Korea University
IIE 301A - Money & Banking
Summer 2008

Final Exam A key

This exam is multiple choice and numerical calculation. Read each question carefully. For multiple choice questions, select the answer that is most correct. Write your answers on the answer sheet which is the final page of the exam. **Make sure to write your name AND student number on the answer sheet. Turn in the answer sheet only.** You may keep or discard the rest of the exam.

This exam is closed book and closed notes. Leave all bags & books at the front of the classroom and turn off all electronic devices, such as cell phones and PDAs. You may not use paper or electronic dictionaries. A dictionary is available from the professor if you need to look up a particular word. There are 7 pages and 50 questions to this exam. Good luck!

Section I (multiple choice, 2 points each)

1. A financial market where buyers and seller do not meet face-to-face, but exchange financial instruments over a data network is called…

a. a debt market
b. a primary market
c. a secondary market
d. an over-the-counter market
e. none of the above

2. The financial market for financial instruments with a maturity of less than one year is called…

a. the money market
b. the capital market
c. the primary market
d. an exchange
e. none of the above

Use the following answers for questions 3 – 5:

a. depository institution
b. contractual savings institution
c. investment intermediary
d. financial market
e. none of the above

3. Which of the above answers best describes a commercial bank? **A**

4. Which of the above answers best describes a corporate retirement pension fund? **B**

5. Which of the above answers best describes a savings and loan (S&L)? **A**

6. An approximation to the yield to maturity that is used for coupon bonds is…
a. the current yield
b. the discount yield
c. the approximation yield
d. the forward premium
e none of the above

7. In the equation, $FV = (1+i)^N PV$, PV stands for…
a. Present Value or Price
b. Future Value or Face Value
c. Yield to Maturity or Interest Rate (in annual percentage rate)
d. The Time to Maturity (in years)
e. none of the above

For questions 8 – 11 match the instrument listed with one of following answers.
a. a simple bond
b. a coupon bond
c. a fixed payment loan
d. a consol or perpetuity
e. none of the above

8. An asset which pays a regular fixed payment forever **D**

9. An asset which pays a regular fixed payment until maturity and also makes a large final payment **B**

10. An asset which pays only a regular fixed payment until maturity **C**

11. An asset which pays only a single payment at maturity **A**

12. The Fisher equation show the relation between the nominal interest rate, the real interest rate and…
a. the current spot exchange rate.
b. the forward exchange rate.
c. the expected future spot exchange rate.
d. the expected rate of inflation.
e. none of the above.

13. Which of the following diagrams best describes the effects of an increase in riskiness on the market for financial assets?
a. an increase in the price of assets and an increase in the quantity traded.
b. an increase in the price of assets and a decrease in the quantity traded.
c. a decrease in the price of assets and an increase in the quantity traded.
d. a decrease in the price of assets and a decrease in the quantity traded.
e. none of the above.

14. If a one-year risk-free bond with a face value of $1100 sells for $1000 today and a risky bond with an expected future value of $1100 sells for $950 today, then the risk premium on the risky bond is…

a. less than zero
b. equal to zero
c. greater than zero, but less than 10%
d. equal to 10%
e. greater than 10%

15. Which of the following is NOT a commonly accepted function of money?

a. Unit of account
b. Index of Liquidity
c. Store of value
d. Medium of exchange
e. All of the above are commonly accepted functions of money

For questions 16 – 18 use the following answers:

a. Commodity Money
b. Convertible Paper Currency
c. Fiat Money
d. Deposit Money
e. None of the above

16. An 18th-century British banknote is an example of… **B**

17. A Bank of Korea 10000 won note is an example of… **C**

18. A Korean Tmoney card or Hong Kong Octopus card is an example of… **E, this is Electronic money**

19. According to the segmented markets theory of the yield curve, an increase in the interest rate on 5-year bonds will be associated with what change in the interest rate on 1-year bonds?

a. an increase
b. no change
c. a decrease
d. a change that is unpredictable
e. none of the above

20. Which of the following is NOT a stylized fact associated with the yield curve?

a. Interest rates of different maturities move together over time.
b. The yield curve usually has a positive slope, i.e. short term rates are less than long-term ones.
c. The yield curve slopes downward only when interest rates are rising.
d. Low short-term rates are associated with a steep yield curve, and high short-term rates are associated with a flat or inverted yield curve.
e. All of the above are stylized facts associated with the yield curve.

