

## ABSTRACT

The topic of Institutional Investors and their impact on capital markets has been studied in detail in the developed economies. However, in spite of the advances made in respect of computational skills and infrastructure, definitive answers seem to evade us. The ongoing global financial crisis has upset the assumptions of many financial analysts/ economists and the issue of stability of capital markets has seized the attention of regulators around the globe. This makes the topic as challenging as ever. The current study is another small step in the direction of understanding the capital market, even though it is confined to the Indian capital market. Many studies have been conducted on the capital markets of developed countries but very few on developing countries, especially India. Due to the increasing integration of the Indian economy with the global economy and the increasing role of Institutional Investors, there is a pressing need to conduct in-depth studies on the Indian market.

Institutional Investors like Foreign Institutional Investors (FIIs) and Mutual Funds (MF) have become major players in the capital market. FIIs have been increasing their investments in the Indian capital market since 1992 and their presence invokes both appreciation and fear in the market participants. While banks continue to remain the main avenue for savings, investors are increasingly investing through the Mutual Fund route. Investment by Other Institutional Investors like Banks, Domestic Financial Institutions, Insurance companies, Provident Funds and now Pension Funds is set to increase in the coming years and thus add to the clout of Institutional Investors. Due to the lack of depth and the low floating stock in the Indian capital market, the impact of Institutional Investors is expected to increase manifold.

This Study seeks to evaluate the impact of Institutional Investors on the Volatility and Herding in Indian Capital market. We use Nifty50 Index as a proxy for the market. Using Conditional Volatility models we fit a combined MA-EGARCH model for Mean-Volatility of market Return. Using a GARCH-M framework, we observe that the Risk-Return relationship holds in the Indian market. We show that Extreme Value Volatility estimators add value to Conditional Volatility models. We demonstrate that including Structural Breaks adds value to Volatility models.

GARCH model shows the presence of Volatility Clustering. Our finding that Non-linear methods like EGARCH depict Volatility of Indian capital markets better can be made use of in better Volatility estimation. The EGARCH model establishes the presence of Volatility Asymmetry in the market and that it outperforms the GARCH model. Institutional Investors as well as Regulators can benefit from the finding that Volatility modeling in India can be improved by using Extreme Value (EV) estimators and by accounting for 'Structural Breaks' in the Index.

Exploring the relationship between Institutional Flows and Market Returns, we find statistical evidence that there is a bi-directional causality between Institutional Fund flows and market returns in India. Daily Institutional Flows 'Granger cause' Daily Nifty Return and Daily Nifty Return 'Granger causes' all the Net Daily Institutional Flows.

We find that Daily Market Return and Volatility impacts Flows of various Institutional Investors. We find that the flows of one type of Institutional Investors have an impact on the Flows of other category of Institutional Investors. We can conclude that including contemporary as well as lagged variables of Daily Nifty Return, Conditional Volatility and Flows of other Institutional investors better explain Daily Flows of various Institutional Investors.

The impact of Flows of Institutional Investors on Returns can be due to (i) Portfolio balancing of FIIs (ii) need for cash, viz., redemption pressures in case of MFs. The impact of Returns on Institutional Flows can be explained within the framework of investor's sentiment. Investors extrapolate trends in stock price changes, so after some price increase, they anticipate further rise in stock prices and hence buy equities. Such actions, when taken by a large number of investors, would suggest that stock prices will continue to rise in future, i.e., investors self-fulfill their expectations ( DeLong et al 1990). The impact on stock prices may be opposite in the case of stock price declines. However, our findings should be considered with some caution as there is a possibility that a third variable may be affecting both market returns and Institutional Fund flows - Interest rates prevalent in the Economy, Global markets, Other Assets Prices etc.

Herding arises when investors decide to imitate the observed decisions of others or movements in the market rather than follow their own beliefs and information. Investigating market-wide Herding tendencies in the Indian capital market using the Hwang-Salmon model and employing the Kalman Filter technique, we find that even though there is Herding in the Indian capital market it is not severe. We find evidence of herding towards the market portfolio both when the market is rising and when it is falling, i.e., both in the bull and bear market phases. Thus, Policy makers need not be unduly worried about Herding in Indian markets. We also find the presence of Adverse Herding, which represents mean reversion towards the long term equilibrium  $\beta_{imt}$ . Adverse herding must exist if herding exists as there must be some systematic adjustment back towards the equilibrium CAPM from mispricing both above and below equilibrium.

Assessing the impact of Institutional Flows on Herding, we find that while Mutual Fund Flows increase Herding, FII Flows do not impact Herding. Policy makers should specially note that the study period includes 2007, the year of peak FII Inflows and 2008 the year of peak FII Outflows. While countries like Brazil have imposed tax on FII Flows to curb them, Policy makers need to think twice before imposing any such tax. Herding declines before the 2008 crisis; this suggests that periods of market crisis/ stress can help markets return to equilibrium.

Probing the herd behaviour in the presence of variables reflecting the state of the market, viz., market volatility and the market returns, we find that while Index Volatility increases Herding tendency, Index Returns do not.