

## ANSWER OUTLINE

**ECONOMICS 353**

**L. Tesfatsion/Fall 06**

**MIDTERM EXAM 2: 50 Questions (1 Point Each)**

**2 November 2006**

Please write on side 1 of your answer bubble sheet your **FIRST AND LAST NAME** together with your **STUDENT ID NUMBER**, and write **ECON 353: SECOND MIDTERM EXAM** on the top margin of side 1. Answer all 50 questions below by marking answers on your answer bubble sheet using a number 2 pencil **\*\*ONLY\*\***. Each question is worth 1 point. Read each question carefully before answering.

Questions Q1-Q5 stress required materials related to Mishkin Chapter 1, questions Q6-Q13 stress required materials related to Mishkin Chapter 2:Part A, questions Q14-Q19 stress required materials related to Mishkin Chapter 2:Part B, questions Q20-Q25 stress required materials related to Mishkin Chapter 3, questions Q26-Q34 stress required materials related to Mishkin Chapter 4:Part A, questions Q35-Q44 stress required materials related to Mishkin Chapter 4:Part B, and Q45-Q50 focus on Web browse questions discussed in class that appeared in Q6 portions of the assigned Take-Home Exercises 1-6 and/or in the lists of Key In-Class Discussion Questions for each Mishkin chapter.

At the end of the exam, please turn in your answer bubble sheet and be prepared to show an official photo ID of yourself (e.g., student ID, driver's license) if asked.

**IMPORTANT CAUTION: Do your own work, do not assist others in any way during the exam, and keep your eyes focused only on your own exam. USE OF ANY ELECTRONIC OR MECHANICAL DEVICE (E.G., CALCULATORS) DURING THE EXAM IS STRICTLY PROHIBITED. Any behavior to the contrary will be considered cheating and will not be tolerated. Cheating will result in an automatic F on the exam, and further sanctions may be applied in line with university policy.**

**\*\*OPPORTUNITY TO COMMENT ON QUESTIONS:\*\*** If you wish to comment on a question you believe is unclear or ambiguous, please do the following:

- (1) Write your specific comments on the following pages along side the statement(s) of the question(s) about which you have concerns.
- (2) Indicate here the numbers of the questions you have commented on:  
\_\_\_\_\_
- (3) Write your name and student ID number where indicated below.

STUDENT NAME \_\_\_\_\_

STUDENT ID NUMBER \_\_\_\_\_

- (4) At the end of the exam, give this exam question packet to the instructor for special handling.

- Q1.** According to Mishkin (Chapter 1), an INFLATION RATE by definition
- A.** is necessarily positive in value.
  - B.** is the growth rate of the aggregate price level as measured by a price index such as the GDP deflator.
  - C.** can be either positive or negative in value.
  - D.** both A and B above.
  - E E.** both B and C above.
- Q2.** As noted many times in class, an important economic event occurring in the 1970s that affected many financially relevant aspects of the U.S. economy (such as the inflation rate) was
- A.** the Price Stabilization Act.
  - B B.** the first oil price shock.
  - C.** the Employment Act.
  - D.** the end of the Korean War.
- Q3.** By definition (Mishkin Chapter 1, Appendix), the growth rate for any variable  $V$  from time period  $T-1$  to time period  $T$  is given by
- A.**  $100 \times [V(T) - V(T - 1)]$
  - B.**  $100 \times [V(T) + V(T - 1)]/2$
  - C.**  $100 \times [V(T + 1)/V(T)]$
  - D D.**  $100 \times [V(T) - V(T - 1)]/V(T - 1)$
- Q4.** By definition (Mishkin Chapter 1, Appendix), the qualifier “nominal” applied to U.S. Gross Domestic Product (GDP) implies that
- A A.** the value of the GDP is measured in current prices.
  - B.** the value of the GDP is measured in base-year prices.
  - C.** the current value of the GDP is only approximate and will subsequently be revised when more data become available.
  - D.** The value of the GDP excludes real (tangible) assets.

