Supplementary material

Figure 1. EuroStoxx 50 index daily & monthly prices and returns plots and descriptive statistics. Monthly returns sample is from February 1988 to December 2007 (observations 239), the out-of-sample period is from February 1999 to December 2007 (107 months). Daily returns sample spans from February 1, 1988 to December 3, 2007 (observations 5176), the out-of-sample period is from February 2, 1999 to December 3, 2007 (2326 daily observations corresponding to 107 months).

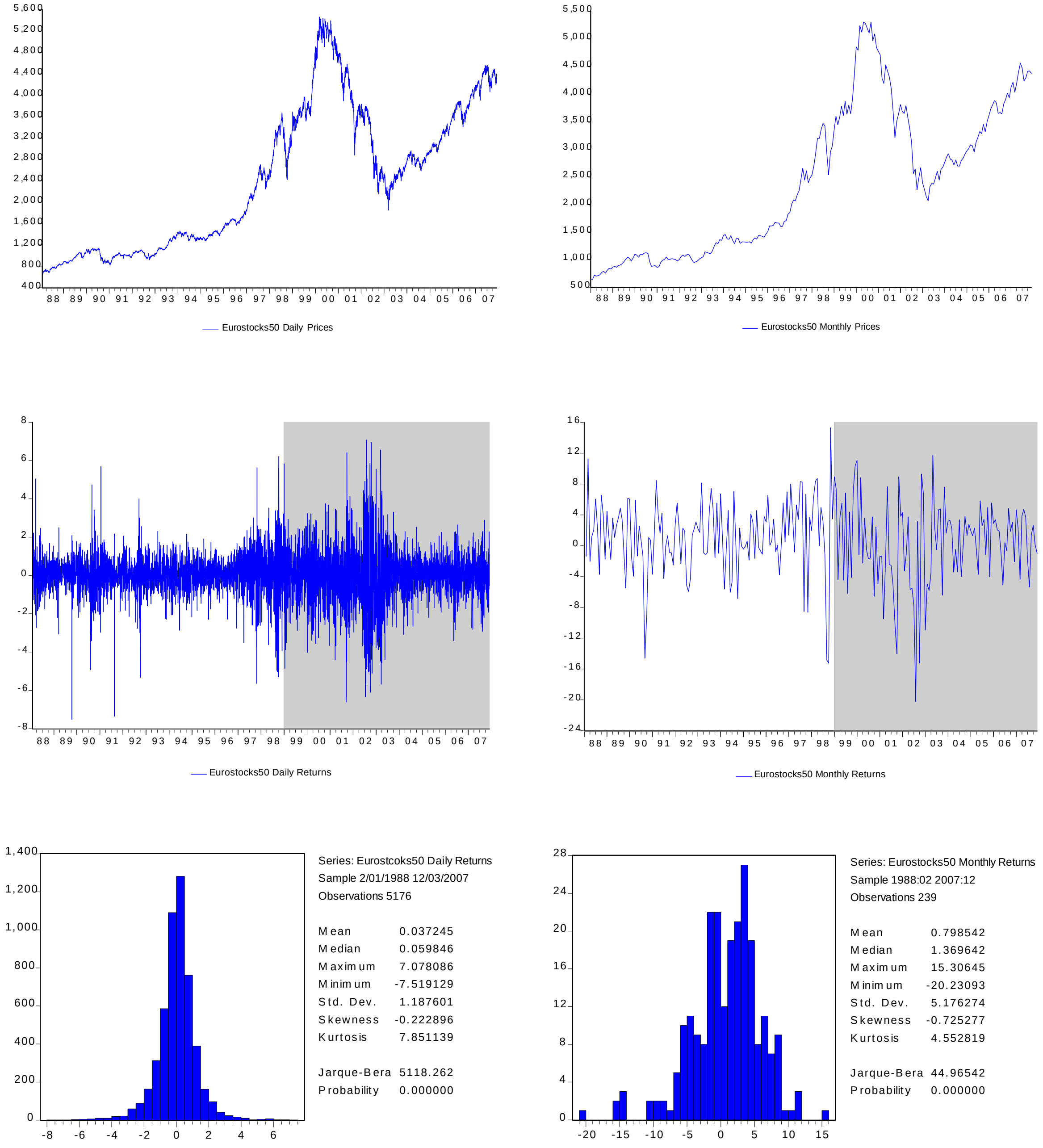
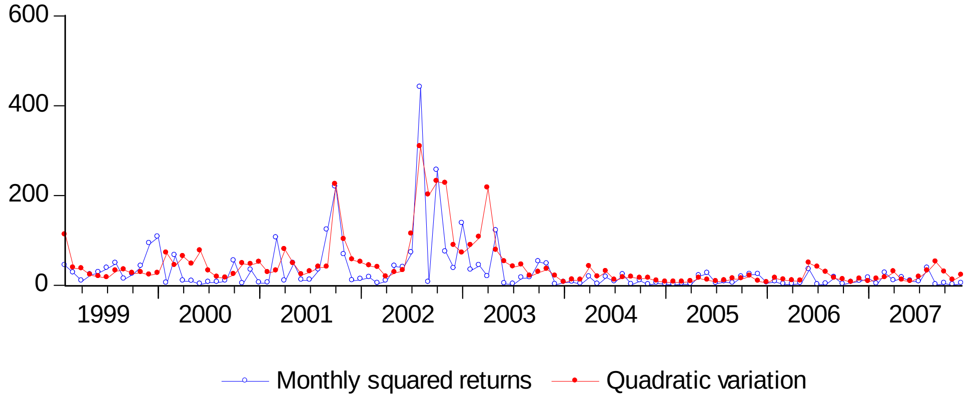
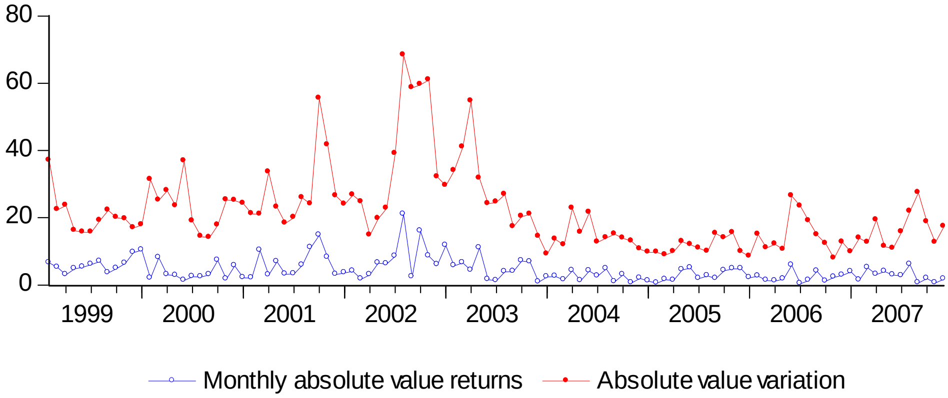


