Credit Risk Management and Modeling

Jiří Witzany

The main goal of this textbook is to provide an overview of credit risk management, as well as modeling approaches from the point of view of a classical commercial bank, savings institution, finance company, or other financial market players. It is targeted mainly on current or future credit risk managers and analysts working in the credit risk departments of those institutions. It will be also useful to those overseeing, or working on the loan underwriting side, as well as to middle and top managers. Our point of view will be usually that of a universal bank, since risk management organization, and the techniques for the other institutions can be described as an appropriate subset of the universal financial institutions. The book can be also useful for corporate risk managers, where risk management organization and modeling techniques are, however, normally significantly simpler compared to those of a bank.

The book can be purchased in the Prague University of Economics bookstore http://www.eshopoeconomica.cz/.
Under Basel II, the credit risk management techniques under can be classified under: 

- **Standardised approach:** this involves a simple categorisation of obligors, without considering their actual credit risks. It includes reliance on external credit ratings.

- **Internal ratings-based (IRB) approach:** here banks are allowed to use their internal models to calculate the regulatory capital requirement for credit risk. A credit risk model is used by a bank to estimate a credit portfolio's PDF. In this regard, credit risk models can be divided into two main classes: structural and reduced form models. Structural models are used to calculate the probability of default for a firm based on the value of its assets and liabilities. Moody's Analytics delivers award-winning credit risk modeling to help you assess and manage current and future credit risk exposures across all asset classes. Hundreds of institutions use our models to support origination, risk management, compliance, and strategic objectives. Our models cover the full spectrum of credit risk, including retail, commercial and industrial, commercial real estate, and structured finance. In addition, we perform model customization, validation, and benchmarking. Our credit risk modeling is backed by our experienced advisory and client service teams who can assist