CHANGING ECONOMY VIS-A-VIS CHANGING MONETARY POLICIES: A STUDY TO ASSESS THE IMPACT OF RESERVE BANK OF INDIA (RBI) POLICIES OF INTEREST RATES AND EXCHANGE RATES

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ABSTRACT

The induction and implementation of any monetary policy by the RBI is accompanied by an analysis of all forms of extraneous factors, and its impact on the various players of the economy (Kesavan, 2015). The eventual goal of any of the RBI's measures, is claimed to be controlling the inflationary expectations. It has been found that the response by the various macroeconomic variables and market players to a policy induced interest rate change, is substantially larger than that implied by the conventional estimates of the interest elasticities of consumption and investment. This, as also opined by Deepak Mohanty (2010), must be done through reducing the overhang of liquidity without risking the growth process. The present study strongly supports the urgent need for recognizing and deeply analyzing the twin issues of interest rate and exchange rate determination, so as to accurately predict their effects on the macro-economic variables such as GDP, inflation, savings, investment and, most importantly, economic growth.

Key Words: Banker to Government, Bank Rate Policy, Open Market Operation, Credit Rationing, Revenue Deficit, Capital Expenditure

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Introduction

The first impetus for the changes in the monetary policy in India, was given by the opening up of the economy in the early 1990s (Himani, 2014), which was then followed by an era of strong economic globalization characterized by an international integration of markets for goods, labour, and capital. The current scenario is defined by tightly linked movements in the economic as well as financial conditions around the globe (Kamin, 2010). This has, according to Rangarajan (1996), necessitated the monetary policy of Reserve Bank of India (RBI) to occupy a central position in the economy's policy making.

According to Joshi (2010), for the developing economies especially, the monetary policy plays a pivotal role; it stimulates or discourages spending on goods and services, influences economic activities, prices, cost and availability of credit to producers and consumers, etc. Therefore, any change in the monetary policy of the economy, is accompanied with a wide range of impacts on the different sectors of the economy. Several researchers have identified certain established channels through which the changes in the monetary policy affect the output and prices in India. These include the interest rate channel, the credit channel, exchange rate channel, asset price channel and the risk taking channel (Bernanke and Kuttner 2005; Borio and Zhu 2012; Adrian and Shin 2009; and Gambacorta 2009). Further, the extent and nature of the responses to such monetary policy changes by the different players in the economy, is defined by the extent to which they are borrowers or lenders (Joshi, 2012).

A recent phenomenon witnessed as a result of the economic and fiscal situations, is the downward trend in Inflation expectations and inflation tolerance (Himani, 2014), which has had a significant effect on the people's spending decisions and saving patterns. The present scenario is characterized by the monetary authorities adopting varied monetary policies such as alterations in CRR, repo and reverse repo rate, aimed at curbing the soaring inflation. These policy changes, have a direct impact on the money supply in the market and the overall economy (Joshi, 2012). It is further claimed that the interest rate is one of the determinants of economic growth (Udoka and Roland, 2012).

It has been found that the response by the various macroeconomic variables and market players to a policy induced interest rate change, is substantially larger than that implied by the

conventional estimates of the interest elasticities of consumption and investment. According to Bernanke and Gertler (1995), this indicates that there are other mechanisms also at work, other than the interest rate channel, in the transmission of monetary policy. Another crucial tool used by the RBI under its monetary policy, is the currency exchange rate, which significantly impacts the economy's GDP (Rodrik, 2009). Thereby, indicating that the interest rates and exchange rates are both, crucial determiners of the overall economic growth of the nation.

The ripple effects of each of these monetary instruments, used by the central bank balance are considered to be highly situation-specific (Schaechter, 2001).

Aim of the Study

The present study aims at assessing the impact of the Reserve Bank of India (RBI) policies pertaining to interest rates on the key macro variables of the Indian economy. Further, it also aims at examining the interrelationship between the interest rates and exchange rates as important monetary policy instruments.

Objectives

1. To evaluate the impact of interest rates on key macro-variables of the Indian economy.
2. To assess the inter-linkage between the interest rates and exchange rates by the RBI.

Methodology

The present research is solely based on the Secondary data collected from RBI Bulletin, RBI Occasional Papers, RBI Annual Report, Economic Survey, World Bank Report and several other government reports, online journal articles, etc. The study covers for a period of 20 financial years starting from 1991. Thus the study examines the impact of monetary policy on the Indian economy in the post reform period.

