

Macroeconomic Dynamics Near the ZLB: A Tale of Two Equilibria

Abstract

This paper studies the dynamics of a New Keynesian DSGE model near the zero lower bound (ZLB) on nominal interest rates. In addition to the standard targeted-inflation equilibrium, we consider a deflation equilibrium as well as a Markov sunspot equilibrium that switches between a targeted-inflation and a deflation regime. We use the particle filter to estimate the state of the U.S. economy in 2008 under the assumptions that the U.S. economy has been in either the targeted-inflation or the sunspot equilibrium. Under the sunspot equilibrium the observed dynamics in 2008-09 appear more likely than under the targeted-inflation equilibrium. We consider a combination of fiscal policy (calibrated to the American Recovery and Reinvestment Act) and monetary policy (that tries to keep interest rates near zero) and find that the ZLB severely limits the scope for policy interventions in the sunspot equilibrium.