

Midterm Exam Question Pool

The midterm examination will be held in class on March 4. The examination will, for the most part, be made up of questions from the following pool. **The examination is closed book and closed notes. Students should bring blue books.** Students are encouraged to work together but should make sure that they understand every question and answer. Regular office hours are Tuesday and Thursday, 9:15-10:00 and 1:00-2:00. There will be an extra office hour on Monday, March 3, 4:00 -- 5:00.

1. In the United States between 1950 and 1972, output per worker grew at the annual rate of 2.56 percent. Between 1972 and 1988 output per worker grew at the annual rate of 1.26 percent.
 - a. Use the Solow model with constant technology parameter (A) to determine the affect on long run equilibrium values of capital per worker and output per worker that result from a permanent decrease in economy-wide saving.
 - b. Can a decline in economy-wide saving (such as associated with a tax cut) provide an explanation for the decline in the growth rate of output per worker? Explain why or why not using your results from part a.

2. What economic forces explain, according to Krugman, why the natural rate of unemployment risen in Europe but not in the US?
 - a. What does Krugman mean when he says that "...a likely explanation for this rise is the collision between welfare state policies that attempt to equalize economic outcomes and market forces that are pushing toward greater inequality."?
 - b. Why does Krugman believe that there is a connection between rising inequality in the US and rising unemployment in Europe? What does he mean by inequality?
 - c. What evidence does Krugman provide to explain why a technology shock provides a better explanation of rising inequality in the US that does "globalization." Along the way, explain what Krugman means by globalization.

3. This question is about Robert Lucas' essay, "Some Macroeconomics for the 21st Century."
 - a. What, according to Lucas, accounts for the extraordinarily high rate of growth that occurred in the world between 1960 and 1990?
 - b. Why, according to Lucas, are growth rates of nations highly unequal in each year in the 1960 through 1990 period?
 - c. What does Lucas mean when he says that his model is a "model of spillovers"?
 - d. Do you agree with Lucas when he describes his model as an "economic" model?

4. "In the long run, an increase in the rate of money growth causes an increase in the rate of inflation and no change in the rate of output growth."

- a. Is the statement true or false? Explain in detail.
- b. Do cross-country and cross-time data tend to support or refute the statement? Describe the relevant data and explain.

5. An economist wishes to model the behavior over time of the data in the following table

Variable/Period	1	2	3	4
Variable One	5	5.5	6.05	6.655
Variable Two	5	5.5	6.0	6.5

The economist has two “growth models” to choose from:

Model One: $X_t = h + X_{t-1}$

Model Two: $X_t = (1 + g) X_{t-1}$

- a. Explain in words the difference between what the two models have to say about the growth process.
 - b. Which model is a better description of the data for Variable One? For Variable Two. Explain your answer thoroughly.
 - c. Estimate growth rates for Variable One and Variable Two between periods 1 and 4.
6. Calvin Coolidge once said that “inflation is repudiation.”
- a. In what sense is Coolidge correct? Explain
 - b. Does it matter whether the inflation is expected or unexpected? Why or why not?
7. The steady state rate of unemployment is given by $U/L = s / (s + f)$
- a. Define s and f and explain why the above equation makes sense.
 - b. Suppose that an economy begins with an unemployment rate above its steady state value. What economic forces will cause unemployment to fall toward the steady state value as time passes. Explain in detail.
 - c. True or False? Explain in detail. “Public policy has no effect on the steady state unemployment rate.”
8. Consider a model of flexible prices and full employment.
- a. What does such a model predict to be the effect of a permanent tax cut that is not combined with a decrease in government spending. Explain the effect of the tax cut on investment, the trade balance and the real exchange rate.
 - b. Write a paragraph on the theme: “The macroeconomic costs and benefits of a trade deficit.”