Review of Literature

The Monetary Policy is a powerful tool through which the monetary authority of a country controls the economy's money supply, by most commonly targeting a rate of interest for the purpose of promoting economic growth and stability (Himani, 2014). The various channels through which the RBI implements its monetary policy, give a special attention to the longer-term interest rates, due to the fact that it affects the user-cost of capital and thus investment, as

well as balance between current and future consumption (Boivin, Kiley, and Mishkin, 2010). The far reach of the impact of interest rate changes on several economic players, is based on the close links between the changes in monetary aggregates (money supply and nominal interest rate) and its subsequent effect on the aggregate output and prices (Kelikume, 2014). However, the recent trends of low level of long-term interest rate in the world, have significantly altered the level of output and prices (Greenspan, 2005 and Bernanke, 2005). This has further, created a significant increase in global supply of savings creating a global savings glut (Bernanake and Kutner, 2005).

Further, even in the foreign exchange market, the RBI's exchange rate management policy has aimed at maintaining orderly conditions, by eliminating lumpy demand and supply (Dhamsana, 2013).

The most important aspect of the monetary policy of the RBI, is the claim by economists that inflation is dominantly a consequence of the structural imbalance in the economic variables, than as a monetary phenomenon. Thus, indicating that the interest rates, exchange rates and other crucial monetary policy instruments under the power of the Central Bank, must be given prime significance and attention due to their wide ranging effects on varied market players.

Volatility and Liquidity in Indian Rupee

India has had a unique history of exchange rate changes, ever since it implemented the market-oriented financial sector reforms after the balance of payments crisis in 1991, and moved from the fixed to the marketbased exchange rate regime in 1993 (Dhasmana, 2013). Since then, the various liberalization efforts has resulted in the total turnover in the foreign exchange market to have increased by more than 150% (from $73.2 bn in 1996 to $130 bn in 2002-2003, and further to $1,100 bn in 2011-2012) (RBI's Handbook of Statistics and Database on Indian Economy).

According to researches, it is dominantly assumed that if the interest rates are raised, the demand for credit will go down, thereby resulting in the total amount of liquidity in the system to be less (Basu, 2011).

Inflation

The primary aim of the monetary policy in India, is attaining a high growth in a

noninflationary manner (Mohanty, 2013). According to Joshi (2012), the monetary authorities have attempted to make several changes in the monetary policy in terms of variations in CRR, repo and reverse repo rate for combating the inflation, which have obtained mixed responses. On the one side, Miles (2008), De grauwe & Schnabl (2004), Domac et al (2001), and Garofalo (2005) have asserted that there is a lack of any significant relationship between the exchange rate regime and inflation. For the interest rates on the other, studies such as Asghapur, Kohnehshahri, Kandel, Ofer, and Sarig (1996), and Karami. (2014), have claimed that interest rates have a negative relationship to inflation. This has resulted in the RBI often adopting the Interest rates as the major monetary policy, for manipulating the money supply reflected in the market, and as a means of neutralizing inflation (Asghapur et al., 2014). However, within the three major interest rate tools used by the RBI, namely CRR, repo rate and reverse repo rate, the impact is differentiated, with the CRR not helping in curbing inflation, and repo and reverse rate being significant factors responsible for reducing the inflation to certain extent (Joshi, 2012). However, the relatively slow response of inflation to these measures has resulted in the ridicule of the effectiveness of this policy in a globalized India (Basu, 2011).

Economic Activities

According to Egert (2006) and Ganley and Salmon (1997), several studies on the emerging economies have shown significant impacts of the interest rate channel of monetary transmission mechanism on the economic activities. The RBI Bulletin lists out the capital intensive sectors such as construction, power, telecom, etc. as being the most severely hit, along with the other interest rate-sensitive sectors and companies. This not only leads to an increased interest burden, but also impacts any capex plans by these companies (RBI Bulletin).

Another channel, through which the high interest rates impact on the output of goods and services, is by way of reducing the productivity due to the decline in the level of investment (Bernanke and Kuttner, 2003). Further, it was also stated by Makiv (1999) that the high inflation resulting from an increase in the interest rates, results in an increase in the production costs and a decrease in the production capacities, thereby leading to a decline in the output of the product (Dyahrini and Rachman, 2013).

Consumption

Perri and Pablo (2001) examined the empirical relationship between interest rates and consumption as well as output, and found that the consumption is more volatile than output among emerging economies, including Brazil, Mexico, Philipines and Korea. Further, 50% of the fluctuations in the business cycle were accounted for by interest rate shocks, thereby indicating a strong influence on the consumption patterns too.

According to Vasudevan (2002), the great focus given to interest and exchange rates by the RBI under its monetary policy regime, is aimed at achieving a better allocative efficiency of resources over the medium term.

Investment

In the study conducted by Disyatat and Vongsinsirikul (2003), it was empirically demonstrated that the investment is highly sensitive to the monetary policy shocks rooted in the Central Bank of the nation.