Figure 2. Volatility proxies: Quadratic/Absolute value variation proxies from filtered and unfiltered daily returns, and monthly squared monthly returns proxy.

Panel 1: Outliers non-filtered returns





Panel 2: Outliers filtered returns

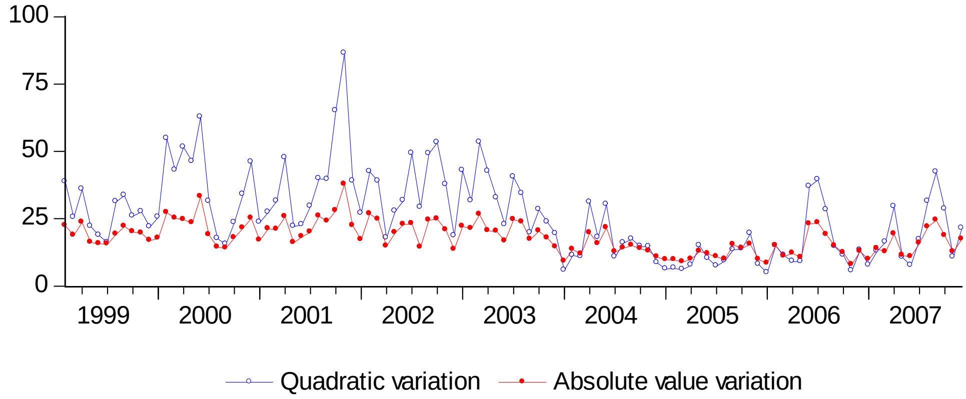
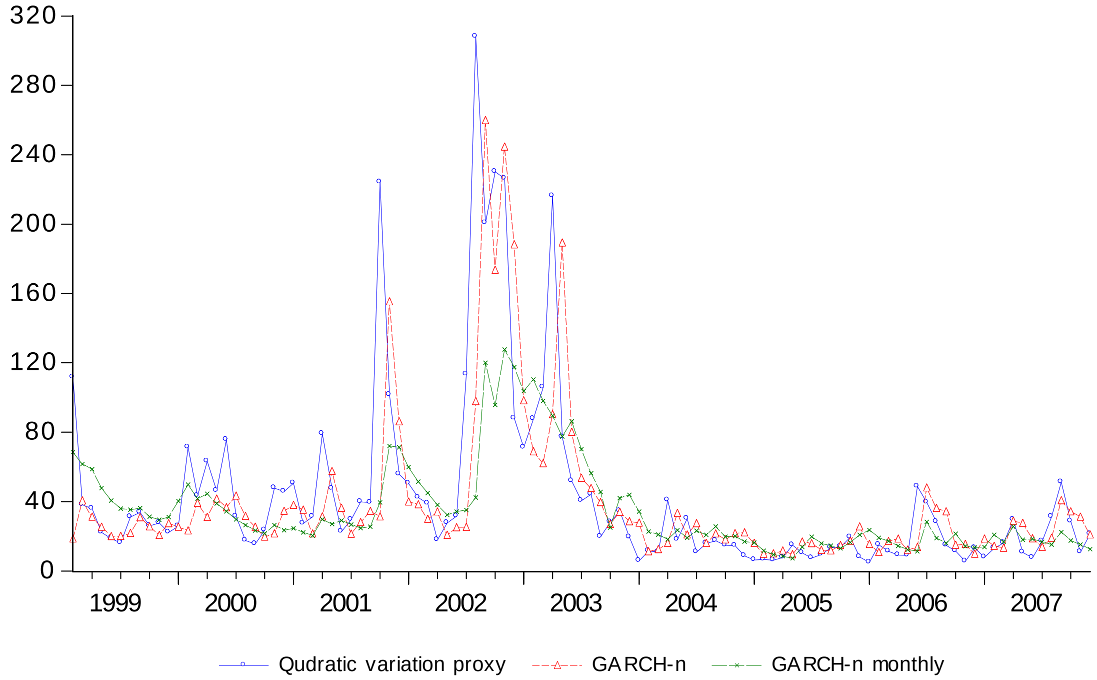


