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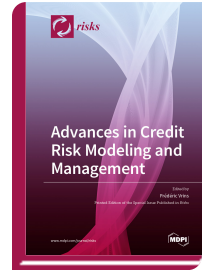
## Advances in Credit Risk Modeling and Management

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Credit risk remains one of the major risks faced by most financial and credit institutions. It is deeply connected to the real economy due to the systemic nature of some banks, but also because well-managed lending facilities are key for wealth creation and technological innovation. This book is a collection of innovative papers in the field of credit risk management. Besides the probability of default (PD), the major driver of credit risk is the loss given default (LGD). In spite of its central importance, LGD modeling remains largely unexplored in the academic literature. This book proposes three contributions in the field. Ye & Bellotti exploit a large private dataset featuring non-performing loans to design a beta mixture model. Their model can be used to improve recovery rate forecasts and, therefore, to enhance capital requirement mechanisms. François uses instead the price of defaultable instruments to infer the determinants of market-implied recovery rates and finds that macroeconomic and long-term issuer specific factors are the main determinants of market-implied LGDs. Cheng & Cirillo address the problem of modeling the dependency between PD and LGD using an original, urn-based statistical model. Fadina & Schmidt propose an improvement of intensity-based default models by accounting for ambiguity around both the intensity process and the recovery rate. Another topic deserving more attention is trade credit, which consists of the supplier providing credit facilities to his customers. Whereas this is likely to stimulate exchanges in general, it also magnifies credit risk. This is a difficult problem that remains largely unexplored. Kanapickiene & Spicas propose a simple but yet practical model to assess trade credit risk associated with SMEs and microenterprises operating in Lithuania. Another topical area in credit risk is counterparty risk and all other adjustments (such as liquidity and capital adjustments), known as XVA. Chataignier & Crépey et al. introduce a hidden Markov model to simulate exchange rate movements and find that they reduce the total cost of debt, which is positive for shareholders. In a nutshell, all the featured papers contribute to shedding light on various aspects of credit risk management

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