However, different investors have their own behaviour in response to such changes in the monetary instruments, especially the interest rates. Several researchers such as Bernanke and Kuttner (2003), and Dyahrini and Rachman (2013), have claimed that a high interest rate will reduce the level of investment.

Banking Operations

Bank's earnings variability is reported to be significantly associated with the interest rate, as shown in the study conducted by Kwan (2004), who compared the performance of publicly traded bank holding companies (BHC) and privately held BHCs in USA.

The EPW Research Foundation strongly recommends the RBI to experiment with the various instruments, in order to ensure that the banking and financial system continue to render their traditional role.

Relationship between Interest Rate and Exchange Rate

The three economic variables, namely Interest Rate, Exchange rate, and Inflation, have been significantly inter-linked, by a majority of the finance and economic literature through various theories and researches. According to Sundavist (2002), the variations in the anticipated inflation that are rooted in the nominal interest rates, are found to significantly affect the future

spot rate of exchange. However, this relationship has been claimed to be positive by some researchers, while others strongly claim it to be the inverse. For instance, according to Jordaan (2013), Alum (2012), interest rates have a negative relationship to the exchange rates. On the other hand, Hakkio (1986), Berument and Gumay (2003) assert that the increase in interest rates can result in an increase in the exchange rates. As claimed by Hakkiko (1986), the change in the interest rates will fuel the attractiveness and hence, the demand of a particular asset, eventually resulting in an increased demand for money (Hakkio, 1986).

Several other economic theories, including the Purchasing Power Parity (PPP) Theory, Interest Rate Parity theory, Demand and Supply Theory, Portfolio-balance Theory etc., have presented their own viewpoints, regarding the relationship between these three crucial variables. For instance, as claimed by Shangufta (2011), the PPP theory indicates that the changes in exchange rate are caused by inflation rate differentials, while those in the nominal interest rates can be attributed to difference in expected rates of inflation given that real interest rates are the same across countries. Further, according to the interest rate parity, the interest rate of one country must be related to the exchange value of her trading partner (Fadli, et al; 2011). Thaddeus & Nnneka (2014) state that interest rate charge in a country, reflects the exchange value of the currency of that country with her trading partners(s).

Conclusion

The induction and implementation of any monetary policy by the RBI is accompanied by an analysis of all forms of extraneous factors, and its impact on the various players of the economy (Kesavan, 2015). The eventual goal of any of the RBI's measures, is claimed to be controlling the inflationary expectations. This, as also opined by Deepak Mohanty (2010), must be done through reducing the overhang of liquidity without risking the growth process. The present study strongly supports the urgent need for recognizing and deeply analyzing the twin issues of interest rate and exchange rate determination, so as to accurately predict their effects on the macro- economic variables such as GDP, inflation, savings, investment and, most importantly, economic growth.

Limitations and Recommendations

The study is limited by the fact that it is grounded on the previous researches for sighting

its conclusions, which may have, at their end, included only a part of the views on the concerned topics. This also implies that the study findings and results would have been completely different, if the study would have involved a direct data collection process, which however, did not seem feasible and reliable for the present study given the delicacy of the information needed from the executives of the central bank of India.

However, the present review significantly brings to the forefront, the urgent need for a detailed study emphasizing on the assessment of the monetary policies of India, as formulated by the Reserve Bank of India (RBI), and their impact on the micro as well as macro variables of the economy. It will also be feasible to conduct a rigorous evaluation of the particular policies of RBI, and their 'side-effects' for the Indian economy.

References

"Reserve Bank of India Bulletin" January 2012 Volume LXVI Number 1.

Alum, T. (2012).Exchange rate and foreign interest rate linkage for Sub- Saharan Africa Floaters.IMF Working Paper.

Asghapur, Hossein. Kohnehshahri, Loftali Agheli. & Karami, Azdar. (2014). "The relationship between interest rates and inflation changes: an analysis of long term interest rate dynamics in developing countries". University of Tabriz

Bernanke, B. S. & Kuttner, K. N. (2005) "What Explains the Stock Market's Reaction to Federal Reserve Policy?" The Journal of Finance, vol. 60(3), p. 1221-1257.

Bernanke, Ben S., and Mark Gertler. 1995. "Inside the Black Box: The Credit Channel of Monetary Policy Transmission." Journal of Economic Perspectives 9, no. 4 (fall): 27-48.

Berument, Hakan & Gunay, Asli. (2003). Exchange rate risk and interest rate: A case study for Turkey. Open economies review. KluwerAcademic Publishers

Boivin, J., M. T. Kiley and F. S. Mishkin (2010), AHow Has the Monetary Transmission Mechanism Evolved Over Time? eds. Ben Friedman and Mike Woodford, Handbook of Monetary Economics, Elsevier, forthcoming.