**Q5.** According to time series data presented in Mishkin (Chaper 1) and in class:

- A.** the supply of money (M2) tends to move in the OPPOSITE direction of the aggregate price level (i.e. when one is increasing the other tends to be decreasing, and vice versa).
- B.** the supply of money (M2) tends to move INDEPENDENTLY of the aggregate price level because of its breadth.
- C C.** the supply of money (M2) tends to move in the SAME direction as the aggregate price level (i.e. when one is increasing the other tends to be increasing, and vice versa)
- D.** a HIGH average inflation rate is associated with a LOW average money growth rate, and vice versa.
- E.** Both C and D are true.

**Q6.** By definition, a person's HUMAN CAPITAL is classified as \_\_\_\_\_

- A A.** a REAL asset because it refers to the person's physically embodied natural abilities, learned skills, etc.
- B.** a FINANCIAL asset because it refers to the person's wage earnings.
- C.** a CAPITAL asset because the person is expected to have a long life (maturity).
- D.** a PRIMARY asset because the person is considered to have been newly issued at birth.

**Q7.** By definition, a key attribute SHARED by brokers and dealers is:

- A.** brokers and dealers both hold inventories of the assets they trade.
- B.** brokers and dealers both earn profits through commissions.
- C C.** neither brokers nor dealers engage in asset transformation.
- D.** none of the above.

**Q8.** By definition, attributes SHARED by financial intermediaries (FIs) and dealers include:

- A.** both engage in asset transformation.
- B.** both "make the market" for various stocks and bonds by setting their purchase and sale prices.
- C C.** both earn profits from financial asset transactions by "buying low" and "selling high".
- D.** neither one holds inventories of the financial assets in which they trade.

**Q9.** By definition, auction markets and over-the-counter (OTC) markets are **DISTINGUISHED** by the following characteristic(s):

**A.** Trades in auction markets are generally handled by dealers whereas trades in OTC markets are generally handled by brokers.

**B B.** Trades in auction markets are conducted through a centralized facility whereas trades in OTC markets are not.

**C.** Auction markets only handle trades in equity instruments whereas OTC markets handle trades in both equity and debt instruments.

**D.** None of the above.

**Q10.** Which of the following markets are organized as **OVER-THE-COUNTER** markets:

**A.** The Nasdaq stock market

**B.** U.S. Treasury auctions.

**C.** The secondary market for U.S. government bonds

**D.** All of the above.

**E E.** Only A and C.

**Q11.** A **LOAN CONTRACT** for acquiring funds that is issued by Microsoft and accepted (held) by Mr. Joe Average is \_\_\_\_ for Microsoft and \_\_\_\_ for Mr. Joe Average.

**A.** an asset; a liability

**B B.** a liability; an asset

**C.** a real asset; a financial asset

**D.** a financial asset; a real asset

**Q12.** As discussed in Mishkin (Chapter 2), federal funds are

**A.** funds raised by the federal government in the bond market.

**B.** loans made by the Federal Reserve System to banks.

**C C.** loans made by banks to each other.

**D.** loans made by banks to the Federal Reserve System.

**Q13.** A LENDER acquires \_\_\_\_ by \_\_\_\_\_.

- A** A. a contractually promised payment stream; buying a newly issued debt instrument.
- B** B. a contractually promised payment stream; issuing and selling a debt instrument.
- C** C. temporary additional purchasing power; issuing and selling a debt instrument.
- D** D. immediate loan principal (funds); buying a newly issued debt instrument.

**Q14.** By definition, DIRECT FINANCE refers to

- A** A. trades of financial assets enacted directly (immediately) in a spot market rather than in a forward market.
- B** B. trades of financial assets enacted directly (face to face) between buyers and sellers.
- C** C. instances of borrowing in which borrowers directly transact with their lenders.
- D** D. instances of borrowing mediated directly by a financial intermediary.

