House Price Beliefs and Leverage Choice*

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Abstract

We study the effects of homebuyers' beliefs about future house prices on mortgage leverage choice. We show that, from a theoretical perspective, the relationship between homebuyers' beliefs and leverage choice is ambiguous, and depends on the magnitude of a "collateral adjustment friction" that reduces homebuyers' willingness to adjust their house size in response to beliefs about house price changes. When households primarily maximize the levered return of their property investment and the collateral adjustment friction is small, more optimistic homebuyers take on more leverage to purchase larger houses and profit from the greater perceived price appreciation. On the other hand, when considerations such as family size pin down the desired property size and the collateral adjustment friction is large, more optimistic homebuyers take on less leverage to finance that property of fixed size, since they perceive a higher marginal cost of borrowing. To determine which scenario better describes the data, we empirically investigate the cross-sectional relationship between beliefs and leverage in the U.S. housing market. Our data combine mortgage financing information and a housing expectation survey with anonymized social network data from Facebook. The survey documents that an individual's belief distribution about future house price changes is affected by the recent house price experiences of her geographically-distant friends, allowing us to exploit these experiences as quasi-orthogonal shifters of individuals' beliefs. We show that more optimistic homebuyers choose lower leverage, consistent with a sizable collateral adjustment friction. As predicted by the model, the magnitude of the cross-sectional relationship between beliefs and leverage choice is larger during periods when households expect prices to fall on average.

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