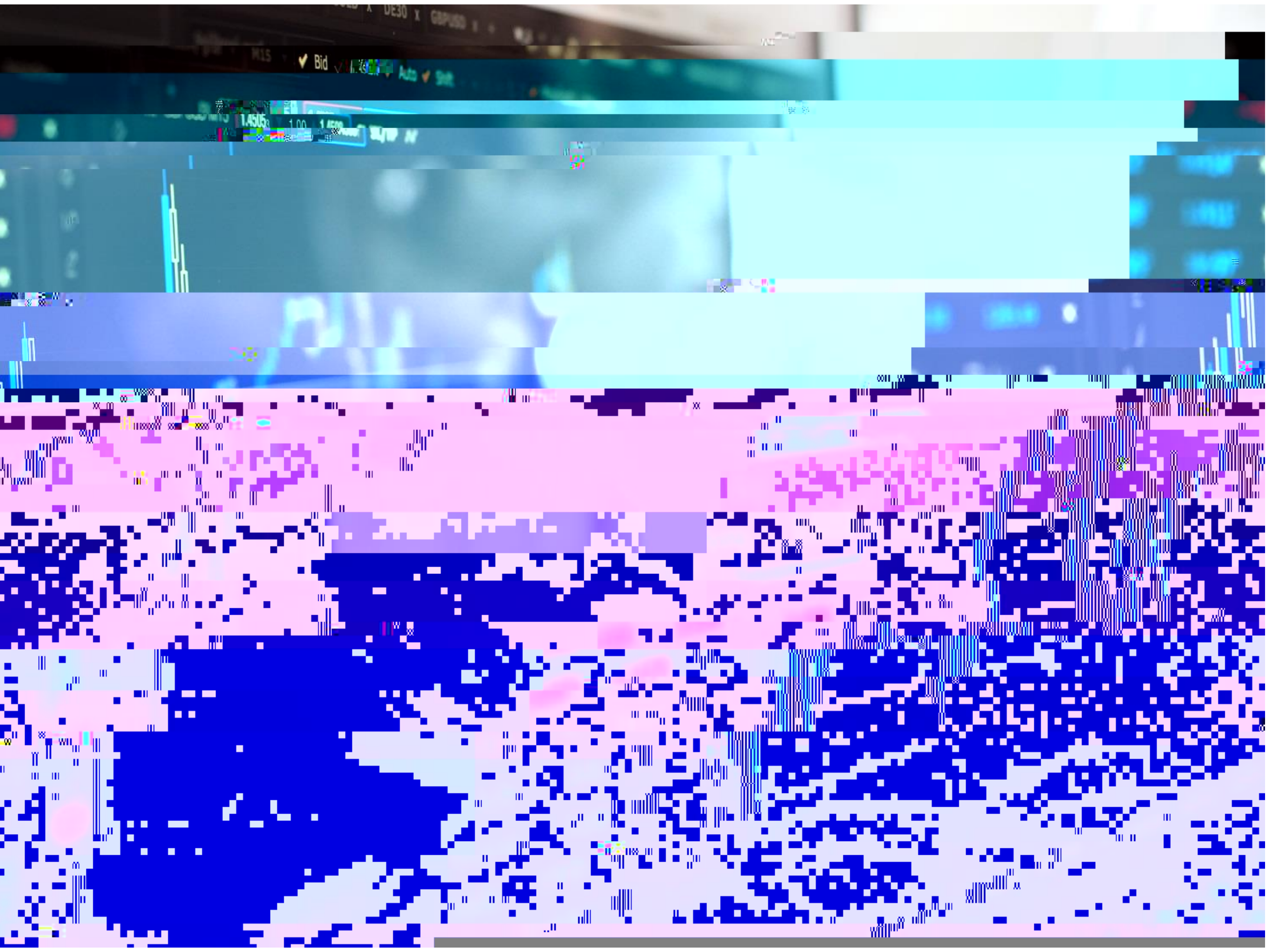
Indian Stock Market Valuation

An Analysis Through Some Graphs



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The quick upward movement from the beginning of 2017 has raised questions about the market valuation, amid many analysts suggesting caution.

We set out to decipher the market valuations.

