

**Indian Capital Market --- Impact Of FII On Indian Stock Market**

**Paper by**

**Dr.V.Aditya Srinivas**

**MBA (Gold Medal), Ph.D (Economics), MDP (IIM Ahd),CWM**

**Chief Operating Officer and Chief Economist**

**Bombay Stock Exchange Brokers Forum**

The paper covers the impact of the two major crisis that is the Global Financial Crisis of 2008 and the Euro zone crisis of 2011. The paper covers statistical analysis of FII flows and its impact on index from 2008 to 2013. The empirical analysis has been done using statistical tools. The impact of the FII flows during these two crisis has been analyzed. The role of the FII money into the Indian stock market is statistically analyzed. The effect of global integration of economies and how this integration has affected the Indian economy and stock market would be analyzed in the paper.

The paper also would give suggestions regarding the how the Indian capital market can be more independent and how the impact of FII flows can be reduced.

**Introduction:-** The period from 2008 to 2013 has been very critical for the world economy and for the Indian economy. The year 2008 saw the world facing the Global Financial Crisis and the year 2011 saw the world facing the Eurozone crisis. Both the crisis had a deep impact on the Indian stock markets. The markets tanked in both the crisis whereas the FII were net sellers during both the global crisis event. The Global Financial Crisis saw the world economy going for recession as the USA which is world big daddy went for a slowdown. In the last 10 year, average GDP of the world grew by 2.5 % to 2.8% as compared to Indian economy average of 7.5% to 8 % which shows the potential of the Indian economy. But in the last 3 years the Indian Economy also slowed down and the GDP touched 10 year low of 4.6%.

**Global Financial Crisis of 2008:-** The year 2008 saw the world going into recession. USA Economy had the sub prime crisis and as result it went for a recession which took the world economy into a recession. US economy is \$ 16 trillion which is the largest in the world and it contributes 23 % in the world GDP. The reckless lending done by the US banks lead to bankruptcy since the banks could not collect the amount. The investment banks in USA filed for bankruptcy which lead to large scale unemployment as lakhs of people were removed out of jobs. This lead to the slow down in the US economy. This slowdown affected countries like Japan, China,

Eurozone which have more of export oriented model. The slowdown in the US lead to these major economies also going to recession. This triggered a fall in the global stock markets where the Indian stock markets fall like pin of cards. The Indian SENSEX was at 21206 on 10<sup>th</sup> January 2008 and came down to 7697 on 24<sup>th</sup> October 2008 as the FII sold shares worth Rs. 52000 crores from the Indian stock market. This showed the power of FII in our markets.

**Eurozone Crisis of 2011:-** The Greece economy is still not out of woods and there is threat that they may default on the payment obligation. This would trigger panic sales in the global markets. The Eurozone is one of large trading partners with India. Europe accounts for 20 % of the total Indian exports. In 2011 when the Eurozone problem had started, the FII were net sellers and Indian markets had given 26 % negative return. This shows that whenever there is problem at the international level, the FII are net sellers and this has adversely impacted our stock markets.

**Current scenario of world economy and Indian economy:-**

The Indian stock markets have been witnessing some kind of turbulence since the Macro Economic data coming from the world markets are having mixed bag. The USA economy is on coming on track with Fed announcement that they would have a wait and watch approach for the interest rates to rise. The USA has registered GDP growth of 5 % which is at 11 years high. The US has been able to create more than 2 lac jobs every month for the last six

months. The borrowing of the Fed is at 7 years low. This has gone well as markets globally reacted positively. The news from other major economies has not been so kind with Japan which is facing recession though they increased their stimulus from 60 trillion yen to 80 trillion yen. Japan is facing recession since their demand and consumption has going less since the average age of Japanese's is 50 years and thus problem of "AGING" population. China heading for slow down as its GDP growth projection has come down and its Industrial Production has come down to 4.2 % which is at 27 months low. This creates fear that the world largest consumer of commodities is slowing down.

