University of Connecticut
College of Arts and Sciences
Department of Economics
Christian Zimmermann

Fall 2006, Intermediate Macroeconomics, section 1

ECON 219 Data problem

General recommendations:

- Read questions thoroughly and answer each.
- When in doubt, refer to what we did in class, look at the book and the notes.
- While you may discuss this work with others, the work you hand in has to be done by only you.
- There are two pages.
- Document your work thoroughly if you wish to earn partial credit for errors.
- It is due September 26, 2006, in class. Any entry after class will be given a zero, whatever the circumstance. Email submission is OK in emergency, but be aware my print-outs may not turn up to be optimal.
- Do not delay working on this problem. There are always last minute surprises when dealing with data.

The goal of this problem is to establish whether the fact that prices are countercyclical is robust across US states. Each student works on a different state. Your assigned state is communicated to you through email. You are encouraged to work on this with a spread-sheet: it gives a cleaner output and reduces the risk of error. It is, however, possible to do this problem without a computer (except for the Internet access).

1. Find data for the gross state product (GSP), real and nominal (current prices). You can find such data at the Bureau of Economic Analysis of the Department of Commerce at `http://www.bea.gov/bea/regional/gsp/`. You will only find annual series, so use all years. You will find two definitions, SIC and NAICS, that span over different years but overlap in 1997. You need to join these two series, despite the warning on the website: multiply all of one of the series by a factor such that both have the same value in 1997. Show your work.
2. Compute the implicit deflator series for the GSP by taking a ratio of nominal GSP to real GSP. This is your price series.

3. Compute the growth rate series of real GSP and of the GSP deflator.

4. Draw one line diagram with the two growth rate series against time. What do you conclude in terms of comovement?

5. Draw a scatter plot (one series on each axis) for the two growth rates. What do you conclude in terms of comovement?

6. Compute the correlation between the two series. This can be done in any spreadsheet (Excel, Lotus, OpenOffice), or with a calculator either using the formulas given in the supplementary notes to Chapter 3 or using the built-in functions of the tool you are using. How does this compare to the correlation for the whole US as seen in class? How could you explain the difference, if any, or the lack thereof? your data? Do it.

7. (Bonus) How could have proceeded without needing to join the series, yet obtain the same results?