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Economics 202-01
Spring 2019

Homework #4 (due by 9:00pm on Thursday, April 11)

Please submit your answers to this homework through the Assignment link at Blackboard. ***No credit will be given for answers submitted in class or emailed to the professor****, regardless of the excuse.* This includes unique excuses like the police confiscated my computer right before I was going to submit it, excuses like "I lost my Internet", etc. Please note that all submissions are final, again – regardless of the excuse (which includes "I accidentally hit the submit button"). Note that Blackboard allows you to save your answers, but you must hit the "Save and Submit" button to submit your answers. If you are unfamiliar with Blackboard, then it would be a good idea to visit the class page at Blackboard and check out the homework assignments as they are posted.

Please note that when Blackboard grades homework answers, more specifically – answers to the fill-in-the-blank questions – your answer must match exactly with the answer that Blackboard is looking for. Below, you'll find some instructions on how to properly format these answers. Reading this section is strongly recommended.

Homework Questions 1, 2 and 3

Formatting matters with these answers, so be sure to read the comments below. As with each of the previous homeworks, **your answer can be technically correct but graded as wrong because you didn't follow the directions provided below.** Given that formatting is considered part of your answer, a wrongly formatted answer is still a wrong answer.

Please note the following comments regarding formatting below.

(i) In question 1a and 1b, express your answer in dollars and not dollars and cents. E.g., if your answer is $300, then write it as $300 and not $300.00.

(ii) In question 2, express your answer exactly as it is reported. E.g., if you look up the discount rate requested in the question, and that value is 11.0, then record your answer as 11.0

(iii) In question 1c and 3, rounded to the nearest whole number. Although a dollar sign is provided with the question, you may express your answer with or without the dollar sign. Be sure to express your answer, rounded to the nearest whole number. E.g., if the answer is $405.667 billion (or million), then record your answer as 406. or $406.

Homework #4 questions

1. Assume that in Country X, the required reserve ratio is 20% and that one bank within Country X, Bank A, has $3000 in demand deposits. Any answer that should be in dollars should be expressed in terms of dollars (e.g. 100 should be written as $100).

a. Given this information, the amount of Bank A's required reserves would be _____________.

b. If the only assets held at Bank A other than reserves is $800 in loans and $900 in government securities (i.e. bonds), then the amount of Bank A's excess reserves would be ___________.

Assume that all transactions are by check (i.e. consumers hold no currency) and banks loan out all available excess reserves.

c. Using the money multiplier from lecture, answer the following. If excess reserves in this economy increase by $10 million, then the money supply will expand by $________ million.

2. Go to the Course Documents folder of Blackboard and find the file *FRBSF Discount Rate.pdf* within the Homework #4 material folder. This file includes a table that reports every date when the Discount rate has changed between 1980 and now. Note that each entry shows when the discount rate was changed, and so the rate remained at that value until it was changed again. This file is **also** available at: *http://www.frbsf.org/banking/discount-window/discount-rate* *(note that there is no partial credit for this problem, it's either all correct or all wrong).*

When answering the questions below, ***please report your answer exactly as given in the table****.*

a. On February 15, 2019, the discount rate was _____________

b. Since February 15, 1980, the lowest value for the discount rate is ____________

c. Since February 15, 1980, the highest value for the discount rate is ____________

3. Go to the Course Documents at Blackboard and find the file *requiredreservesarticle.pdf* within the Homework #4 material folder. This file is **also** available at the link below: *http://www.frbsf.org/education/activities/drecon/2001/0108.html*

Read the discussion about the required reserve ratio before answering the questions below. ***In answering these questions, you will use the simple money multiplier discussed in class***.

Find what the article says about the required reserve ratio, effective as of December 28, 2000. For simplicity, assume that all banks in the US economy are small, that each bank has only $20 million in net transaction accounts (demand and checkable accounts).

Using the money multiplier from class and the required reserve ratio that would exist in this economy (given the assumption above), an increase in excess reserves of $5 million would cause the money supply to expand by $____________ million.

Note: *round your answer to the nearest whole number*

Multiple choice questions #4 and 5 (below) correspond with the money demand and money supply graph discussed in class. Each event below leads to a shift in a curve (or curves), which (in turn) affects the equilibrium within this market. Based on the shift(s) implied by each event, indicate the correct change in equilibrium.