**MAT on FII:-** The FII has been on selling spree in the month of April and May 2015 due to the controversial MAT (Minimum Alternate Tax) which is likely to be imposed at the rate of 20 % on the FIIs. The income tax department has send to 68 FII resulting into tax demand of Rs. 602 crores. But there are around 3000 FPI (Foreing Portfolio Investors which includes FII) where the tax demand can go up to Rs. 40,000 crores. This has created nervous among the FII and they are continuously selling the stocks from the Indian stock market. In the year May 2015, FII in the first 10 days, sold stocks worth Rs. 6500 crores which resulted into the index falling like the pin of cards. On one single trading session, the markets tanked by more than 700 points. The key issues raised by the FII is that why the government is going on the retrospective tax issues and asking them to pay tax. The argument of the government that MAT will not be applicable on those countries

where the DTAA (Double Taxation Avoidance Treaty) has been signed which includes Singapore and Mauritius. But these two countries account for only 30 % of the total FII flows coming into the country. The USA, UK and Luxemburg account for 50 % of the total FII amount which comes into the Indian stock market. The stability of the Tax laws in India, is the main aspect which is creating ripples about the investments in Indian economy.

**US Interest Rates :-** The US Economy has steadily coming out of woods since the unemployment rate has come down to 5.5 % which was at all time high of 9.8%. The Fed is closing watching the economy to see that whether they are now in position to increase the interest rates. The rise in the interest rates sends shivers to the emerging markets since when the Fed increase interest rates, there could be flow of capital from emerging countries back to USA. This could see fall in the emerging stock markets. The USA has kept interest rates at 0.25% and we may see rise in interest rates in 2015 end.

**World Scenario:-** The world economy is witnessing lot of problems since many major economies are facing slowdown issues. China GDP has come to 7 % which is 24 years low as their previous low was at 7.6% in 1990. Their Peoples Bank of China has reduced their Reserve Ratio Requirement to 18.5 % which means that they have induced more liquidity into the system. Eurozone is still facing problems as Greece is not out of woods with repayment

problems at large. Greece default could trigger world economy going back to slowdown. Japan which is worlds another large economy is also facing slowdown as they have increased stimulus from 60 trillion yen to 80 trillion yen.

### **Key Features of Indian Economy:-**

The Indian economy has 3 unique selling propositions which are as under:-

1. 70% of the working population is less than 35 years of age which means that there is huge demographic dividend advantage to the economy. There is huge disposable income which leads to a consumption driven economy. The average age of Indian is 25 years while that of Chinese is 37 years, American 38 years, European Union 47 years and Japan 50 years.
2. Out of the total production, India consumes 80 % of the production in India itself and only 20 % is exported and thus we are not an export oriented economy. Indian is not an export oriented economy and thus its dependency is not there on the world other countries. Though we need to have strong exports to fund imports of gold and oil. Last year we achieved exports worth \$ 312 billion as against target of \$ 325 billion.
3. India's saving rate is 31 % while the global average is 24 %. Saving results into capital formation which has provided shield during the weak economic times. Saving returns into

capital formation which results into investment and then ultimately capital formation.

Thus Indian economy is poised with unique growth features and has huge potential to grow. The resilient feature in the economy was evident from the fact that world economy grew at 1 to 2 % GDP during Global Financial crisis while Indian Economy was able to make growth of 6.3 % GDP growth.

### **Statistical Analysis:-**

**Null Hypothesis:-** There is no significant relationship between FII flows and the Index.

**Alternative Hypothesis:-** There is significant relationship between FII flows and the Index.

**Research Design:-** Conclusive research has been used in the problem.

**Sample size:-** Sample size 144 observations have been taken for the purpose of analysis. The two variables taken for study are month FII flows into the stock market and the month end closing SENSEX data has been taken.

**Why 2008 to 2013:-** The rationale for the selected period is that 2008 to 2013, these five years have been very crucial for since the world saw Global Financial Crisis and the Eurozone crisis. The Sensex was at 21206 on 10<sup>th</sup> January 2008 and came to 7697 on

24<sup>th</sup> October 2008 as FII had done selling of Rs. 52000 crore of shares which shows their influence on Indian stock markets.

**Correlation:-** The coefficient of correlation comes to 0.41 which is close to partial positive correlation. This shows that there is significant relationship between the FII flows and the index. The Index is dependent variable while the FII flows are independent.

