Econ 340: Money, Banking and Financial Markets
Midterm Exam, Spring 2009

1. On September 18, 2007 the U.S. Federal Reserve Board began cutting its fed funds rate (short term interest rate) target. This policy move has brought the fed funds rate from 5.25% to 0.25%, in an attempt to stimulate consumer and business spending, reduce interest rate resets on mortgages and shore up the economy.

   (a) *(10 points)* Write down an equation representing interest parity, and provide an intuitive explanation for the equation. That is, explain how market forces ensure that interest parity holds.

   (b) *(20 ponts)* Use your interest parity model to explain the impact of the Fed's policy move on the value of the dollar. Provide both a graphical and intuitive explanation of your results.

2. If lawmakers ultimately pass President Obama's first budget, U.S. federal deficits will rise significantly over the next several years. When the Federal Government runs a budget deficit, it must sell Treasury bonds to finance that deficit. To analyze the impact of increased government spending, assume the Treasury will be selling nearly $400, $800, and $1,200 billion in new *1-year Treasury bills* in 2010-2012.

   (a) *(15 points)* Use a supply and demand for bonds model to determine what is likely to happen to interest rates on 1-year bills. (Explain your graph)

   (b) *(15 points)* Write down and explain an equation representing the liquidity premium model of the term-structure of interest rates. Given your answer to 2. (a) and the actions of the Federal Reserve described in question 1., use your model to predict the shape of the yield curve.

Multiple Choice *2 points each*

Circle the correct answer, do not transfer answers to blue book

1. Determine which of the following scenarios is true: (1) Historically in the U.S. interest rates on three-month Treasury bills on average are higher than interest rates on Treasury bonds. (2) Historically in the U.S. interest rates on Treasury bonds on average are lower than interest rates on corporate Baa bonds.

   (a) (1) is true, (2) is false.

   (b) Both are true.

   (c) (1) is false, (2) is true.

   (d) Both are false.

2. The present value of \$200 received in 3 years with interest rate i is:

   (a) $\$200/(1+i)$

   (b) $\$200^3 * (1+i)$

   (c) $\$200/(1+i)^3$

   (d) $\$200 * (1+i)^3$

3. If a bond sells at a premium, where price exceeds face value, then we would expect to see:

   (a) market interest rates could be the same, higher, or lower than the coupon rate.

   (b) market interest rates below the coupon rate.

   (c) market interest rates above the coupon rate.

   (d) market interest rate the same as the coupon rate.

4. The real interest rate is:

   (a) the product of the nominal rate and the CPI.

   (b) the nominal rate plus the expected inflation rate.

   (c) the nominal interest rate/the CPI.

   (d) the nominal rate minus the expected inflation rate.

5. An decrease in the expected inflation rate will:
   (a) increase the demand for bonds, increase the supply of bonds and increase the interest rate.
   (b) decrease bond demand, increase the supply of bonds and increase the interest rate.
   (c) increase bond demand, decrease the supply of bonds and increase the interest rate.
   (d) decrease bond demand, decrease the supply of bonds and increase the interest rate.

6. Which of the following will cause a countrys currency to appreciate?
   (a) A relative decrease in the productivity of a country.
   (b) A rise in a countrys relative price level.
   (c) Increasing tariffs.
   (d) A decrease in the demand for a countrys exports.

7. If a bond sells at a discount, where price is less than face value, then we would expect to see:
   (a) market interest rates could be the same, higher, or lower than the coupon rate.
   (b) market interest rates below the coupon rate.
   (c) market interest rates above the coupon rate.
   (d) market interest rate the same as the coupon rate.

8. Commercial banks face the moral hazard problem because
   (a) borrowers who are high risk will most aggressively seek to borrow funds.
   (b) borrowers who face income shortfalls may repay their loans early.
   (c) borrowers may take on more risk after getting a loan.
   (d) borrowers may turn to financial markets to get funds for high-risk projects.

9. According to the expectations theory of the term structure, if the interest rate on a one year bond is 1% and the interest rate on a two year bond is 2%, then:

   (a) the market expects the interest rate on a one year bond in one year to be 1/2%.
   (b) the market expects the interest rate on a two year bond in one year to be 1%.
   (c) the market expects the interest rate on a two year bond in one year to be 2%.
   (d) the market expects the interest rate on a one year bond in one year to be 3%.