4. Changes in technology make it easier for consumers to transfer money from their savings to their checking account, or withdraw cash from their savings account.

(a) increase in the equilibrium interest rate and increase in the equilibrium quantity of money
(b) decrease in the equilibrium interest rate and decrease in the equilibrium quantity of money
(c) increase in the equilibrium interest rate and decrease in the equilibrium quantity of money
(d) decrease in the equilibrium interest rate and increase in the equilibrium quantity of money
(e) no change in the equilibrium interest rate and increase in the equilibrium quantity of money
(f) increase in the equilibrium interest rate and no change in the equilibrium quantity of money
(g) no change in the equilibrium interest rate and no change in the equilibrium quantity of money

5. Increase in exchanges between the Federal Reserve and commercial banks which involve an open market sale of government bonds.

(a) increase in the equilibrium interest rate and increase in the equilibrium quantity of money
(b) decrease in the equilibrium interest rate and decrease in the equilibrium quantity of money
(c) increase in the equilibrium interest rate and decrease in the equilibrium quantity of money
(d) decrease in the equilibrium interest rate and increase in the equilibrium quantity of money
(e) no change in the equilibrium interest rate and increase in the equilibrium quantity of money
(f) increase in the equilibrium interest rate and no change in the equilibrium quantity of money
(g) no change in the equilibrium interest rate and no change in the equilibrium quantity of money

To answer the question below, go to Course Documents at Blackboard and, under HW 4 material, locate the handout entitled "Chapter 1: Overview of the Federal Reserve System".

6. According to this article, the Federal Reserve's duties fall into four general areas. Those four areas from the article are listed below. Which of the following is not one of those four general areas from the article:

(a) conducting the nation's monetary policy by influencing the monetary and credit conditions in the economy in pursuit of maximum employment, stable prices, and moderate long-term interest rates
(b) supervising and regulating banking institutions to ensure the safety and soundness of the nation's banking and financial system and to protect the credit rights of consumers
(c) printing the currency and coins necessary for exchange to occur within the economy
(d) maintaining the stability of the financial system and containing systemic risk that may arise in financial markets
(e) providing financial services to depository institutions, the U.S. government, and foreign official institutions, including playing a major role in operating the nation's payments system

To answer the question below, go to Course Documents at Blackboard and, under HW 4 material, locate the handout entitled "Chapter 2: Monetary Policy and the Economy".

7. According to this article, what are the three specific goals of Monetary Policy that were "spelled out in the Federal Reserve Act". Select those goals from the list below.
(note that there is no partial credit for this problem, it's either all correct or all wrong).

(a) maximum employment
(b) prompting annual increases in Potential GDP
(c) stable prices
(d) moderate long-term interest rates
(e) printing currency and coinage
(f) low short-term interest rates
(g) supervising National banks and thrift institutions
(h) enforcing Federal finance laws
(i) keeping the money supply growth rate within a 3-5% target

To answer the question below, go to Course Documents at Blackboard and, under HW 4 material, locate the handout entitled "Chapter 2: Monetary Policy and the Economy".

8. According to this article, when we consider how Monetary Policy affects the economy, how does the Fed manage to "exercise considerable control over the federal funds rate"?

(a) by decreasing the availability of credit when the economy is in need of stimulus
(b) by increasing or decreasing the printing of money
(c) by setting market interest rates at various financial institutions
(d) through appropriate changes in the discount rate during economic fluctuations
(e) through influence over the supply of and demand for balances at the Reserve Banks
(f) by fixing the exchange rate at a level that allows for smooth changes in the money supply

To answer the question below, go to Course Documents at Blackboard and, under HW 4 material, locate the handout entitled "Chapter 3: The Implementation of Monetary Policy".

9. According to this article, the Federal Open Market Committee attempts to keep the federal funds rate at a specific target rate. Which of the following is a true statement regarding the FOMC's ability to control the federal funds rate (i.e. funds rate):

(a) the discount window is a poor complement to open market operations, making it more difficult for the Fed to use monetary policy in controlling the funds rate
(b) reserve requirements make Monetary policy more difficult to implement and decrease the Fed's ability to control the funds rate
(c) the required reserve ratio is the most often-used tool for controlling the funds rate
(d) the discount rate is the most often-used tool for controlling the funds rate
(e) Open market operations are the most often-used tool for controlling the funds rate.