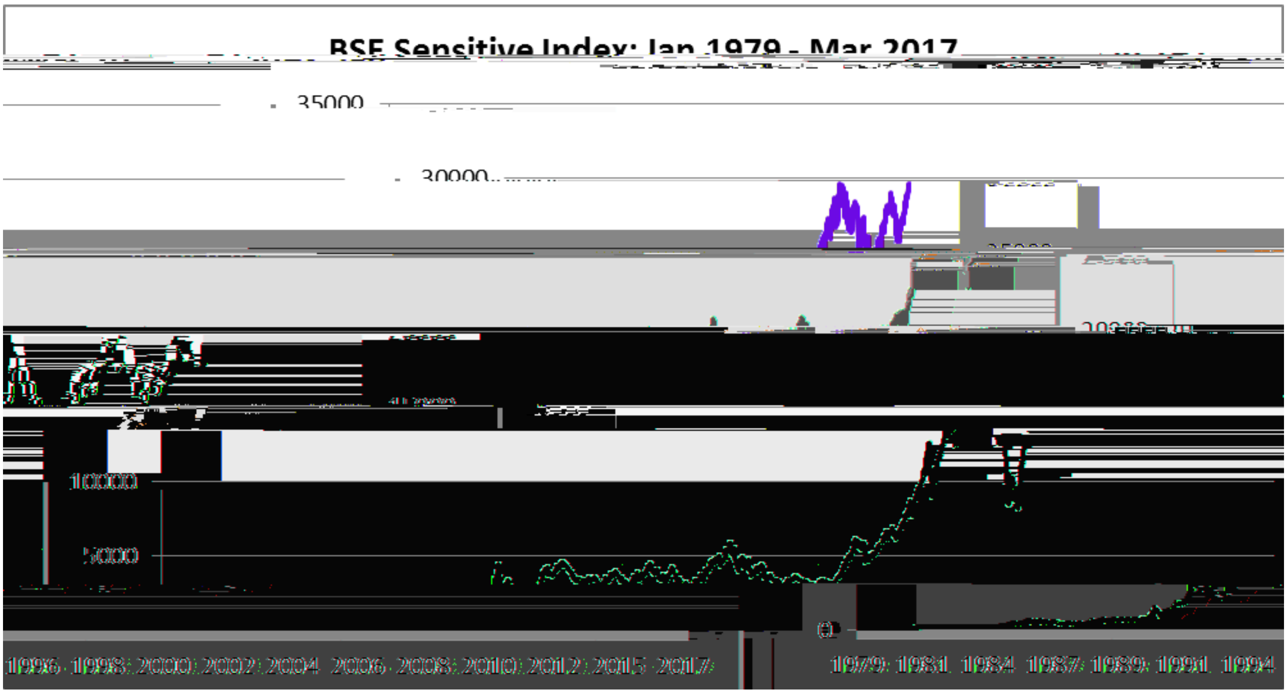
On April 5, 2017, the Indian markets had reached historic peaks. All the broader market indices achieved remarkable highs on that day, except the BSE Sensitive Index (Sensex). Though Sensex didn't cross the peak it reached on March 4, 2015, it is just a whisker away. Nevertheless, the closing prices reached all-time high even in this case. The quick upward movement from the beginning of 2017 has raised questions about the market valuation, amid many analysts suggesting caution.

We set out to decipher the market valuations. Here's what we have found.

Our analysis suggests that the Indian market cannot be considered as overvalued, given the history and current dynamics. Though we are at historical highs, we are not anywhere closer to the dangerous levels reached during the previous downturns, based on any of the indicators from a historic perspective. However, some of the indicators suggest caution in comparison with the global

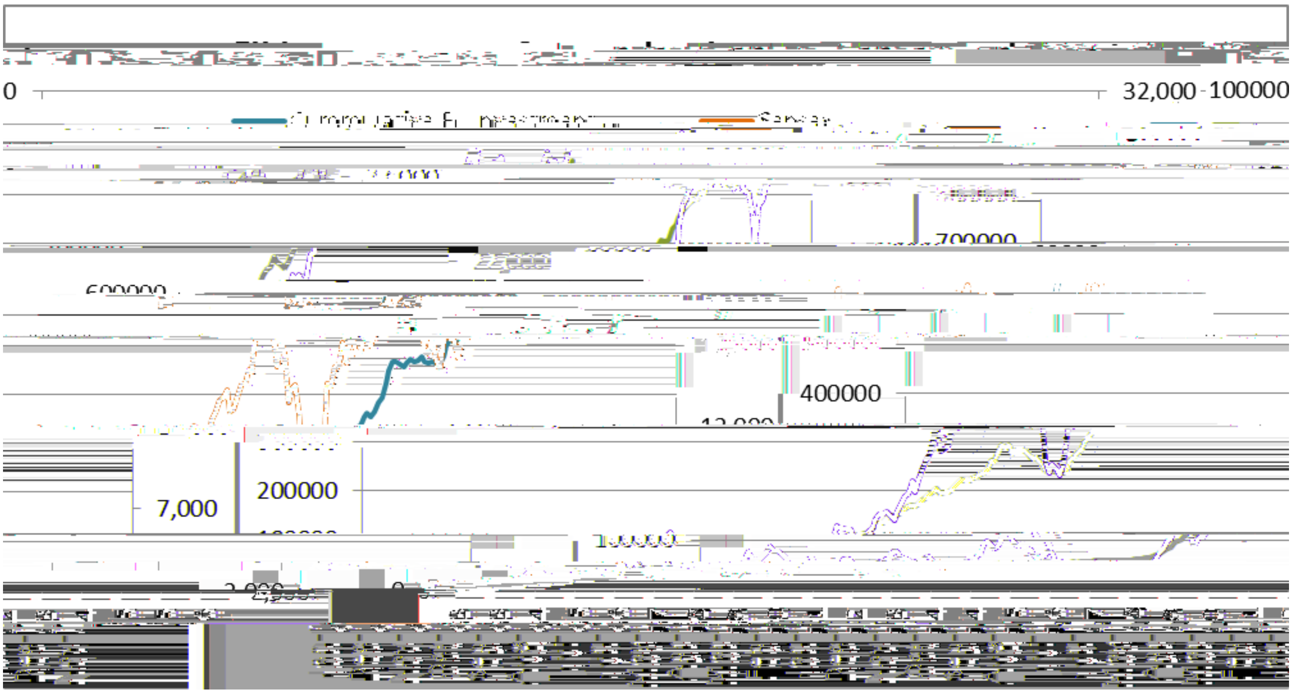
Stable Growth Through Boom, Bubble, and Bust

