

Econ 353 Money, Banking, and Financial Institutions  
Spring 2006

Midterm Exam 1

Name \_\_\_\_\_

- The duration of the exam is 1 hour 20 minutes.
- The exam consists of 11 problems and it is worth 100 points.
- Please write in the space provided. If necessary, write on the back of the page.
- Please ask me if you have any questions.
- To receive full credit you have to carefully explain all your answers and show all your work.

*General advice: If you get stuck in the early parts of a problem, do not stop there. You can receive substantial partial credit by explaining how you would solve the rest of the problem if you had the necessary answers from its previous parts.*

1. (20 points) Determine whether each of the statements below is True or False:

Money is defined as anything that is generally accepted in payment for goods and services or in the repayment of debt.

U.S. Treasury is responsible for the conduct of monetary policy in the United States.

The monetary aggregate M3 includes fewer types of assets than the monetary aggregate M1.

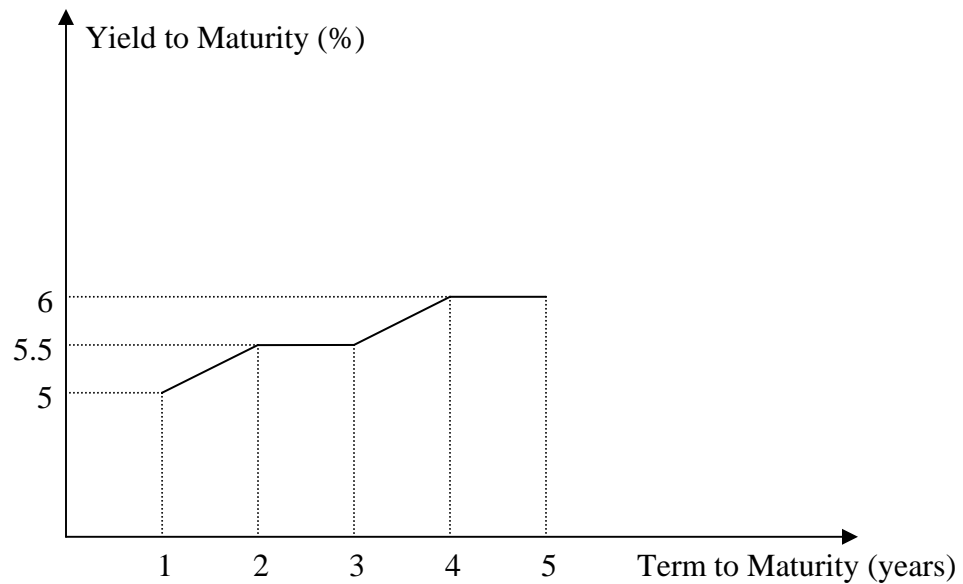
Of money's three functions, the one that distinguishes money from other assets is its function as a store of value.

The conversion of a barter economy to one that uses money increases efficiency by reducing the cost of exchange.

People find money a convenient store of value because its value remains fixed to the price level; that is, if prices double so does the value of money.



5. (20 points) Suppose that the following yield curve is observed today:



- a. Name at least two regularities observed in the data on term structure of interest rates.
  
  
  
  
  
  
  
  
  
  
- b. Assuming that the expectations hypothesis is true, determine the current yield on 1-year bonds, 2-year bonds, 3-year bonds, and 4-year bonds?





10. (5 points) Which of the following 1-year, \$1,000 face-value securities has highest yield to maturity?

- i. A 5 percent coupon bond selling for \$1,000
- ii. A 10 percent coupon bond selling for \$1,000
- iii. A 12 percent coupon bond selling for \$1,000
- iv. A 12 percent coupon bond selling for \$1,100

11. (10 points) Using the supply-demand graph explain what will happen to the long-term bond prices and interest rates if interest rates are expected to rise in the future.

The formulas you may or may not need:

$$PV = [C/i] * [1 - 1/(1+i)^n],$$

$$PV = FV/(1+i)^n,$$

$$\text{Expected value} = \text{value} * \text{prob}(\text{value}) + \text{value} * \text{prob}(\text{value}) + \dots$$

$$\text{Variance} = (\text{value} - \text{expected value})^2 * \text{prob}(\text{value}) + (\text{value} - \text{expected value})^2 * \text{prob}(\text{value}) + \dots$$

$$i_{n(t)} = (i_{1(t)} + i_{1(t+1)} + i_{1(t+2)} + \dots + i_{1(t+n-1)})/n.$$