

# Is money relevant for determining output and prices? - An empirical analysis of six countries

Taniya Ghosh<sup>1</sup> and Vipul Gupta<sup>2</sup>

## **Abstract**

*An important policy question is whether the policy decisions can be based on models that do not include monetary aggregates. Practical considerations suggest that money should be included in the policy rule of the central bank. One such consideration is the fact that the central bank usually does not have contemporaneous information on inflation and output, but it has information about money stock. Money will help the monetary authority to directly determine the crucial variables. This paper investigates the relationship between money-output and money-prices and also examines whether the Divisia monetary aggregates better explains this relationship in comparison to simple sum monetary aggregates. Six countries such as the Euro area, India, Israel, Poland, the UK and the US were included for the analysis. The study finds that there is a high pairwise correlation between money-output and money-prices. The Johansen co-integration test confirms the existence of co-integrating relations between the variables used in our analysis. Further, the vector error correction model (VECM) is used to ascertain the short run and long run dynamics of the variables. We find that in the VECM model, the disequilibrium gets restored in the subsequent periods. Hence, money has a predictive power in determining output and prices. The Granger causality test confirms that the existence of causality between money-output and money-prices. Hence, our study shows that the money matters, especially the Divisia money as it gives a stronger and stable relationship between money-output and money-prices.*

**Keywords:** *Correlation, Cointegration, Divisia, Granger causality, monetary aggregates, real output, prices*

**Jel Classification:** *C32, E52, E51*

---

<sup>1</sup> Indira Gandhi Institute of Development Research (IGIDR), India

<sup>2</sup> Gokhale Institute of Politics and Economics (GIPE), Shivajinagar, Pune

## **Corresponding Author**

Taniya Ghosh, Indira Gandhi Institute of Development Research (IGIDR), Gen. A. K.

Vaidya Marg, Filmcity Road, Mumbai, 400065, India

Email: taniya@igidr.ac.in