Let us start with a chart of Sensex daily closing index for the available history, from 1979. This summarizes the history of Indian capital markets. One could see visible changes starting with the real sector reforms in 1984, and financial sector reforms in 1991, the scam of 1992, entry of FIIs in 1993, dot-com bubble of 2000, the credit market boom and bust of 2008-09 etc. Even with all these movements, the market has given average return more than 16% during this period.

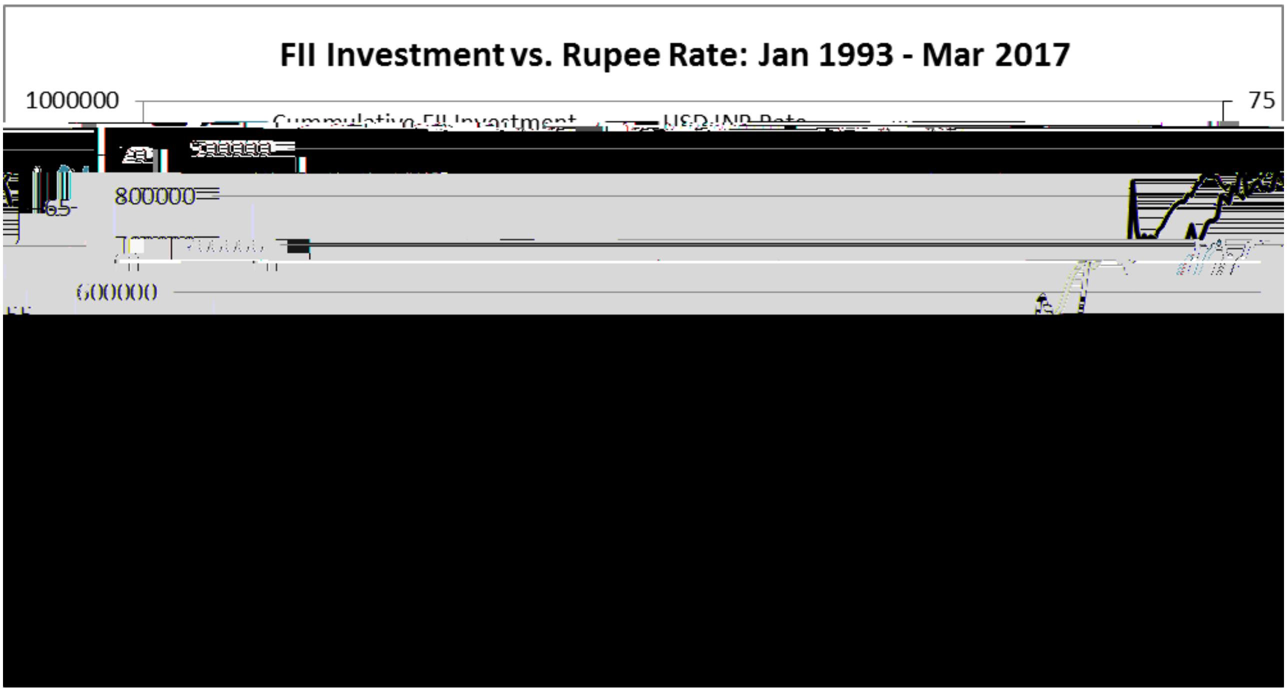


The Far-Reaching FII Influence

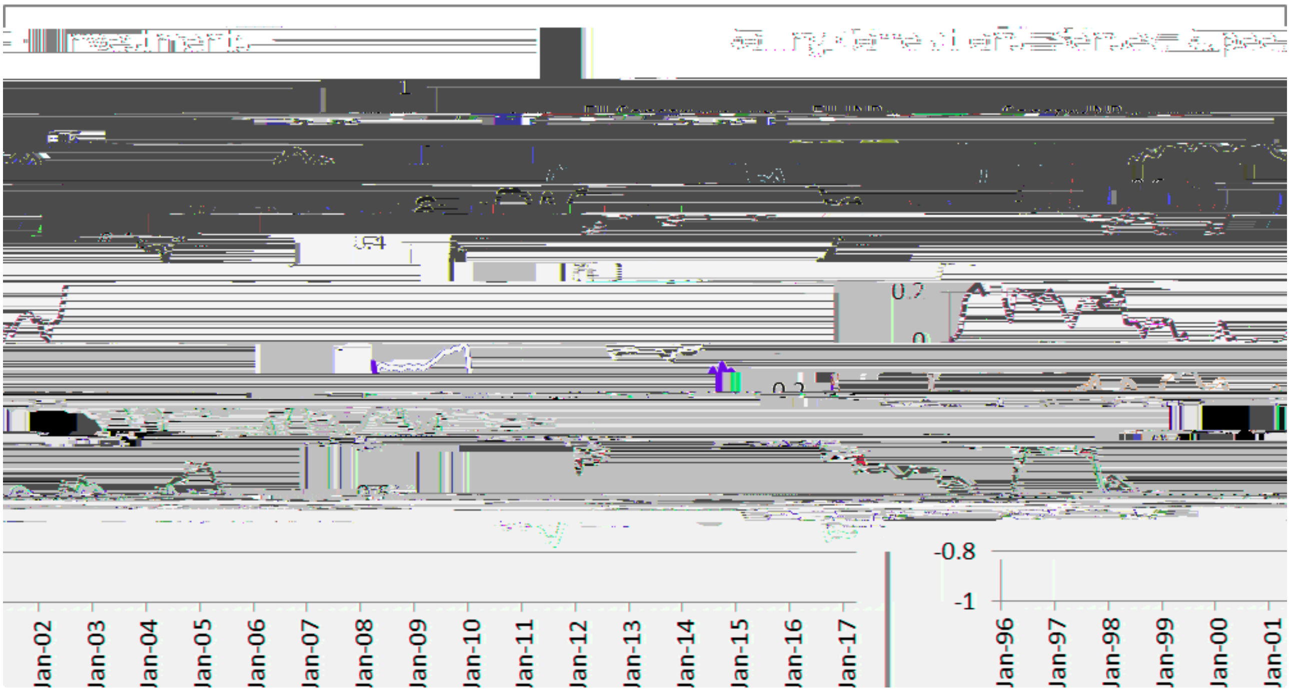
Ever since Foreign Institutional Investors (FIIs) were allowed in the markets, there is a view that the market moves in tandem with the investments made by them. The below chart provides a summary information about this relationship, and it is clear that there is merit in the argument.



From this chart, it is clear that FII investments are an important factor in deciding the movement of the Indian market. Further, FII investment has a direct relationship with the INR-USD exchange rate. Since FIIs return increases when Indian Rupee appreciates, and vice versa, the below