**Q15.** By definition, which of the following is an instance of DIRECT FINANCE?

- A** A. You obtain a student loan from the Thirdrate National Bank.
- B** B. You borrow \$10,000 from a friend.
- C** C. You buy shares of preferred stock on the American Stock Exchange.
- D** D. You contribute monies to your pension fund.

**Q16.** By definition, instances of INDIRECT FINANCE include:

- A** A. You buy a Treasury Bill at a Treasury auction.
- B** B. You obtain a loan from a life insurance company.
- C** C. You buy a Treasury bill offered on the U.S. government bond market.
- D** D. You buy commercial paper newly issued by Google.
- E** E. None of the above.

**Q17.** Which of the following properties characterize CORPORATE DEBT SECURITIES:

- A. Corporate debt holders regularly participate in key management decisions of their corporate debt issuers.
- B. In case of bankruptcy, corporate debt claims are paid after corporate equity claims.
- C C. Corporate debt payments are not conditional on the profits earned by the debt issuer except under conditions of duress.
- D. Only B and C above.
- E. none of the above.

**Q18.** Which of the following properties characterize COMMON STOCK SHARES:

- A. If bankruptcy occurs, common stock holder claims are paid after preferred stock holder claims.
- B. Holders of a corporation's common stock shares have the right to vote their approval or disapproval of key corporate management decisions.
- C. By law, corporations must pay out their profits as dividends to their common stock holders within a reasonable amount of time.
- D. All of the above.
- E E. Only A and B.

**Q19.** In the 1980's a Texas Bank developed a reputation for readily providing loans to borrowers at a standard low interest rate for the purpose of exploring for oil deposits. Although the loans were indeed used for oil deposit exploration, many were never repaid because the bank's loan policy created

- A. a free-rider problem.
- B. a principal-agent problem.
- C C. an adverse selection problem.
- D. a moral hazard problem.

**Q20.** By definition, MONEY is

- A. anything taking the form of paper bills or coinage.
- B B. anything generally accepted in payment for goods and services and repayment of debts.
- C. anything legally required to be accepted in payment for goods and services and repayment of debts.
- D. the particular collection of financial assets included in M2.
- E. a flow of value accrued over some period of time.

- Q21.** By definition, a form of money is said to be LEGAL TENDER if
- A. it is required by law to be accepted for repayment of debts.
  - B. the issuer has received a charter from government.
  - C. it is required by law to be accepted for the purchase of goods and services.
  - D. it is issued by a government.
- Q22.** By definition, a form of money is said to be FIAT if
- A. it is required by law to be accepted for the repayment of debts.
  - B. it is required by law to be accepted for the purchase of goods and services.
  - C. it is a paper money that is unbacked legal tender.
  - D. it is token coinage issued by a government.
- Q23.** The monetary aggregate M1 exemplifies the \_\_\_\_ approach to measuring money in that \_\_\_\_\_
- A. empirical; M1 consists of a selection of financial assets judged best for controlling GDP growth.
  - B. empirical; M1 consists of a weighted aggregate (average) of all of the most widely held financial assets.
  - C. theoretical; M1 consists of a selection of financial assets judged to most closely satisfy the definition of money.
  - D. theoretical; M1 consists of a weighted aggregate (average) of all financial assets acting to some degree as a medium of exchange.
- Q24.** When a person in the U.S. sells a 30-year U.S. government savings bond in the secondary market and deposits the proceeds in a U.S. bank demand deposit account, then
- A. M1 and M2 both increase.
  - B. M1 and M2 both decrease
  - C. M1 and M2 both stay the same.
  - D. M1 increases and M2 stays the same.
  - E. none of the above.

