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Global Financial Crisis: The Monetary Policy Dilemma

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Abstract

Post crisis period in India is marked by 'liquidity hangover' which RBI's Monetary Policy is visibly finding difficult to handle. While highlighting the 'Ad-hoc' monetary policy response of RBI in recent past, the paper tries to ascertain the significance of monetary policy variables in explaining growth.

Key Words: *Global financial crisis, Monetary Policy, liquidity hangover*

Introduction

The financial crisis which had its roots in the US sub-prime crisis was by no means a local or regional problem. Its trajectories were far beyond. The affects of the crisis were seen on almost all the significant economies of the world. Indian economy was not an exception. Thanks to the regulatory cautions and stimulus packages that were followed, we in India were able to salvage our GDP growth rate. Growth rate remained around respectable levels even when the world was seen gasping.

What has become so difficult is not the global crisis per se, but the aftermath of the policy response to the crisis. The so called, 'Monetary Hangover'. RBI is seemingly gasping to contain this after effect. There had been more than 13 episodes of policy rate changes in the past two and a half years alone. The inflation which at times had reached double digit is still far beyond from acceptable levels. Given this situation the recent policy change of RBI from being 'inflation targeted' to that of 'growth oriented' is questionable.

The objective of this paper is twofold, firstly it highlights the 'Ad-hoc' nature of monetary policy response of RBI in recent past, and secondly, the paper tries to ascertain the significance of monetary policy variables in explaining growth.

Arrangement of the paper:

- First we try and understand the exact nature of inflation in India, i.e. is the present inflationary situation the result of excess money supply in the economy or that of supply short fall? For this our variable of interest are WPI (our measure of inflation) and M3 (our measure of money supply i.e. broad money). We are interested in knowing the

responsiveness of WPI growth rate to that of M3. If M3 growth rate explains WPI growth rate significantly then we have all the reasons to believe that inflation is indeed a monetary phenomenon and that RBI is doing it right when it's tightening policy variables.

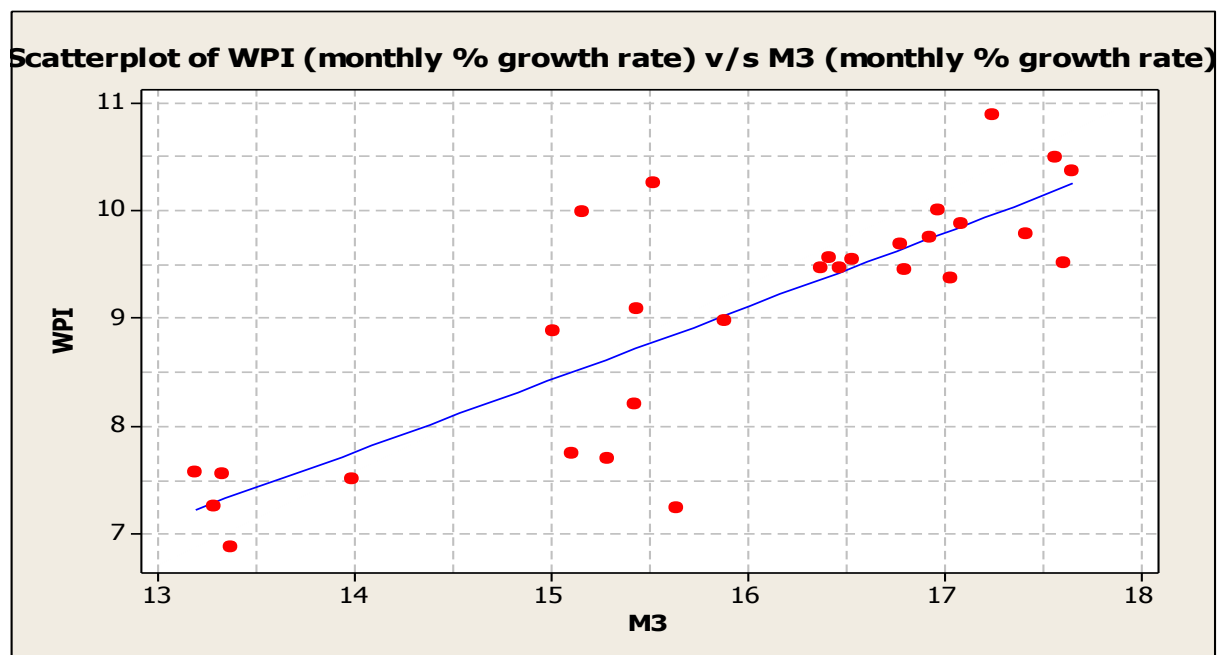
- Next we will try to find out how exactly is repo rate responding to call market rates. As repo rates are changed under LAF and fluctuations in call rate are indicative of liquidity positions of the economy, it can fairly be concluded whether or not monetary policy response are in right directions.
- If M3 growth rate is at all a variable of significance in explaining inflation. It would be a matter of interest to ascertain the influence of Money supply on GDP growth rate i.e. for the reference period.

