

Abstract: This thesis deals with credit risk and selected methods of its evaluation. It is focused on assumptions, calculation methods, results and specifics of the CreditMetrics and the CreditRisk⁺ models. The CreditRisk⁺ model analytically determines the portfolio credit losses distribution that is caused by defaults of counterparties. In the CreditMetrics model, the credit migration risk is additionally considered and the future portfolio value distribution is calculated using the Monte Carlo simulation. The third approach covered in this thesis is the Solvency II, the set of requirements proposed by the European Union for determination of regulatory capital for insurance companies. In the practical part the three approaches are applied on a set of three portfolios of different credit quality. Their results, particularly the determined level of capital required to cover the risk of unexpected credit losses, are analyzed and compared.