chart shows an inverse relationship between the two. Further, the Rupee has come down below 65-mark after a gap of 17 months now, and if this appreciation of Rupee is important in continuing the interest of the FIIs.



The rolling correlations have been increasing, and in the recent period, it is very close to near perfectly related. FII cumulative investments and the Indian market movements are in a near positive relationship, while the currency movements have a near negative relationship with the markets and FII investments. The power of the compounding effect of this nexus between FII investment and currency appreciation could see further upward market movements.

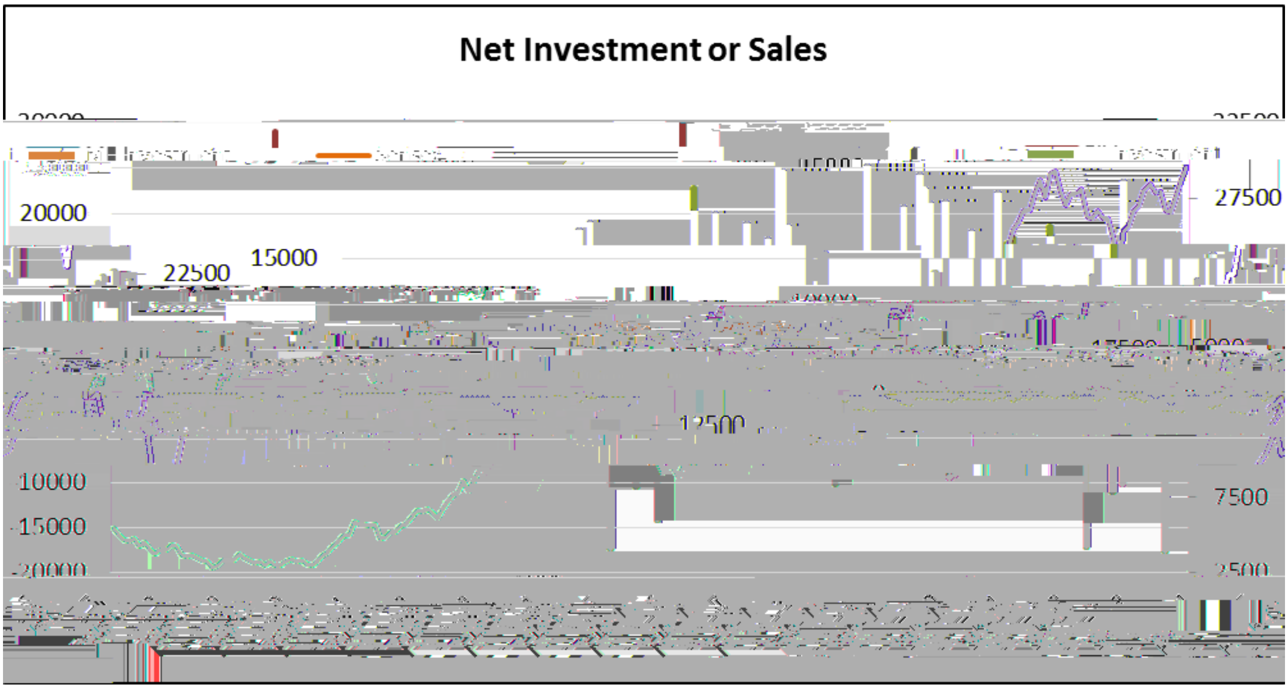


When FII Affects More Than Domestic MF

The domestic mutual funds (MF) investments in the markets have been steadily increasing over the years, except for sharp fall during the Sep 2009 - Apr 2014 period. However, there has been a sharp increase in the MF investment since then, and the relative investments by MFs have been quite high. However, a closer look at the data would show that FII actions bear a much more prominent effect on the markets.