First thing first, let's try and analyse the relationship between WPI (year on year) growth rate and that of money supply. We are using year on year growth rate of broad money i.e. M3.

Correlations¹: WPI, M3²

Pearson correlation of WPI and M3 = 0.830

P-Value³ = 0.000



Regression Analysis: WPI versus M3

The regression equation is:

$$\text{WPI} = - 1.72 + 0.677 \text{ M3}$$

¹ The results of regression analysis were obtained by using Minitab ver. 15

² Data for the relevant variables are for the year: January 2010 – February 2012

Predictor	Coef	SE Coef	T	P	
Constant	-1.722	1.397	-1.23	0.228	
M3	0.67721	0.08766	7.73	0.000	
S = 0.646560					
R-Sq = 68.8% R-Sq(adj) = 67.7%					
Analysis of Variance					
Source	DF	SS	MS	F	P
Regression	1	24.947	24.947	59.68	0.000
Residual Error	27	11.287	0.418		
Total	28	36.234			

The above regression analysis (with M3 coefficient being 0.677, P-value³ being zero, Adjusted R-Square of 67.7%) clearly brings out the significant relation between WPI and M3.

We can fairly conclude from the above regression analysis that a percentage change in Money supply, bring about about 0.677 % change in WPI. More over this relation is positive. That is, the post crisis inflation in India is indeed a monetary phenomenon. And any attempt to reduce money supply in the economy will ultimately help in curtailing the inflationary situation significantly.

Having established a significant relation between growth rate of money supply and growth rate of WPI, our next interest of analysis is to find out, whether RBI is indeed responding to the excess monetary situation. For this we take the help of Call market rates.

By asking other non banking financial institutions to withdraw in a phased manner from inter – bank call/notice money market, of late, RBI has sought to develop inter-bank call/notice money market into a ‘pure’ inter- bank call/notice money market. The advantage of this exercise is that now this ‘pure’ inter-bank call/notice money market has become a true indicator of money supply and money demand in the economy. If we find the call rates going up, this will indicate a shortage of money supply in the economy as compare to that of money demand. And a fall in the call rates will indicate the reverse i.e. an excess of money supply to that of money demand.

Since June 2000 RBI’s response to the fluctuations in the money market has been under LAF i.e. the Liquidity Adjustment Facility. Under LAF, RBI tries to alter Repo⁴ and Reverse Repo rates. Repo rates are the rates at which RBI seeks to inject liquidity into the economy and with Reverse Repo rate it tries to do the reverse i.e. to absorb the excess liquidity from the economy.

