You Only Lend Twice: Corporate Borrowing and Land Values in Real Estate Cycles*

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Abstract

This paper uses a natural experiment in Japan to provide evidence of the feedback loop between corporate borrowing and commercial real estate investment emphasized in macro-finance models with collateral constraints. Japan enacted a series of reforms in the early 1980s which relaxed national regulatory constraints on the height and size of buildings. Combining originally-constructed local commercial land price indices for over 400 localities with geocoded firm balance sheets, I show that these land use deregulations generated a boom-bust cycle in corporate real estate values, borrowing, and real estate investment. Firms located in more ex ante land use constrained areas both issued more debt and invested more heavily in real estate, thus amplifying the initial positive shock to commercial real estate prices. I develop a simple multi-city spatial sorting model with production externalities and real estate collateral which uses the estimated reduced form effects of my local regulatory instruments on firm outcomes to assess aggregate effects of the reform. I find that the deregulatory shock to commercial real estate markets and corporate borrowing environment amplified the real estate cycle in the 1980s and led to an increased incidence of zombie lending in the 1990s.

Keywords: corporate borrowing, collateral, feedback loop, investment, real estate cycles, land use regulation, spatial sorting, regional heterogeneity, commercial real estate prices

JEL classifications: E22, G11, G32, R31, R52

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