

Impact of Restrictions on Participatory Notes on the Indian Stock Market

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Abstract. Securities and Exchange Board of India (SEBI) has recently decided to tighten screws on “Participatory Notes” also known as “P-Notes”. P-Notes, or off-shore derivative instruments (ODIs), are instruments issued by foreign portfolio investors (FPIs) to overseas investors who wish to invest in Indian stock markets without registering themselves with SEBI. This makes P-notes susceptible to use for money laundering and round tripping. SEBI’s current move aims to curb these activities by making P-notes a more regulated instrument and thereby making it less attractive. This paper examines the possible effect of a decrease in foreign investment through P-notes on the Indian stock market and finds that investments through P-Notes do not seem to have a significant impact on the Indian Stock Market.

Keywords: FIIs, Participatory Notes, SEBI, Indian Stock Market.

1 Introduction

India’s market capitalisation is around Rs. 97 Lac Crore (see Appendix, Table 1) of which 23% is accounted for by the Foreign Institutional Investors or FIIs. FIIs can invest in the Indian stock market through a “Portfolio Investment Scheme”, or PIS, after registering themselves with SEBI. In case a FII doesn’t want to register itself with SEBI it can still invest in the Indian stock market through an offshore derivative instrument (ODI) known as a “Participatory Note” or “P-Note”. Indian-based brokerages buy India-based securities and then issue participatory notes to foreign investors. Any dividends or capital gains collected from the underlying securities go back to the investors.

In 2007, at the peak of the Indian market bull run, investment by FIIs through P-Notes reached a record 55% of the total foreign investment. Over the years, even though the absolute contribution through P-Notes has risen (see Appendix, Chart 1), the percentage of investment through P-Notes has dropped to a mere 9.3% (see Appendix, Table 2).

The reason behind the initial popularity of P-notes was that they allowed the identity of the investor to be kept anonymous and hence they could be used for/in various illegal activities like money laundering and round-tripping. Because of this loophole SEBI started tightening rules on P-Notes.

In January 2004, SEBI took the first step towards strengthening the “know your client” regime and made a press release informing the investors that ODIs such as P-Notes against underlying Indian securities can be issued only to regulated entities and further transfers can also be done to other regulated entities only.

In 2007, on the backdrop of a surge in capital flows and excess liquidity, SEBI banned P-Notes. This led to a knee-jerk crash in the market. The market recovered only after SEBI unveiled the rules saying FIIs could not take any fresh exposure, and their existing investments would have to be wound up in 18 months. But, because of the global economic crisis the year after, the then SEBI chief had to remove all the restrictions fearing capital outflows.

In 2011, new rules were again introduced which required the FIIs to provide an undertaking saying that they have followed the KYC norms, and submit details of transactions. In 2014, new rules on Foreign Portfolio Investors made it mandatory for those issuing P-Notes to submit a monthly report disclosing their portfolios, after which the number of entities issuing these has come down.

Now, following a report submitted by the Special Investigations Team (SIT) on black money appointed by the Supreme Court in June 2015, SEBI as further tightened the screws on P-Notes. According to the press release on 19th May 2016, from now onwards Indian KYC and anti-money laundering (AML) rules will be applicable to P-note holders. Also, timelines for KYC review have been put in place. In order to tighten the ODI regime and have more control over issuance and transfer of ODIs, the ODI subscribers will now have to seek prior permission of the original ODI issuer for further/onward issuance/transfer of ODIs. The ODI issuers are also required to capture the details of all the transfers of the ODIs issued by them so these can be made available to SEBI on demand.

In the monthly reports submitted by ODI issuers, they would now have to include all the intermediate transfers during the month and will also have to report suspicious transactions to the Indian Financial Intelligence Unit. Rules related reconfirmation of ODI positions and periodic

operational evaluations have also been put in place. The new rules and regulations are aimed at curbing illegal activities such as money laundering by making P-Notes less attractive as an investment instrument.

2. Literature Survey

Due to lack of availability of literature on P-Notes we had to delve into literature available on FIIs. As FIIs are extensive users of P-Notes, studying, understanding and analyzing their investment behaviour and its effect on the Indian stock market gave us an insight as to what might happen if they were to increase or decrease their investment through P-Notes. There was no dearth of literature on the effect of FII investment on the Indian stock market and the following literatures were studied before we began our analysis:

Shrivastav, A. (2013) Investments by FIIs and the movements of SENSEX are quite closely correlated in India and FIIs wield significant influence on the movement of SENSEX. FII's investments have positive impact on SENSEX and Nifty. The market rises with increase in investments by FIIs and collapse when investment is withdrawn.

