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## OPENNESS AND ITS IMPACT ON INFLATIONARY EFFECTS OF MONETARY POLICY AND INFLATION VOLATILITY IN INDIA

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### ABSTRACT

*The openness-inflation nexus has been in focus particularly after the seminal paper on the subject by Romer (1993). Economic theory suggests that an economy's openness on the one hand increases the inflationary effects of monetary policy, while on the other reduces the overall inflation volatility. Using quarterly data from the 1971 to 2011 period for Indian economy, the paper's empirical results support the theoretical prediction, that more open the economy, the larger the inflationary effects of a given change in the money supply thereby reducing the incentives for expansionary monetary policy and hence can have disciplinary effect on the monetary authorities. In addition, we also found that opening-up of Indian economy has a negative impact on inflation volatility. Thereby reducing uncertainty in the economy. Assuming that the tendency of Indian economy to open-up to foreign trade will continue, a direct policy implication of our results is that inflation volatility will decrease, and the potency of monetary policy will decline.*

### KEYWORDS

foreign trade, inflation, inflation volatility, monetary policy, openness.

### 1. INTRODUCTION

Kydland and Prescott [1977] have demonstrated that monetary policy without precommitment can be inefficiently inflationary. This time inconsistency problem has been widely discussed in the literature. Hardouvelis (1992) argues that although cooperative solution is Pareto superior to Nash solution to the game between central bank and wage setters – as loss function of wage setters remains same and that of central bank is lower, it is time inconsistent because given the expected inflation, there is an incentive to cheat for central bank by expanding money supply. Cooperative solution can prove successful only if central bank precommits itself to an optimal money supply process. However, in his seminal paper Romer (1993) has shown that even in the absence of precommitment openness to trade of an economy can reduce the inflationary bias of monetary authorities. He argues that openness affects the short-run output–inflation tradeoff faced by policymakers in such a way that monetary policymakers in more open countries will be less inclined to boost short-run output. The basic argument is that the incentives to expand are low in highly open economies, and thus that inflation will be low in these countries even in the absence of precommitment. The paper explains this relationship by noting unanticipated monetary positive monetary shocks cause real exchange rate depreciation, and greater the degree of openness of an economy higher the harms of real depreciation; i.e., the benefits from surprise monetary expansion are a decreasing in the degree of openness. Sachsida et al (2003) tries to verify Romer's (1993) hypothesis of negative link between openness and inflation using panel data approach instead of cross section data so that changes over time can be detected in the relation 'openness and inflation' among the variables over time and also to detect typical country specific effects. The study argues that higher the amount of gains in terms product as a result of surprise inflation the greater is the incentive for the government to unleash such a surprise. Another study by Lane (1997), showed that the gains to surprise monetary expansion, and hence the incentives to inflate, are lower in a more open economy, even in an economy too small to affect international relative prices. The study also reveals that, for a given level of openness, the larger is an economy, the more the terms of trade effect reduces the benefits of a surprise monetary expansion. Karras (1999), by using a simple Open-economy model, openness is shown to reduce the ability of money to affect output, while raising its effects on inflation. Bowdler (2006) finds that higher degree of openness reduces the likelihood of large upturn in inflation, both directly as well as indirectly by restricting the impact of general elections in flaring inflationary process. Defining globalisation as trade and financial openness. Badinger (2009) has found that the countries that are more open to both trade and financial flows, have lower inflation rates by reducing inflation bias of central bank and are found to be associated with higher output- inflation tradeoff. The study also finds that there is no robust link between inflation and globalisation for a sample of 25 OECD countries and argues that the likely reason for this is that these countries have developed the institutional framework for central banks that help smoothing the distortions arising from time-inconsistency problem. Marzinotto (2009) defined globalisation by equating it to the participation of individual countries in international production chain which is reflected by the share of intermediate inputs in production, produced domestically or imported. The data used in the study supports the models prediction that countries with greater fragmented production systems are characterized by higher price level inertia compared to less integrated economic systems, there by resulting in the flattening of Philips curve in the former. The analysis of Daniels and Hoose (2006) suggest that greater openness raises the sacrifice ratio while diminishing the inflationary bias of discretionary monetary policy in an imperfectly competitive open economy where nominal wages are set in advance of price and output determination in some sectors. The analysis indicates that increased openness should reduce mean inflation. Lo and Granato (2008) has given the empirical evidence for that recent stylized world over monetary policy shift towards inflation has been guided by unprecedented increase in policy response to economic openness. Thus indicating that 1990's global change towards setting low inflation as the main focus of the macroeconomic policy has caused inflationary shocks to die out faster in more open economies. Bowdler and Malik (2005) provides evidence for a negative relation between openness and inflation volatility using a dynamic panel model. Cavelaars (2009) while stressing the importance of international expenditure switching, has found that the impact of an increase in openness on the incentive faced by a central bank is ambiguous in general. He argues that monetary expansion leads to a short-run surplus on the current account, implying that higher openness can make it more attractive to conduct expansionary monetary policy, implying that a worldwide increase in the degree of competition in the goods market may have an adverse effect on monetary policy discipline. He further notes that a decline in monopoly power enhances the expenditure-switching effect of monetary policy, because when competition is high, a change in the international relative price of goods gives rise to a larger shift in demand. Srinivasan, Jain and Ramachandran (2009) find that the trend inflation behaviour in India is fairly common with other developed countries, implying that explanations for inflation must be similar across countries. They lend support to the view that behaviour of inflation over the past in India can be explained as the lack of commitment on part of the institutional structure towards price stability. They also recognize the fact that opening up of Indian economy in 1990 that resulted in lowering sensitivity of domestic inflation to shocks and consequent flattening of Philips curve, can be an additional candidate explanation of inflation behaviour in India.

