

This thesis describes the calculation of the credit value at risk for a portfolio composed of traditional bank loans. The risk is measured by incurred expected and unexpected losses at the end of some time horizon. The thesis is split into two parts - theoretical and computational. The most known and most widely used models are described in the first part, in conjunction with the definition of their main input parameters - probability of default, exposure at default, loss given default and correlation between debtors. Detailed theoretical descriptions of two chosen methods follow - CreditMetrics and Vasicek's method. The examined portfolio is characterized in the computational part, along with other input parameters essential for evaluation. Then, the model implementation into software Mathematica is described, the evaluation is run, and the results are presented. Eventually, both methods are compared.