Title: Household Leverage over the Life Cycle

Abstract: This paper studies the US housing market, focusing on three well-established features: 1) procyclical leverage, 2) counter-cyclical mortgage spreads, and 3) a life-cycle pattern in housing wealth and leverage, characterized by a hump-shaped housing wealth profile and higher leverage among younger homebuyers. To capture these features, I develop a quantitative general equilibrium model that integrates endogenous leverage within the overlapping generations framework. In this model, households accumulate housing assets using leverage by selecting mortgage contracts from a menu called Credit Surface, which specifies interest rates for various levels of LTV. Within this framework, a large negative endowment shock not only reduces housing prices due to decreased purchasing power but also reinforces the decline by weakening the ability of houses to serve as collateral for borrowing. Mortgage rates surge in downturns, resulting in a 10-percentage-point drop in equilibrium LTV, which effectively replicates the conditions observed during the Great Recession.