

Abstract

The objective of the thesis is to examine interdependencies among the stock markets of the Czech Republic, Hungary, Poland and Germany in the period 2008-2010. Two main methods are applied in the analysis. The first method is based on the use of high-frequency data and consists in the computation of realized correlations, which are then modeled using the heterogeneous autoregressive (HAR) model. In addition, we employ realized bipower correlations, which should be robust to the presence of jumps in prices. The second method involves modeling of correlations by means of the Dynamic Conditional Correlation GARCH (DCC-GARCH) model, which is applied to daily data. The results indicate that when high-frequency data are used, the correlations are biased towards zero (the so-called “Epps effect”). We also find quite significant differences between the dynamics of the correlations from the DCC-GARCH models and those of the realized correlations. Finally, we show that accuracy of the forecasts of correlations can be improved by combining results obtained from different models (HAR models for realized correlations, HAR models for realized bipower correlations, DCC-GARCH models).