Gupta, Dr. Ambuj (2011) Net cumulative investment by FIIs has been increasing. Presence of FIIs has led to reform of securities market in terms of trading and transaction systems, making local markets at par with the international markets. Foreign capital is free and unpredictable and is always looking to book profits. Therefore, volatility associated with FII's investments, resulting in severe price fluctuations, can't be ignored.

Juneja, Sanjana (2013) Compared to security markets in developed economies, Indian markets being narrower and shallower, allows foreign investors with access to significant funds, to become the dominant player in determining the course of markets. FIIs are capable of causing severe capital out flight abruptly, tumbling share prices in no time and making stock markets unstable and unpredictable. Derivative instruments which facilitate long term foreign investment with specified lock in periods should be introduced.

Joshi, Vikram K. (2011) When the relationship between SENSEX and Total Turnover & SENSEX and Net Investment exists, and it is significant, it produces positive impact in the SENSEX as it starts moving up, but when the case is opposite, it tends to remain on a lower side. FII investment when withdrawn up to a large extent causes SENSEX to fall. But if a proper

balance between FII inflow and outflow is there, it prevents the BSE SENSEX from falling. In 2007, following SEBI's announcement of new regulations on Participatory Notes, some analysis of the announcement was done and review papers were published by eminent companies and institutes like PwC and International Monetary Fund.

Arora, Puneet (PwC 2007) SEBI has been keeping watch on the issuance of ODIs and their impact on the Indian stock markets. In view of the growing popularity of such instruments, SEBI has issued a paper/circular for discussion on ODIs proposing certain policy measures. The circular does not appear to have set forth any new principles for determining the characterization of income in the hands of taxpayers, but instead has reiterated certain observations and principles brought out by earlier judicial decisions.

Singh, Manmohan (IMF 2007) The broadening of India's foreign investor base has a bias towards hedge funds/unregistered foreign investors who invest primarily via P-Notes. SEBI's ban on the issuance of P-Notes on derivatives will reshuffle the investor base on portfolio inflows. Its proposal may increase the inflows onshore by the apparent interest from real money accounts to register onshore (including pension, endowments, charitable trusts etc); however, inflows from margin accounts (i.e., from investors who use P-Notes on derivatives) are likely to disappear along with some investors from the P-Note cash market. Inflows from P-Notes on derivatives will not be replaced since this route allowed transactions that cannot be mimicked onshore.

3. Objectives of the Study

Most of the studies done until now seem to address the relationship between overall FII Investment and Indian Stock Market. This paper seeks to broaden the existing literature & test the following:

- i. Effect of possible decrease in FII investment through Participatory Notes on the Indian stock market following the latest press release by SEBI.
- ii. Identify the relationship (if any) between P-Notes Investment & Indian Stock Market

3. Research Methodology

The analysis covered the period from September 2003 to March 2016. The primary sources of data were the National Stock Exchange's and Securities and Exchange Board of

India’s websites. The following datasets were used for the analysis: (i) Value of Offshore Derivative Instruments (ODIs) / Participatory Notes (PNs) and (ii) SENSEX Monthly Data

Only p-notes inflow has been considered and not the net flow due to unavailability of the data. A preliminary analysis of the data was initially done to graphically understand the relationship between SENSEX Close and Percentage of contribution through P-notes. Following the primary analysis, a regression analysis was done after appropriate data treatment.

The following Hypotheses have been selected for the analysis:

H_0 : Change in value of percentage of P-Notes out of total FIIs for a month causes the close value of SENSEX for that Month to rise or fall

H_1 : Change in value of percentage of P-Notes out of total FIIs for a month doesn’t affect close value of SENSEX for that Month

As it is hypothesised that change in value of percentage of P-Notes out of total FIIs will affect the stock market , the close value of SENSEX for the month was taken as the dependent variable and similar was done by some other research papers (Gupta, Dr. Ambuj (2011), Juneja, Sanjana (2013), Joshi, Vikram and Saxena, Richa (2011)). The first step after the preliminary analysis, is to determine whether the variables used are stationary or not. Since in our case both the variables are non stationary and they became stationary in first difference, thus the test for co integration among the variables has been done. Finally Error correction mechanism used to study the short run dynamic regulating relation between the variables.

4. Data Analysis and Findings

Stationary Test -Unit Root

To look at whether the data series are stationary, Augmented Dickey – Fuller (ADF) Test and Phillips – Perron Test has been done. The unit root test results are as follows:

Table 1

Variables	ADF ¹		PP ²		Conclusion
	Level	First Difference	Level	First Difference	
Sensex	-1.25	-12.04	-1.29*	-12.07	I (1)
P-Notes	-2.18	-10.97	-2.33	-12.07	I (I)

Note: 1. Augmented Dickey-Fuller test. 2. Philips-Perron test.

