

# How is Leverage Determined for Commercial Real Estate?

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## Abstract

This paper develops a simple model in which disagreements between property owners and mortgage lenders' discount rates determine equilibrium mortgage interest rates, financial leverage, and property values. This model provides original testable predictions, including a positive correlation between loan to value ratios and property cap rates, which contradicts the conventional wisdom of pro-cyclical leverage. Co-integration tests on quarterly time series of mortgage interest rates, loan to value ratios, debt coverage ratios, cap rates, and tightening standards of loan officers provide generally supporting evidence of the predictions, including counter-cyclical leverage of commercial real estate.

*JEL classification:* G12, E32, E44

*Key words:* financial leverage, loan to value ratio, commercial real estate

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