On the Applicability of Advanced Forecasting Techniques to Developing Economies- A Case of Sri Lanka

Sujeetha Jegajeevan

Central Bank of Sri Lanka &

Queen Mary, University of London

Email:s.s.jegajeevan@qmul.ac.uk

School of Economics and Finance, Queen Mary, University of London, E1 4NS, UK.

January 22, 2016

Abstract

This study attempts to find out whether advanced forecasting techniques that have been proved to be successfull in advanced countries can be employed to a developing country to forecast key macroeconomic variables. Five advanced forecasting models consisting of both univariate and multivariate models have been employed and the forecast accuracy of these models is evaluated againt that of benchmark ARMA model. Both point forecasts and density forecasts are produced from these models. Point forecast evaluation suggests that these models are superior to the benchmark model, though there is uncertainty in the significance of accuracy of mean inflation forecast. Density forecast performances of these models outperform the benchmark model without any doubt. This study has two main conclusions. First, these models can be included in the forecasting practice at the Central Bank of Sri Lanka to improve policy analysis. Second, the application of these models can be extended to any other developing country without large modifications.

Key Words: Bayesian Estimation, Forecasting, Stimulation, State-space models, Gibbs sampling

JEL Classification: E17,E37,C11,C15,C32,C53 & C55

Acknowledgement 1 The author would like to thank her supervisor Prof. Haroon Mumtaz for his continuous support and guidance and for sharing Matlab codes. She is also thankful to her collegues at the Central Bank of Sri Lanka who has helped in data collection.