

Fitting Armenian data to the simple DSGE model with permanent productivity growth

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Abstract

This paper discusses the evaluation of structural parameters and estimated potential economic growth of Armenia using different specifications of DSGE models. We extend the simple models so that they are consistent with a balanced steady state growth path driven by deterministic labor-augmenting technological progress. Using a Bayesian likelihood approach, paper estimates DSGE models for the Armenian economy using three macro-economic time series. As a result, the dynamics of estimated potential economic growth of the model with demand and mark-up shocks is consistent with economic stylized facts contrary to other models that have no demand and markup shocks or only have one of these shocks. Additionally, estimated potential economic growth of the model with demand and markup shocks shows high correlation with other estimates of Central Bank of Armenia.

Paper then structures and estimates two specifications of simple RBC model and the estimated potential economic growth of the model with persistent permanent productivity is identical with DSGE's one. We show that our models are able to beat Vector Autoregression (VAR) models in out-of-sample forecasting of economic growth.

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