Assignment 12 Chapter 12

To submit this assignment on Dec 14 before class.

12.3 Use the definition $\eta_t = r_t^2 - \sigma_{t|t-1}^2$ [Equation (12.2.4) on page 287] and show that $\{\eta_t\}$ is a serially uncorrelated sequence. Show also that η_t is uncorrelated with past squared returns, that is, show that $Corr(\eta_t, r^2{}_{t-k}) = 0$ for $k > 0$.

12.4 Substituting $\sigma_{t|t-1}^2 = r_t^2 - \eta_t$ into Equation (12.2.2) on page 285 show the algebra that leads to Equation (12.2.5) on page 287.

12.5 Verify Equation (12.2.8) on page 288.