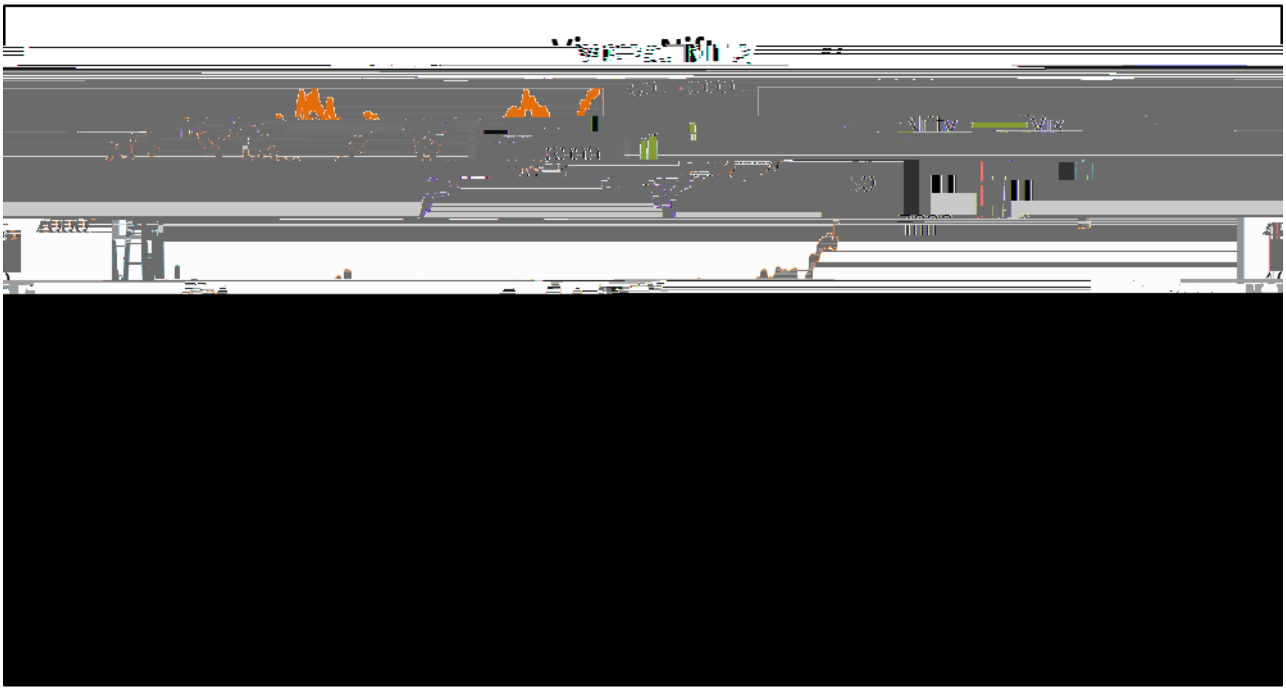
This aspect is clearly shown in the charts below, where the purchases and sales of MFs are much lower than that of the FIIs, and the movement of Sensex is in tandem with the FII actions.

The net investments also show a similar pattern. One can notice that the net investments by the MFs were much higher than that of the FIIs in the Oct 16 – Jan 17 period, but the market didn't move much, as FIIs were net sellers during the period. The FII investments in February and March along with the MF investments pushed the market up quite fast.

