Housing Investment: What Makes It so Volatile? Theory and Evidence from OECD Countries

Quoc Hung Nguyen

Institute of Developing Economies

Hong Kong Institute for Monetary Research

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Summary

Before the financial crisis of 2007-9, a widespread opinion among academics and policy-makers was that recent financial market innovations and liberalization should enhance market's stability. This paper, however, shows that recent mortgage market innovations have actually introduced greater volatility in the housing market by both empirical evidence and theoretical models. Empirically, by using data from 17 OECD countries, the paper shows that housing investment is highly volatile across these countries; its standard deviation is on average about 5 times as large as output. The paper also documents the fact that housing investment is significantly more volatile in economies with more liberalized mortgage markets.

The paper then explains these empirical findings by developing a Dynamic Stochastic General Equilibrium (DSGE) model where households face a credit constraint and housing is used as collateral. The housing collateral constraint creates a link between the housing market and borrowing capacity, a link that amplifies the response of housing demand to shocks and becomes stronger with more mortgage market liberalization. Finally, the paper shows that calibrated models with a housing collateral constraint explain about 90 percent of housing investment volatility in the UK while the model without a borrowing constraint can only produce less than 50% of the volatility.