Estimating monetary policy rules and trend inflation by Markov switching DSGE models

Ryo Hasumi*

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Abstract

The US economy has experienced volatile and high inflation during the 1970s, which lasted until the Federal Reserve raised the federal funds rate at a relatively fast pace from late-1979. We built a new-Keynesian model in which the trend inflation and/or the Taylor response parameters switch following a Markov process. We also analyze the cause of the transition from the Great Inflation to the Great Moderation. We show that both the change in trend inflation and the Taylor response parameters are involved in this transition. The former shifts the level of inflation, while the latter shifts the volatility of inflation. In the whole period, the possibility of indeterminacy is strongly rejected based on two results obtained by a method using eigenvalues general for DSGE models and a method specific to the MS-DSGE model.

*Musashi University and Japan Center for Economic Research, E-mail: ryo.hasumi@cc.musashi.ac.jp