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

**Fall 2009, Intermediate Macroeconomics, section 1**

# ECON 219 Quiz I

**General recommendations:**
- Read questions thoroughly.
- Please respond on this copy.
- You have 20 minutes.
- Work individually.
- There are two pages.
- Good luck!

**Your name:**

1. Circle the appropriate answer on each of the following items. Circle multiple items if necessary:

   (a) The following items are taken into account when computing GDP with the production approach: 1) meals at home; 2) wages; 3) meals in restaurants; 4) sales taxes.

   (b) Macroeconomists care about <u>real</u> GDP or GNP because: 1) services are not tangible goods; 2) it removes the illusion of price changes; 3) it is the quantity of goods, not their absolute value, that matters; 4) the CPI does not encompass all goods.

   (c) By unemployment rate, we mean: 1) the number of people on unemployment insurance divided by the working-age population; 2) the number of people on unemployment insurance divided by the labir force; 3) the number of people looking for jobs divided by the working-age population; 4) the number of people looking for jobs divided by the labor force.

   (d) How can we characterize the behavior of US government expenses through the business cycle in the United States? 1) we cannot tell; 2) it is anticyclical; 3) it is procyclical; 4) it is acyclical.

2. Suppose we have the following information about a plumber: wages $30,000, repair sales $200,000, taxes $5,000, loan interest $15,000, plumbing materials $20,000. What is the contribution of this plumber to GDP following the production approach? Show details for partial credit.

3. What are the business cycle characteristics of rainfall and tourist arrivals, from the following table?

| Variable | SD% | $x_{t-5}$ | $x_{t-4}$ | $x_{t-3}$ | $x_{t-2}$ | $x_{t-1}$ | $x_t$ | $x_{t+1}$ | $x_{t+2}$ | $x_{t+3}$ | $x_{t+4}$ | $x_{t+5}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Correlation of GNP with | | | | | | |
| GNP | 1.72 | .02 | .16 | .38 | .63 | .85 | 1.0 | .85 | .63 | .38 | .16 | .02 |
| Rainfall | 3.55 | .05 | .23 | .48 | .79 | .66 | .44 | .32 | .24 | .04 | .10 | .02 |
| Tourists | 2.79 | .01 | .10 | .23 | .35 | .58 | .82 | .65 | .43 | .34 | .22 | .12 |

4. Compute real GDP in years 1999-2001 for base year 2000 using the following table. Provide the details of your calculations to get partial credit if wrong:

| | milk | carrots |
|---|---|---|
| Year 1999 quantity | 20 | 25 |
| Year 1999 price | $10 | $8 |
| Year 2000 quantity | 22 | 22 |
| Year 2000 price | $8 | $10 |
| Year 2001 quantity | 24 | 25 |
| Year 2001 price | $9 | $9 |

5. Using the graph below, which represents the cyclication components of GDP, draw a series that is more volatile and countercyclical.

Yt



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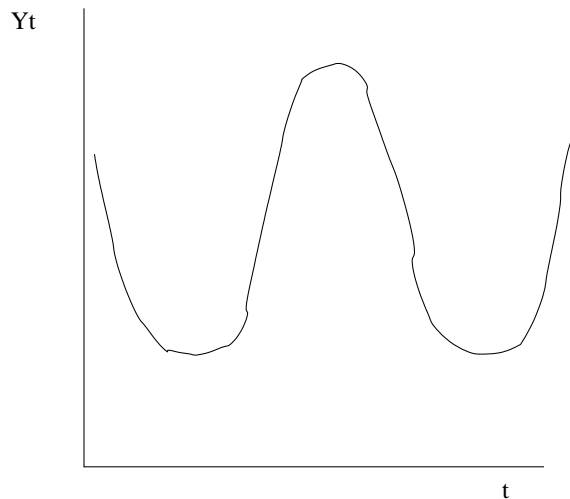
Bonus question: Would there also be spurious correlation if only one of the two series has a trend?