

Procyclical Leverage and Value-at-Risk

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Abstract

The availability of credit varies over the business cycle through shifts in the leverage of financial intermediaries. Empirically, we find that intermediary leverage is negatively aligned with the banks' value-at-risk (VaR). Motivated by the evidence, we explore a contracting model that captures the observed features. Under general conditions on the outcome distribution given by Extreme Value Theory (EVT), intermediaries maintain a constant probability of default to shifts in the outcome distribution, implying substantial deleveraging during downturns. For some parameter values, we can solve the model explicitly, thereby endogenizing the VaR threshold probability from the contracting problem.

Key words: financial intermediary leverage, procyclicality, collateralized borrowing

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