Financial shocks in Japan : A case for a small open economy

Yue ZHAO*

January , 2012

Abstract

Following Jermann and Quadrini (2012), we apply dynamic stochastic general equilibrium modeling method to assess whether financial shocks matter for Japanese economy. We construct time series of financial shocks and productivity shocks using Japan's quarterly data since 2001, and conduct simultaneous replication on major indicators of aggregate financial flows and real business cycles. Preliminary results tell us that in a closed economy, financial shocks seem not that important as they did in the U.S. economy. However, after extending the original model to a small open economy, where firms can borrow money from overseas, but may have to pay default risk premium on interest payment, simulated results show that financial shocks have contributed heavily to dynamics of aggregate debt and dividend flows, and this is consistent with Jermann and Quadrini (2012)'s finding in the U.S.economy. By contrast, however, productivity shocks have been dominant in accounting for fluctuations of real variables, such as output capital ratio, consumption ratio and investment ratio in Japan.

Keywords:

DSGE model, business cycle, financial friction, default risk premium, small open economy.

JEL classification:

E44, E32, F41

*Graduate School of Economics, Kyoto University, Japan. Email: zhao.yue.43m@st.kyoto-u.ac.jp