## Financial Econometrics I

## Problem Set 5: ARCH and GARCH Models (1)

## December 22, 2018

Learning objectives: After solving the following questions you should be able to

- (a) Understand the necessity of introducing heteroskedastic volatility to time series models.
- (b) Know the specification and main properties of ARCH/GARCH models.
- (c) Know how to fit GARCH models, interpret estimation results, conduct basic model diagnostics and hypothesis tests, and forecast conditional volatility.
- 1. FY Exercise 3.1
- 2. FY Exercise 3.2
- 3. FY Exercise 3.4
- 4. FY Exercise 3.5
- 5. FY Exercise 3.8