

Regional Growth and Business Cycle in Japan

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Abstract

This paper examines the consistency and the gaps in national and regional business cycles in Japan from a Bayesian point of view. Fujita and Tabuchi (1997) stated that the Tokyo monopolar system started in mid-1970s and the recent descriptive statistics such as migration, per capita income and so on, show that the system is still continuing, even though Japan experienced severe crises such as the burst of bubbles and Lehman shock. We explore the relationship between national and regional business cycles in the system using spatio-temporal Markov switching model via a Markov chain Monte Carlo method. From the empirical results, we find that the regional business cycle in Kanto region including Tokyo overall is only identical with the national one. Moreover, it is found that the switches of the degree of spatial dependency occurs around the turning points of business cycle and that the degree of spatial dependency tends to be higher in the periods of recessions.

JEL classification: C11; C51; E32; R11.

Key words: Business cycle; Markov chain Monte Carlo (MCMC) method; Spatial and temporal Markov switching model; Tokyo monopolar system.

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