Econ 100B MT 2 questions
Fall 2010
100 points, 75 minutes

Question 1 (43 points total; 32 minutes total)

a. (6 points; 4 minutes) Why are euros "money" in Europe but not in the United States? Be sure to refer to and briefly (one phrase) define the three characteristics of money in your answer.

b. (6 points; 4 minutes) Why is the quantity theory of money (MV = PY) not very helpful for explaining why the inflation rate is 3 percent instead of 5 percent?

c. (6 points; 4 minutes) What is a yield curve? Draw and label a normal yield curve at the right.

d. (6 points; 4 minutes) Explain why nominal exchange rates change when foreign interest rates rise.

e. (8 points; 6 minutes) Explain why real GDP rises *in the short run* when the Fed decreases short-term interest rates. (Assume long-term interest rates <u>do</u> change.)

f. (6 points; 4 minutes) When the Federal Reserve decreases short-term interest rates but long-term interest rates do <u>not</u> change, does investment spending rise? Explain. Be sure to distinguish between internal finance and external finance in your answer.

g. (5 points; 4 minutes) What – if anything – is the difference between the phrases "long-term interest rates" and "interest rates in the long run"?

Question 2 (16 points total; 12 minutes total)

We can assume prices and wages are sticky, or we can assume prices and wages are fully flexible.

a. (4 points; 3 minutes) When we assume wages and prices are fully flexible, what are the determinants of real GDP? When we assume wages and prices are sticky, what are the determinants of real GDP?

b. (6 points; 4 minutes) Describe what it means to assume wages and prices are fully flexible. When we assume wages and prices are sticky, is that the same as assuming prices and wages are constant? Explain.

c. (6 points; 4 minutes) Referring to the book *Animal Spirits* by Akerlof and Schiller, discuss one possible reason that wages and prices are sticky.

Question 3 (23 points total; 17 minutes total)
Suppose the economy can be described by the following equations

$C = 1{,}200 + 0.8Y^D$
$T = 0.3Y$
$I = 2{,}000 - 3{,}000r$
$G = 2{,}000$
$GX = 1{,}000 - 7{,}000r$
$IM = 0.16Y$
$Y^* = 10{,}000$

a. (15 points; 11 minutes) When wages and prices are fully flexible, what is the value of equilibrium real interest rate? Show your work, or no points. 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.

b. (8 points; 6 minutes) When wages and prices are sticky and the Fed sets the real interest rate, r, to 8 percent, what is the value of equilibrium real output? Show your work (but no need to repeat what you did in part (a), or no points.

Question 4 (18 points total; 14 minutes total)
Suppose that investment spending depends on real GDP as well as interest rates:

$$I = I_0 + I_Y Y - I_r r$$

For these questions, you'll compare an economy with this investment function with an economy with the usual investment function we've used in class.

a. (6 points; 4 minutes) In the flexible-price long run, is the change in real interest rates following an increase in government purchases of goods and services greater, smaller, or the same as it would be if investment spending did not change when real GDP changed? Explain.

b. (6 points; 4 minutes) In the sticky-price short run, is the change in real GDP following an increase in government purchases of goods and services greater, smaller, or the same as it would be if investment spending did not change when real GDP changed? Explain.

c. (6 points; 4 minutes) In the long-run S vs I graph, does making investment spending dependent upon real GDP make the investment curve steeper, flatter, or not change the slope? For the short-run IS curve, does making investment spending dependent upon real GDP make the IS curve steeper, flatter, or not change the slope? Explain your answers.