

## ANSWER OUTLINE

ECONOMICS 353

L. Tesfatsion/Fall 2010

EXERCISE 4: Five Questions (8 Pts Total)

DUE: Tuesday, Oct 5, 2:10pm

**\*\*IMPORTANT REMINDER: LATE ASSIGNMENTS WILL NOT BE ACCEPTED  
– NO EXCEPTIONS\*\***

### EXERCISE INSTRUCTIONS:

- (1) The first four questions Q1-Q4 below are multiple-choice questions from Mishkin Chapter 5. Question Q5 asks you to predict the effects of four different events on a bond market, and to graphically illustrate your answers.
- (2) Please **fill in your name and student ID number** on Side 1 of your bubble sheet and write **353 Exercise 4** in the top margin of Side 1. Use a number 2 pencil to **mark your answers** to Q1-Q4 on Side 1 of your bubble sheet.
- (3) Use a separate sheet of paper for your answers to Q5, being sure to put your name, student ID number, and “Econ 353: Ex 4” on this sheet.
- (4) Turn in both your bubble sheet answers for Q1-Q4 and your separate answer sheet for Q5 at the beginning of class on the due date.
- (4) Each question Q1-Q4 is worth 1 point, and each of the four parts of Q5 is worth 1 point.

**Q1 (1 point).** In a primary bond market, the demand curve for bonds slopes downward to the right because, at a HIGHER bond price, the yield to maturity is \_\_\_\_\_, which discourages \_\_\_\_\_ from demanding as many bonds for purchase.

- A. higher; lenders
- B. lower; lenders
- C. higher; borrowers
- D. lower; borrowers

**Q2 (1 Point).** According to the theory in Mishkin Chapter 5, when the price of bonds is BELOW the equilibrium price level, then there is an \_\_\_\_\_ bonds and the price of bonds can be expected to \_\_\_\_\_.

- A. excess demand for; rise
- B. excess demand for; fall
- C. excess supply of; fall
- D. excess supply of; rise
- E. none of the above.

**Q3 (1 Point).** If there currently is an EXCESS SUPPLY of Iowa State bonds, then the theory in Mishkin Chapter 5 predicts that (all else equal) the current price of these bonds is \_\_\_\_\_ the equilibrium price level and hence will \_\_\_\_\_.

- A. below; be bid upwards by borrowers until demand equals supply
- B. above; be bid upwards by borrowers until demand equals supply
- C. below; be bid upwards by lenders until demand equals supply
- D D. above; be bid downwards by lenders until demand equals supply

**Q4 (1 Point).** According to Mishkin (Chapter 5), key factors that are likely to cause the SUPPLY curve for bonds to shift LEFT (fewer bonds supplied for each bond price P) include

- A. a lower government budget deficit.
- B. a decrease in the expected profitability of capital investment.
- C. a decrease in the expected inflation rate.
- D D. all of the above.
- E. only A and B above.

**Q5 (4 Points Total; 1 Point for Each Part).** For this question, use the type of bond market analysis provided in Mishkin Chapter 5 (pp. 91-108). Consider a *primary* market for bonds. For each of the events described in Parts A through D, below, *first describe in words* the predicted shift in the supply and/or demand for bonds in this market and (as far as possible) the resulting predicted effect on the equilibrium bond price and the equilibrium quantity of bonds traded. Then, *graphically illustrate* your verbal answer using a graphical depiction of a bond market similar to Mishkin's depictions in Figure 4 (p. 103) and Figure 6 (p. 105).

Answers will be evaluated on the basis of persuasive reasoning for shifts in bond demand and/or supply curves, and correct prediction of effects on equilibrium bond price and equilibrium quantity of bonds traded that result from these shifts as given.

**Part A:** There is an unexpected increase in people's wealth.

*Answer Outline for Q5:A*

According to Mishkin (Chapter 5, p. 99), following an increase in wealth (all else equal), the bond demand curve will shift to the right (more bonds demanded at each market price) as lenders seek to buy more bonds as profitable stores of value for their increase in wealth.

However, one might also argue that wealthier borrowers will also have less need to borrow, resulting in a shift left in the bond supply curve (fewer bonds supplied at each market price).

If the bond demand curve shifts right and the bond supply curve does *not* shift, the result will be a definite increase in the equilibrium price of bonds and a definite increase in the equilibrium quantity of bonds traded. If the bond demand curve shifts right *and* the bond supply curve shifts left, the result will be a definite increase in the equilibrium bond price but the quantity of bonds traded could either increase or decrease depending on the relative magnitude of these shifts.

Either verbal answer is acceptable. (Other persuasively argued answers will also be considered.) Whatever the suggested answer, this answer should be graphically depicted.

**Part B:** A new SEC ruling allows brokerage firms to reduce their commissions on bond transactions but not on stock transactions.

*Answer Outline for Q5:B*

On the demand side, the reduced commissions on bond purchases (all else equal) lowers the cost of purchasing a bond relative to the cost of purchasing a stock, thus increasing the expected return on a bond purchase relative to a stock purchase for any given holding period. According to Mishkin (Chapter 5, pp. 97-100), the bond demand curve will thus shift right (more bonds demanded at each market price).

On the supply side, it is also possible that bond suppliers would be encouraged by the lower transactions cost to supply more bonds, causing the bond supply curve to shift right (more bonds supplied at each market price).

If the bond demand curve shifts right but the bond supply curve does *not* shift, the result will be a definite increase in the equilibrium bond price and a definite increase in the equilibrium quantity of bonds traded. If the bond demand curve shifts right *and* the bond supply curve also shifts right, the result will be a definite increase in the equilibrium quantity of bonds traded but the equilibrium bond price could either increase or decrease depending on the relative magnitude of these shifts.

Either verbal answer is acceptable. (Other persuasively argued answers will also be considered.) Whatever the suggested answer, this answer should be graphically depicted.

**Part C:** In response to a speech by Chairman Bernanke, people now expect higher interest rates in the future.

*Answer Outline for Q5:C*

On the demand side, all else equal, higher expected interest rates in the future (say starting at some future time  $t^*$ ) equivalently means lower expected bond prices starting at time  $t^*$  – or equivalent, lower expected future resale values starting at  $t^*$ . This, in turn, implies a lower expected future return rate for any currently purchased bond

held beyond  $t^*$ . According to Mishkin (Chapter 5), all else equal, this should cause the current bond demand curve to shift left (fewer bonds demanded at each market price).

On the supply side, all else equal, higher expected interest rates in the future has no effect on the payment and maturity terms of currently offered bonds, hence this would not be expected to affect the current bond supply curve.

A leftward shift of the bond demand curve with no change in the bond supply curve will result in a definite decrease in the equilibrium price of bonds and a definite decrease in the equilibrium quantity of bonds traded.

Answers should be graphically depicted.

**Part D:** The government incurs a higher-than-expected budget deficit.

*Answer Outline for Q5:D*

According to Mishkin (Chapter 5, pp. 101-102), all else equal, a higher-than-expected government budget deficit will shift the bond supply curve to the right (more government bonds supplied at each market price) with no affect on the bond demand curve. The result will be a definite decrease in the equilibrium bond price and definite increase in the quantity of bonds traded.

Answers should be graphically depicted.