**T-test:-** The T-test has come to 2.34 which is greater than 5 % level of confidence which is 1.96 which means that the Null hypothesis is rejected and the alternative hypothesis is accepted. The FII has always been dominant player in the Indian stock market.

**Forecast value:-** The forecast shows the what would be index value with a given level of FII flows. If the FII flows are Rs. 1000 million then the index value comes to 16864 and if the flows are increased to Rs. 2000 million then the value of index comes to 17441. This shows that more the FII flows, higher is the value of the index.

**Intercept:-** The intercept value of the index comes to 16287 which means that if there are no FII flows (which is independent variable) then the value of the Index would be 16287 (dependent variable). The current value of the sensex is at 27000 and it has touched all time high of 30,000 level. The value of 16287 shows that how steep can the index fall if the FII are not putting their money. This again reconfirms the fact that



**Conclusion:-** The FII are having significant impact on the Indian stock market. They are actually controlling the movement of the Indian stock market. They had invested \$ 16.5 billion in 2014 and the index gave return of 32 %. The FII had withdrawn Rs. 52000 crores in 2008 and the sensex had given negative return of 52 % and in 2011 when there was Eurozone crisis the FII gave negative return of 26 %. In June 2013 when the US Fed just indicated that they are going to wind up the bond buying programme for the first time on 20<sup>th</sup> June 2013, FII sold shares worth Rs. 2100 crore within two hours of this announcement and Indian markets were down by 575 points and rupee depreciated by 1.5 % in one trading session. All this real life event shows that how deep is the impact of FII on the Indian stock market.

**Suggestions:-**

**The following suggestions could increase the depth of the Indian capital market:-**

1. **Safety Net:-** This is the concept in which the company coming out with IPO has to compensate to the retail investor if the market prices goes below 20 % of the issues price during 6 months after the listing. This will ensure that capital of the retail investor is protected. Currently this provision is not compulsory so companies are not following it. If this provision is made compulsory then more retail investors would come to the market.

2. **Making Merchant bankers accountable:-** The merchant bankers who give fancy valuations to the IPO should be held accountable if the price goes below the issue price. This will ensure that valuations are reasonably placed and more retail investors can participate.
3. **Early Education:-** The concepts of investing in capital market should be introduced in the syllabus right from schools and collages. This would ensure that investment curlture is developed in young students so when they starting their career they start investing in capital markets. This would deepend the Indian capital markets.

#### Bibiliography

1. [https://www.equitymaster.com/india-markets/fiis/index.asp?utm\\_source=submenu](https://www.equitymaster.com/india-markets/fiis/index.asp?utm_source=submenu)

#### Appendix:-

MONTH ENDED	NET INV.	MONTH END INDEX
	(Rs m)	
Jan - 2008	-4,368	17,649
Feb - 2008	1,246	17,579
Mar - 2008	152	15,644
Apr - 2008	128	17,287
May - 2008	-1,095	16,416
Jun - 2008	-2,453	13,462
Jul - 2008	44	14,356
Aug - 2008	-820	14,565
Sep - 2008	-1,422	12,860
Oct - 2008	-2,931	9,788
Nov - 2008	-705	9,093
Dec - 2008	293	9,647

Jan - 2009	-868	9,424
Feb - 2009	-418	8,892
Mar - 2009	61	9,709
Apr - 2009	1,475	11,403
May - 2009	4,248	14,625
Jun - 2009	696	14,494
Jul - 2009	2,405	15,670
Aug - 2009	829	15,667
Sep - 2009	4,143	17,127
Oct - 2009	1,788	15,896
Nov - 2009	1,180	16,926
Dec - 2009	2,224	17,465
Jan - 2010	122	16,358
Feb - 2010	465	16,430
Mar - 2010	4,136	17,590
Apr - 2010	2,065	17,559
May - 2010	-1,988	16,945
Jun - 2010	2,096	17,534
Jul - 2010	4,608	18,081
Aug - 2010	2,404	17,971
Sep - 2010	5,600	20,069
Oct - 2010	5,578	20,032
Nov - 2010	4,152	19,521
Dec - 2010	-194	20,509
Jan - 2011	-1,389	18,328
Feb - 2011	-220	18,447
Mar - 2011	1,555	19,445
Apr - 2011	1,582	19,136
May - 2011	-1,157	18,503
Jun - 2011	735	18,694
Jul - 2011	1,873	18,197
Aug - 2011	-2,107	16,677
Sep - 2011	-200	16,454
Oct - 2011	451	17,705
Nov - 2011	-859	16,123
Dec - 2011	-11	15,544
Jan - 2012	2,153	17,194
Feb - 2012	5,159	17,584
Mar - 2012	1,757	17,060

