

Problem Set # 3

This problem set is due Thursday, April 27, at the beginning of the class period. All text answers must be typed. Unstapled problem sets will not be accepted. Late problem sets are unacceptable also.

1. The *Bank of Japan* (the Japanese Central Bank) decides to increase the money supply in Japan. In order to do that, it buys ¥ 230 billion (¥ = Japanese Yen) worth of Japanese government bonds. You are also told that as a result of this action, consumers decide to increase their cash holdings by ¥ 80 billion.

a) If the required reserve ratio equals 8%, how much would the Japanese money supply increase as a result of the *Bank of Japan's* action?

b) Calculate the change in the Japanese GDP resulting from the variation in the money supply described above. In order to do this, take into consideration the following facts:

- Each ¥ 782 billion increase in the money supply reduces the rate of interest by 1 percentage point.
- Each 1 percentage point decline in interest rates stimulates ¥ 600 billion of new consumption spending.
- Each 1 percentage point decline in interest rates stimulates ¥ 350 billion of new investment spending.
- Each 1 percentage point decline in interest rates produces a depreciation of 3 percentage points in the value of the Japanese Yen.
- Each 1 percentage point depreciation in the value of the Japanese Yen increases net exports by ¥ 100 billion.
- The $MPC = 0.80$ and the $MPM = 0.05$
- The economy is producing under potential output.

2. Assume that the economy is producing at potential output and that the government is concerned with the high price level. With that purpose in mind, the Federal Government reduces its expenditures on goods and services.

a) What predictions would you make about the effects of this policy if you were a true classical monetarist and a firm believer of the Quantity Theory of Money? Explain fully and include a diagram in your answer.

b) What predictions would you make if you were a mainstream economist? Explain fully and include a diagram in your answer.

c) What predictions would you make if you were a classical economist? Explain fully and include a diagram in your answer.

d) What predictions would you make if you were a Keynesian economist? Explain fully and include a diagram in your answer.

3. Assume that there are only two countries in the world: the Nirvana and Reik; and that they produce only two commodities: Pearls and Jam. To produce 1 pound of pearls, the Nirvana uses 4 labor hours and Reik uses 16 labor hours. To produce 1 ton of jam, the Nirvana needs 18 labor hours, while Reik needs 24 labor hours.

a) Which country has (1) absolute advantage in the production of pearls, (2) absolute advantage in the production of jam, (3) comparative advantage in the production of pearls, (4) comparative advantage in the production of jam?

b) Before trade takes place, (1) What is the price of one ton of jam in the Nirvana? (2) What is the price of one ton of jam in Reik? (3) Where is jam cheaper?

c) Assume that after trade opens up, one ton of jam is traded for 3 pounds of pearls. Prove that if workers in both countries want to consume 4 tons of jam and 10 pounds of pearls, both of them would benefit from free trade.

4. Visit the Federal Reserve Board of Governors web site (<http://www.federalreserve.gov/>). Review the **minutes** from the March 27-28, 2006 meeting of the Federal Open Market Committee (look for the in the Monetary Policy section).

a) Based on the information available in those minutes, write a short summary describing the state of the U.S. economy during the first quarter of 2006.

b) What action did the FOMC decided to take during the March 27-28, 2006 meeting with respect to their target for the federal funds rate? Why did the FOMC take that action?

c) What do the minutes indicate about possible future action by the FOMC? Why is the FOMC leaning in that direction?

5. Visit the Federal Reserve Bank of St. Louis' FRED web site (<http://research.stlouisfed.org/fred2/>). Click on "Gross Domestic Product and Components" and then on "GDP/GNP."

a) Click on "Real Gross Domestic Product, 1 Decimal" and on "Real Potential Gross Domestic Product." Write down the figures for these indicators for every quarter from the first quarter of 1991 until the fourth quarter of 2005. Use these data to calculate the difference between Potential GDP and Actual GDP for every quarter form 1991 until 2005.

b) Use the information found for part a) to answer the following questions: What direction should U.S. Fiscal and Monetary policies have today? Should they be expansionary? Should they be contractionary? Explain.