

In this thesis we study the regional and global linkages as evidence of markets integration of the stock markets in Frankfurt, Amsterdam, Prague the U.S. and the dynamics of volatility transmission of related foreign exchange rates using multivariate GARCH approach. For each of the model classes, a theoretical review, basic properties and estimation procedure are provided. We illustrate approach by applying the models to daily market data. Our two main aims are discussing and report the existence of regional and global stock markets linkages and provide comparison of such multivariate GARCH models on the data sample. We find out that the estimated time-varying conditional correlations indicate limited integration among the markets which implies that investors can benefit from the risk reduction by investigating in the different stock markets especially during the crisis.