Comparing Prediction Pool Methods for DSGE Models: Is Financial Friction Useful for Improving Prediction in Japan?[*]

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Abstract

In this paper, we compare the forecasting performances of a DSGE model incorporating a financial friction a la Bernanke, Gertler & Gilchrist (1999) based on Kaihatsu & Kurozumi (2014a,b), with one excluding the friction for the Japanese economy. Since these models can be potentially misspecified, we adopt the optimal pooling prediction scheme following the recent work by Geweke and Amisano (2011). And we evaluate a Markov-switching prediction pool method (Waggoner and Zha, 2012) and a dynamic pool method (Del Negro, Hasegawa, and Schorfheide, 2014) with a static pool method for the both DSGE models. According to estimations, we conclude that the financial friction is useful for prediction, that all of the prediction pool methods improve more than both of single models, and that time-varying model weights of the prediction pools are useful for improving predictions.

Keywords: Forecasting; Optimal pool; Dynamic prediction pool; Markov-switching mixture; Bayesian estimation

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