10. Determine whether the below statements are true or false. I. Bond prices are inversely related to interest rates. II. The smaller a bond's duration, the greater its interest-rate risk.

   (a) Both are true.
   (b) I is true, II false.
   (c) I is false, II true.
   (d) Both are false.

11. The real interest rate is:

   (a) the nominal rate minus the expected inflation rate.
   (b) the product of the nominal rate and the CPI.
   (c) the nominal rate plus the expected inflation rate.
   (d) the nominal interest rate/the CPI.

12. The liquidity premium theory is based upon the idea that, other things remaining equal,

   (a) investors are indifferent between short-term and long-term bonds.
   (b) investors prefer intermediate-term bonds.
   (c) investors prefer short-term bonds.
   (d) investors prefer long-term bonds.

13. According to the law of one price, if the UK price level rises by 5%, and the U.S. price level falls by 5%, then:

    (a) the dollar will depreciate by 5%.
    (b) the dollar will depreciate by 10%.
    (c) the dollar will appreciate by 10%.
    (d) the dollar will appreciate by 5%.

14. The Fisher effect is the _______ relationship between _______ and _______.

    (a) direct; expected inflation; interest rates
    (b) inverse; expected inflation; interest rates
    (c) direct; interest rates; bond prices
    (d) inverse; interest rates; bond prices

15. An increase in default risk on corporate bonds _______ the demand for these bonds and _______ the demand for default-free bonds.

    (a) moderately lowers; does not change
    (b) lowers; increases
    (c) increases; lowers
    (d) does not change; greatly increases

16. Which of the following are true concerning the distinction between interest rates and return?

    (a) The rate of return on a bond will be equal to the interest rate on that bond.
    (b) The return can be expressed as the sum of the current yield and the rate of capital gains.
    (c) The rate of return will be greater than the interest rate when the price of the bond falls between time t and time t+1.
    (d) All of the above are true.
    (e) Only (a) and (b) of the above are true.

17. Treasury inflation-indexed bonds reduce investors' inflation risk by increasing the bond's _______ when the consumer price index rises.

    (a) term to maturity
    (b) interest rate
    (c) principal
    (d) none of the above

18. Which of the following will increase the demand for an asset?

    (a) The asset's risk increases relative to other assets.
    (b) Wealth decreases.
    (c) The asset's expected return falls relative to other assets.
    (d) The asset's liquidity rises relative to other assets.
    (e) none of the above.

19. Commercial paper is issued by

    (a) money market mutual funds.
    (b) small businesses.
    (c) commercial banks.
    (d) corporations.

20. Suppose the interest rate on a taxable corporate bond is 6% and the marginal tax rate is 25%. What is the equivalent tax-free interest rate on this bond?

    (a) 2.5%
    (b) 6.25%
    (c) 4.5%
    (d) 25%
    (e) none of the above.

Econ 340: Financial Markets & Institutions
Midterm Exam March 5, 2007

Essay (35 minutes): ***60 points***

1. In 2005 and 2006, the U.S. inflation rate averaged 3.3%, a rate or inflation not seen since the early 1990s. Yet over the past few months, there have been signs that inflationary pressures may be easing. Suppose that bond traders now expect inflation to fall to 2.5% in 2007 and to fall further to 2% in both 2008 and 2009.

   (a) *(30 points)* Using the theory of asset demand, explain the impact of a decline in expected inflation on the demand for commercial paper. What effect would a decline in expected inflation have on the supply of commercial paper? Using a graph of the supply and demand for commerical paper, illustrate and fully explain the effect on commercial paper yields if bond traders expect a decline in the inflation rate in 2007.

   (b) *(30 points)* Given your answer above, what do you expect to happen to the yields on treasury bills? Why? Write down an equation that represents the *liquidity premium theory* of the term-structure of interest rates. Given that bond traders expect inflation will fall even further in 2008-09, draw and explain the shape of today's yield curve (for 1 - 3 year notes).

Multiple Choice (20 minutes): ***40 points: 2 points each***

1. The interest rate on municipal bonds falls relative to the interest rate on Treasury securities when

   (a) corporate bonds become less risky.

   (b) income tax rates increase.

   (c) there is a major default in the municipal bond market.

   (d) municipal bonds become less widely traded.

   (e) none of the above occur.

2. Which of the following involves indirect finance?

   (a) You make a deposit in a bank account.

   (b) You make a loan to your neighbor.