Given the theoretical background we want to see how opening-up of Indian economy has impacted the effects of monetary policy on inflationary process in India over the time. Following the methodology of Karras (1999), the empirical results lend credence to the theoretical predictions. Openness of Indian economy has increased the inflationary effects of monetary policy and seem to have reduced the inflation volatility. The reduction in inflation volatility implies a greater discipline in the conduct of monetary policy on the one hand and diversified consumption and production on the other hand.

In the following section we discuss the data and method used in this paper, section 3 presents the empirical results and section 4 concludes.

### 2. METHOD AND DATA

The empirical analysis is carried out by taking quarterly data from 1971Q1 to 2011Q4 on wpi to measure inflation. For measuring output gap, we used data on GDP at constant price. Similarly, to measure openness we used data on value of exports and imports. All the above data ranges for the sample period from 1971Q1



to 2011Q4. The inflation rate denoted as  $\pi_t$  is measured as  $\pi_t = \ln(wpi_t / wpi_{t-4})$ . The prices of food and energy are used as proxy for supply shocks, which is constructed as weighted average of food-articles and mineral oil prices denoted by  $\theta$ . For money supply growth, we used M3 as a measure of money supply, which is a very broad measure and widely used. Further, we used conventional measure of output gap ( $y_t^g$ ) to capture the short run fluctuations in inflation. We measured output gap as the difference between actual output growth and its HP-trend that is ( $y_t^g = y_t - y_t'$ ), where  $y_t'$  is trend in  $y_t$  (output growth) obtained by using Hodrick-Prescott (HP) filter. We used the ratio exports plus imports to GDP as a measure for openness, which is denoted as, ' $O$ '. Following Karras (1999), following equations is specified to estimate the inflation

$$\pi_t = c + \sum_{i=1}^4 \alpha_i \pi_{t-i} + \sum_{i=0}^1 \beta_i \theta_{t-i} + \eta y_t^g + \sum_{i=0}^4 \lambda_i m_{t-i} + e_t \quad (1)$$

