> **Intro 3 —** Classic DSGE examples

<p align="center">Description   Remarks and examples   Also see</p>

Description

In this entry, we present several classic DSGE examples. These include linear and nonlinear versions of a New Keynesian model, linear and nonlinear versions of a New Classical model (Real Business Cycle model), a linear financial frictions model, and a nonlinear stochastic growth model.

Remarks and examples

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In [DSGE] **Intro 3a**, [DSGE] **Intro 3b**, and [DSGE] **Intro 3c**, we fit simple variants of common linearized DSGE models. In [DSGE] **Intro 3d**, [DSGE] **Intro 3e**, and [DSGE] **Intro 3f**, we fit simple variants of common nonlinear DSGE models. Through these examples, we demonstrate model solution, estimation, and interpretation.

[DSGE] **Intro 3a** demonstrates how to fit a New Keynesian model. In this example, we interpret structural parameters, policy matrix parameters, and state transition matrix parameters. We also predict values of both observed control variables and unobserved states.

[DSGE] **Intro 3b** illustrates how to solve a New Classical model and plot the IRFs to compare the model's theoretical predictions under different sets of parameter values.

[DSGE] **Intro 3c** fits a financial frictions model. In this example, we also estimate parameters of the policy matrix and evaluate the IRFs.

[DSGE] **Intro 3d** revisits the New Keynesian model. In this example, we estimate the parameters of the nonlinear model, interpret structural parameters, and explain partial identification by parameter restrictions in a DSGE model.

[DSGE] **Intro 3e** revisits the New Classical model. We fix some parameters and estimate others, explain the effect of fixing parameters on postestimation statistics, and explain how to compare models across different parameter settings.

[DSGE] **Intro 3f** demonstrates how to solve a nonlinear stochastic growth model. We explain how dsgenl takes an approximation of the model and how to interpret the steady state and approximations to the policy and transition equations. This example describes some of the technical differences between linear and log-linear approximations to nonlinear DSGE models.

Also see

[DSGE] **Intro 4** — Writing a DSGE in a solvable form

[DSGE] **dsge** — Linear dynamic stochastic general equilibrium models

[DSGE] **dsgenl** — Nonlinear dynamic stochastic general equilibrium models

For suggested citations, see the FAQ on citing Stata documentation.