   (c) A corporation buys shares of common stock issued by another corporation.

   (d) You buy a U.S. Treasury bill from the U.S. Treasury.

3. A bond that is bought at a price below its face value and the face value is repaid at a maturity date is called a

   (a) coupon bond.

   (b) discount bond.

   (c) simple loan.

   (d) fixed-payment loan.

turn the page . . .

4. Adverse selection is a problem associated with equity and debt contracts arising from
   (a) the lenders relative lack of information about the borrowers potential returns and risks of his investment activities.
   (b) the lenders ability to legally require sufficient collateral to cover a 100 percent loss if the borrower defaults.
   (c) the borrowers lack of incentive to seek a loan for highly risky investments.
   (d) none of the above.
5. Which of the following are true concerning the distinction between interest rates and return?
   (a) The rate of return on a bond will necessarily equal the interest rate on that bond.
   (b) The return can be expressed as the sum of the current yield and the rate of capital gains.
   (c) The rate of return will be greater than the interest rate when the price of the bond falls between time t and t+1.
   (d) none of the above.
   (e) Both (a) and (b).
6. Which of the following $1,000 face value securities has the highest yield to maturity?
   (a) A 5 percent coupon bond selling for $1,000
   (b) A 10 percent coupon bond selling for $1,000
   (c) A 15 percent coupon bond selling for $1,100
   (d) A 15 percent coupon bond selling for $900
7. With an interest rate of 4 percent, the present value of a security that makes two payments, one for $1,100 next year and another for $1,460 four years from now is approximately
   (a) $1,200.
   (b) $2,300.
   (c) $3,000.
   (d) $1,900.
8. Determine whether the below statements are true or false. I. Prices and returns for short-term bonds are less volatile than those for long-term bonds. II. The prices of longer-maturity bonds respond more dramatically to changes in interest rates.
   (a) I is true, II false.
   (b) Both are false.
   (c) Both are true.
   (d) I is false, II true.
9. A bond investor faces reinvestment risk if his or her holding period is
   (a) shorter than the maturity of the bond.
   (b) identical to the maturity of the bond.
   (c) longer than the maturity of the bond.
   (d) none of the above.

turn the page . . .

10. If the interest rate on euro-denominated deposits is 11 percent and it is 8 percent on dollar deposits, and if the euro is expected to depreciate at a 4 percent rate, for Francois the Foreigner the expected rate of return on dollar deposits is

   (a) 8%.
   (b) 11%.
   (c) 20%.
   (d) 16%.
   (e) 12%

11. If the inflation rate in the United States is higher than that in Europe, then, in the long run,

   (a) the euro should appreciate relative to the dollar.
   (b) the euro should depreciate relative to the dollar.
   (c) the dollar should depreciate relative to the euro.
   (d) both (a) and (c) will occur.
   (e) it is not clear whether the dollar should appreciate or depreciate relative to the euro

12. The theory of purchasing power parity cannot fully explain exchange rate movements because

   (a) not all goods are identical in different countries.
   (b) monetary policy differs across countries.
   (c) some goods are not traded between countries.
   (d) of both (A) and (C) of the above.
   (e) of both (B) and (C) of the above.

13. Government budget deficits shift the bond _______ curve to the _______.

   (a) supply; left
   (b) demand; left
   (c) supply; right
   (d) demand; right

14. An increase in default risk on corporate bonds _______ the demand for these bonds and _______ the demand for default-free bonds.

   (a) moderately lowers; does not change
   (b) lowers; increases
   (c) increases; lowers
   (d) does not change; greatly increases

turn the page . . .

15. If you expect the inflation rate to be 2 percent over the next year and a one-year bond has a yield to maturity of 5 percent, then the real interest rate on this bond is
    (a) 7 percent.
    (b) -7 percent.
    (c) 3 percent.
    (d) -3 percent.
16. Money market instruments
    (a) are usually sold in large denominations.
    (b) have low default risk.
    (c) mature in one year or less.
    (d) are characterized by all of the above.
    (e) are characterized by only (A) and (B) of the above.
17. A decrease in the domestic interest rate shifts the expected return schedule for _______ deposits to the _______ and causes the domestic currency to _______.
    (a) foreign; right; appreciate
    (b) domestic; left; depreciate
    (c) foreign; left; depreciate
    (d) domestic; right; appreciate
18. According to the interest parity condition, the domestic interest rate is equal to the foreign interest rate
    (a) plus the expected appreciation of the domestic currency.
    (b) minus the expected appreciation of the domestic currency.
    (c) less the expected depreciation of the domestic currency weighted by the domestic interest rate.
    (d) minus the expected depreciation of the domestic currency.
19. Which of the following is not a characteristic of Treasury bills?
    (a) They have low interest-rate risk.
    (b) The interest they pay is based on a coupon rate announced weekly by the Treasury.
    (c) The market for them is deep and liquid.
    (d) They have zero default risk.
20. Suppose the interest rate on a taxable corporate bond is 8% and the marginal tax rate is 30%. What is the equivalent tax-free interest rate on this bond?
    (a) 12.0%
    (b) 7.5%
    (c) 2.5%
    (d) 5.6%

