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# The Effects of Dependent Beliefs on Endogenous Leverage*

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**Abstract**

The number of financial markets and the beliefs about the relation between markets can have large effects on the access to credit in a model with collateralized borrowing. In the model, investors have beliefs about the payout likelihoods for assets. I vary the degree of dependence between the likelihoods for the asset payouts and solve for the endogenous leverage ratios. When investors believe that the payouts of the assets are more dependent, the model predicts higher leverage ratios for all assets. When the number of financial markets available to investors increases, a condition in terms of the belief elasticity characterizes whether or not the leverage ratios increase.

**Keywords** leverage – portfolio effects – copulas – collateral – heterogeneous beliefs

**JEL Classification** **D52, E44, F65, G15**

## 1 Introduction

Leverage ratios have become important macroprudential variables following the recent 2007-2008 financial crisis. This paper analyzes the effects that the number of financial markets and

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