21. The primary monetary policy making body for the Federal Reserve is…
a. The Board of Governors
b. The Federal Open Market Committee
c. The Council of Economic Advisors
d. The Federal Reserve Bank of New York
e. None of the above

22. The European Central Bank is…
a. less independent than both the US Federal Reserve and the Bank of Korea
b. less independent than US Federal Reserve, but more independent than the Bank of Korea
c. more independent than US Federal Reserve, but less independent than the Bank of Korea
d. more independent than both the US Federal Reserve and the Bank of Korea
e. none of the above

For questions 23 & 24 write in the correct choice for both the federal funds rate and total reserves.

23. If the discount rate is higher than the federal funds rate, then an increase in the reserve requirement causes the federal funds rate to (**rise**, remain unchanged, fall) and the quantity of total reserves to (rise, **remain unchanged**, fall)

24. If the discount rate is equal to the federal funds rate, then an open market sale of US government bonds by the Fed causes the federal funds rate to (rise, **remain unchanged**, fall) and the quantity of total reserves to (rise, **remain unchanged**, fall)

25. The Taylor rule shows the target interest rate central banks pursue as a function several things including…
a. the inflation gap and the exchange rate gap
b. the output gap and the exchange rate gap
c. **the output gap and the inflation gap**
d. the inflation gap, the exchange rate gap and the output gap
e. none of the above

26. An agreement to buy foreign currency at a future date, but at a price set today is called…
a. **a forward exchange rate contract**
b. a spot exchange rate contract
c. a foreign exchange option
d. a foreign currency swap
e. none of the above

27. The two major historical periods when most exchange rates were fixed were:
a. prehistory to 1871, and 1913-1945
b. 1871-1913, and 1973 – present
c. prehistory to 1871, and 1965 – 1973
d. 1871 – 1945, and 1973 – present
e. none of the above

28. The main reason the Bretton Woods system ceased operating was…
a. The onset of World War I and the subsequent inflation it caused
b. The onset of World War II and the lack of international economic cooperation
c. Lack of agreement on monetary policy among central banks
d. Bad policy on the part of the IMF
e. None of the above

29. The current exchange rate policy of the Hong Kong Monetary Authority is best described as…
a. A rigidly fixed exchange rate
b. A partially fixed exchange rate
c. A floating exchange rate with occasional central bank intervention (dirty float)
d. A freely floating exchange rate
e. none of the above

30. The current exchange rate policy of the European Central Bank is best described as…
a. A rigidly fixed exchange rate
b. A partially fixed exchange rate
c. A floating exchange rate with occasional central bank intervention (dirty float)
d. A freely floating exchange rate
e. none of the above

31. The IS curve will move to the right in response to…
a. a decrease in the government budget deficit
b. an increase in the money supply
c. an increase in the general level of prices
d. an increase in consumer confidence
e. none of the above

32. The LM curve will move to the right in response to…
a. a decrease in the government budget deficit
b. an increase in the money supply
c. an increase in the general level of prices
d. an increase in consumer confidence
e. none of the above

33. The AD curve will move to the left as a result of…
a. an increase in the government budget deficit
b. an increase in the money supply
c. an increase in labor productivity or the level of technology
d. an increase in consumer confidence
e. none of the above

34. The LRAS curve will move to the right in response to…
a. an increase in the government budget deficit
b. an increase in the money supply
c. an increase in labor productivity or the level of technology
d. an increase in consumer confidence
e. none of the above

35. Relative to initial values, in the short-run, a decrease in the money supply leads to (a rise / **a fall** / no change) in real output, (a rise / **a fall** / no change) in prices, and (**a rise** / a fall / no change) in the real interest rate.

36. Relative to initial values, in the long-run, a decrease in the money supply leads to (a rise / a fall / **no change**) in real output, (a rise / **a fall** / no change) in prices, and (a rise / a fall / **no change**) in the real interest rate.