- Q25.** As discussed in class, the key interest rate that the Federal Reserve directly attempts to control for monetary policy purposes is
- A.** the rate on long-term (30 year) U.S. Treasury bonds.
  - B.** the federal funds rate.
  - C.** the interest rate on Treasury Inflation Protection securities (TIPS).
  - D.** the interest rate on U.S. Treasury bills.
- Q26.** Which of the following are instances of COUPON BONDS:
- A.** (Negotiable) Certificates of Deposit.
  - B.** Commercial mortgages.
  - C.** Treasury bills sold through Treasury auctions.
  - D.** Corporate bonds listed on the New York Stock Exchange.
- Q27.** The COUPON RATE on a coupon bond with a purchase price of \$100, a \$90 face value, annual coupon payments of \$15, and a 2-year maturity is defined to be
- A.** total coupon payments \$30 divided by the maturity 2.
  - B.** the coupon payment \$15 divided by the purchase price \$100.
  - C.** the coupon payment \$15 divided by the face value \$90.
  - D.** one coupon payment per year.
- Q28.** If a 12-year \$6,000 coupon bond (i.e., a coupon bond with a \$6000 face value and a 12 year maturity) has a coupon rate of 10 percent and a purchase price of \$4,000, then the COUPON PAYMENT is
- A.** \$600
  - B.** \$500
  - C.** \$400
  - D.** \$300

- Q29.** Which of the following statements are true for a DISCOUNT BOND with a face value  $F$ :
- A. Treasury bills take this form.
  - B. The purchase price is usually less than  $F$ .
  - C. The interest rate (yield to maturity) is always zero.
  - D. All of the above.
  - E. Only A and B above.
- Q30.** PRESENT VALUE is considered to be one of the most important concepts ever articulated in financial economics because
- A. it provides an accurate assessment for future interest rate risk.
  - B. it measures the implicit discount rate used by the market to price assets.
  - C. it provides an accurate assessment of an asset's real purchasing power.
  - D. it permits payment streams on different financial assets to be compared with each other in terms of a common unit of account.
  - E. it provides a way to measure the current value of a financial asset without having to consider the timing and amount of future payments.
- Q31.** If the annual interest rate is 5 percent, the present value of a payment of \$200 to be received three years from now is
- A. \$200 multiplied by  $[1 + .05]^3$
  - B. \$200 divided by  $[1 + .15]$
  - C. \$200 divided by  $[1 + .05]^3$
  - D. \$200 divided by  $3 \times [1 + .05]$
- Q32.** The formula that would be used to calculate the (annual) yield to maturity  $i$  on a discount bond with a purchase price \$100, a face value \$120, and a maturity of 1 year takes the following form:
- A.  $\$100 = \$120 \times [1 + i]$
  - B.  $\$100 = \$120/[1 + i]$
  - C.  $i = \$120 - \$100$ .
  - D.  $\$120 = \$100/[1 + i]$

**Q33.** The formula that would be used to calculate the (annual) yield to maturity  $i$  on a 4-year debt instrument with a purchase price \$70 that pays nothing at the end of the first year, \$100 at the end of the second year, nothing at the end of the third year, and \$60 at the end of the fourth year is as follows:

A.  $\$70 = \$100 \times [1 + i]^2 + \$60 \times [1 + i]^4$

B.  $\$70 = \$100/2[1 + i] + \$60/4[1 + i]$

C.  $i = \$100/2 + \$60/4 - \$70.$

D.  $\$70 = \$100/[1 + i]^2 + \$60/[1 + i]^4$

**Q34.** Which of the following \$1000 face-value securities has the HIGHEST yield to maturity?  
**NOTE ON TERMINOLOGY:** The expression “x-percent coupon bond” refers to a coupon bond with a *coupon rate* equal to x.

A. A 4 percent coupon bond selling for \$1,000

B. An 8 percent coupon bond selling for \$1,000

C. A 10 percent coupon bond selling for \$1,000

D. A 10 percent coupon bond selling for \$1,100

**Q35.** All else equal, for a coupon bond with a given coupon payment  $C$  and face value  $F$ , its current yield  $ic$  is a MORE accurate measure of its yield to maturity  $i$  the \_\_\_\_ the maturity of the bond and the \_\_\_\_\_ the deviation of its purchase price from its face value.

