Estimating Fiscal Multiplier in Japan using a Markov Switching DSGE model with Fiscal and Monetary Policy Regimes *

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Abstract

In this paper, we evaluate fiscal multiplier in Japan by estimating a Markov Switching DSGE model allowing for changes in fiscal and monetary policy regimes. It is well known that fiscal multiplier can vary significantly depending on fiscal and monetary policy regimes. To this end, we develop a two-agent New Keynesian (TANK) model with hand-to-mouth households and introduce possibility of regime switch in fiscal and monetary policy between active and passive. In general, fiscal multiplier is larger when fiscal policy is active (non-Ricardian) and monetary policy is passive (not stabilizing inflation). We estimate our model using Japanese data from 1970s to 1990s, excluding the zero nominal interest rate period. We find that fiscal policy is relatively active in the late 1970s and the bubble period (late 1980s), and passive in the rest of periods. On the other hand, monetary policy is also relatively passive in the late 1970s and the bubble period (late 1980s and early 1990s), and active in the rest of periods. Estimated mean of fiscal multiplier in the first period is not so different among each regimes (1.38), but some difference appears in the long-run (min 1.4, max 1.55). In addition, the long-run effect on consumption differ significantly among each regimes (min 0.32, max 1.29).

Keywords: Fiscal policy, Fiscal multiplier, Markov-switching DSGE

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