37. The behavior of the capital market is shown by…
a. The LM curve
b. The IS curve
c. The AS curve
d. The EX curve
e. None of the above.

38. Our handout on the IS-LM/AS-AD model explained that that short-run aggregate supply curve is not perfectly vertical because of…
a. sticky price contracts for final goods
b. sticky wage contracts for labor
c. menu costs in changing the price of final goods
d. uncertainty about the cause of price changes
e. none of the above

Section II (short answers, 2 points each) – when appropriate express percentages to 2 decimal places (i.e. 1.23%)

39. If the nominal interest rate today is 15% and the desired/expected real interest rate is 2%, then what must the expected rate of inflation be (approximately)? **13%**

40. What is the current yield on a 30-year coupon bond with a face value of $100,000 and a 5% coupon selling for a price today of $90,000? **CY = $5000/$90000 = 5.56%**

41. What is the yield to maturity on a no-coupon $100,000 T-bond that comes due in 2 years and which sells for a price today of $92,000? **YTM = ($100,000/$92,000)$^{1/2}$-1 = 4.26%**

42. What is the discount yield on a 60-day bond with a face value of $10,000 selling today for $9950? **DY = (($10,000/$9950)-1)(360/60) = 3.00%**

43. Suppose we observe the following data:

	2004	2005	2006
Price of TVs	$300	$310	$325
Price of Chairs	$100	$110	$115
Price of Pizza	$ 8	$ 10	$ 11

If the market basket is 1 TV, 4 chairs, & 20 pizzas, what was the inflation rate for 2005? **10.47%**

44. Using the same data as above, what was the inflation rate for 2006? **5.79%**

45. Suppose we observe the following data:

Currency in Bank Vaults	$ 50 million
Currency in Circulation	$250 million
Demand Deposits and other Checkable Deposits	$500 million
Reserve Deposits of Commercial Banks at the Central Bank	$ 10 million
Short-term Time Deposits	$500 million
Traveler's Checks	$ 10 million

What is the value of the monetary base (M0)? **50+250+10 = $310 million**

46. Using the same data as above, what is the value of M1? **250+500+10 = $760 million**

47. Suppose the reserve requirement is 2% and that banks desire to hold 1% excess reserves. Further assume that the general public wishes to hold 25% of its demand deposit balances in the form of currency. What is the long-run money multiplier? Round to 2 decimal points. **(1+.25)/(.25+.02+.01) = 4.46**

48. A 6-month U.S. Treasury bill with a face value of $10,000 sells for $9900. A 6-mo commercial paper bill issued by Motorola Inc. with a face value of $10,000 sells for $9500. Assuming that difference in prices reflects only risk, what is the risk premium on Motorola commercial paper in APR terms? **[($10,000/$9500)^2-1] – [($10,000/$9900)^2-1] = 8.77%**

49. Suppose the spot rate for the Japanese yen is 8.0 won per yen and the 6-month forward rate is 7.5 won per yen. What is the annualized forward premium (treating the won as the domestic currency)? **(7.5/8.0)^2 – 1 = -12.11%**

50. Suppose the spot rate for the US dollar is 1050 won per dollar and the 1-year forward rate is 1100 won per dollar.. Also suppose the 1-year interest rate on Korean won interbank deposits is 7.5%. What is the equivalent interbank rate on US dollars?
5.5% - (1100/1050-1) = 2.74%

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Final Exam Answer Sheet

Good Luck!

Name: _____ Student Number: _____

1 D	11 A	21 B	31 D	41 4.26%
2 A	12 D	22 D	32 B	42 3.00%
3 A	13 D	23 i) rise ii) unchange	33 E	43 10.47%
4 B	14 C	24 i) unchange ii) unchange	34 C	44 5.79%
5 A	15 B	25 C	35 i) fall ii) fall iii) rise	45 $310 M
6 A	16 B	26 A	36 i) no chng ii) fall iii) no chng	46 $760 M
7 A	17 C	27 E	37 B	47 4.46
8 D	18 E	28 C	38 B	48 8,77%
9 B	19 B	29 A	39 13%	49 -12.11%
10 C	20 C	30 D	40 5.56%	50 2,74%