Abstract
Diploma thesis “Optimization capital charges in VaR model utilizing dynamic risk management strategies” deals with banks opportunity to reduce Basel capital requirements via estimation volatility in VaR model for separate time periods differently. It analyses current crisis, its sources, process, but especially its influence of new worldwide accepted regulatory standards, which require nearly doubled regulatory capital. Regarding high impact to industry return on equity the thesis discusses the possibility of dynamic capital optimization based on alternating conservative and aggressive risk management strategies.

Empirical part of thesis tests outcomes of volatility modeling based on historical quotes of six European indexes since 2003, which are classified by volatility levels and broken down into several time periods. We suggest approach which enables financial institutions to reduce the impact of new Basel rules on their ROE, while they meet all VaR model conditions defined by the regulator. However, there are also negative consequences of this lowering level of capital represented by increasing failure rates of models. Although banks are able by suggested approach to achieve capital reduction by 20 percent, they are in the same time forced to use one of a very aggressive strategies.

Dynamic estimation of volatility is then proved to be very problematic especially in emerging markets, which exhibit relatively high basic level of volatility. Therefore, time periods optimization earns less savings for banks and shifts model close to failure rate, which is hardly acceptable for regulators. Analysis also showed that developed and emerging markets indexes recorded different course and impact during current crisis, which supports the hypothesis that a uniform regulation fails to capture all characteristics of different markets, even within the European Union, and therefore it should be only a springboard for national regulators.