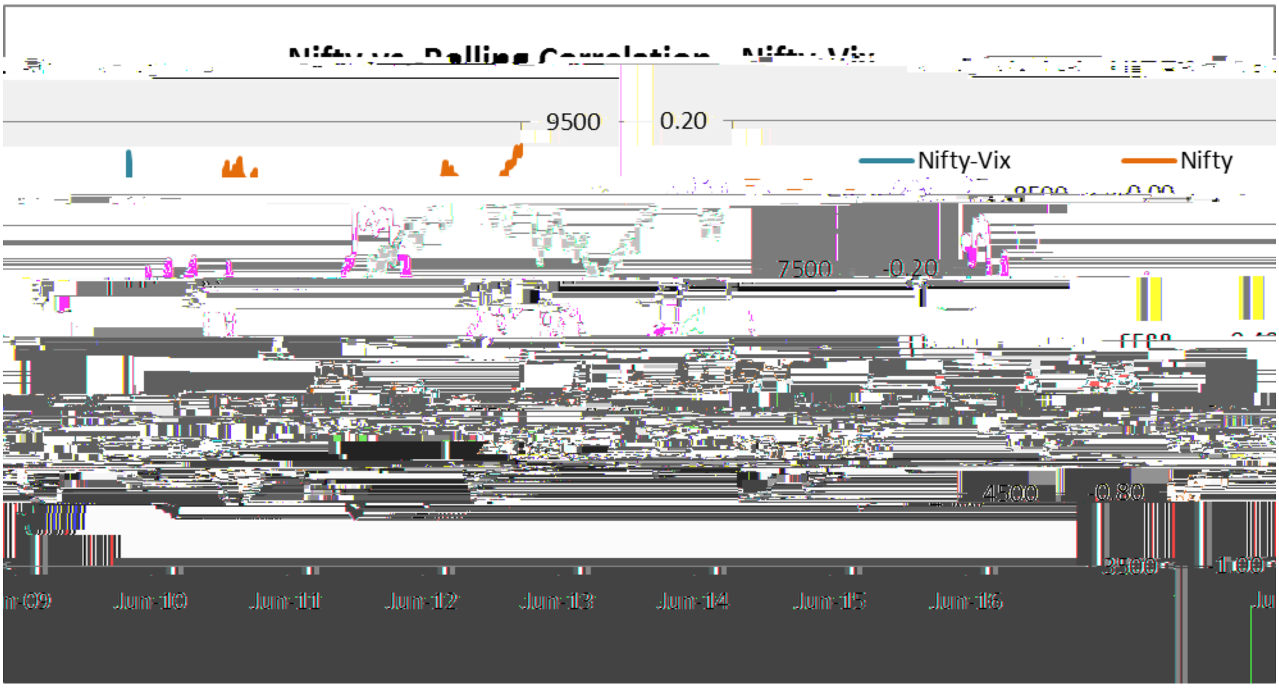


The secular investment pattern by MFs doesn't have any relationship with the significant movements in the markets, as shown in the chart below.

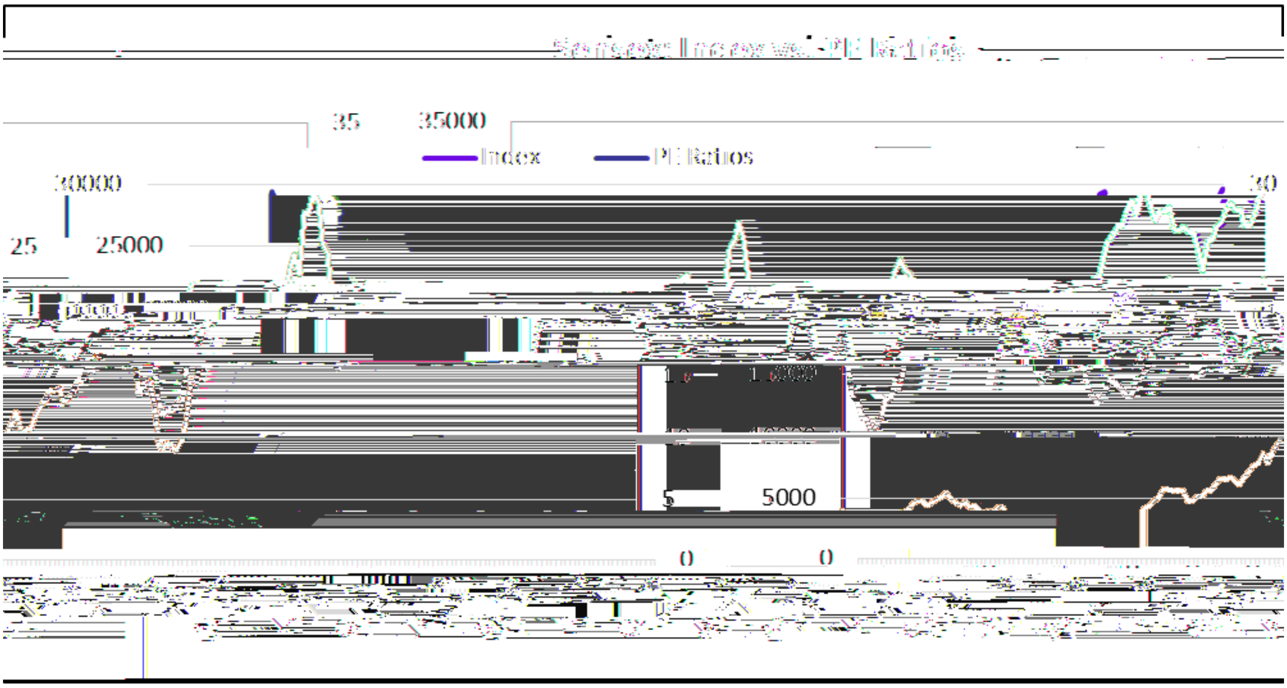
If we look at the recent period, MF has invested more money in the markets than FIIs, as evident from the cumulative investments since May 2014. This could be seen as a very positive development for the market as a



