Housing market cycles, productivity growth, and household debt*

Job market paper

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Abstract

Housing market crashes are associated with household deleveraging and a very persistent decline in economic activity in an unbalanced panel of 50 countries. The persistence of the output response is driven by a slowdown in productivity growth and capital accumulation and is increasing in the measure of preexisting household debt. To interpret these stylized facts, I construct a two-agent (borrower-saver) dynamic general equilibrium model that features an occasionally binding collateral constraint tied to borrowers' housing wealth and endogenous productivity growth through forward-looking innovation investment. When the preexisting level of debt is sufficiently high, negative housing demand shocks trigger the collateral constraint and cause deleveraging. An endogenous slowdown in TFP growth emerges as one of the adjustment margins during this process prolonging the real effects of the crisis. The initial shock is amplified by a negative feedback loop between deleveraging, borrowers' housing wealth and growth. I use the calibrated model to draw implications for the fiscal policy response during the episodes of deleveraging. Measures that reduce the debt burden of borrowers are most useful in alleviating the short-run and persistent effects of deleveraging when implemented during the crisis. The effectiveness of policy measures is state-dependent since occasionally binding collateral constraints drive an asymmetry in the link between debt, economic activity, and growth.

JEL Codes: E32, E44, G01, O42, R21

Keywords: Business Cycles; Endogenous Growth; Financial Crises; Housing; Collateral Constraints; Occasionally Binding Constraints.

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