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

Spring 2003, Intermediate Macroeconomics, section 3

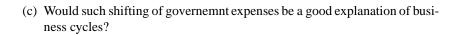# ECON 219 Mid-term exam II

Name:

General recommendations:

- Read questions thoroughly and answer each.

- Work individually.

- There are four pages.

- No documentation, cell phones, pagers, calculators and bathroom breaks.

- You have until 1:50 and can leave early, if you wish.

1. **[40%]** Circle the correct answer to each of the following questions:

    (a) In the intertemporal model with investment, the response of output following a natural disaster includes (circle all that apply):

        i. an increase in aggregate demand;
        ii. a decrease in aggregate demand;
        iii. an increase in aggregate supply;
        iv. a decrease in aggregate supply.

    (b) Next period's capital is equal to current-period investment

        i. plus the amount of current capital left over after depreciation;
        ii. minus the amount of current capital left over after depreciation;
        iii. plus the amont of current period depreciation;
        iv. minus the amont of current period depreciation.

    (c) Any increase in the present value of taxes for the household implies (circle all that apply):

        i. an increase in lifetime wealth;
        ii. a decrease in lifetime wealth;
        iii. an increase in current labor supply;
        iv. a decrease in current labor supply.

(d) Which of these stylized facts of growth are generally accepted as true (circle all that apply):

    i. capital income grows faster than labor income;

    ii. long-term productivity growth varies widely from one country to the other;

    iii. the richer the country, the slower population grows;

    iv. the larger the money supply, the richer the country.

(e) The Ricardian equivalence would not hold if (circle all that apply):

    i. borrowing and lending were done through intermediaries who charge a premium on the interest rate;

    ii. state and local governments also engage in deficit spending;

    iii. some households borrow while others lend;

    iv. some households die after the first period.

(f) If current income Y increases as much as future income Y' decreases:

    i. current consumption decreases;

    ii. current consumption stays constant;

    iii. current consumption increases;

    iv. the behavior of current consumption is indeterminate.

2. **[20%]** Suppose that an epidemic suddenly hits an agriculture based population, leading to many deaths. As suddenly as it emerged, the illness disappears. Using the Mathusian model, explain what happens after these events to population levels and the standard of living.

3. **[40%]** Take the intertemporal model with investment. Suppose that the government decides to reduce current expenses by ΔG and increase future government expenses by $\Delta G' = (1 + r)\Delta G$, where r is the interest rate.

   (a) What does this imply on the timing of taxes? Why?

   (b) Show graphically how the macroeconomic equilibrium is modified.

(c) Would such shifting of governemnt expenses be a good explanation of business cycles?

4. **[Bonus: 10%]** Take the law of motion for capital in the simple model of growth with capital we saw in class. Show how the time path of capital would look like if the initial level of capital were really low (but not zero). Explain.