Econ 340: Financial Markets & Institutions
Midterm Exam   October 17, 2006

Essay (50 minutes): ***50 points***

1. In late 2005 and through the first half of 2006, the U.S. inflation rate averaged betwen 3.5 and 4.5%, rates not seen since the early 1990s. Yet over the past few months, there have been signs that inflationary pressures may be easing. Suppose that bond traders now expect inflation to fall below 4% in 2007 and to fall further to 3% in 2008.

   (a) *(20 points)* Using the theory of asset demand, explain the impact of a decline in expected inflation on the demand for commercial paper. What effect would a decline in expected inflation have on the supply of commercial paper? Using a graph of the supply and demand for commerical paper, illustrate and fully explain the effect on commercial paper yields if bond traders expect a decline in the inflation rate in 2007.

   (b) *(30 points)* Given your answer above, what do you expect to happen to the yields on treasury bills? Why? Write down an equation that represents the *liquidity premium theory* of the term-structure of interest rates. Explain the intuition behind your model. Given that bond traders expect inflation will fall even further in 2008, draw and explain the shape of today's yield curve (for 3mth - 2 year notes).

Multiple Choice (20 minutes): ***50 points: 2 points each***

1. Determine which of the following scenarios is true:
   I. Historically in the U.S. interest rates on three-month Treasury bills on average are higher than interest rates on Treasury bonds.

   II. Historically in the U.S. interest rates on Treasury bonds on average are lower than interest rates on corporate Baa bonds.

   (a) (I.) is true, (II.) is false.
   (b) Both are true.
   (c) (I.) is false, (II.) is true.
   (d) Both are false.

2. Which of the following involves indirect finance?

   (a) You make a deposit in a bank account.
   (b) You make a loan to your neighbor.
   (c) A corporation buys shares of common stock issued by another corporation.
   (d) You buy a U.S. Treasury bill from the U.S. Treasury.

3. Commercial banks face the moral hazard problem because

   (a) borrowers who are high risk will most aggressively seek to borrow funds.
   (b) borrowers who face income shortfalls may default on loans.
   (c) borrowers may turn to financial markets to get funds for high-risk projects.
   (d) borrowers may take on more risk after getting a loan.

turn the page . . .

4. Which of the following is no longer used to ensure the soundness of financial intermediaries?
   (a) restrictions on interest rates
   (b) restrictions on assets and activities
   (c) restrictions on entry
   (d) deposit insurance

5. A bond that is bought at a price below its face value and the face value is repaid at a maturity date is called a
   (a) coupon bond.
   (b) discount bond.
   (c) simple loan.
   (d) fixed-payment loan.

6. Adverse selection is a problem associated with equity and debt contracts arising from
   (a) the lenders relative lack of information about the borrowers potential returns and risks of his investment activities.
   (b) the lenders ability to legally require sufficient collateral to cover a 100 percent loss if the borrower defaults.
   (c) the borrowers lack of incentive to seek a loan for highly risky investments.
   (d) none of the above.

7. The interest rate on municipal bonds falls relative to the interest rate on Treasury securities when
   (a) corporate bonds become riskier.
   (b) income tax rates are raised.
   (c) there is a major default in the municipal bond market.
   (d) municipal bonds become less widely traded.
   (e) none of the above occur.

8. Which of the following are true concerning the distinction between interest rates and return?
   (a) The rate of return on a bond will necessarily equal the interest rate on that bond.
   (b) The return can be expressed as the sum of the current yield and the rate of capital gains.
   (c) The rate of return will be greater than the interest rate when the price of the bond falls between time t and t+1.
   (d) none of the above.
   (e) Both (a) and (b).

turn the page ...

