. Hence the null hypothesis is not accepted which means that there is significant difference in respect to FIIs investment in debt and equity in Indian capital market.