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Clustered Housing Cycles[☆,☆☆]

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Abstract

Using a panel of U.S. city-level building permits data, we estimate a Markov-switching model of housing cycles that allows cities to systematically deviate from the national housing cycle. These deviations occur for clusters of cities that experience simultaneous housing contractions. We find that cities do not form housing regions in the traditional geographic sense. Instead, similarities in factors affecting the demand for housing (such as population growth or availability of credit) appear to be more important determinants of cyclical co-movements than similarities in factors affecting the supply for land (such as the availability of developable land or the elasticity of land supply).

Keywords: Clustered Markov switching, business cycles, building permits, co-movements.
JEL codes: E32; R31; C11; C32.

1. Introduction

Recent macroeconomic research has argued that housing market movements are the source of—rather than the consequence of—business cycle fluctuations.[1] For example, housing was the key instigating component of the recent financial crisis (see Bernanke, 2008) and Leamer (2007) argues that, at a national level, housing *is* the business cycle.[2] While business cycles are typically

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[1]Housing wealth effects lead to a correlation between housing and consumption expenditures and are typically accompanied by changes in housing investment in the same direction. For example, Davis and Heathcote (2005) find that residential fixed investment leads non-housing investment and is more than twice as volatile.

[2]These empirical regularities have prompted macroeconomic researchers to consider the theoretical underpinnings of housing and the business cycle in general equilibrium models (see Iacoviello, 2005; Iacoviello and Neri, 2010).