9. Which of the following \$1,000 face value securities has the highest yield to maturity?
   (a) A 5 percent coupon bond selling for \$1,000
   (b) A 10 percent coupon bond selling for \$1,000
   (c) A 15 percent coupon bond selling for \$1,100
   (d) A 15 percent coupon bond selling for \$900

10. With an interest rate of 6 percent, the present value of a security that pays \$1,100 next year and \$1,460 four years from now is approximately
    (a) \$1,200.
    (b) \$2,960.
    (c) \$3,000.
    (d) \$2,200.

11. Determine whether the below statements are true or false. I. Prices and returns for short-term bonds are less volatile than those for long-term bonds. II. The prices of longer-maturity bonds respond more dramatically to changes in interest rates.
    (a) I is true, II false.
    (b) Both are false.
    (c) Both are true.
    (d) I is false, II true.

12. A bond investor faces reinvestment risk if his or her holding period is
    (a) shorter than the maturity of the bond.
    (b) identical to the maturity of the bond.
    (c) longer than the maturity of the bond.
    (d) none of the above.

13. Stock A has an expected return of 15% with a standard deviation of returns of 10%. Stock B has an expected return of 15% with a standard deviation of returns of 5%. Most investors are _______, which means they would prefer to invest in _______.
    (a) risk averse; Stock B
    (b) risk averse; Stock A
    (c) risk lovers; Stock A
    (d) risk lovers; Stock B

14. If the interest rate on euro-denominated deposits is 13 percent and it is 15 percent on dollar deposits, and if the euro is expected to appreciate at a 4 percent rate, for Francois the Foreigner the expected rate of return on dollar deposits is
    (a) 9%.
    (b) 11%.
    (c) 17%.
    (d) 19%.
    (e) 15%

turn the page . . .

15. According to the market segmentation theory of the term structure,

    (a) the interest rate for bonds of one maturity is determined by supply and demand for bonds of that maturity.
    (b) bonds of one maturity are not substitutes for bonds of other maturities; therefore, interest rates on bonds of different maturities do not move together over time.
    (c) investors strong preference for short-term relative to long-term bonds explains why yield curves typically slope downward.
    (d) only (A) and (B) of the above.

16. The theory of purchasing power parity cannot fully explain exchange rate movements because

    (a) not all goods are identical in different countries.
    (b) monetary policy differs across countries.
    (c) some goods are not traded between countries.
    (d) of both (A) and (C) of the above.
    (e) of both (B) and (C) of the above.

17. During a business cycle expansion, the supply of bonds shifts to the _______ as businesses perceive more profitable investment opportunities, while the demand for bonds shifts to the _______ as a result of the increase in wealth generated by the economic expansion.

    (a) left; left
    (b) right; left
    (c) left; right
    (d) right; right

18. Government budget deficits shift the bond _______ curve to the _______.

    (a) supply; left
    (b) demand; left
    (c) supply; right
    (d) demand; right

19. An increase in default risk on corporate bonds _______ the demand for these bonds and _______ the demand for default-free bonds.

    (a) moderately lowers; does not change
    (b) lowers; increases
    (c) increases; lowers
    (d) does not change; greatly increases

turn the page . . .

20. When the price of a bond is _______ the equilibrium price, there is an excess demand of bonds and the price will _______

    (a) above; rise.
    (b) above; fall.
    (c) below; fall.
    (d) below; rise.

21. Money market instruments

    (a) are usually sold in large denominations.
    (b) have low default risk.
    (c) mature in one year or less.
    (d) are characterized by all of the above.
    (e) are characterized by only (A) and (B) of the above.

22. A decrease in the domestic interest rate shifts the expected return schedule for _______ deposits to the _______ and causes the domestic currency to _______.

    (a) foreign; right; appreciate
    (b) domestic; left; depreciate
    (c) foreign; left; depreciate
    (d) domestic; right; appreciate

23. The theory of PPP suggests that if one country's price level falls relative to another's, its currency should

    (a) float.
    (b) depreciate.
    (c) appreciate.
    (d) do none of the above.

24. According to the interest parity condition, the domestic interest rate is equal to the foreign interest rate

    (a) plus the expected appreciation of the domestic currency.
    (b) minus the expected appreciation of the domestic currency.
    (c) less the expected depreciation of the domestic currency weighted by the domestic interest rate.
    (d) minus the expected depreciation of the domestic currency.

