Econ330 – Money and Banking

Summer 2006

Final exam

The exam consists of 45 multiple choice questions and 5 short-answer questions. Please answer ALL of them. There are also 2 extra credit questions. If you have the time, you can attempt them and earn bonus points.

The duration of the exam is 1 hr 20 mins. DO NOT OPEN the exams until you are told to do so and STOP writing when you are told that the exam is over. Failure to comply will result in a 10% loss in the grade.

Do not forget to write (and bubble) your name and university ID number on the scantron.

NO PROGRAMMABLE OR FINANCIAL CALCULATORS ARE ALLOWED. Only simple or scientific calculators can be used.

GOOD LUCK!

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) Bankers' concerns regarding the optimal mix of excess reserves, secondary reserves, borrowings from the Fed, and borrowings from other banks to deal with deposit outflows is an example of

A) liability management.
B) liquidity management.
C) managing interest rate risk.
D) none of the above.

2) The formula for the money supply that includes excess reserves and currency is

A) $M = (1 + c)/(r + e + c)$.
B) $D = (1/(r + e + c)) \times MB$.
C) $m = 1/(r + e + c)$.
D) $M = ((1 + c)/(r + e + c)) \times MB$.
E) $D = 1/(r + e + c)$.

3) A rise in the federal funds rate

A) lowers the opportunity cost of holding excess reserves.
B) increases the opportunity cost of holding excess reserves.
C) lowers the opportunity cost of holding total reserves.
D) increases the opportunity cost of holding required reserves.
E) lowers the opportunity cost of holding required reserves.

4) If the yield curve has a mild upward slope, the liquidity premium theory (assuming a mild preference for shorter-term bonds) indicates that the market is predicting

A) a rise in short-term interest rates in the near future and a decline further out in the future.
B) a decline in short-term interest rates in the near future and an even steeper decline further out in the future.
C) a decline in short-term interest rates in the near future and a rise further out in the future.
D) constant short-term interest rates in the near future and further out in the future.

5) Disadvantages of discount policy include

A) the confusion concerning the Fed's intentions about future monetary policy because of the uncertainty about what a change in the discount rate is intended to signal.
B) its powerful effect, when compared to open market operations, on reserves and the monetary base.
C) large fluctuations in the money multiplier from even small changes in the discount rate.
D) only A and C of the above.

6) If the banking system has excess reserves of \$75, and the required reserve ratio is 20%, the potential expansion of checkable deposits is

A) \$750.
B) \$75.
C) \$0.
D) \$37.50.
E) \$375.

7) If the required reserve ratio is one-third, currency in circulation is \$300 billion, and checkable deposits are \$900 billion, then the monetary base is

A) \$300 billion.
B) \$333 billion.
C) \$667 billion.
D) \$600 billion.

8) The spread between the interest rates on bonds with default risk and default-free bonds is called the

A) risk premium.
B) junk margin.
C) bond margin.
D) default premium.

9) Interest–rate risk is
   A) the riskiness of an asset's returns due to interest–rate changes.
   B) the riskiness of an asset's returns due to changes in the exchange rate.
   C) the riskiness of an asset's returns due to changes in the coupon rate.
   D) the riskiness of an asset's returns due to changes in the asset's maturity.
   E) the riskiness of an asset's returns due to default of the borrower.

10) Open market sales _____ reserves and the monetary base thereby _____ the money supply.
   A) raise; raising B) lower; raising C) raise; lowering D) lower; lowering

11) Bank loans from the Federal Reserve are called _____ and represent a _____ of funds.
   A) fed funds; source B) discount loans; use
   C) discount loans; source D) fed funds; use

12) The Federal Reserve System enjoys
   A) instrument independence.
   B) political dependence.
   C) goal independence.
   D) all of the above.
   E) both A and C of the above.

13) If a $10,000 face–value discount bond maturing in one year is selling for $5,000, then its yield to maturity is
   A) 100 percent. B) 5 percent. C) 50 percent. D) 10 percent.