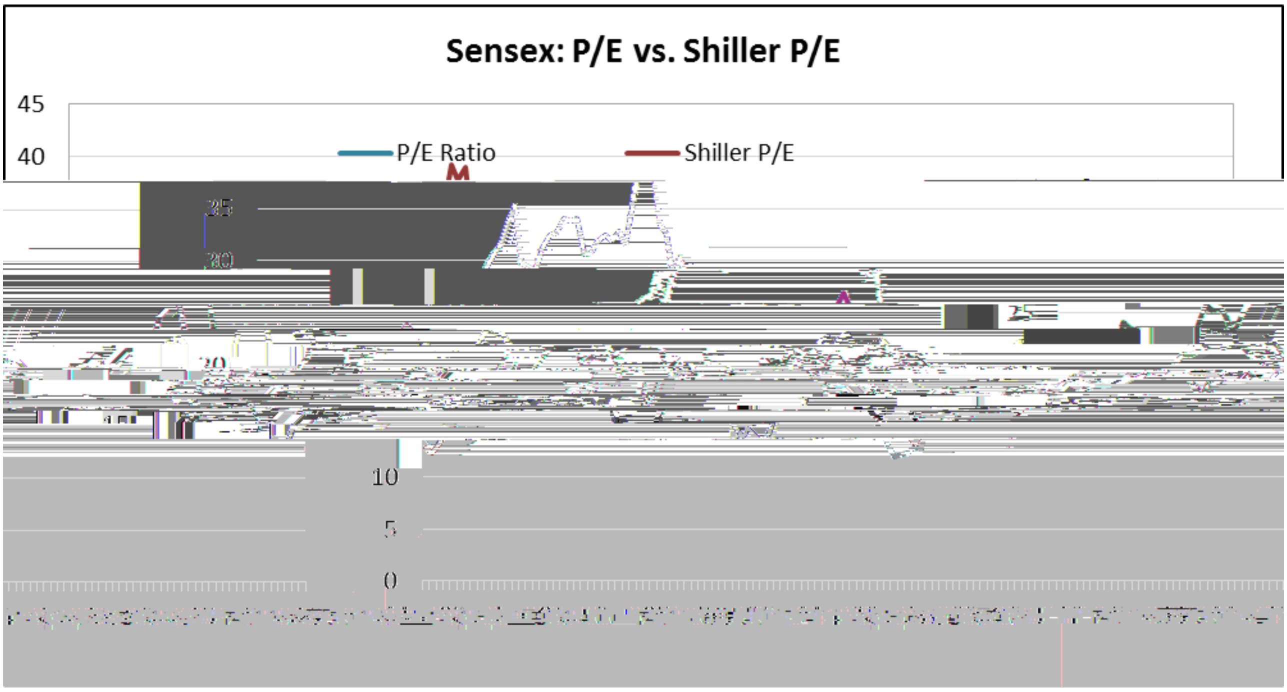
The correlation between Nifty and its VIX is negative, but it changes dramatically. During the past two years, it has been high negative, and the market has been going up. Recently, VIX is coming down with an increase in the negative correlation, possibly indicating a continued bullish trend.



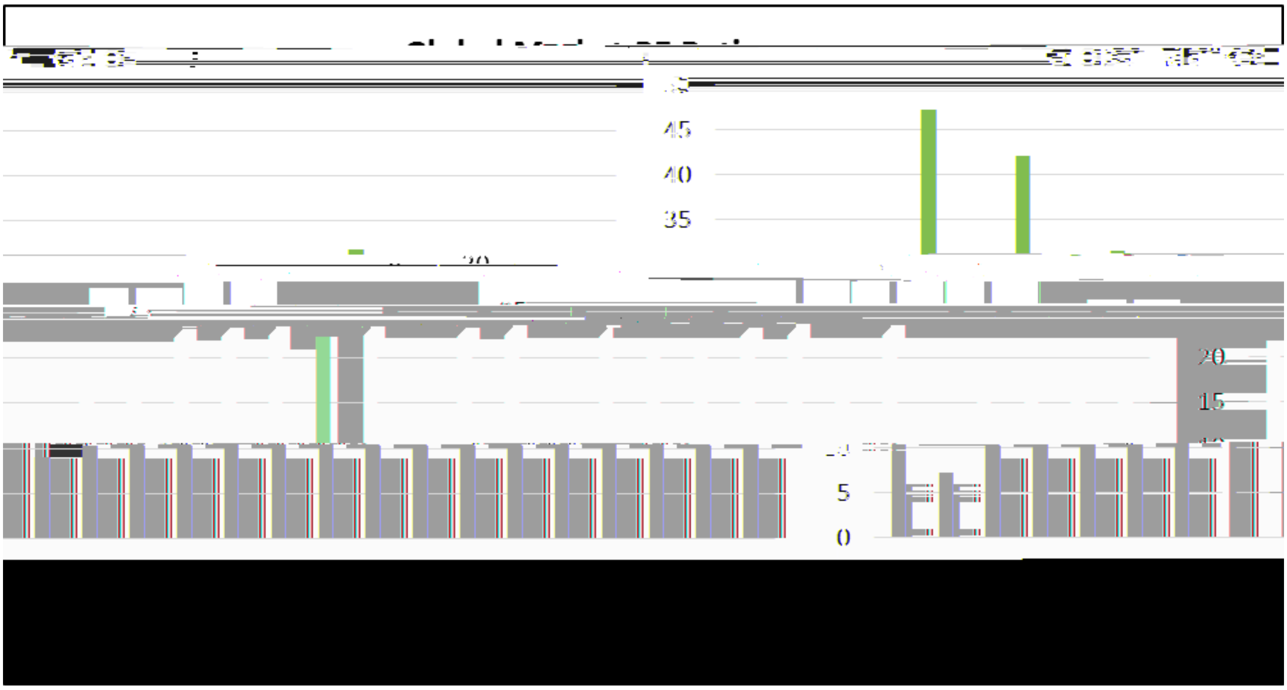
The below chart shows that there is no clear pattern between VIX, Rupee and the Turnover in the markets. The correlations have been volatile, but range-bound. Similar is the correlation between the Index and Turnover. However, the recent upward trend in the market is supported by an increase in turnover is a positive.



