Midterm #2 Questions
Fall 2009
125 points, 80 minutes

Question 1 (15 points total; 9 minutes total)

a. (5 points) What determines the level of output in the long run? What determines the level of output in the short run?

b. (5 points) What is the current value of the unemployment rate? What were the last <u>two</u> episodes in the U.S. when the unemployment rate was this high?

c. (5 points) Why does real money demand increase when interest rates decrease?

Question 2 (10 points; 6 minutes)

Suppose the following equations describe the economy

MPRF: $u = 0.12 + 1.5(\pi - 0.02)$ PC: $\pi = 0.02 - 2(u - 0.04)$

Solve for the equilibrium values of unemployment and inflation rates. 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.

Question 3 (24 points total; 15 minutes total)

California, like most states, is required to balance its budget each year: state spending plus transfer payments cannot exceed state tax revenues. As the economy moves into recession, tax revenues fall.

a. (10 points) One way to re-balance the budget is to cut spending, including spending for education. What is the short-run economic impact on the output of the California economy of a cut in government spending? Explain. Supplement your answer with a graph.

b. (8 points) Another way to re-balance the budget is to raise tax rates. In terms of the short-run economic impact on the output of the California economy, is there any difference between cutting government spending and raising tax rates? Explain.

c. (6 points) Write a short e-mail to your state representative in which you advocate for California to cut spending, raise tax rates, or some combination of both. *Your paragraph will be graded based on the quality of your argument, not on what specific budget-balancing strategy you propose.*

Question 4 (30 points total; 18 points total)

Each of the following statements is taken from CEA Chair Christina Romer's October 2009 JEC testimony. For each, what is the equation and/or concept we've learned that she is referring to? Include the equation, if there is one. Explain the statement.

a. (7 points) "If GDP growth falls substantially short of 2½ percent per year, the unemployment rate would likely continue to rise and employment to decline." (pg. 13)

b. (7 points) "[T]he major reason that actual and expected inflation have not fallen further is that the Federal Reserve's record of inflation control over the past quarter century has kept inflation expectations well anchored." (pg. 16) ("Well anchored" means unchanged.)

c. (7 points) "Over the long run, sustained [government] deficits crowd out private investment." (pg. 18)

d. (9 points) "Historically for the United States, the main determinant of movements in inflation is the relationship between output and the economy's productive capacity, with additional influences from oil price movements and other supply disturbances." (pg. 15)

Question 5 (46 points; 28 minutes)

Suppose the economy is originally at equilibrium, with inflation equal to both the expected inflation rate and the Fed's target inflation rate. Then there is a simultaneous drop in both autonomous consumption and expected rates of return on investment spending. The Fed sets interest rates in reaction to inflation, but is not willing to do whatever it takes to keep inflation equal to its target rate. **(This prompt applies to all parts of this question.)**

a. (10 points) If expectations are static, what are the short-run effects on the inflation and unemployment rates? Explain the process by which the economy adjusts from the initial equilibrium to the new equilibrium. Supplement your answer with a graph.

b. (8 points) If expectations are static and autonomous spending falls, would it be better for workers if the Fed were hawkish or dovish? Explain.

c. (10 points) If <u>instead</u> expectations are rational, what are the effects on the inflation and unemployment rates? Explain why your answer is different than it was in part (a). Supplement your answer with a graph.

d. (8 points) No one can deny that the unemployment rate in the U.S. has risen, a lot, in the last 2 years. If someone believes expectations are rational (in the way we've defined 'rational expectations') how can they explain the rise in the unemployment rate since 2007?

e. (10 points) San Francisco Fed President Janet Yellen said, "It may be that we are witnessing the start of a new era for consumers. . ." If the changes in autonomous consumption are permanent, what is the long-run effect on interest rates? Explain. Supplement your answer with a graph.