

Economics 100B
Midterm #2
100 points, 80 minutes, 20% of grade

Question 1 (15 points total; 11 minutes total)

- (5 points) Explain why an increase in interest rates in the United States, all else constant, causes a decrease in the nominal exchange rate and a decrease in the real exchange rate.
- (5 points) Explain why an increase in interest rates, all else constant, lowers investment spending.
- (5 points) Explain why an increase in interest rates, all else constant, lowers stock prices.

Question 2 (25 points total; 18 minutes total)

Suppose the following equations describe the economy.

$$\begin{array}{ll} C = 1,000 + 0.7Y^D & T = 0.2Y \\ I = 2,000 - 2,000r & IM = 0.15Y \\ G = 1,000 & GX = 600 + 10\epsilon \\ \epsilon = 100 - 800(r - 0.10) = 180 - 800r & Y^* = 10,000 \end{array}$$

- (15 points) Solve for the equilibrium value of the real interest rate. If you can't solve this without a calculator (tsk tsk), set it up and go as far as you can to get as much partial credit as possible. Please put a box around your answer.
- (10 points) When autonomous consumption increases by 100, by how much does the real interest rate change? By how much does investment change? By how much does government saving change? By how much does household saving change? By how much does foreign saving change? Please put boxes around your answers.

Question 3 (10 points; 7 minutes)

Starting from the flow-of-output equilibrium equation, $Y = AD$, derive the flow-of-funds equilibrium equation, $S = I$. Even if you're a math whiz, be sure to show enough steps of the derivation to convince your GSI that you didn't just memorize the bottom line.

Question 4 (20 points total; 15 minutes total)

The Senator is preparing a speech in which she argues the federal government should permanently increase its spending for health insurance for children. She anticipates that one of her critics will argue that government funding of a children's health insurance program will lower standards of living. In her speech, she plans to **first** explain why someone might conclude that the children's health insurance program would lower standards of living. **Then** she plans to identify a key assumption in that argument. **Then** she plans to explain why that assumption is incorrect. And **finally** she will explain why a permanent increase in government funding of a children's health insurance program will in fact raise standards of living.

Write those four parts of her speech. (7 pts, 3 pts, 3 pts, 7 pts)

Question 5 (15 points total; 11 minutes total)

- a. (5 points) What is the definition of money? When I use my credit card to buy groceries, am I using money to buy my groceries? Why or why not?
- b. (10 points) What is hyperinflation? Write down the “quantity equation.” Use it to explain why hyperinflation is “always and everywhere a monetary phenomenon.”

Question 6 (15 points; 11 minutes)

Compare two economies. In Economy A, no foreigners are allowed to lend money or buy the economy’s assets. In Economy B, there are no restrictions on foreign lending.

- a. (6 points) On the left, draw a graph showing the flow of funds equilibrium for Economy A. On the right, draw a graph showing the flow of fund equilibrium for Economy B.
- b. (9 points) In both economies, businesspeople become pessimistic about the future. Investment spending falls more in Economy B than it does in Economy A. Explain why.