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

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JOB MARKET PAPER

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 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

*I would like to thank Wojciech Kopczuk, Jón Steinsson, Stijn Van Nieuwerburgh, and David Weinstein for invaluable discussions, guidance, and support over the course of this project. I also thank Hassan Afrouzi, Cynthia Mei Balloch, Michael Best, Olivier Darmouni, Don Davis, Francesco Furno, Matthieu Gomez, Takatoshi Ito, Nobu Kiyotaki, Chris Mayer, Emi Nakamura, Shogo Sakabe, Ichirou Usugi, Takashi Unayama, Tsutomu Watanabe, and participants in the Finance Free Lunch, Monetary Colloquium and Applied Micro Methods Colloquium at Columbia, the Warwick Economics Ph.D. Conference, and the Young Economists Symposium at Columbia for helpful advice and comments. I thank Takeo Hoshi for providing data on historical corporate bond interest rates. In addition, I am grateful to the Center on Japanese Economy and Business (CJEB) at Columbia Business School and the Institute of Economic Research at Hitotsubashi University for generous financial support. I thank Sung Mo Koo and Melissa G. Li for their help with transcribing the financial disclosure data used in this project. This work was supported by a C. Lowell Harriss Dissertation Fellowship from the Lincoln Institute of Land Policy.

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