Abstract

Capital Asset Pricing Model is considered to be the benchmark when evaluating the systematic risk of assets and its covariance with market returns. This thesis uses this framework and by employing various methods, such as Ordinary Least Square, Dynamic Conditional Covariance Multivariate GARCH and State Space Formulation is trying to find the most suitable method among these to estimate the coefficients of systematic risk. These coefficients are then used to hedge portfolios, which are created from the stocks traded on different stock exchange-NYSE Composite and NASDAQ Composite. According to the results of the hedge performance of each portfolio we will be able to evaluate which method is the most suitable to estimate the systematic risk within CAPM framework.

Keywords: CAPM, Systematic risk, Portfolio risk hedge, OLS, DCC MGARCH, SSF model

JEL Classification: C22, C58, G11, G12, G15

Author's e-mail: danielsopov@email.cz
Supervisor's e-mail: andrlikova@gmail.com