14) The sum of deposits at Federal Reserve banks and currency in circulation is called
   A) near–cash. B) the money supply.
   C) Federal Reserve liabilities. D) the monetary base.

15) The free–rider problem occurs because
   A) people who pay for information use it freely.
   B) it is never profitable to produce information.
   C) people who pay for information do not pay the full cost of producing the information.
   D) people who do not pay for information use it.
   E) information can never be sold at any price.

16) The "lemons problem" exists because of
   A) asymmetric information.
   B) rational expectations.
   C) regulation.
   D) transactions costs.
   E) economies of scale.

17) If the required reserve ratio is equal to 10 percent, a single bank can increase its loans up to a maximum amount equal to

A) its excess reserves.
B) 10 percent of its excess reserves.
C) its total reserves.
D) 10 times its excess reserves.

18) If a bank has excess reserves of $7,000 and checking deposits of $100,000, and if the reserve requirement is 10 percent, then the bank has actual reserves of

A) $22,000.
B) $14,000.
C) $17,000.
D) $27,000.

19) The yield on discount basis of a 360-day Treasury bill selling for $975 is

A) 5 percent.
B) 15 percent.
C) 7.5 percent.
D) 10 percent.
E) 2.5 percent.

20) The relationship among interest rates on bonds with identical default risk, but of different maturities is called the

A) liquidity structure of interest rates.
B) yield curve.
C) time-risk structure of interest rates.
D) bond demand curve.

21) Factors that decrease the demand for bonds include

A) a decrease in the inflation rate.
B) an increase in the expected returns on stocks.
C) an increase in the volatility of stock prices.
D) all of the above.

22) Channeling funds from individuals with surplus funds to those desiring funds when the saver does not purchase the borrower's security is known as

A) barter.
B) theft.
C) taxation.
D) financial intermediation.
E) redistribution.

23) When $1 million is deposited at a bank, the required reserve ratio is 20 percent, and the bank chooses not to hold any excess reserves but makes loans instead, then, in the bank's final balance sheet,

A) reserves increase by $200,000.
B) the assets at the bank increase by $200,000.
C) the liabilities of the bank increase by $200,000.
D) each of the above occurs.
E) both A and B of the above occur.

24) The money supply is _____ related to excess reserves ratio, and is _____ related to the currency ratio.

A) positively; negatively
B) negatively; positively
C) negatively; negatively
D) positively; positively

25) Regular bank examinations and restrictions on asset holdings help to *indirectly* reduce the _____ problem because, given fewer opportunities to take on risk, risk-prone entrepreneurs will be discouraged from entering the banking industry.

A) ex post shirking
B) adverse selection
C) moral hazard
D) post-contractual opportunism.

26) When real income _____, the demand curve for money shifts to the _____ and the interest rate _____.

A) falls; left; falls

B) falls; right; falls

C) rises; right; falls

D) rises; left; rises

E) falls; left; rises

27) Which of the following is an argument in support of a regulated minimum capital requirement?

A) Banks that hold too little capital impose costs on other banks because they are more likely to fail.

B) Banks that hold too little capital are too profitable.

C) Banks that hold too little capital have an unfair competitive advantage over savings and loans.

D) All of the above.

28) In the market for reserves, an open market sale shifts the supply curve to the

A) left and causes the federal funds interest rate to rise.

B) left and causes the federal funds interest rate to fall.

C) right and causes the federal funds interest rate to rise.

D) right and causes the federal funds interest rate to fall.

29) During an economic expansion, the supply of bonds _____ and the supply curve shifts to the _____.

A) increases; left B) increases; right C) decreases; left D) decreases; right

30) Factors that influence interest rates on bonds include

A) term to maturity.

B) risk.

C) liquidity.

D) tax considerations.

E) all of the above.

31) The result of the too-big-to-fail policy is that big banks will take on _____ risks, making bank failures _____ likely.

A) fewer; less B) greater; less C) fewer; more D) greater; more

32) Which of the following are primary markets?

