“Midterm” Exam II
Tuesday, May 9, 2000
Econ 102 - Principles of Macroeconomics, 2:30 Section

The exam consists of three sections. In the first section you are asked to define four terms (12 points). The second section consists of 20 multiple choice questions (80 points). The third and final section contains four short answer questions (18 points). All of your responses should reflect the perspective of an economist.

Good luck!
**Section I: Definitions.** Please define the following terms in the space provided. (12 points)

1. Financial market

2. Reserve ratio

3. Law of One Price

4. Recession

**Section II: Multiple Choice.** Please circle the most appropriate answer. (80 points)

1. Which of the following sets of government policies is the most growth oriented in the long-run?
   a. lower taxes on the returns to saving, provide investment tax credits, and increase the deficit.
   b. lower taxes on the returns to saving, provide investment tax credits, and lower the deficit.
   c. increase taxes on the returns to saving, provide investment tax credits, and increase the deficit.
   d. increase taxes on the returns to saving, provide investment tax credits, and lower the deficit.

2. If an increase in the deficit causes the public to increase its saving by an amount equal to the change in the deficit in anticipation of future tax increases,
   a. the interest rate will rise and investment will be crowded out.
   b. the interest rate will fall and investment will be crowded out.
   c. the interest rate will not be affected and investment will be crowded out.
   d. the interest rate will not be affected and investment will remain unchanged.
3. According to the Bureau of Labor Statistics, a person that has been unable to find work for so long that he has stopped looking for work is considered to be
   a. unemployed.
   b. employed.
   c. not in the labor force.
   d. not in the adult population.
   e. a and c.

4. If, for any reason, the wage is held above the competitive equilibrium wage,
   a. the quality of workers will fall due to the adverse selection of workers in the applicant pool.
   b. there will be unemployment due to moral hazard.
   c. the quantity of labor supplied will exceed the quantity of labor demanded and there will be unem-
      ployment.
   d. the quantity of labor demanded will exceed the quantity of labor supplied and there will be unem-
      ployment.
   e. b and c.

5. Which of the following type of unemployment will exist even if the wage is at the competitive equilibrium?
   a. unemployment due to minimum-wage laws.
   b. unemployment due to unions.
   c. unemployment due to efficiency wages.
   d. unemployment due to job search.

6. In order to insulate the Federal Reserve from political pressure,
   a. the members of the Board of Governors are supervised by the House Banking Committee.
   b. the members of the Board of Governors are elected by the public.
   c. the members of the Board of Governors are appointed to lengthy terms.
   d. the members of the Board of Governors have lifetime tenure.
   e. none of the above. There is no mechanism designed to insulate the Board of Governors from political
      pressure.

7. Which of the following policy actions by the Fed is likely to increase the money supply?
   a. selling government bonds.
   b. reducing reserve requirements.
   c. increase the discount rate.
   d. all of the above.
   e. none of the above.

8. Suppose the Fed purchases $100,000 in government bonds on the open market. Assuming that all money
   is held in the form of deposits, and that banks hold no excess reserves, what is the change in the money
   supply as a result of the Fed’s action if reserve requirements are 20%?
   a. $100,000.
   b. $100,000 \times 0.2 = $20,000.
   c. $100,000 \times \frac{1}{4} = $500,000.
   d. none of the above. The Fed’s purchase of bonds on the open market would not affect the money
      supply.

9. If actual inflation turns out to be greater than people had expected, then
   a. wealth is redistributed to lenders from borrowers.
   b. wealth is redistributed to borrowers from lenders.
   c. a union worker in the second year of a contract with a fixed nominal wage would benefit.
   d. a and c.
   e. b and c.
10. According to the Quantity Theory of Money, an increase in the money supply causes
   a. a proportional increase in prices.
   b. a proportional increase in the velocity of money.
   c. a proportional increase in real output.
   d. a and c.

11. Suppose that the nominal interest rate is 7% and the money supply is growing at 5% per year. If the Fed increases the growth rate of the money supply to 9%, in the long run, the nominal interest rate should
   a. fall to 4%.
   b. rise to 11%.
   c. rise to 9%.
   d. rise to 12%.
   e. not be affected since it is determined by the supply and demand for loanable funds.

12. Countries that employ an inflation tax typically do so
   a. because the government has a balanced budget.
   b. because government expenditures are high and the government has inadequate tax collections and difficulty borrowing.
   c. because the inflation tax imposes no costs on citizens.
   d. because inflation taxes are paid only by those citizens with savings accounts.
   e. in order to avoid taxing citizens that hold currency.

13. Which of the following statements is not true about the relationship between national saving, investment, and net foreign investment?
   a. An increase in saving associated with an equal increase in net foreign investment leaves domestic investment unchanged.
   b. Saving is the sum of investment and net foreign investment.
   c. For a given amount of saving, an increase in net foreign investment must decrease domestic investment.
   d. For a given amount of saving a decrease in net foreign investment must decrease domestic investment.
   e. a and d.

14. Suppose a cup of coffee costs 1.5 marks in Germany and $.50 in the US. Suppose further that the nominal exchange rate is 2 marks per dollar. According to PPP,
   a. the dollar is undervalued and is expected to appreciate relative to the mark.
   b. the dollar is overvalued and is expected to depreciate relative to the mark.
   c. the mark is undervalued and is expected to appreciate relative to the dollar.
   d. the mark is overvalued and is expected to depreciate relative to the dollar.
   e. a and d.