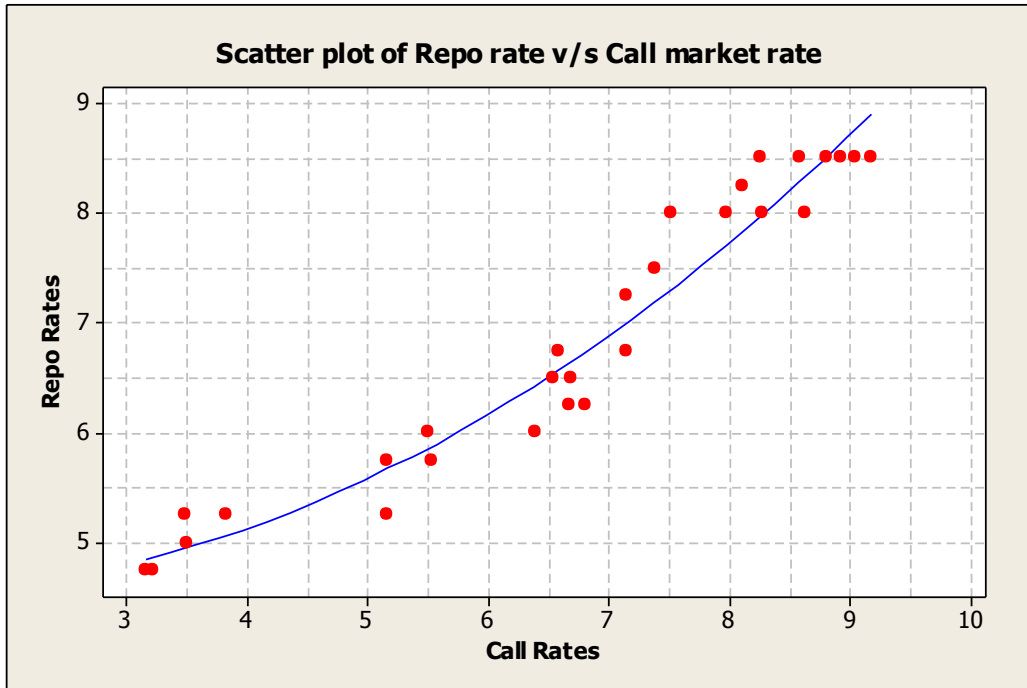
³ The smaller the p-value, the smaller the probability that rejecting the null hypothesis is a mistake

⁴ Repo indicates injection of liquidity.

Correlations: Repo Rates, Call Rates

Pearson correlation of Repo Rates and Call Rates = 0.959

P-Value = 0.000



What is significant is that both Call Market rates and Repo rates are positively correlated, with 0.959 this correlation is strong enough and that both are showing a continuous upward trend, especially since January, 2010.

Keeping aside the policy responses for time being, the rise in call rates is in itself a matter of concern. A rising call rates signifies the legitimate productive demand for money of the economy and RBI as a responsible central bank of India is bounded by its very preamble to fulfil this productive needs.

The question that arises is why RBI was shying away from fulfilling the legitimate productive needs of the economy. Is it wise to put curb on genuine productive needs of the economy for the sake of inflation control?

Was RBI trying to control inflation by controlling money supply just for the sake of controlling? Just to be seen as doing something irrespective of analysing any genuine market needs? Has things changed significantly since April 2012, when RBI announced its policy reversal favouring Growth. Isn't it that RBI trying to take refuge in an intangible variable like, 'inflationary expectation' to correct its course?