25. Treasury inflation-indexed bonds reduce investors' inflation risk by increasing the bond's _______ when the consumer price index rises.

    (a) term to maturity
    (b) interest rate
    (c) principal
    (d) none of the above

Econ 340: Financial Markets & Institutions
Midterm Exam   March 3, 2006

Essay (30 minutes): ***40 points***

1. In 2004 the U.S. central bank began raising its target for the fed funds rate in an effort to push up interest rates and reduce inflationary pressures. The expectation that inflation would be increasing over the next serveral years proved to be accurate.

   (a) *(20 points)* If the Federal Reserve conducts monetary policy by buying and selling U.S. t-bills, using a supply and demand for t-bills model, illustrate and **explain** the role of tight monetary policy on treasury bill yields in 2004, 2005 and 2006. (assume the the Fed continues to tighten monetary policy each year in the face of rising inflationary expectations).

   (b) *(20 points)* Write down an equation representing the short run equilibrium in foreign currency markets. **explain** the intuition behind your model. Given your answer to part (a), and assuming everything else remains unchanged. Illustrate and explain the impact of an increase in expected inflation on the spot exchange rate.

Multiple Choice (20 minutes): ***2 points each***

1. Adverse selection is a problem associated with equity and debt contracts arising from

   (a) the lenders relative lack of information about the borrowers potential returns and risks of his investment activities.

   (b) the lenders ability to legally require sufficient collateral to cover a 100 percent loss if the borrower defaults.

   (c) the borrowers lack of incentive to seek a loan for highly risky investments.

   (d) none of the above.

2. When Americans or foreigners expect the return on dollar deposits to be high relative to the return on foreign deposits, there is a _______ demand for dollar deposits and a correspondingly _______ demand for foreign deposits.

   (a) higher; higher

   (b) higher; lower

   (c) lower; higher

   (d) lower; lower

3. A bond denominated in Japanese yen and sold in the United States is known as a

   (a) foreign bond.
   (b) eurobond.
   (c) yenbond.
   (d) international bond.

4. During business cycle expansions when income and wealth are rising, the demand for bonds _______ and the demand curve shifts to the _______

   (a) falls; right.
   (b) falls; left.
   (c) rises; right.
   (d) rises; left.

5. An increase in the expected rate of inflation will _______ the expected return on bonds relative to that on _______ assets, and shift the _______ curve to the left.

   (a) reduce; financial; demand
   (b) reduce; real; demand
   (c) raise; financial; supply
   (d) raise; real; supply

6. Financial markets improve economic welfare because

   (a) they allow funds to move from those without productive investment opportunities to those who have such opportunities.
   (b) they allow consumers to time their purchases better.
   (c) they weed out inefficient firms.
   (d) they do all of the above.
   (e) they do (A) and (B) of the above.

7. When bonds become less widely traded, and as a consequence the market becomes less liquid, the demand curve for bonds shifts to the _______ and the interest rate _______

   (a) right; rises.
   (b) right; falls.
   (c) left; falls.
   (d) left; rises.

8. The theory of purchasing power parity cannot fully explain exchange rate movements because

   (a) not all goods are identical in different countries.
   (b) monetary policy differs across countries.
   (c) some goods are not traded between countries.
   (d) of both (A) and (C) of the above.
   (e) of both (B) and (C) of the above.

9. Which of the following are generally true of all bonds?

   (a) The longer a bonds maturity, the lower is the rate of return that occurs as a result of the increase in an interest rate.
   (b) Even though a bond has a substantial initial interest rate, its return can turn out to be negative if interest rates rise.
   (c) Prices and returns for long-term bonds are more volatile than those for shorter-term bonds.
   (d) All of the above are true.
   (e) Only (A) and (B) of the above are true.

10. Financial intermediaries can substantially reduce transaction costs per dollar of transactions because their large size allows them to take advantage of

    (a) poorly informed consumers.
    (b) standardization.
    (c) economies of scale.
    (d) their market power.

11. With an interest rate of 10 percent, the present value of a security that pays $1,100 next year and $1,460 four years from now is approximately

    (a) $1,000.
    (b) $2,560.
    (c) $3,000.
    (d) $2,000.

12. Financial markets have the basic function of

    (a) bringing together people with funds to lend and people who want to borrow funds.
    (b) assuring that the swings in the business cycle are less pronounced.

