Abstract

In this paper, Inflation constitutes one of the major economic problems in emerging market economies that requires monetary authorities to elaborate tools and policies to prevent high volatility in prices and long periods of inflation. This paper outlines to forecast monthly inflation rate of India by using neural networks on the evaluation of set of variables. The data used for estimating the models for the period July 1994 to March 2008, for demonstration purpose of the two methodologies. The two neural network models Backpropagation neural network model or Backpropagation Network model (BPN model) and the recurrent neural network model (RNN model) under static and dynamic forecasts respectively are used in this study in forecasting inflation rate. The results of the neural network models under static and dynamic forecasts are also compared with the traditional econometric model. The results shows that the RNN model under the dynamic forecast is performing better than the BPN model under static forecast and the traditional econometric model in forecasting the inflation rate.

References

Index Terms

Computer Science Networks
Keywords

Neural networks, inflation, econometric model, root mean squared error (RMSE), mean absolute error (MAE), and mean absolute percentage error (MAPE).