Figure 3. Daily/monthly fitted GARCH-n for m-days-ahead/1-month-ahead predictions of quadratic variation and monthly square returns.



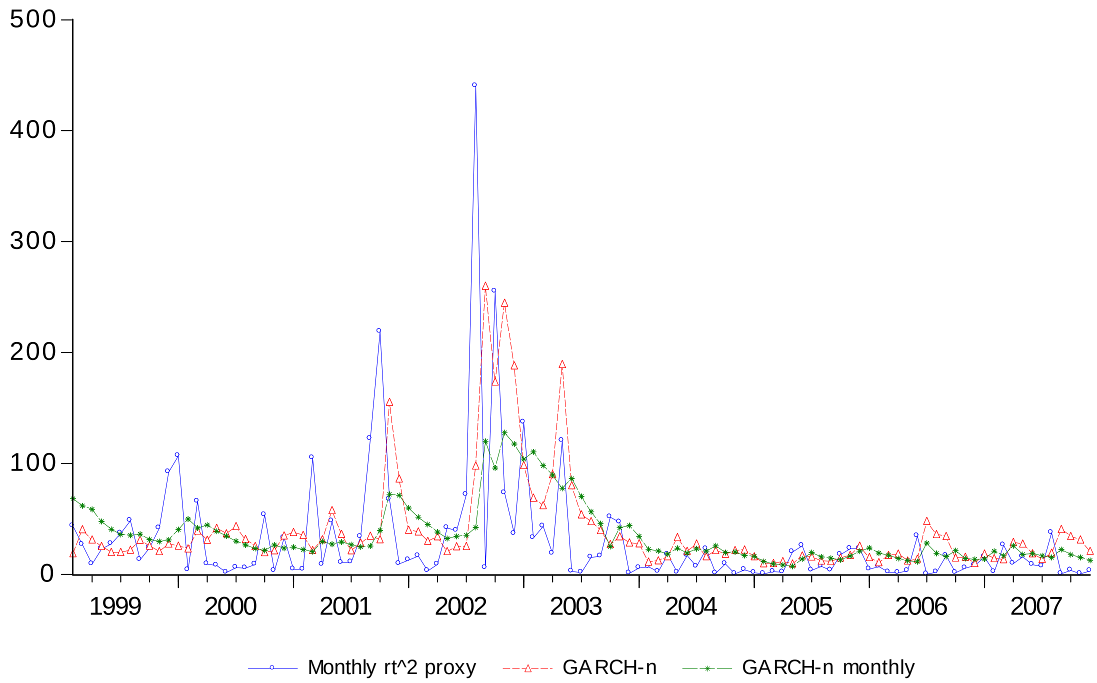
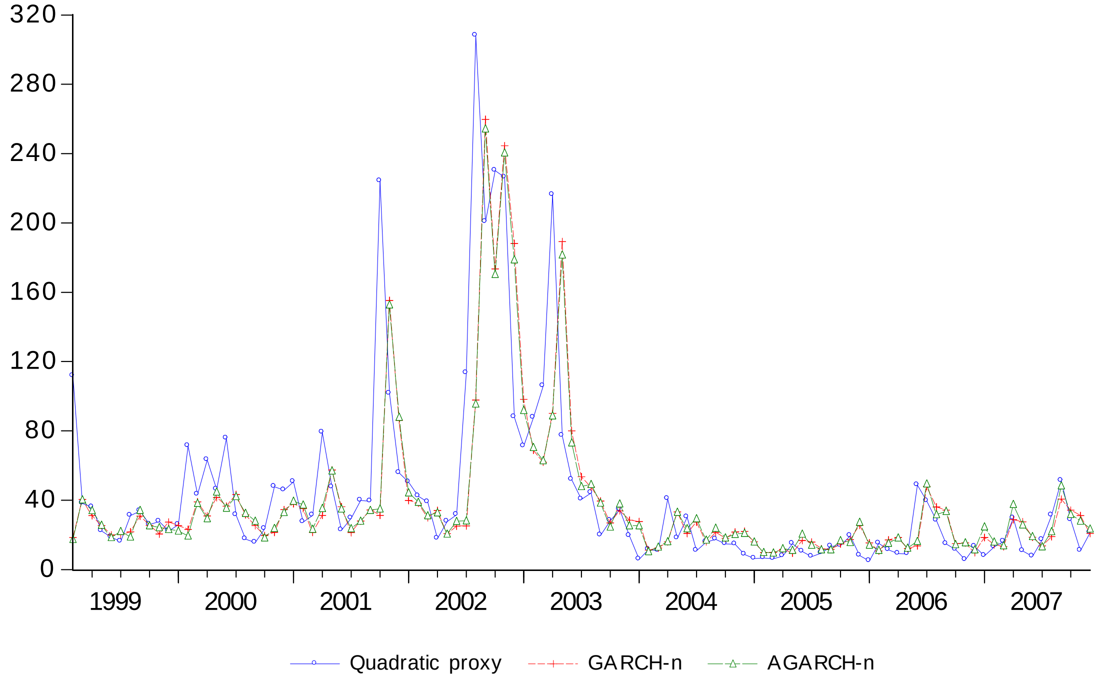


