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Fall 2004, Intermediate Macroeconomics, section 3/4

## ECON 219 Data problem

## **General recommendations:**

- Read questions thoroughly and answer each.
- Work individually.
- There is one page.
- Document your work.
- It is due September 30, 2004, in class. No late entries!

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.

- 1. Find data for the gross state product (GSP), real and nominal. Note that a good place to find such data is the Economagic, http://www.economagic.com/ or the BEA at http://www.bea.doc.gov/bea/regional/gsp/. You will only find annual series, use all years. Do not cut and paste from Economagic, hidden codes give faulty data.
- 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 using the formulas given in the supplementary notes to Chapter 3. 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?
- 7. (Bonus) Can you document how to obtain spurious correlation with your data? Do it.