Apr - 2012	-55	17,302
May - 2012	-295	15,965
Jun - 2012	22	17,430
Jul - 2012	1,901	17,257
Aug - 2012	1,670	17,430
Sep - 2012	3,836	18,824
Oct - 2012	1,892	18,562
Nov - 2012	1,948	19,305
Dec - 2012	4,446	19,581
Jan - 2013	3,822	19,781
Feb - 2013	4,163	18,919
Mar - 2013	1,913	18,736
Apr - 2013	1,128	19,736
May - 2013	3,336	19,610
Jun - 2013	-1,354	19,396
Jul - 2013	-896	19,317
Aug - 2013	-1,022	18,886
Sep - 2013	2,028	19,517
Oct - 2013	2,640	21,165
Nov - 2013	859	20,898
Dec - 2013	2,479	21,140

Correlation	0.410343607	0.410343607
t test	2.34225E-55	2.34225E-55
Average	9,005	9,005
Forecast	1000 million	16864.58187
Forecast	2000 million	17441.41099
Intercept		16287.75276

**CRITICAL ANALYSIS:-** The following are the points of critical analysis with regards to the topic.

1. Why only FII flow data from 2008 to 2013 has been taken and not prior to that period or after 2013 has been taken ?

**Answer:-** The last 10 years that is from 2003 to 2013 has been very crucial for the world economy and the Indian economy. The year from 2003 to 2007 there was global liquidity flush. All indices including Sensex, Dow Jones were at all time high in 2007. This analysis from 2003 to 2007 may not give real correlation between FII flows and Sensex but from 2008 to 2013 when in 2008 FII pulled out Rs. 52000 crores from Indian markets and the Sensex came crashing from 21206 to 7697 shows their power and in 2011 during Eurozone crisis, FII were net sellers for whole year and the Sensex delivery -24.65 % negative return. This time frame is very vital since it shows the impact of FII on our markets. The analysis proves that if FII pull out the money then our markets are nowhere able to withstand. The intercept clearly shows that if the FII flows becomes zero the SENSEX would come to 16000 levels from the present 27000 levels.

2. Why only FII flows have been and not the mutual fund flows ?

**Answer:-** FII have more dominant position as compared to our mutual funds. In the last 3 years FII have poured in around \$ 20 billion (Rs. 1,20,000 crore annually) while the mutual funds investment has been in the range of \$ 6 billion (Rs. 35000 crore annually). That's why it makes more relevant sense do to analysis for the FII than for the mutual funds. Indian mutuals total AUM is Rs. 12 lakh crore but out of that 80 % is into Debt securities and only 20 % is into equity so it does not make much of sense to analyse the mutual funds inflows and its impact. In the last 6 months in 2015, the mutual funds were able to get Rs. 40,000 croers from the small investors into the various schemes. In the last 2 years, around 7 lakh new SIP have been added in the mutual funds industry. But this quantum is very less than FII investment into the Indian markets.

3. Why only the events of 2008 and 2011 have been highlighted and not other events like elections, scams etc and their impact on the stock markets ?

**Answer:-** Indian markets are completely controlled by the FII and their impact has been seen globally. During 2008 our stock market gave negative return of 52 % and in 2011 they gave negative return of 24 % as FII had pulled out the money. This clearly makes it very important to study their impact on the economy rather than impact of scams and elections which

are part of every other emerging economies. The two major global events like the 2008 Global Financial Crisis and the 2011 Eurozone crisis which have forced the world economy to rewrite the theories of finance about the impact of debt capital is the vital aspect of analysis.