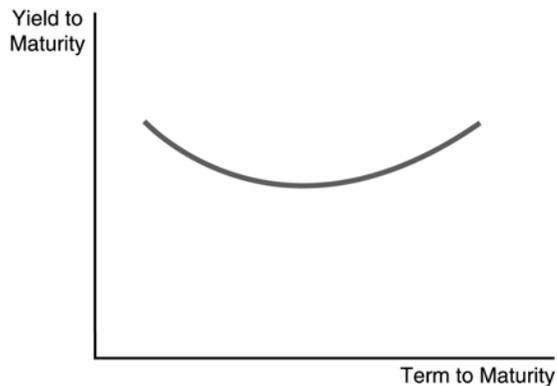


Midterm 1

This exam is 70 minutes long, and is worth 70 points. Part I is multiple choice, Part II is a derivation, and Part III is a short answer w/graph. The points are allocated in proportion to the time you should spend on each problem.

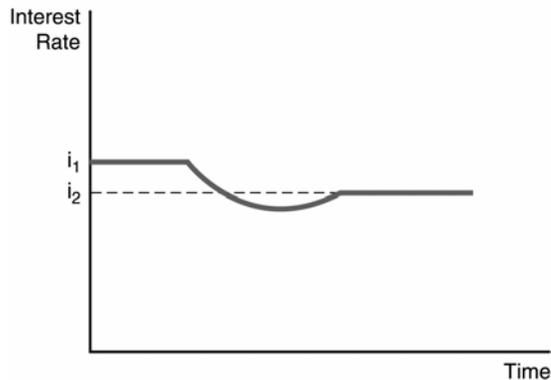
PART I: Multiple Choice [32 minutes total, 4 points each]. Do NOT explain.

1. An individual's annual salary is her
 - a) money.
 - b) income.
 - c) wealth.
 - d) liabilities.
 - e) assets.
2. The U-shaped yield curve in the Figure indicates that short-term interest rates are expected to ____.



- a) rise in the near-term and fall later on
 - b) fall sharply in the near-term and rise later on
 - c) fall moderately in the near-term and rise later on
 - d) remain unchanged in the near-term and rise later on
 - e) rise steeply
3. Using the Gordon growth model, a stock's price will increase if
 - a) dividends are reduced.
 - b) the growth rate of dividends falls.
 - c) the required rate of return rises.
 - d) the expected sales price rises.
 - e) the dividend growth rate increases.

4. This Figure illustrates the effect of an increased rate of money supply growth.



From the figure, one can conclude that the

- a) liquidity effect is smaller than the expected inflation effect and interest rates adjust quickly to changes in expected inflation.
- b) liquidity effect is larger than the expected inflation effect and interest rates adjust quickly to changes in expected inflation.
- c) liquidity effect is larger than the expected inflation effect and interest rates adjust slowly to changes in expected inflation.
- d) liquidity effect is smaller than the expected inflation effect and interest rates adjust slowly to changes in expected inflation.
- e) none of the above.

5. The current yield on a \$10,000, 10 percent coupon bond selling for \$9,000 is approximately

- a) 9 percent.
- b) 10 percent.
- c) 11 percent.
- d) 12 percent.
- e) None of the above.

6. Increasing transactions costs of selling an asset make the asset

- a) more valuable.
- b) more liquid.
- c) less liquid.
- d) more moneylike.
- e) more fungible.

7. Holding the expected return on bonds constant, a decrease in the expected return on stocks would _____ the demand for bonds, shifting the demand curve to the _____.

- a) decrease; left
- b) decrease; right
- c) increase; left
- d) increase; right
- e) cannot be inferred with the given information.

8. Suppose you are holding a 5 percent coupon bond maturing in one year with a yield to maturity of 15 percent. If the interest rate on one-year bonds rises from 15 percent to 20 percent over the course of the year, what is the yearly return on the bond you are holding?

- a) 5 percent
- b) 10 percent
- c) 15 percent
- d) 20 percent
- e) None of the above

PART II: Derivation/Short Answer [23 minutes total] SHOW YOUR WORK!!

1. Suppose one is examining the price of a stock. Using this expression:

$$P_t = \frac{D_{t+1}}{1+k_e} + \frac{E_t P_{t+1}}{1+k_e} \quad (1)$$

1.a (5 minutes) Show what the Generalized Dividend Pricing Model expression for the stock price is. You *must* show your work.

1.b (3 minutes) If one received information that changed one's expectations of the dividends in period t+4, would that have an impact on today's price of the stock? Explain your answer, using equations if helpful.

2. Suppose one is examining the term structure of a 2 year discount bond.

$$i_{2t} = \frac{(i_t + i_{t+1}^e)}{2} + \ell_{2t} \quad (2)$$

And yesterday,

$$i_t = .05$$

$$i_{t+1}^e = .09$$

$$\ell_{2t} = .05$$

2.a (3 minutes) Calculate i_{2t} as of yesterday. Show your work!

2.b (5 minutes) Draw the yield curve as of yesterday, labeling carefully each axis, and each observation.

2.c (7 minutes) Suppose *today* the liquidity premium decreases by .02, i_{2t} decreases by .01, while the current short term rate stays constant. Can you determine what has happened to the expected short term interest rate for period t+1? If so, calculate the change, showing your work.

III. Short Answer [15 minutes]

1. (3 minutes) Using the liquidity preference graph, show what happens to the short term interest rate when the money supply is decreased. Be sure to label your curves and axes.
2. (3 minutes) Explain why the curve(s) shift(s) in the direction it(they) does(do), and why.
3. (4 minutes) Now re-answer part III.1 if income falls at the same time as the money supply is decreased.
4. (5 minutes) Explain why the curve(s) shift(s) in the direction it(they) does(do), and why.

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