Contents lists available at SciVerse ScienceDirect

Emerging Markets Review

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Dove or Hawk? Characterizing monetary policy regime switches in India ☆

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ARTICLE INFO

ABSTRACT

The past two decades have witnessed a worldwide move by emerging markets to adopt explicit or implicit inflation targeting regimes. A notable and often discussed exception to this trend, of course, is China which follows a pegged exchange rate regime supported by capital controls. Another major exception is India. It is not clear how to characterize the monetary regime or identify the nominal monetary anchor in India. Is central bank policy in India following a predictable rule that is heavily influenced by a quasi inflation target? And how has the monetary regime been affected by the gradual process of financial liberalization in India? To address these points, we investigate monetary policy regime change in India using a Markov switching model to estimate a time-varying Taylor-type rule for the Reserve Bank of India. We find that the conduct of monetary policy over the last two decades can be characterized by two regimes, which we term 'Hawk' and 'Dove.' In the first of these two regimes, the central bank reveals a greater relative (though not absolute) weight on controlling inflation vis-à-vis narrowing the output gap. The central bank however was found to be in the "Dove" regime about half of our sample period, focusing more on the output gap and exchange rate targets to stimulate exports, rather than moderating inflation. India thus seems to be following its own direction in the conduct of monetary policy, seemingly not overly influenced by the emphasis on quasi-inflation targeting seen in many emerging markets.

1. Introduction

A major switch in the conduct of monetary policy has occurred in many nations over the past two decades. Although taking different forms, the switch has been towards more systematic rules and less discretion in the conduct of monetary policy. Many central banks in emerging markets have adopted formal inflation targets (ITs), including Brazil, Chile, Colombia, Czech Republic, Korea, Hungary, Israel, Peru, Philippines, Poland, South Africa, Thailand and Turkey. Other central banks have adopted systematic rules that de facto describe the behavior of the central bank's operating instrument response—usually interbank interest rates—to inflation, output gaps and the external environment. Rose (2007) argues that the move to IT regimes, either explicitly or implicitly (e.g. adopting systemic rules focusing on inflation), has created a new monetary system that is more stable than its predecessors such as exchange rate targeting and fixed exchange rates that existed in the erstwhile Bretton Woods system.

Theoretical studies that derive optimal monetary policy rules, and empirical studies that investigate their use in practice, are now commonplace in the literature (e.g. Taylor, 1993; Clarida et al., 2000; Woodford, 1999, 2001; Giannoni and Woodford, 2002). Taylor (1993) formulated a policy rule by which the U.S. Federal Reserve adjusts the policy rate in response to past inflation and the output gap (actual less potential output). He showed that this rule described Federal Reserve policy performance quite well from 1987 to 1992. Using a quadratic loss function for the welfare objective of the central bank, Woodford (2001) provided a formal normative justification for following a Taylor-type rule under certain conditions. Many studies subsequently applied and developed this class of policy rules to examine the behavior of central banks in industrialized countries (e.g., Clarida et al., 2000), and several have been applied to emerging and developing economies (e.g. Aizenman et al., 2011; Gonçalves and Salles, 2008). In fact, Gonçalves and Salles (2008) find that in a sample of 36 emerging market economies (13 of which implemented IT), the IT adopters experienced a greater decline in inflation and growth volatility compared to the non-adopters.

In light of the 2008–09 global financial crisis, it may be premature to make a final judgment on the desirability and durability of IT regimes and whether their widespread adoption has actually ushered in a new era of global monetary stability. It is noteworthy that the two largest, most populous, and, arguably, dynamic emerging markets, China and India, have *not* adopted IT regimes and withstood the global financial crisis reasonably well. China follows a quasi-fixed exchange rate regime against the U.S. Dollar, accumulates massive international reserves and maintains tight capital controls to keep the parity unchanged (e.g. Glick and Hutchison, 2009; Ouyang et al., 2010). In contrast, the monetary policy regime in India is less explicit and apparently more dynamic, with the authorities typically arguing that discretion is paramount in their policy decisions. [1]

The objective of our paper is to investigate the nature of monetary policy rules in India, a country that has undergone substantial domestic financial development and deregulation over the past two decades and has also experienced significant integration with the global economy. These developments have potentially altered the financial environment and external constraints (e.g. balance of payments, exchange rates) facing the central bank (Reserve Bank of India, RBI), and may have influenced its operating procedures as well as its policy tradeoffs between output–inflation–exchange rate stabilization. These considerations, in turn, may have impacted the formulation of monetary policy rule in India as mentioned in Mohan (2006b). In particular, money market deregulation took place in 1987. Prior to that, the money market was highly regulated and the interest rate was essentially fixed. [2] Since 1987 there has been much greater flexibility in money market rates, and the RBI started using it as the primary operating instrument of monetary policy. To this end, we investigate the monetary policy rule in India and whether simple Taylor-like policy rules—perhaps changing over time to account for the changing economic environment—may be employed to systematically describe RBI's actions. The RBI describes its own policy actions in terms of discretion, and states that a multitude of factors are taken into consideration when deciding the course of monetary policy. The question is whether the seemingly discretionary policy followed by the RBI may be empirically described by a systemic rule that allows for occasional regime switches.

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[1] India and China are included in the Gonçalves and Salles (2008) sample as non-IT adopters.

[2] While arguments can be made for later starting dates, given the evolution of financial liberalization in India, and of the RBI's conduct of monetary policy, this particular liberalization episode seems to be the most appropriate beginning for our sample period.