The Co-integration Test

Having established that two variables are integrated of order one, the next step is to check whether they are co-integrated. Two non-stationary series are co-integrated if they tend to move together through time. The method used here is Engle-Granger co-integration test. It involves regressing one I (1) variable on another using least squares. If the series are co-integrated, the residuals from this regression will be stationary. The stationarity of the residuals is tested by ADF test. Here, we estimate the following cointegrating regression

If U_t does not contain unit root the two variables are co-integrated. The results are shown in table 3. It is observed that the residuals of the cointegrating regression are stationary at level by the ADF test at 5% level of significance. Hence, the two variables are co-integrated.

Table 2-Ordinary Least squares (OLS) output

Dependent Variable: Sensex			
Method: Least Squares			
Included observations: 151			
Variable	Coefficient	Std. Error	T-stat.
C	6275	719	8.72
P-notes	0.059	0.00387	15.37
R-Squared	0.61		

Table-3-ADF Unit Root Test of OLS Residual

Dependent Variable: Sensex		
Null Hypothesis: RESI has a unit root		
Included observations: 151		
	T-stat.	Prob.
ADF (Constant and Trend)	-4.75	0.0008
1% Level	-4.02	
5% Level	-3.44	
10% Level	-3.14	

Error Correction Model:

Equation :- $D(\text{Sensex}) = c + D(\text{P_notes}) + \text{residual}(-1)$

Table 4

Dependent Variable: D(SENSEX)		
	Coefficient	T-Statistics
C	132.8070	1.61
D(P_notes)	0.003399	1.08
Residual	-0.049130	-2.42
Durbin-Watson stat		1.96

Correlation Test:

This test was adopted to test for serial correlation because it is applicable in both situations where lagged dependent variable is included, unlike Durbin Watson which is used to test for first order serial correlation. The null hypothesis of no serial correlation is tested against the alternative of autocorrelation presence

Table 5

Breusch Godfrey Serial Correlation LM Test	
Prob. Chi Square (2)	0.9268
Null Hypothesis =No Correlation	

From the stationary test both Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root test suggests that the time series data are non-stationary but when their first difference is taken, they become stationary. Thus, they are integrated of order I(1). The results of cointegration test - Engle-Granger residual based ADF method suggests that there is a positive long run relationship between the variables. From the error correction mechanism, the absolute value of error correction coefficient is relatively small, thus the departure of short run fluctuation to long run equilibrium is slight and the adjustment extent is small. From the results presented in table 4 the coefficient of the error term ECM (-1) is negative and significant and this confirms the expected results from economic theory. The ECM (1) coefficient of -0.0491 is interpreted as speed of adjustment to the long run equilibrium. Therefore, this implies that approximately 4% of all the deviations in the past will be corrected (adjusted to the equilibrium) during the present period.

The low value of the error term indicates that the P-notes agents remove a low percentage of disequilibrium in each period.

5. Conclusions

The objective of this paper is to establish the effect of the recent announcement by SEBI regarding P-Notes on the Indian Stock Market. Also, this paper seeks to identify the relationship between investment through P-Notes and Indian Stock Market (SENSEX). The hypothesis is that because SEBI has stepped up the KYC requirements and introduced new norms for investing through P-Notes, the investment through P-Notes by FIIs might decrease thus adversely affecting the Indian Stock Market.

This study has investigated the impact of P-Notes volatility on Sensex in India over the period of Sep-03-March-16. A number of findings were presented in this study Firstly, the econometric evidence suggested that the variables included in the underlying model are bound together in the long run, (Error correction term is negative & significant shows long run relationship). Secondly ECM (1) coefficient shows P-notes volatility effects on sensex in short term is not significant. SEBI will have to continue attract FIIs given its role in the growth process because In India investment by FIIs through P-Notes is approx 10%, but still P-notes has long term relationship with Indian Equity Market, thus any drop through P-notes Investment may effect equity market in long-run, thus drop of P-notes investment has to be replaced by additional FIIs Investment.