A) The market for U.S. government bonds

B) The over-the-counter stock market

C) The markets for financial derivatives

D) The New York Stock Exchange

E) None of the above

33) Critics of nationwide banking fear

A) an elimination of community banks.

B) reduced lending to small, local businesses.

C) increased power of the Fed over the banking sector.

D) all of the above.

E) both A and B of the above.

34) The current yield on a $10,000, 10 percent coupon bond selling for $9,000 is

A) 11 percent. B) 10 percent. C) 12 percent. D) 9 percent.

35) If the First State Bank has a gap equal to a positive $20 million, then a 5 percentage point drop in interest rates will cause profits to

A) increase by $10 million. B) decline by $10 million.

C) decline by $1.0 million. D) increase by $1.0 million.

36) Although the FDIC was created to prevent bank failures, its existence encourages banks to

A) open too many branches. B) hold too much capital.

C) take too much risk. D) buy too much stock.

37) If you expect the inflation rate to be 15 percent next year and a one–year bond has a yield to maturity of 7 percent, then the real interest rate on this bond is

A) 22 percent.

B) 7 percent.

C) –15 percent.

D) –8 percent.

E) none of the above.

38) The problem created by asymmetric information before the transaction occurs is called _____, while the problem created after the transaction occurs is called _____.

A) moral hazard; adverse selection B) adverse selection; moral hazard

C) costly state verification; free–riding D) free–riding; costly state verification

39) Disadvantages of using reserve requirements to control the money supply and interest rates include

A) their overly–powerful impact on the money supply.

B) their overly–powerful impact on reserves and the monetary base.

C) creating potential lending problems for banks with high levels of excess reserves.

D) all of the above.

40) Assuming initially that r = 10%, c = 40%, and e = 0, an increase in r to 15% causes

A) the money multiplier to decrease from 2.8 to 2.55.

B) the money multiplier to increase from 1.82 to 2.

C) the money multiplier to decrease from 2 to 1.82.

D) the money multiplier to increase from 2.55 to 2.8.

E) no change in the money multiplier.

41) Banks fail when the value of bank _____ falls below the value of its _____, causing the bank to become insolvent.

A) securities; deposit liabilities
B) reserves; required reserves
C) loans; secondary reserves
D) assets; liabilities

42) When the Federal Reserve sells a government bond in the open market,

A) reserves in the banking system increase.
B) reserves in the banking system decline.
C) Federal Reserve liabilities remain unchanged.
D) both A and B occur.

43) If peanuts serve as a medium of exchange, a unit of account, and a store of value, then peanuts are

A) bank deposits.
B) reserves.
C) loanable funds.
D) money.
E) all of the above.

44) Examples of off–balance–sheet activities include

A) loan sales.
B) extending loans to depositors.
C) borrowing from other banks.
D) all of the above.

45) In the market for reserves, an increase in the reserve requirement shifts the _____ curve to the _____ and causes the federal funds interest rate to rise.

A) demand; right
B) supply; left
C) supply; right
D) demand; left

Short Answer Questions

1. Briefly explain why the interest rate on municipal bonds was sometimes higher than the interest rate on Treasury bonds, even though the interest income from munis is exempt from tax.

2. Graph the yield curve implied by the liquidity preference hypothesis when short-term interest rates are expected to stay constant in the future (**important:** do not forget to label the axes).

3. Briefly explain why, in general, interest rate rises affect banks negatively.

4. Briefly explain why people holding currency or banks holding excess reserves would cause the money supply to react less to changes in the monetary base.

5. When would a rise in money supply lead to an increase in the interest rate in the Keynesian liquidity preference framework?

6. (*extra credit*) Show graphically what would happen in the channel-corridor model if the Central bank would lower the interest rate on loans i_l (**important:** make sure to take all possible scenarios into account).

7. (*extra credit and extra difficult*) Suppose that the Fed restricts the total sum of discount loans to 100 billion dollars. Graph the demand and supply of reserves in this case.