15. The data posted at the St. Louis Fed’s web site indicates that US net foreign investment has fallen in the last four quarters. One possible explanation is that
   a. US real interest rates have fallen, and as a result both US residents and foreigners have increased their holdings of US assets.
   b. US real interest rates have fallen, and as a result both US residents and foreigners have decreased their holding of US assets.
   c. US real interest rates have risen, and as a result both US residents and foreigners have increased their holdings of US assets.
   d. US real interest rates have risen, and as a result both US residents and foreigners have decreased their holding of US assets.
   e. none of the above. US net foreign investment is not related to the real interest rate.
16. In the long run, an increase in saving by US residents would
   a. cause the dollar to appreciate and increase the trade balance.
   b. cause the dollar to depreciate and increase the trade balance.
   c. cause the dollar to appreciate and decrease the trade balance.
   d. cause the dollar to depreciate and decrease the trade balance.
   e. none of the above. A change in saving by US residents has no effect on the dollar or the trade balance.

17. Suppose that due to political instability in Mexico, capital flight ensues. Suppose further that the US is a recipient of some of the capital fleeing Mexico. In the long run, which of the following statements is true?
   a. The dollar will appreciate and US net exports will fall.
   b. The dollar will appreciate and US net exports will rise.
   c. The dollar will depreciate and US net exports will fall.
   d. The dollar will depreciate and US net exports will rise.
   e. None of the above. Political instability in Mexico will not affect the dollar or US net exports.

18. Which of the following statements about trade policy is true in the long run?
   a. A restrictive import quota increases the exchange rate and leads to a decrease in a country’s equilibrium level of net exports.
   b. A restrictive import quota increases the exchange rate and leads to an increase in a country’s equilibrium level of net exports.
   c. A restrictive import quota decreases the exchange rate and leads to a decrease in a country’s equilibrium level of net exports.
   d. A restrictive import quota decreases the exchange rate and leads to an increase in a country’s equilibrium level of net exports.
   e. None of the above. Trade policy has no effect on a country’s equilibrium level of net exports.

19. According to Pigou’s wealth effect, aggregate demand slopes downward because
   a. lower prices decrease the value of money holdings and consumer spending decreases.
   b. lower prices increase the value of money holdings and consumer spending increases.
   c. lower prices reduce money holdings, increase lending, interest rates fall, and investment spending increases.
   d. lower prices increase money holdings, decrease lending, interest rates rise, and investment spending falls.
   e. None of the above. The aggregate demand curve slopes downward because when the price of one good rises (good x for example), people substitute towards consumption of other goods, and as a result, demand for good x falls.

20. Suppose that nominal wages are fixed by long term contracts and that the price level falls. As a result, in the short run,
   a. firms will produce more due to the reduction in real wages.
   b. firms will produce less due to the reduction in real wages.
   c. firms will produce more due to the increase in real wages.
   d. firms will produce less due to the increase in real wages.
   e. none of the above. Production will not be affected in the short run.

Section III: Short Answer. Please write your responses in the space provided on the exam. Your answers should be concise, yet complete. Please label all graphs (including axes and equilibria) clearly. If you shift any curves, please indicate the direction of the shift with an arrow. (18 points)

1. Who is the chairman of the Board of Governors of the Federal Reserve Bank? (2 points)
2. While there are some benefits to unions, there are also some costs. In particular, unions may lead to labor allocations that are inefficient (they may cause unemployment) and inequitable (they may cause wage differentials between unionized and nonunionized sectors to increase). Demonstrate these two effects using graphs of the labor market. (4 points)

3. Consider an open economy in the long run. (6 points)
   a. Using the market for loanable funds, the market for foreign currency exchange, and the NFI function, demonstrate graphically the effects of an increase in the government budget deficit.

b. Summarize in words, the effects of an increase in the government budget deficit.
4. The US economy is booming, and in its record ninth year of expansion. Last Friday, the BLS reported an unemployment rate for April of 3.9%. This figure represents a historical (30 year) low, and is well below the estimated natural rate of unemployment of 6%. In response to these events, the Fed is expected to tighten monetary policy. (6 points)

a. Demonstrate graphically, using a SRAS-LRAS-AD diagram, what effect the Fed’s policy is intended to have on the economy. Please label the economy’s current equilibrium with the notation \((Y_1, P_1)\), and the economy’s post Fed action equilibrium with the notation \((Y_2, P_2)\). Also, be sure to indicate the natural rate of output with the notation \(\bar{Y}\).

b. Demonstrate graphically, using a SRAS-LRAS-AD diagram, what could happen if the Fed chooses not to intervene and does not tighten monetary policy. Please label the economy’s current equilibrium with the notation \((Y_1, P_1)\) and the final (future with no policy action) equilibrium with the notation \((Y_2, P_2)\).
c. In the context of the graphical analysis you presented above in parts (a) and (b), explain why the Fed is tightening monetary policy.

d. Given that the Fed is likely to tighten monetary policy, what should currency traders expect to happen to the dollar relative to the Euro, given that monetary policy is Europe is not expected to change? Explain.