

Economics 100B Midterm #1
Fall 2009
125 points total, 80 minutes total

Question 1 (10 points total; 6 minutes total)

- a. (5 points) What has happened to the personal saving rate in the last couple of years?
- b. (5 points) What does “the recession is over” mean?

Question 2 (15 points total; 10 minutes total)

In the article “How Did Economists Get It So Wrong?,” Paul Krugman writes

“[University of Chicago economist and Cal Ph.D. John] Cochrane declares that high unemployment is actually good. ‘We should have a recession. People who spend their lives pounding nails in Nevada need something else to do.’ Personally I think this is crazy. . . Can anyone seriously claim that we’ve lost 6.7 million jobs because fewer Americans want to work? But . . . if you start from [Cochrane’s] assumption[s] . . . you have to conclude that unemployment is voluntary and recessions are desirable.”

- a. (5 points) Prof. Olney presented a 5-step method for critiquing arguments. Simply list each of the 5 steps in the method.
- b. (2 points) In the passage above, what conclusion is Krugman challenging?
- c. (8 points) Based on your reading of the article, what two assumptions does Krugman focus on in his critique of Cochrane’s argument? What sort of evidence does Krugman offer in support of alternative assumptions? An answer that makes stuff up gets fewer points than an answer which honestly states “I didn’t read the article.”

Question 3 (10 points total; 6 minutes total)

- a. (5 points) Using the axes at the right, draw a typical Cobb-Douglas production function. Label everything clearly.
- b. (5 points) On your graph, draw a dot that shows where the economy is when it is in recession. Label that dot “A.” Write a one-sentence defense of where you put your dot.

Question 4 (15 points; 9 minutes)

Suppose that in the long run, an economy’s total output depends upon natural resources (NR), physical capital (K), and labor-efficiency units (L·E). Suppose the production function is Cobb-Douglas

$$\frac{Y}{L} = \left(\frac{K}{L}\right)^\alpha \left(\frac{NR}{L}\right)^\beta (E)^{1-\alpha-\beta}$$

In this economy, the definition of balanced growth equilibrium is that the growth rates of Y/L, K/L, and NR/L are all equal.

Show that when the economy is in balanced growth equilibrium, the growth rate of the standard of living equals g, the growth rate of efficiency. *Even if you’re a math whiz, show enough steps so your GSI*

can tell you know what you're doing.

Question 5 (20 points total; 12 minutes total)

Suppose the following parameters describe an economy

$$n = 2 \text{ percent}$$

$$g = 0 \text{ percent}$$

$$\delta = 1 \text{ percent}$$

$$s = 27 \text{ percent}$$

$$\alpha = 1/3$$

$$\text{current value of } E = 8,000$$

$$\text{current value of } Y/L = 20,000$$

- (7 points) What is the balanced growth equilibrium value of K/Y ? *First write the formula, then plug in the values, then simplify – or no credit.*
- (9 points) Determine whether this economy is in balanced growth equilibrium. (*Yes, you have enough information to answer this question.*)
- (4 points) At the right, draw a graph that shows the current actual and equilibrium positions for this economy. Label everything clearly.

Question 6 (15 points; 9 minutes)

In an economy in which efficiency is constant, the government begins to run larger budget deficits, with no plan to reduce those deficits in the future. What impact does this change in the government's budget deficit have on the growth rate of Y/L during the transition from the initial balanced-growth equilibrium to the new balanced-growth equilibrium? Explain.

Question 7 (16 points; 9 minutes)

Suppose California is "the economy." Make these assumptions:

- the drop in funding for public higher education (both UC and CSU) is permanent
- UC & CSU respond by accepting more out-of-state students and fewer in-state students
- out-of-state students return home after graduation

What will be the permanent long-run effect on California's standard of living? On the growth rate of California's standard of living? Explain. (*Your answer will be graded on the strength of your explanation.*)

Question 8 (24 points total; 14 minutes total)

- (8 points) Suppose

- $C_0 = 1,000$

- $C_y = 0.6$

- $T = -400 + 0.1Y$

Express consumption as a function of income. When income drops by 1,000, what is the change in consumption?

- b. (8 points) Suppose two things happen at once: real interest rates fall, and businesses lower their expectations for their future sales. What can you say about the impact of these two events on investment spending?

- c. (8 points) Explain why a drop in real interest rates in the U.S. raises the real exchange rate between the dollar and the euro.