In order to allow openness to influence the effects of money on inflation, the coefficients of money are allowed to vary by country and over time in the following tractable way:

$$\lambda_i = \rho_i^m + \rho_i^o o_t \quad (2)$$

$$\pi_t = c + \alpha_i \pi_{t-1} + \beta_i \theta_{t-1} + \eta y_t^g + \rho_i^m m_{t-1} + \rho_i^o m_t o_t + e_t \quad (3)$$

In order to capture the impact of openness on inflation volatility we use ARCH model where equation (3) is the mean equation and following is variance equation

$$\sigma_t^2 = c + \phi_i e_{t-1}^2 + \omega \sigma_{t-1}^2 + \psi_i o_t + \beta_i \theta_t \quad (4)$$

Where  $c, \alpha, \beta, \eta, \lambda, \rho^m, \rho^o, \phi, \omega$  and  $\psi$  in equations 1, 2, 3 and 4 are the coefficients of respective variables.

We also use a simple measure of inflation volatility by taking standard deviation of inflation rate in pre and post reform period. To see whether monetary authorities in India have been more concerned about inflation and its volatility, following Lo and Granato (2008) we measure the inflation shock die-out rate by regressing the inflation rate of the period on its lag value the coefficient of lagged value is taken as proxy for the reaction of monetary authorities towards inflation shocks. The negative and higher the absolute value of the coefficient of lag variable is, the stronger the reaction of monetary authorities for controlling inflation. We characterise the aggressiveness of monetary authorities to counteract inflation shock by following regression

$$\Delta \pi_t = c + d \pi_{t-1} + \mu \quad (5)$$

Where  $\Delta$  denotes the first difference operator.

Eq. (5) is similar to an augmented Dickey-Fuller regression. The size of coefficient,  $d$  indicates the average "die-out-rate" of the inflation shock. If policymakers act more aggressively to inflation shocks,  $d$  would be observed to be negative and larger in absolute value. It indicates a higher speed of mean-reversion in inflation and less persistent inflation shocks.

### 3. EMPIRICAL RESULTS

In column 2 and 3 of the Table 1, we presented the results obtained from two regression modes. Column 1 of the table estimates a benchmark regression, ignoring the possible effects of openness; i.e. in openness terms of Eq. 2, column 1 imposes openness coefficient to be 0. The results are as expected; inflation rate has some persistence, as indicated by the statistically significant lag terms; only third and fourth lags of money supply are significant. Higher food and mineral-oil prices are shown to affect prices positively but not significantly but first lag has negative and statistically significant impact; output-gap has negative and statistically significant impact. The second column of table shows results for the model including openness interaction term, the results suggest that openness enhances the inflationary effects of money supply. The Durbin-Watson statistic  $d = 2.11$  and  $R^2 = 0.88$ . Finally, by using ARCH model to see the effects of openness on inflation volatility were mean equation is same as in model 2 and variance equation includes openness and supply shock variable in variance equation, the results suggest that openness has negative and significant impact on inflation volatility. Additionally, we check the inflation volatility for the period from 1971 to 1991 and then from 1991 onwards by simply calculating standard deviation of inflation for two periods separately the s.d of inflation for the two periods are 0.065 and 0.035 respectively thereby indicating that volatility has been reduced to a large extent in the post reform period that witnessed a dramatic rise in India's openness.

TABLE 1: ESTIMATION RESULTS

Variable/Model	(1)	(2)	ARCH
C	0.012 0.009	0.012452 0.0034	0.012 0.083
$\pi_{t-1}$	0.988 0.000	0.965460 0.0000	0.988 0.000
$\pi_{t-2}$	-0.167 0.096	-0.146390 0.1317	-0.133 0.359
$\pi_{t-3}$	-0.111 0.261	-0.089182 0.1750	-0.080 0.418
$m_t$	0.026 0.697	-0.006898 0.6120	-0.008 0.787
$m_{t-1}$	-0.002 0.858	-0.023095 0.1699	-0.022 0.600
$m_{t-2}$	-0.024 0.164	0.042060 0.0123	0.042 0.466
$m_{t-3}$	0.043 0.013	-0.043084 0.0113	-0.043 0.424
$m_{t-4}$	-0.044 0.011	0.020987 0.1160	0.023 0.261
$\theta_t$	0.022 0.110	0.334010 0.0000	0.302 0.000
$\theta_{t-1}$	0.356 0.000	-0.245664 0.0000	-0.255 0.000
$y_t^g$	-0.260 0.000	-0.153529 0.0085	-0.178 0.012
$m_t o_t$	- -	0.329712 0.0028	0.395 0.008
$o$	Variance eq.		-0.0015 0.000
$\theta_t$	Variance eq.		0.0004 0.179
Dw	2.085	2.116	2.143
R <sup>2</sup>	0.875	0.882	0.880