(c) assuring that governments need never resort to printing money.
(d) both (A) and (B) of the above.
(e) both (B) and (C) of the above.

13. According to the market segmentation theory of the term structure,

    (a) the interest rate for bonds of one maturity is determined by supply and demand for bonds of that maturity.
    (b) bonds of one maturity are not substitutes for bonds of other maturities; therefore, interest rates on bonds of different maturities do not move together over time.
    (c) investors strong preference for short-term relative to long-term bonds explains why yield curves typically slope downward.
    (d) only (A) and (B) of the above.

14. The interest rate that equates the present value of payments received from a debt instrument with its market price today is the

    (a) simple interest rate.
    (b) discount rate.
    (c) yield to maturity.
    (d) real interest rate.

15. If the expected path of one-year interest rates over the next five years is 1 percent, 2 percent, 3 percent, 4 percent, and 5 percent, the pure expectations theory predicts that the bond with the highest interest rate today is the one with a maturity of

    (a) one year.
    (b) two years.
    (c) three years.
    (d) four years.
    (e) five years.

16. Federal funds

    (a) are short-term funds transferred between financial institutions, usually for a period of one day.
    (b) actually have nothing to do with the federal government.
    (c) provide banks with an immediate infusion of reserves should they be short.
    (d) are all of the above.
    (e) are only (A) and (B) of the above.

17. Which of the following \$1,000 face value securities has the highest yield to maturity?

    (a) A 5 percent coupon bond selling for \$1,000
    (b) A 10 percent coupon bond selling for \$1,000
    (c) A 15 percent coupon bond selling for \$1,000
    (d) A 15 percent coupon bond selling for \$900

18. (I) If a corporation suffers big losses, the demand for its bonds will rise because of the higher interest rates the firm must pay. (II) The spread between the interest rates on bonds with default risk and default-free bonds is called the risk premium.

    (a) (I) is true, (II) false.
    (b) (I) is false, (II) true.
    (c) Both are true.
    (d) Both are false.

19. Successful financial intermediaries have higher earnings on their investments because they are better equipped than individuals to screen out good from bad risks, thereby reducing losses due to

    (a) moral hazard.
    (b) adverse selection.
    (c) bad luck.
    (d) financial panics.

20. The yield to maturity for a one-year discount bond equals

    (a) the increase in price over the year, divided by the initial price.
    (b) the increase in price over the year, divided by the face value.
    (c) the increase in price over the year, divided by the interest rate.
    (d) none of the above.

21. Money market mutual funds

    (a) are funds that aggregate money from a group of small investors and invest it in money market instruments.
    (b) have grown enormously popular since their inception in the early 1970s.
    (c) received a flood of funds in the early 1980s as depositors withdrew their funds from banks which were restricted from paying more than 5.25percent in interest on savings accounts.
    (d) all of the above.
    (e) only (A) and (B) of the above.

22. Bonds that are sold in a foreign country and are denominated in a currency other than that of the country in which they are sold are known as

    (a) foreign bonds.
    (b) Eurobonds.
    (c) Eurocurrencies.
    (d) Eurodollars.

23. When yield curves are steeply upward-sloping,

    (a) long-term interest rates are above short-term interest rates.
    (b) short-term interest rates are above long-term interest rates.
    (c) short-term interest rates are about the same as long-term interest rates.
    (d) medium-term interest rates are above both short-term and long-term interest rates.
    (e) medium-term interest rates are below both short-term and long-term interest rates.

24. The theory of purchasing power parity states that exchange rates between any two currencies will adjust to reflect changes in

    (a) the trade balances of the two countries.
    (b) the current account balances of the two countries.
    (c) fiscal policies of the two countries.
    (d) the price levels of the two countries.

25. When the exchange rate for the euro changes from $0.80 to $1.00 then, holding everything else constant,

    (a) the euro has appreciated and German cars sold in the United States become more expensive.
    (b) the euro has appreciated and German cars sold in the United States become less expensive.
    (c) the euro has depreciated and American wheat sold in Germany becomes more expensive.
    (d) the euro has depreciated and American wheat sold in Germany becomes less expensive.

26. Which of the following are true concerning the distinction between interest rates and return?

    (a) The rate of return on a bond will not necessarily equal the interest rate on that bond.
    (b) The return can be expressed as the sum of the current yield and the rate of capital gains.