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APPENDIX

Absolute Contribution through P-Notes and % Contribution through P-Notes

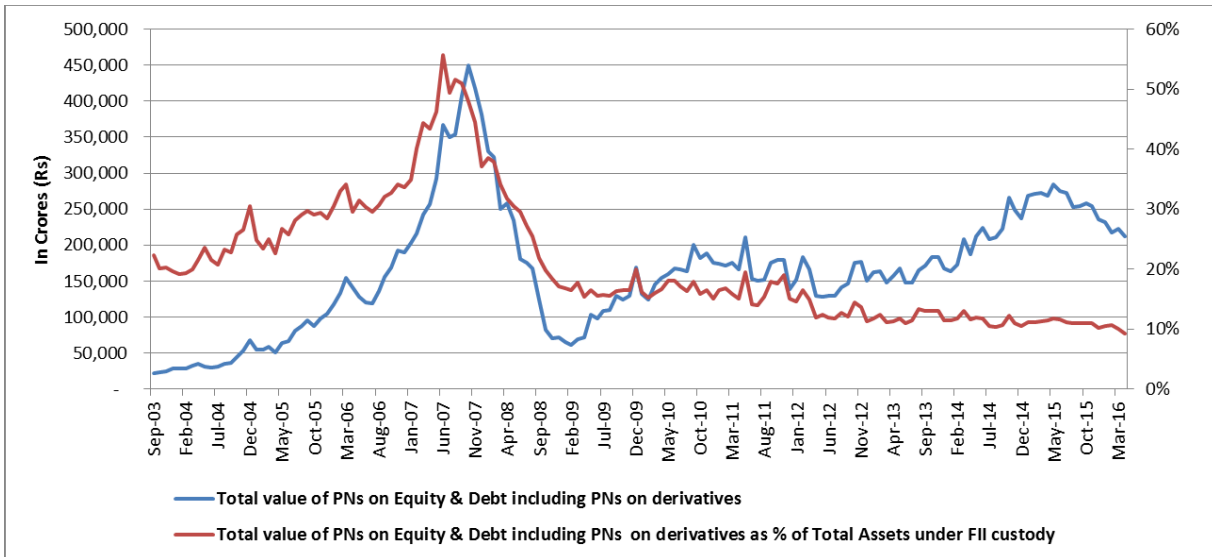


Chart 1, Data Source: SEBI

SENSEX, FII Investment and Percentage of P-Notes

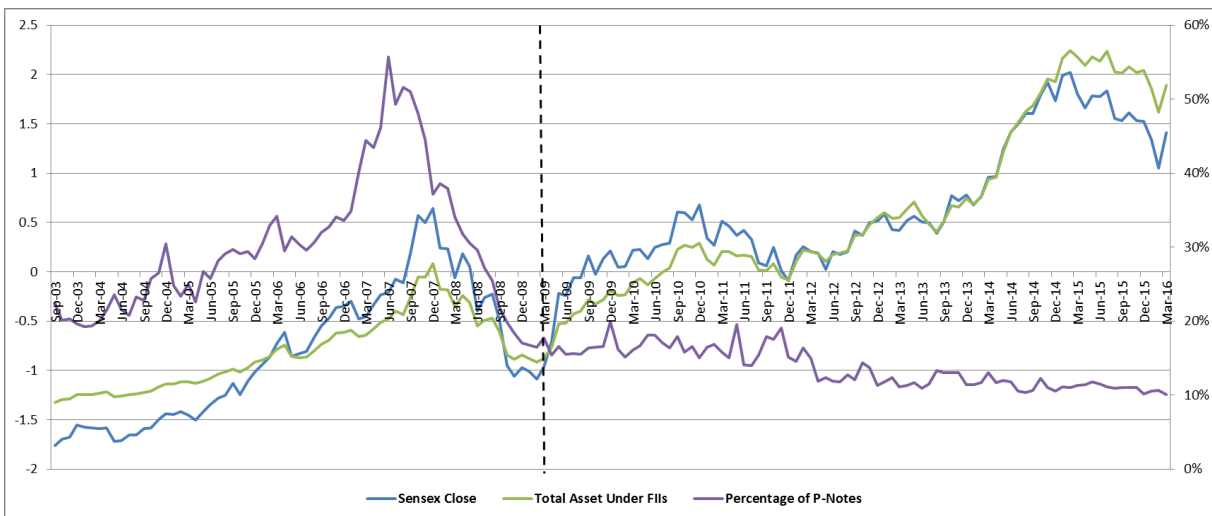


Chart 2, Data Source: SEBI

Sensitivity to change of SENSEX Monthly Close with respect to change in percentage of investment through P-Notes

To test the structural change in data and change in sensitivity of performance of stock market, the following regression was done:

$$\text{close} = a_1 + a_2 * \text{percentage_pnotes} + a_3 * \text{dummy} * \text{percentage_pnotes}$$

where close=close value of SENSEX at end of the month(standardized)
 percentage_pnotes=percentage of investment by FIIs through P-Notes
 dummy=1 if Month>Mar'09
 =0 if Month<=Mar'09

	Estimate	Standard Error	t-value	Pr(> t)
Intercept	-1.13680	0.07400	-15.361	< 2e-16 **
perc_pnotes	0.44351	0.06351	6.984	9.05e-11 ***
dummy x perc_pnotes	-2.96338	0.16165	-18.332	< 2e-16 ***

*5% Significance **1% Significance ***0.1% Significance

The coefficients are statistically significant at 5% significance level. The above table shows that in Period 1 there was a positive significant relationship between close value and the percentage P-Notes which was highly sensitive but there is a negative significant relationship in Period 2