Fiscal & Financial System in Japan A / International Finance

Fall 2013

Midterm Exam

13:35 - 14:35 Nov 8, 2013

- This is a closed book exam.
- You can use a simple calculator. Notebook PC or smart phone is not allowed.
- Please write clearly. Poor handwriting will be ignored.
- You can withdraw anytime during the exam provided that you are sure you finished the exam. No class after exam.
- For answers and comments on the exam, visit my website: `http://www1.meijigakuin.ac.jp/~iwamura/`
- Throughout the exam, the price level and GDP are assumed not to be affected by changes in interest rates or exchange rates. That is, we concentrate on the short-term fluctuations.

Multiple-Choice Questions(5 points for each question)

1. If the yen interest rate is 5 percent, the dollar interest rate is 7 percent, and the expected rate of yen appreciation against the dollar is 2 percent, then

   (a) an investor should invest only in yens.
   (b) an investor should invest only in dollars.
   (c) an investor should be indifferent between yens and dollars.
   (d) It is impossible to tell given the information.

2. Suppose that the yen interest rate is higher than the dollar interest rate and the foreign exchange market is in equilibrium. Which of the following statements is the most accurate?

   (a) The yen is expected to depreciate against the dollar.
   (b) The dollar is expected to depreciate against the yen.
   (c) The yen/dollar exchange rate is expected to stay constant.
   (d) It is impossible to tell people's expectation, given the information.

3. Suppose that the yen has depreciated against the dollar. Which of the following is the most appropriate cause behind?

   (a) A rise in the yen interest rate.
   (b) A fall in the dollar interest rate.
   (c) A rise in the expected future exchange rate (yens per dollar).

4. Money is an asset which is
   (a) highly liquid and highly profitable.
   (b) illiquid but highly profitable.
   (c) illiquid and less profitable.
   (d) highly liquid but less profitable.
5. The money supply schedule is
   (a) horizontal because the money supply is set by the central bank.
   (b) vertical because the money supply is set by the central bank.
   (c) vertical because the money supply is set by the households and firms.
6. Which one of the following statements is the most accurate?
   (a) A rise in the price level lowers the interest rate, while a fall in the price level raises the interest rate, given the GDP and money supply.
   (b) A rise in the GDP lowers the interest rate, while a fall in the GDP raises the interest rate, given the price level and money supply.
   (c) A rise in the money supply raises the interest rate, while a fall in the money supply lowers the interest rate, given the price level and GDP.
   (d) None of the above.
7. Which of the following statements is most accurate?
   (a) In the short run, a rise in the average value of transactions carried out by a household or a firm causes the interest rate to fall.
   (b) In the short run, a fall in the average value of transactions carried out by a household or a firm causes the price of bond to fall.
   (c) In the short run, a rise in the average value of transactions carried out by a household or a firm holds the interest rate constant.
   (d) In the short run, a rise in the average value of transactions carried out by a household or a firm has no effect on the price of bond.

8. Which one of the following statements is the most accurate?

   (a) Given the price level and GDP, when the money supply decreases, the yen interest rate declines and the yen depreciates against the dollar.
   (b) Given the price level and GDP, when the money supply decreases, the yen interest rate declines and the yen appreciates against the dollar.
   (c) Given the price level and GDP, when the money supply rises, the yen interest rate declines and the yen appreciates against the dollar.
   (d) Given the price level and GDP, when the money supply rises, the yen interest rate declines and the yen depreciates against the dollar.
   (e) None of the above.

9. Given the Japan's price level and GDP,

   (a) an increase in the US money supply causes the dollar to appreciate against the yen, and it creates excess demand for the Japan's money market.
   (b) an increase in the US money supply causes the dollar to appreciate against the yen, and it creates excess supply for the Japan's money market.
   (c) an increase in the US money supply causes the dollar to depreciate against the yen, and it creates excess demand for the Japan's money market.
   (d) an increase in the US money supply causes the dollar to depreciate against the yen, and it creates excess supply for the Japan's money market.
   (e) an increase in the US money supply causes the dollar to depreciate against the yen, but it does not disturb the Japan's money market equilibrium.

Arithmetic/Essay Questions

1. Suppose that the yen interest rate is 1.5 percent and the dollar interest rate is 3 percent. If the current exchange rate is 97 yens per dollar and the FX market is in equilibrium, what do people expect the exchange rate will be. Round off to one decimal place（小数点第 2 位以下四捨五入）. (5 points)

2. Suppose that you borrow 100,000 yens with an interest rate of 3 percent for 3 years, and you want to repay it by making the *same yearly payment* every year until the maturity.

   (a) Denoting the yearly payment by C, set up an equation that calculates the value of C. (5 points)

   (b) Find an approximate value of C. You can round off numbers, whenever you need. Simply show how you get your answer. (Note that in this case the equation is linear in C.)(5 points)

3. Answer the following questions concerning money.

   (a) Explain the "liquidity" of an asset. What do we mean by liquidity? (5 points)

   (b) Derive or explain the relationship between the demand for money and interest rate, and draw the money demand schedule. (10 points)

   (c) Suppose that for an increasing probability of government's default on its bond, the Japanese people have become less willing to hold bonds. Explain how it affects the equilibrium yen interest rate. (10 points)

   (d) Explain how it affects the equilibrium yen/dollar exchange rate. (5 points)

4. Define "gross domestic product" in an open economy setting, and *derive or explain* the GDP identity. (10 points)