Looking at the P/E ratios to understand valuations of the market has been criticized by many researchers. Typically, earnings of the companies are affected by the state of the economy; P/E ratios might get distorted if market prices are reflecting a change in the expectation. To remove this bias, Robert Shiller introduced Cyclically Adjusted P/E (CAPE) ratios and is sometimes known as Shiller P/E. We calculate Shiller P/Es for the Indian market and compare it with the normal P/E in the below chart.



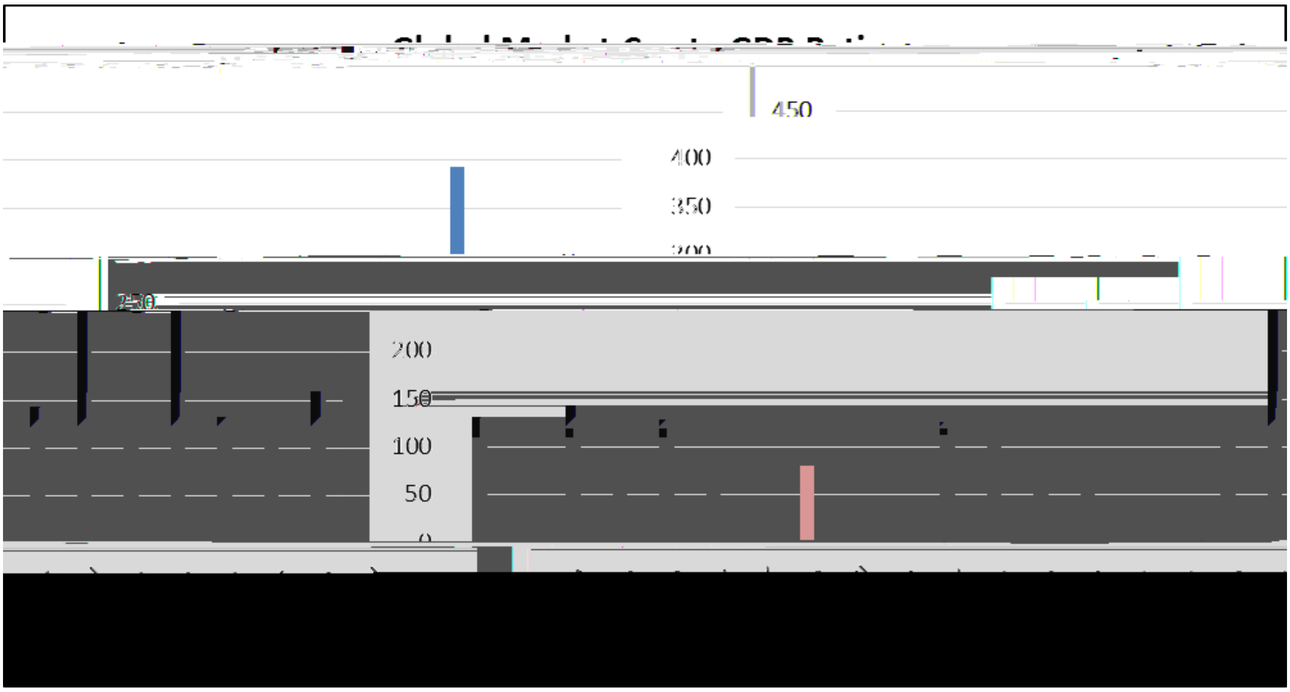
On a comparative basis, Indian markets are not overvalued based on the normal P/E ratios. Indian market P/E is in the medium range compared to the global markets. Looking at the potential of the Indian markets based on India economic growth and consumption story, one could argue that the current level is sustainable, and potentially see good growth.



However, Shiller P/E would suggest that Indian market is closer to the high end of the P/E spectrum, and hence indeed caution is required.

Another indicator usually looked at to get indications about over-valuation is the Market Cap to GDP ratio. Generally, it is said that if the market cap to GDP ratio goes above 100%, the market could be considered highly overvalued. The below chart shows 9 Tm[t)-4(o)8(g)-86(t)b613(l)56-4( )3(erBT28a

On a comparative basis, Indian market cap to GD ratio is lower than a number of developed markets but higher than many developing markets. This also suggests caution, though the market cannot be said to be overvalued.



Most often, the simple P/B ratio provide significant information about the valuation of the market. The following chart suggests that the market is in a comfortable position compared to the past and not showing signs of high growth, despite the recent rally in the markets. Nifty P/B ratios are significantly higher at around 3.5 now.