Calvo, G. and Reinhart, C, 2001. "Fixing for Your Life". In Collins, S. and Rodrik, D. (Eds.), Brookings Trade Forum: 2000, Brookings Institution Press, Washington, DC, 157.

Calvo, G. and Reinhart, C., 2002. "Fear of Floating", Quarterly Journal of Economics, 117, 379-408.

Calvo, G., 2001. ìCapital Markets and the Exchange Rate. With Special Reference to the Dollarization Debate in Latin Americaî, Journal of Money, Credit and Banking, 33, 312-334.

Deepak Mohanty 2010. _Implementation of Monetary Policy in India'. Speech Delivered at the Banker's Club, Bhubaneswar on 15th March, www.rbi.org.in

Dhasmana, A. (2013), "Transmission of Real Exchange Rate Changes to the Manufacturing Sector Performance – Evidence From an Emerging Market", Indian Institute of Management, Bangalore, Working Paper No. 435. - See more at: http://www.ideasforindia.in/article.aspx?article_id=273#sthash.V0VC hw6I.dpuf

Disyatat, P. & Vongsinsirikul, P. (2003) "Monetary Policy and the Transmission Mechanism in Thailand," Journal of Asian Economics, vol. 14(3), p. 389-418.

Égert, B. & MacDonald, R. (2009) "Monetary Transmission Mechanism in Central and Eastern Europe: Surveying the Surveyable," Journal of Economic Surveys, vol.23(2), p. 277-327.

Fadli et. al, (2011). A Vector Error Correction Model (VECM) Approach in Explaining the Relationship between Interest Rate and Inflation towards Exchange Rate Volatility in Malaysia. World Appl. Sci. J., 12 (Special Issue on Bolstering Economic Sustainability): 49-56.

Granley, J. & Salmon, C. (1997) "The Industry Impact of MonetaryPolicy Shock: Some Stylized Facts," Working paper No. 68.Bank of England.

Greenspan, A. (2005) "Risk Transfer and Financial Stability," Federal Reserve Bank of Chicago

Proceedings (No. May, p. 1-9).

Hakkio & Craig S. (1986). Interest rates and exchange rates – what is the relationship? Federal Reserve Bank of Kansas City.

Himani (2014). Role of Monetary Policy in Combating Inflation. IOSR Journal of Economics and Finance (IOSR- JEF) e-ISSN: 2321-5933, p- ISSN: 2321-5925.Volume 4, Issue 6. (Jul-Aug. 2014), PP 11-20

Jordaan. J. C. (2013). Impact of interest rate changes on South African GDP and households: a combined macroeconomic and social accounting matrix modelling approach. Southern African Business Review.

Joshi, V.K. (2012). IMPACT OF MONETARY POLICY OF INDIA WITH SPECIAL REFERENCE TO CRR, REPO & REVERSE REPO RATE IN CURBING INFLATION ñ AN ECONOMETRIC STUDY. Vol.VIII, No. 2;

Kandel, Shmuan., Ofer, Aharon R. & Sarig Oded. (1996). Real interest rates and inflation: An exante

Kelikume, I. (2014). Interest Rate Channel of Monetary Transmission Mechanism: Evidence from Nigeria. The International Journal of Business and Finance Research, 8 (4).

Kesavan, V. (2015). A Study on Rbi's Interest Rate Cuts and its Aftermath Effects in its Economy with Specific Reference to India. International Journal of Engineering and

Management Research, 5(5), pp. 20-24.

Miles, William (2008), "Exchange rates, Inflation and Growth in Small, Open economies: a Difference-in Difference Approach", Applied Economics, 40(3), 341-348.

Perri, F. & Pablo, A. (2001) "Business Cycles in Emerging Economies: The Role of Interest Rates," New York University and Princeton University.

Rangarajan, C. 1997. _Monetary Policy and Price Stability'. Southern Economist, 36(8), August 15, p.3436.

Rodrik, Dani. (2008). The real exchange rate and economic growth. Harvard University

Schaechter, Andrea (2001): "Implementation of Monetary Policy and the Central Bank's Balance Sheet", IMF Working Paper.

Tarapore, S.S., 1993. _Inflation, Monetary Policy, and Financial Sector Reform'. Southern Economist 32(1), May, p.41-42.

Thaddeus, E. O., and Nnneka, A. (2014). Exchange Rate, Inflation and Interest Rates Relationships: An Autoregressive Distributed Lag Analysis Journal of Economics and Development Studies, 2(2), pp. 263-279.

Udoka, Chris O. & Roland, Anyingang. (2012). The effect of interest rate fluctuation on the economic growth of Nigeria, 1970-2010. International Journal of Business and Social Science.