

Abstract

This thesis examines the effects of monetary policy shocks on the housing market. To this end, TVP-VAR model with dynamic dimension selection and stochastic volatility is estimated using monthly data for the United States over the period 1999-2017. Moreover, the model features estimating the optimal value of the Bayesian shrinkage coefficient in a time-varying manner. Since the sample covers the Zero Lower Bound period, Wu-Xia shadow rate is employed to measure the stance of monetary policy. To assess the link between housing variables and monetary policy, impulse responses and forecast error variance decompositions are provided. However, due to the time-varying nature of the model, they are estimated only for selected time periods that correspond both to the events that most likely influenced the path of macroeconomic and financial variables and to periods of low economic uncertainty. The main results are threefold. First, the model suggests that monetary policy shocks can contribute to developments in house prices. Second, the stimulative monetary policy positively affects residential investment and negatively affects mortgage rates, however, the effects are not significant due to the large confidence bands of the impulse responses. Third, higher values of the shrinkage hyperparameter are crucial for obtaining reasonable impulse responses. Those results are fairly robust to various specifications of the model.

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