Abstract

The present thesis focuses on exploration of the applicability of realized measures in volatility modeling and forecasting. We provide a first comprehensive study of jump variation impact on future volatility of Central and Eastern European stock markets. As a main workhorse, the recently proposed Realized Jump GARCH model, which enables a study of the impact of jump variation on future volatility forecasts, is used. In addition, we estimate Realized GARCH and heterogeneous autoregressive (HAR) models using one-minute and five-minute high frequency data. We find that jumps are important for future volatility, but only to a limited extent due to the high level of information aggregation within the stock market index. Moreover, Realized (Jump) GARCH models outperform the standard GARCH model in terms of data fit and forecasting performance. Comparison of forecasts with HAR models reveals that Realized Jump GARCH compared to other Realized GARCH models provides comparable or even better forecasting performance.