Figure 4. GARCH models m-days-ahead prediction of quadratic variation.



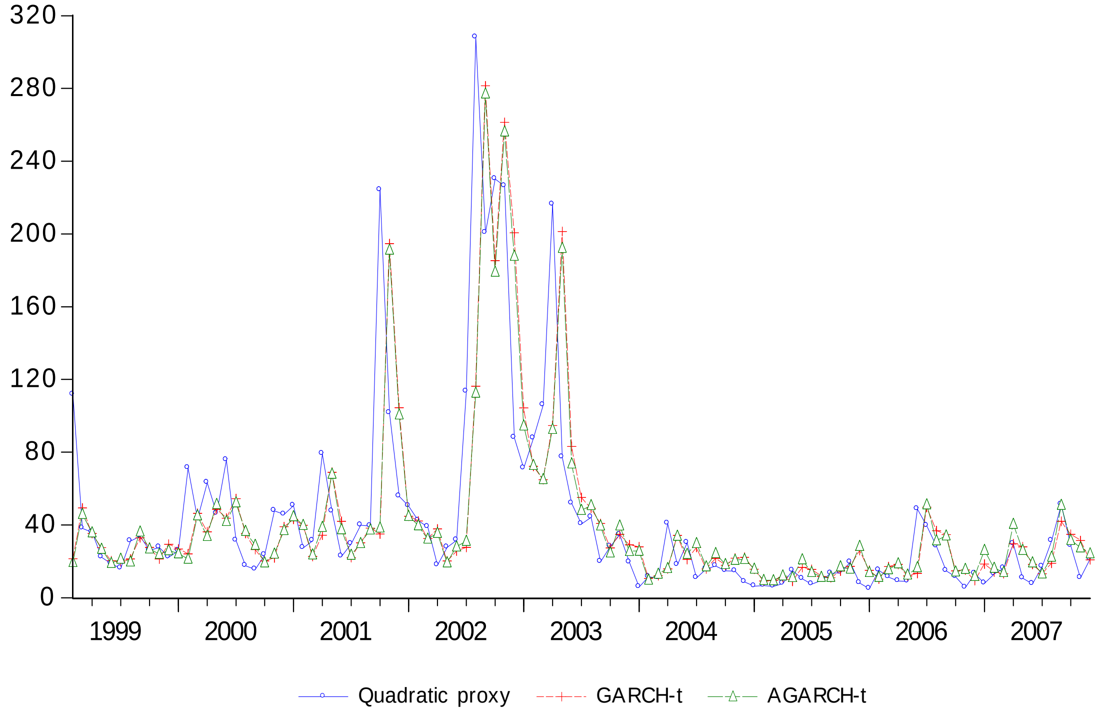


Figure 5. Filtered daily returns fitted AGARCH-n monthly predictions of variance/standard deviation against (filtered and unfiltered) quadratic/absolute value variation