

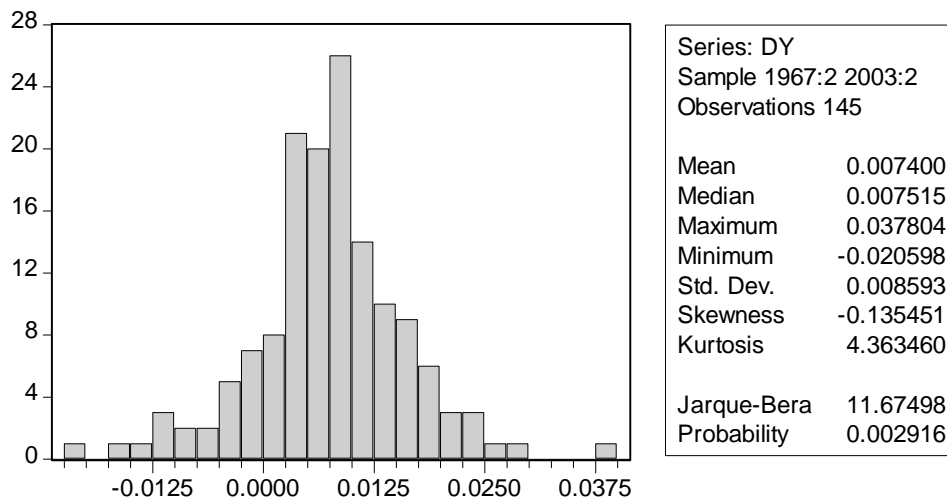
Problem Set 3

This problem set is due in lecture on **Wednesday, October 29th**. No late problem sets will be accepted. **Be sure to show your work** (that is, do not use a spreadsheet or statistical program to generate your answers), and to write your name, ID number, as well as the name of your Teaching Assistant, on your problem set.

From the textbook:

5.8 5.14 5.24
5.30 5.36 5.44

Problem 1.X.



Consider the above histogram. Assume that DY is normally distributed, where

$$DY = \log(GDP_t) - \log(GDP_{t-1})$$

- a) What is the probability that quarter-on-quarter growth in real GDP will be negative? (For purposes of this question, you may assume that growth rates in one quarter are independent of what occurs in the preceding quarter).
- b) Private forecasters are projecting a third quarter growth rate in excess of 6%, on an annualized basis. On the basis of the information provided, what is the probability of this event occurring?

From the textbook:

5.52 5.72 6.4 6.8
6.16 6.20 6.24 6.30