

This thesis presents research on corporate credit risk modeling under the New Basel Capital Accord framework using a real data set. This study provides theoretical foundations of credit risk modeling under the New Basel Capital Accord as well as empirical application of credit risk modeling to a unique data set of Czech companies provided by Creditreform. Several alternative logit regression models are presented, statistically tested and compared. Furthermore, two distinct approaches to calibration of rating classes of a rating system are developed and validated. Finally, the minimum regulatory capital requirements under the standardized approach and the internal ratings based approach of the New Basel Capital Accord are calculated and compared to the capital requirements under the current regulation.