Abstract

The purpose of this thesis is to research stock market volatility in Bosnia and Herzegovina and provide comparison with regional and European stock markets. We employ symmetric and asymmetric generalized autoregressive conditional heteroskedasticity (GARCH) models in order to estimate the conditional volatility of benchmark stock market indices in Bosnia and Herzegovina (SASX-10, BIRS), former Yugoslavia region (CROBEX, BELEX15, SBI TOP) and Europe (EURO STOXX50). Additionally, we analyze the evolution of conditional standard deviations for selected markets and develop dynamic GARCH volatility forecasts for SASX-10 and BIRS.

Our results suggest that Bosnia and Herzegovina markets are characterized with relatively high persistence and long memory in volatility. However, compared with regional and European markets, SASX-10 and BIRS exhibit lower persistence. Although significant leverage effect was found both for regional and European markets, asymmetric modeling produced insignificant and negative leverage effect for SASX-10 and BIRS time series. Bosnia and Herzegovina stock markets display moderate to low levels of synchronization with regional and European stock markets. In general, SASX-10 was found to be more volatile than BIRS. The latter is, surprisingly, the least volatile among all analyzed time series for the observed period.

**JEL Classification**
- F12, F21, F23, H25, H71, H87

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