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Fall 2002, Intermediate Macroeconomics, section 3

ECON 219 Final Exam

General recommendations:

- Read questions thoroughly.
- Please respond on this copy.
- You have two hours.
- Work individually.
- There are six pages.
- Good luck!

Your name:

1. **[24 points]** Circle the appropriate answer on each of the following items. Circle multiple items if necessary:

   (a) The current demand for money increases when:
   a) current real income decreases; b) future real income decreases; c) the nominal reate of interest decreases; d) current real income increases.

   (b) If an increase in the level of the money supply results in a proportionate increase in prices with no effect on any real variables, we say that:
   a) the Fisher relationship holds; b) money is neutral; c) money is superneutral; d) the Friedman rule holds.

   (c) In the sticky price model, an increase in current government purchases shifts:
   a) the IS curve to the right; b) the IS curve to the left; c) the LM curve to the right; d) the LM curve to the left.

   (d) In the Friedman-Lucas money surprise model, an increase in the nominal wage could signal either:
   a) an increase in the money supply or a temporary decrease in total factor productivity; b) an increase in the money supply or a temporary increase in total factor productivity; c) a decrease in the money supply or a temporary decrease in total factor productivity; d) a decrease in the money supply or a temporary increase in total factor productivity.

   (e) In the Friedman-Lucas money surprise model, a surprise increase in the money supply:
   a) has no effect on the price level; b) increases the price less than in proportion to the increase in the money supply; c) increases the price in an equal proportion to the increase in the money supply; d) increases the price more than in proportion to the increase in the money supply.

(f) Strategic complementarities may explain business cycles because such complementarities may lead to:
a) no returns to scale; b) decreasing returns to scale; c) constant returns to scale; d) increasing returns to scale.

(g) In the coordination failure model, the most likely explanation of business cycles are:
a) money supply shocks; b) government spending shocks; c) total factor productivity; d) fluctuations between 'good' and 'bad' equilibria.

(h) The behavior of the Solow residual suggests that when current total factor productivity increases:
a) it becomes more difficult to predict future total factor productivity; b) future total factor productivity is also likely to increase; c) such increases are temporary, so we can draw no conclusions about the likely behavior of future total factor productivity; d) future total factor productivity is likely to decrease.

(i) Government-sponsored unemployment insurance programs typically:
a) reduce the unemployment rate because they boost worker morale; b) reduce the unemployment rate because they increase the net marginal product of labor; c) increase the unemployment rate by increasing the number of spells of unemployment; d) increase the unemployment rate by increasing the average duration of unemployment.

(j) There are several competing models of the business cycle because:
a) none currently captures all facets of the business cycle; b) they are rooted in different philosophical traditions; c) differents shocks need different models; d) there is no agreement whether their assumptions are empirically verified.

2. **[6 points]** In the sticky wage model, assume that labor unions gain more negociating power. How would you represent this, i.e. what would shift? (Do not draw conclusions about variables)

3. **[5 points]** Explain what distinguishes the Real Business Cycle model from the Classical model with money.

4. **[5 points]** Explain why the “absence of double coincidence of wants” matters for money.

5. **[5 points]** What is the real interest rate? Give a definition and a formula.

6. **[5 points]** What is the real return of money? Give a definition and a formula.

7. **[40 points]**

(a) Take the sticky wage model. Show graphically the impact of a positive z shock on r, P, Y, N, w.

(b) Repeat the exercice with a positive z' shock.

(c) Discuss the cyclical behavior of C, I, P, w, N if the economy were hit by positive z and z' shocks in the sticky wage model.

(d) Now take the real business cycle model. Show graphically the impact of a positive z shock.

(e) Discuss the cyclical behavior of C, I, P, w, N if the economy were hit by a positive z shock in the real business cycle model.

(f) Discuss which model is better able to replicate the observed behavior of the U.S. economy if the shocks assumed above are the only ones occuring.

8. **[10 points]** Take the labor search model. Assume the separation rate (the probability of losing a job) increases. What is the consequence on the unemployment rate? Use graphs.