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Dynamic Models of Private Lending Business

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Abstract

In this paper, we consider the problem of risk measure for private lending portfolio of a commercial bank against the credit risk by utilizing the ruin theory from Insurance. We build a portfolio model, and extrapolate from this model to three models regarding different situations concerned. Our main objective is to determine the probability distributions of the risk processes and Ruin probabilities using Central Limit Theory and Monte Carlo Simulation technology, furthermore, investigate the loan conditions that make sure the Ruin probability in accordance with the risk appetite of the bank.

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