Losses Given Default in the Presence of Extreme Risks

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Abstract

Consider a portfolio of multiple obligors subject to possible default. We propose a static structural model that takes into account the severity of default. Denote by $L(p)$ the loss given default of the portfolio, where $0 < p < 1$ is a given default probability. Note that p is small for a portfolio consisting of assets of good credit quality. Assuming that the loss variables of the obligors jointly possess a multivariate regularly-varying tail, we obtain an approximation for the distribution of $L(p)$ as $p \downarrow 0$.

This talk is based on a recent joint work with Zhongyi Yuan of Pennsylvania State University.