

Credit risk is the most important risk a financial institution has to deal with. The Bank for International Settlements proposed an analytical model which allows banks to calculate capital requirements for credit risk of an investment portfolio. Also several optional models were developed by financial institutions to measure credit risk.

This thesis compares two different approaches measuring credit risk: the first one, Basel II, was proposed by the Bank for International Settlements and is used by financial institutions, the other one, CreditMetrics, is an optional framework based on external rating and transition matrix.

In the theoretical part, problems related to credit rating agencies are described. Furthermore, four optional models measuring credit risk, based on the Value at Risk approach, and Basel II are introduced; the focus is on their advantages, disadvantages and basic principles. However, the main goal of the thesis is the CreditMetrics framework; its assumptions, limitations, advantages and credit risk measuring procedures are described.

Building on the theoretical part, a hypothetical portfolio containing Czech corporate bonds is introduced; using the Basel II approach and the CreditMetrics approach, its capital adequacy is calculated. Finally, the results of our research, in which several banks operating in the Czech Republic were asked whether they use CreditMetrics, other optional models, or Basel II, are presented.