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Modeling interest rate cycles in India[☆]

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Abstract

The present study tries to examine the behaviour of various Indian interest rates such as call money rate, and yields on secondary market securities with maturity periods of 15–91 days, 1-year, 5-years and 10-years. In the first stage, the study investigates the determinants of interest rates and finds that although the interest rates depend on some domestic macroeconomic variables such as yield spread and expected exchange rate, they are mainly affected by the movements of international interest rates, although with some lags. The policy variables such as Bank Rate and Federal Funds Rate did not show any significant impact on any of the interest rates. Further, it was found that the interest rates in the very recent period show some cyclical movements similar to that of the developed countries. Future behaviour of interest rates show that the present cycle of each interest rate would peak at different time points. This expected behaviour in domestic interest rates could be due to the integration of the domestic economy with the international money and financial market. This trend may be same in most of the emerging economies of Asia.

JEL classification: E43; E47; F36

Keywords: Interest rate; Cycles; Exchange rate; Inflation; Forecasting; India

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1. Introduction

In the era of globalization and stabilization, one of the macroeconomic variables that have come into sharp focus is the interest rate. This is consequent upon a strengthened integration of the domestic financial sector with the external sector. As there is a slackening of restrictions in the cross movement of capital across the countries, this has affected the behaviour of domestic variables, particularly the interest rates. This has led to the emergence of a new interest rate channel through which the policy shocks are being transmitted to attain the growth objective. The channel has become more significant and stronger in most of the emerging economies in recent years, depending on the degree of openness of their capital account. Further, this has weakened/replaced the traditional terms of trade shocks that used to be prominent in a closed economy scenario and has also made the domestic financial markets vulnerable to the international shocks/cycles. Hence, any change in the interest rate/monetary policy in the World (or largest) Economy would affect the financial market in the emerging economies with a lag.

In Asia, as there are a number of emerging market economies where there has been a greater movement of foreign exchange reserves and also there is a presence of huge foreign exchange reserves particularly in terms of US dollars, the interest rate channel has assumed much significance. This is expected to bring in open economy macroeconomic problems, which cannot remain immune to the external shocks. Asian crisis is a best example in this regard (Kim & Ratti, 2006). But in India, although it had large foreign reserves, crisis did not hit the economy mostly due to its extent of liberalization or controls on the capital movement and persistence of a partial administered interest rate regime at that time. Unlike other Asian economies, India did not attract much short-term capital. Due to a low capital base, a large inflow of foreign capital in emerging economies such as the case of India initially enlarges the liquidity supply and thereby tends to put downward pressure on the interest rate. However, the rigidity in the interest rate mechanism together with financial imperfections often restrained the full impact of the high liquidity on the interest rate. In India, therefore, the interest rates remained fairly sticky during the Asian crisis. However, the subsequent inflows of foreign capital, particularly the portfolio flows, slowly brought down the interest rate. This was also helped by low level of inflation rates in the economy. But once the financial liberalization took a deeper route, the interest rate began to be more sensitive not only to the liquidity but also to the growth syndrome. It is in this context, it is worth examining the interest rate cycle in India as a case of one of the emerging economies of recent times.

It is to be noted that with financial liberalization in the Indian economy, flexibility has gradually been imparted to the movement of interest rates. This is supposed to be a good sign for a developing economy as it is expected to enhance the efficiency in the financial system and thereby leading to achieve a higher growth rate of the economy. This policy stance is mostly backed up by the position of the monetarist and the financial liberalization school as opposed to the Keynesian school. According to the Monetarists, 'a flexible interest rate policy responds to the changes in the market conditions (demand and supply of credit), thereby enabling the economy to withstand and control the macroeconomic instabilities as an inflexible interest rate policy is prone to macroeconomic fluctuations' (King & Lin, 2005).

Currently, the domestic interest rates have been liberalized to a large extent and, hence, are presently market determined.[2] Inflow of foreign capital in terms of both portfolio (FII) and

[2] For detailed discussion on the interest rate policy changes in India since economic reforms can be found in Bhattacharya, Bhanumurthy, and Mallick (2006).