Land Share, Mortgage Default, and Loan-to-Value Ratio as a Macro-Prudential Policy Tool

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Summary

Loan-to-Value (LTV) ratio is one of the primary underwriting criteria used by lenders in assessing the riskiness of a mortgage loan. LTV is also one of the macro-prudential measures commonly used by policy makers for maintaining financial stability. LTV ratio is critical for lenders and policy makers because it determines the probability of a mortgage default and the magnitude of the loss the lender will face in the case of a default.

In this paper, we address mortgage default from a new perspective: instead of focusing on the overall property value, we separate land value from building value, and focus on the role of land share (ratio of the land value to the overall property value) as a determinant of default risk. Using data for properties sold in Orange County, California, between 2005 and 2015, we show that when land share increases by 10 percentage points, the probability of default increases by 1.54 percentage points. The primary explanation is that land value is more

volatile than the improvements value. Thus, when housing markets experience a negative demand shock, properties with a higher land share experience a higher default risk. The implication of this result for the players in the mortgage industry and for policy makers is that, in order to have the same default rate, a property with a higher land share needs to have a lower LTV. Our results also suggest that macro-prudential measures on LTV restrictions will be more effective if they focus more on the land component of the property value. Lenders and policy makers can improve performance of mortgage loans if they employ property-specific LTV ratios that are a function of that property's land share, rather than setting uniform LTV standards across properties.