1. Plot the log-return of DAX30. Check for the possible ARCH-effect.

2. Fit an ARMA model for the log-return of DAX30.

3. Test for ARCH-effect in the residual. Which lags order for the square of the residual do you suggest?

4. Estimate the ARMA and ARCH model jointly.

5. Perform misspecification tests for the fitted model.

6. Fit a GARCH(1,1) model. Which model is preferred?

7. Fit a TARCH(1,1) model. Do bad news have stronger influence on volatility then good news?