A. longer; greater

B. longer; smaller

C. shorter; smaller

D. shorter; greater

**Q36.** Smart investors need to understand the distinction between the YIELD TO MATURITY on a financial asset and its RETURN RATE (equivalently, its rate of return) because

A. the yield to maturity assumes a financial asset will be held to maturity, whereas the return rate can be calculated for any holding period.

B. the yield to maturity ignores capital gains or losses that might accrue to an investor who sells a financial asset prior to its maturity.

C. the return rate takes all payments into account over a holding period, including capital gains or losses.

D. all of the above

E. only A and B.

**Q37.** Consider a coupon bond that has an annual coupon payment  $C = \$100$ , a face value  $F = \$3,000$ , and a maturity date January 1, 2012. Suppose you BUY this bond on January 1, 2007 for  $P_b = \$2500$  and you SELL it on January 1, 2008 for  $\$2000$ . Which of the following statements are TRUE for this bond:

- A. Your (annual) current yield on this bond from 1/1/2007 to 1/1/2008 is equal to  $C = \$100$  divided by the purchase price  $P_b = \$2500$ .
- B. Your return rate on this bond from 1/1/2007 to 1/1/2008 can be expressed as the sum of the current yield and the rate of your capital gain or loss.
- C. Your return rate on this bond from 1/1/2007 to 1/1/2008 is LESS than the current yield on the bond.
- D. All of the above are true.
- E. Only A and B are true.

**Q38.** INTEREST RATE RISK is the risk faced by \_\_\_\_\_ in the form of \_\_\_\_\_.

- A. a potential bond purchaser; fluctuations in the real interest rate on bonds
- B. a bond holder; uncertainty regarding the bond's return rate due to possible fluctuations in the bond's yield to maturity during the holding period
- C. a bond issuer; fluctuations in the interest payments the bond issuer will have to make to the bond purchaser
- D. a potential bond issuer; fluctuations in the nominal interest rate on bonds

**Q39.** The \_\_\_\_\_ the maturity of a bond, the \_\_\_\_\_ is its interest rate risk, all else equal.

- A. longer; greater
- B. longer; smaller
- C. more uncertain; more certain
- D. shorter; more uncertain

**Q40.** The nominal interest rate minus the expected inflation rate defines

- A. the real return rate
- B. the real interest rate
- C. the real inflation rate
- D. the discount rate

- Q41.** Letting  $i$  denote the yield to maturity on coupon bonds, which of the following situations should a rational LENDER prefer to be in if he is planning to purchase a newly issued coupon bond?
- A.  $i = 2$  percent and the expected inflation rate = -2 percent
  - B.  $i = 12$  percent and the expected inflation rate = 10 percent
  - C.  $i = 8$  percent and the expected inflation rate = 9 percent
  - D.  $i = 6$  percent and the expected inflation rate = 1 percent
- Q42.** The average NOMINAL interest rate  $i$  in the U.S. was lower in the mid-1980s than in the late 1970s, yet the average REAL interest rate was actually much higher in the mid-1980s than in the late 1970s. By definition, this implies that
- A. the aggregate price level INCREASED between the late 1970s and the mid-1980s.
  - B. the aggregate price level DECREASED between the late 1970s and the mid-1980s.
  - C. the (expected) inflation rate in the U.S. was HIGHER in the mid-1980s than in the late 1970s.
  - D. the (expected) inflation in the U.S. was LOWER in the mid-1980s than in the late 1970s.
- Q43.** Suppose a consol bond pays \$1.00 at 11:59 P.M. on December 31 of each year in perpetuity. Suppose you purchased the consol bond for \$100 at midnight on December 31, 2004, and you sold it for \$109 at midnight on December 31, 2005. Suppose the inflation rate during 2005 was 3 percent. Then your NOMINAL return rate on the consol bond for 2005 was \_\_\_ and your REAL return rate on the consol bond for 2005 was \_\_\_\_.
- A. 1 percent; -2 percent
  - B. 10 percent; 13 percent
  - C. 10 percent; 7 percent
  - D. 1 percent; 4 percent
  - E. 9 percent; 6 percent
- Q44.** The interest and principal payments of Treasury Inflation Protection Securities (TIPS) issued by the U.S. Treasury since 1997 are adjusted for \_\_\_\_\_, which implies that \_\_\_\_.
- A. changes in default risk; TIPS earn a constant real interest rate.
  - B. changes in the inflation rate; TIPS can be bought and sold at a fixed (pegged) price.
  - C. changes in the price level; the interest rate on TIPS provides a direct measure of a real interest rate.
  - D. changes in the money supply; TIPS help government to ensure a balanced budget.