## CONCLUSION

This paper has examined whether the effects of monetary policy on prices depend on the openness of the economy and whether openness has any impact on inflation volatility. Theoretically, using a simple open-economy model, openness can be shown to enhance the ability of money, to effect inflation while openness has decreasing effects on inflation volatility. Using quarterly data from the 1971Q – 2011Q4 period for Indian economy, the empirical results support the theoretical predictions: the more open the economy, the larger the inflation effects of a given change in the money supply, and smaller the inflation volatility. Assuming that the tendency of Indian economy to open-up to foreign trade will continue, a direct policy implication of our results is that inflation volatility will decrease, and the potency of monetary policy will decline while its effects will be more quickly absorbed by inflation, thereby will have a disciplinary effect on monetary authorities.

## REFERENCES

- Bowdler, C., Malik, A. (2005), "Openness and inflation volatility: Panel data evidence," *University of Oxford working paper*.
- Cavelaars, P. (2009), "Does globalization discipline monetary policymakers?" *Journal of International Money and Finance*, Vol. 28, No. 3, pp. 392–405.
- Daniels, J., Nourzad, F., VanHoose, D. (2005), "Openness, central bank independence and the sacrifice ratio," *Journal of Money Credit and Banking*, Vol. 37, No.2, pp. 371–379.
- Harald, B. (2009), "Globalization, the output–inflation tradeoff and inflation," *European Economic Review*, Vol. 53, pp. 147–164.
- Hardouvelis, G.A. (1992), "Monetary policy games, inflationary bias, and openness," *Journal of Economic Dynamics and Control*.
- Karras, G., (1999), "Openness and the effects of monetary policy," *Journal of International Money and Finance*, Vol. 18, pp. 13–26.
- Kydland, F.E., Prescott, E.C. (1977), "Rules rather than discretion: the inconsistency of optimal plans," *Journal of Political Economy*, Vol. 85, No.3, pp. 473–491.
- Lane, P.R., (1997), "Inflation in open economics," *Journal of International Economics*, Vol. 42, pp. 327–347.
- Marzinotto, B. (2009), "Beyond monetary credibility: The impact of globalisation on the output-inflation trade-off in euro-area countries," *The North American Journal of Economics and Finance*, Vol. 20 No. 2, pp. 162-176.
- Melody, L., Granato, J. (2008), "What Explains Recent Changes in International Monetary Policy Attitudes toward Inflation? Evidence from Developed Countries." *Economics Letters*, Vol. 100: 411-414.
- Rogoff, K., (2006): "Impact of globalisation on monetary policy," Paper prepared for Jackson Hole Conference, Harvard University.
- Romer, D., (1993), "Openness and inflation: theory and evidence" *Quarterly Journal of Economics*, 869 – 903 (November).
- Sachsida, A., Carneiro, F.G., Paulo, Loureiro R.A. (2003), "Does greater trade openness reduce inflation? Further evidence using panel data techniques," *Economics Letters* Vol. 81, No. 3, pp. 315–319
- Srinivasan, N., Jain, S., Ramachandran, M. (2009), "Monetary policy and the behaviour of inflation in India: Is there a need for institutional reform?" *Journal of Asian Economics*, Vol. 20, pp 13–24.
- Terra, C.T., (1998), "Openness and inflation: a new assessment," *Quarterly Journal of Economics*, pp. 641 – 648.

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