27. When inflation rose in the late 1970s,

    (a) consumers moved money out of money market mutual funds because their returns did not keep pace with inflation.
    (b) banks solidified their advantage over money markets by offering higher deposit rates.

(c) brokerage houses introduced highly popular money market mutual funds drawing significant amounts of money out of bank deposits.

(d) consumers were unable to take advantage of higher rates in money markets because of the requirement of large transaction sizes.

28. Suppose that you purchase a 91-day Treasury bill for $9,850 that is worth $10,000 when it matures. The securitys annualized yield if held to maturity is about

    (a) 4.5 percent.
    (b) 5 percent.
    (c) 6 percent.
    (d) 7 percent.

29. If the interest rate on dollar deposits is 10 percent, and the dollar is expected to appreciate by 7 percent over the coming year, the expected return on dollar deposits in terms of the foreign currency is

    (a) 3 percent.
    (b) 10 percent.
    (c) 13.5 percent.
    (d) 17 percent.
    (e) 24 percent.

30. Government budget surpluses shift the bond _______ curve to the _______.

    (a) supply; left
    (b) demand; left
    (c) supply; right
    (d) demand; right

Econ 340: Financial Markets & Institutions
Midterm Exam Oct. 11, 2005

Essay (35 minutes): ***40 points***

Nine out of ten of the U.S. recessions since World War II were preceded by a spike in oil prices. At the same time, oil price spikes tend to cause temporary short term jumps in inflation.

At the end of September, a barrel of light crude sold for almost $70 compared to a price near $30 a barrel in January of 2004. To answer the following questions, assume that bond traders expect inflation to rise from 3 percent in 2005 (history) to 5 percent in <u>both</u> 2006 and 2007 (expected inflation). Also, traders expect the U.S. economy to enter a recession in 2007. Assume that prior to the recent run up in oil prices, bond traders had expected inflation to remain stable in 2006-2007 at 3 percent.

a) *(10 points)* Using a model of the supply and demand for 1 year t-bills, illustrate and **explain** the impact of an increase in expected inflation. Explain what your results imply for changes in the yield on 1 year t-bills in 2006 and 2007.

b) *(10 points)* Using a model of the supply and demand for 1 year t-bills, illustrate and **explain** the impact of a recession (a business cycle contraction). If bond traders expect that this recession will occur in 2007, what do they expect to happen to yields on one-year t-bills in 2007.

c) *(20 points)* Write down an equation representing the liquidity premium theory of the term structure of interest rates. Based on this theory, **explain** how the yields on short term and medium term government bonds are related. Based on your answer to parts (a-b) above, **draw** and **explain** a yield curve that represents the relationship between short and medium term bonds.

Multiple Choice (40 minutes): ***2 points each***

1. Determine which of the following scenarios is true:

   I. Historically in the U.S. interest rates on three-month Treasury bills on average are higher than interest rates on Treasury bonds.

   II. Historically in the U.S. interest rates on Treasury bonds on average are lower than

File translated from T_EX by TTH, version 3.38.
On 23 Feb 2006, 16:09.

Midterm Exam
March 13, 2003

Essay (40 minutes): ***55 points***

1. The Bush administration has proposed significant tax cuts and increases in government spending. As a result, the Congressional Budget Office predicts a significant increase in federal govt. budget deficits over the next three years.

    a. *(15 points)* Using a supply and demand for bonds model, illustrate and **explain** the impact these budget deficits are likely to have on treasury bills yields over the next three years (assume the deficit is financed using t-bills).

    b. *(20 points)* Write down an equation representing some theory of the term structure of interest rates. Based on this theory, explain the relationship between yields on short term and medium term government bonds. Illustrate this relationship using a yield curve and your answer to part (a) above.

    c. *(25 points)* Write down an equation representing the short run equilibrium in foreign currency markets. Explain the intuition behind your model. Given your answer to part (a), and assuming everything else remains unchanged. Illustrate and explain the impact of the federal govt. budget deficits on the spot exchange rate.

Multiple Choice (20 minutes): ***3 points each***

1. A bond denominated in Japanese yen and sold in the United States is known as a
    a. international bond.

    b. foreign bond.

    c. yenbond.

    d. eurobond.

2. Interest rates are determined in the market for
    a. assets.

    b. bonds and other forms of debt.

    c. foreign currencies.

    d. stocks.