Forecast of economic activity based on transaction volume - Bolivian case

Jonnathan R. Cáceres Santos

Abstract

The main objective of this document is to validate the significance of the transactional volume of money as a variable that contributes to short-term forecast of economic activity in Bolivia.

For this purpose, econometric and Artificial Neural Networks (ANN) models were used. Through econometric models was found that there is empirical evidence of a long-term relationship between the transactional volume and Global Economic Activity Index (GEAI). Simultaneously the ANN model was used to estimate forecasts.

The results show that both models adequately captured the fluctuations and behavior of GEAI. To evaluate the accuracy of forecasts of the GEAI, the document took into account the forecast errors inside and outside the sample. ANN model forecasts reported lower errors than econometric model forecasts.

This study becomes the first of its kind, because in addition to evaluate the information contained in electronic money payments, this information is also included in the forecast models, thus anticipating future movements in economic activity in Bolivia.

JEL Classification: C45, C53 Keywords: Forecasting, neural networks