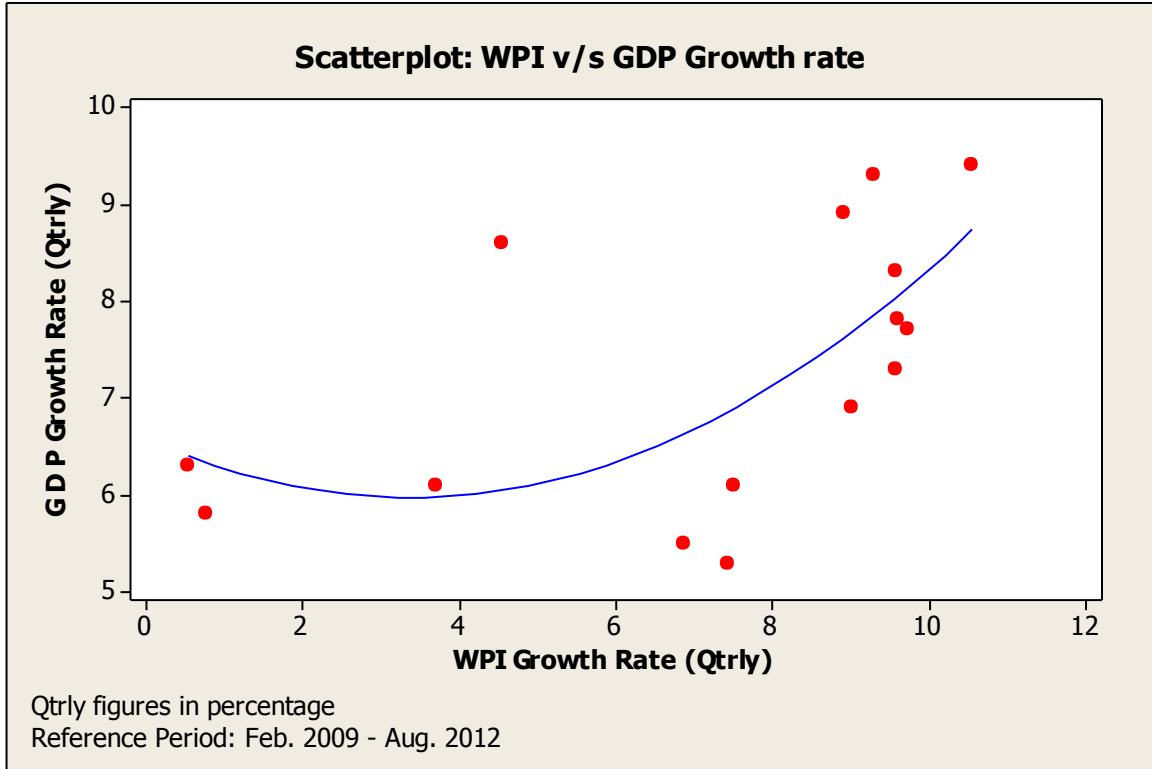
Moreover one is forced to ask: Whether the present changed course of orienting monetary policy towards growth, against that of inflation, a right course at all? Let's see what

data have to say. We seek to ascertain the relationship between inflation and GDP growth rate for the reference period i.e. from February 2009 to August 2012.

Correlations: WPI Growth Rate (Qtrly), GDP Growth Rate (Qtrly)

Pearson correlation of WPI Growth Rate (Qtrly) and GDP Growth Rate (Qtrly) = 0.537

P-Value = 0.039



Regression Analysis: GDP Growth Rate versus WPI Growth Rate

Regression equation:

$$\text{GDP Growth Rate (Qtrly)} = 5.64 + 0.230 \text{ WPI Growth Rate (Qtrly)}$$

Predictor	Coef	SE Coef	T	P	
Constant	5.6357	0.7860	7.17	0.000	
WPI Growth Rate (Qtrly)	0.2302	0.1003	2.30	0.039	
S = 1.22898					
R-Sq = 28.9%					
R-Sq(adj) = 23.4%					
Analysis of Variance					
Source	DF	SS	MS	F	P
Regression	1	7.962	7.962	5.27	0.039
Residual Error	13	19.635	1.510		
Total	14	27.597			

With P-value of only 0.039 we can confidently claim that, for the reference period, there's a significant relation between GDP growth rate and WPI. Even though having WPI coefficient as only 0.230 suggest that this relation is not strong enough.

Concluding remarks:

- Inflation in India in post crisis scenario is clearly a monetary hangover effect.
- Again, raising call market rate points towards liquidity crunch in the economy.
- What required to be done is not just inflation control through an overall tightening of monetary variables, but the present situation calls for remaining selective and targeted.
- Adequate attention need to be given for correcting supply side bottlenecks.
- Though there is a significant and positive relation between WPI and that of GDP growth rate. This relationship is not strong enough to justify RBI's reversal in monetary policy targeting, i.e. favouring Growth to that of inflation control.
- It seems RBI is responding not to the real economic variables but to that of Finance Ministry dictates.

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