- Q45.** Major crises are often times of significant financial innovation. For example, the severe financing needs of the North during the U.S. Civil War led
- A.** the Federal Reserve to introduce measures of the aggregate money supply for the first time in U.S. history.
  - B.** the Continental Congress to charter a state bank for the first time in U.S. history.
  - C.** the North to use commodity monies and backed paper monies for the first time in U.S. history.
  - D D.** the U.S. Treasury to issue unbacked paper money as legal tender for the first time in U.S. history.
- Q46.** As seen in Exercise 2 (Q6), student loans provided by the U.S. federal government (e.g. Stafford Loans) have the following general characteristics:
- A.** low interest rates secured by the collateral of parents.
  - B.** interest rates set in accordance with default risk, as signalled by the financial situation of parents.
  - C C.** low interest rates with no collateral requirements.
  - D.** interest rates set in accordance with a student's expected lifetime earnings.
- Q47.** As seen in Exercise 3 (Q6), the volatility of stock return rates is typically measured in practice by means of
- A.** sample amplitude of fluctuations.
  - B B.** sample standard deviation.
  - C.** sample kurtosis (thickness of tails).
  - D.** sample skewness.
- Q48.** As discussed in the answer key for Exercise 3 (Q6), possible reasons why the NASDAQ Composite Index exhibits a greater measured volatility than the Dow Jones Industrial Average (DJIA) over the period 1985-2005 include:
- A.** the DJIA includes the stocks of many more companies than the NASDAQ Composite Index, hence it is more diversified (less sensitive to shocks).
  - B.** the return rate distributions for the stocks included in the DJIA have thicker tails.
  - C C.** the NASDAQ Composite Index is heavily tilted towards technology stocks, hence it is highly sensitive to shocks to the technology sector.
  - D.** the NASDAQ Composite Stock Index does not include stocks from foreign companies, hence it is not as diversified as the DJIA.

**Q49.** As seen in Exercise 4 (Q6), ex-Fed Chairman Alan Greenspan has used the “Free Banking Era” as evidence to support his contention that

- A.** strong federal regulations are essential for maintaining the stability of the U.S. banking sector.
- B.** the “fantastic failure” of the Michigan banking sector during the free banking era illustrates what typically happens when state banks are not subject to sufficiently strong federal regulation.
- C.** apart from times of severe economic shocks, the U.S. banking sector exhibits a great deal of stability stemming mainly from state regulation and the discipline of the market place.
- D.** Only A and B above.

**Q50.** As seen in Exercise 6 (Q6), Fannie Mae (the Federal National Mortgage Association) is a *mortgage refinance company*, that is, a company that

- A.** purchases mortgages on the secondary market, pools these mortgages together, and creates publicly tradable securities backed by these mortgages.
- B.** buys newly issued loan contracts from many different borrowers, thus creating a loan pool to diversify its risk.
- C.** sells newly issued loan contracts to many different lenders, thus spreading its risk.
- D.** helps residential households to restructure their mortgage loans at lower interest rates when interest rates fall.