Long Run Relationship between Monetary Policy and Inflation in India

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Abstract

This study is an attempt to evaluate and interpret the monetary policy initiatives (MPS) of the Reserve Bank of India (RBI) for the Twenty five year period since 1991-92 to 2015-16. An important contribution of this paper is the evaluation of long run relationship between monetary policy variables and different measures of inflation. To evaluation long run relationship Engle-Granger co-integration process has been utilized. The results clearly indicate that wholesale price index (WPI) has long run relationship with money supply, whereas, consumer price index- industrial worker (CPI-IW) does not have long run relationship with money supply. Other important result of the analysis is that weighted average lending rate (WALR) does not share long run relationship with either WPI or CPI. So it is concluded that interest rate targeting to influence CPI may not work in India.

I. Introduction

BEFORE THE ECONOMIC liberalization monetary policy in India was confined only to accommodate fiscal and credit policy of the government. But, since 1991-92 monetary policy gradually got freed from fiscal considerations of the central government. Since then the RBI focused mainly on containing inflation as one of its key target, though it did not abandon its multiple goal approach. In February 2015, the government and the RBI signed an agreement, in which the RBI accepted its goal as only containing inflation rate in terms of the consumer price index (CPI) in a narrowly defined band. With this the RBI became officially an inflation targeting (IT) central

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From the empirical analysis it is clear that if M_1 and M_3 are considered as monetary variables then the monetary initiatives have long run impact on WPI measured inflation, whereas if WALR is considered as monetary variable than monetary policy does not have long run impact on WPI based inflation.

V. Conclusion

This paper examines the empirical relationship between monetary variables and inflation since the introduction of economic reform measures in 1991-92. The study becomes important in the backdrop of the RBI becoming the inflation targeting (IT) central bank.

The empirical analysis of this paper has been carried out for the timeframe of April 1991-92 to May 2015-16. This timeframes has been taken to capture the impact of changes in the monetary policy framework of the RBI. The Engle-Granger cointegration test has been used to draw the inference from the analysis.

Empirical results show that WPI has long run relationship with the both measures of money supply i.e. M_1 and M_3 and whereas CPI (IW) has does not have long run relationship with money supply. Other important result of the analysis is that WALR does not share long run relationship with either WPI or CPI. So it may be argued that despite of the financial and economic reforms, bank interest rates have not become an influential transmission route for monetary policy. At the same time it may also be argued that there is no empirical evidence of long run relationship between CPI and monetary policy variables. This might be due to the fact that around 52.0 per cent of CPI is comprised of food and beverages which by and large fell outside the RBI influence zone (for WPI this number is around 38.0 per cent).

References

Agarwal, J.D. and Aman Agarwal, (2005), "Inflation, Savings and Financial Development", *Finance India*, Vol XIX No 2, June 2005

Agarwal, J.D., Manju Agarwal, Aman Agarwal and Yamini Agarwal, (2018), "The Theory of Money, Wealth and Efficient Currency Markets : Modeling M5 as Money Supply With Crypto-currency", *Finance India*, Vol XXXII No 2, June 2018

Bicchal, M., (2010), " Monetary policy and inflation in india: a structural var analysis.", *Artha Vijnana*, Vol. 53, No.3.

Choudhary, M. A. and A.K. Parai, (1991), "Budget deficit and inflation: the peruvian experience." *Applied Economics*, Vol. 23, No. 6, pp. 1117–1121.

Cristadoro, R. and G. Veronese, (2011), "Monetary policy in india: is something amiss?" *Indian Growth and Development Review*, Vol. 4, No. 2, pp. 166–192.

Debabrata Patra, M. and P. Ray, (2010), "*Inflation expectations and monetary policy in india: An empirical exploration.*", IMF Working Papers No. 84, pp. 1–26.

Engle, R. F. and C.W. Granger, (1987), "Co-integration and error correction: representation, estimation, and testing.", *Econometrica: Journal of the Econometric Society*, Vol. 55, No.2, pp. 251–276.

Engle, R. F. and B.S. Yoo, (1987), "Forecasting and testing in co-integrated systems.", *Journal of Econometrics*, Vol. 35, No. 1, pp. 143–159.

Granger, C. W., (1981), "Some properties of time series data and their use in econometric model specification.", *Journal of Econometrics*, Vol. 16, No. 1, pp.121–130.

Moser, G. G., (1995), "*The main determinants of inflation in Nigeria*", Staff Papers, International Monetary Fund, Vol. 42 No. 2, pp. 270–289.

Mujumdar, N., (1989), "Monetary targeting: Objectives and appropriate indicators.", *Economic and Political Weekly*, pp. 1959–1962.

Rangarajan, C., (2009), "*India 2009, chapter on the objectives of Monetary Policy*", Business Standard, 2009, pp 73-81.

Rangarajan, C., (2012), *India's economic reform and development Essays for Manmohan Singh*, Chapter on Development, inflation and monetary policy", 2nd edition, Oxford Univ Press, UK.

Rao, D., (2002), "*Monetary policy under new economic policy*", Unpublished Doctoral (PhD) Thesis, Sri Venkateswara University, India.

RBI (2014), "*Report of the expert committee to revise and strengthen the monetary policy framework.*", Technical report, Reserve Bank of India, Mumbai, India.

Saleh, A. S. and C. Harvie, (2005), "The budget deficit and economic performance: A survey", *The Singapore Economic Review*, Vol. 50, No. 2, pp. 211–243.

Taylor, J. B., (2013), "Monetary policy during the past 30 years with lessons for the next 30 years.", *CATO Journal*, Vol. 33 No. 3, pp. 333-345.