Bayesian New Keynesian Small Open Economy Dynamic Stochastic General Equilibrium Model for Sri Lankan Economy

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Abstract

In this paper we present a variant of the Small Open Economy Dynamic Stochastic General Equilibrium Model (SOE-DSGE) and empirically validate it using quarterly data for Sri Lanka (1999Q1-2013Q4). The SOE-DSGE model incorporates low exchange rate pass-through dynamics and thereby departs in a significant manner from the canonical closed economy New Keynesian DSGE model which has become the work-horse of monetary policy design by modern central banks. The empirical validation of the SOE-DSGE model in the paper using Bayesian estimation techniques provides insights that would enable the Central Bank of Sri Lanka to advance its reform agenda to transition from the current monetary targeting framework to a flexible inflation targeting framework in the medium-term.

The model presented herein can be extended evaluate the welfare implications of alternative monetary policy regimes and make out-of-sample inflation forecasts to get a handle on the type of policy adjustments that should be undertaken to design a monetary policy stance to achieve a predetermined stabilization target.

JEL Classifications C15, C51, E52, F37, F47.

Keywords: Small Open Economy; Dynamic Stochastic General Equilibrium Modeling; Bayesian Techniques; New Keynesian Macroeconomics; Central Bank Independence; Sri Lanka.

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