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# MONETARY TOOLS

### OVERVIEW

1. The Federal Reserve System is the central bank of the United States. It was established to bring stability to the banking system and to provide a method to control the money supply.
2. The three levels of the Federal Reserve include the Board of Governors, twelve district banks, and the commercial banks that are members of the Fed. There are several committees responsible to the Board of Governors, the most prominent of which is the Open Market Committee.
3. All national banks, banks chartered under the National Banking Act, are members of the Fed. Any state bank may also be a member. Since 1980, the Fed has the power to oversee any bank or bank-like institution that offers checkable deposits.
4. The three major tools used by the Fed to control the money supply are the reserve requirement, the discount rate, and open market operations.
5. The Fed rarely changes the reserve requirement. Even a small change in the reserve requirement has a large impact on the amount of reserves banks must hold. Changing the reserve requirement is a powerful tool which is reserved for times when strong action is needed.
6. The discount rate is the interest rate charged to member banks when borrowing from the Fed. By adjusting the discount rate, the Fed signals its willingness to make loans to member banks.
7. Open market operations are the most frequently used tool. If the Fed buys, excess reserves and the money supply will expand; if the Fed sells, excess reserves and the money supply will contract.
8. There is an inverse relationship between the market price of a bond and the interest the bond actually yields. As the market price goes down, the yield on the bond goes up. When the Fed sells bonds and lowers price, the higher yield attracts buyers.

## MATCHING

- |       |    |                       |    |  |
|-------|----|-----------------------|----|--|
| _____ | 1. | Federal Reserve       | a. | the market where government securities are traded                                      |
| _____ | 2. | reserve requirement   | b. | the percent of deposits banks must keep in reserve                                     |
| _____ | 3. | discount rate         | c. | the purchase or sale of negotiable government securities in the open market by the Fed |
| _____ | 4. | open market operation | d. | the central bank of the United States  |
| _____ | 5. | open market           | e. | the interest rate the Fed charges member banks for loans                               |

## TRUE-FALSE

- \_\_\_\_\_ 1. When the Fed sells bonds in the open market, then excess reserves rise.
- \_\_\_\_\_ 2. When the Fed wants to increase the money supply, it should buy bonds in the open market.
- \_\_\_\_\_ 3. The tool most frequently used by the Fed to control the money supply is a change in the reserve requirement.
- \_\_\_\_\_ 4. A change in the reserve requirement only affects excess reserves, but not the money multiplier itself.
- \_\_\_\_\_ 5. An increase in the price of bonds will cause the interest rate to fall.

## IN THE NEWS

1. There was a change in the reserve requirement in December, 1976. At that time the Federal Reserve reduced the reserve requirement from 16 1/2 percent to 16 1/4 percent.
- a. What impact do you expect the increase in the reserve requirement to have on the money supply? \_\_\_\_\_
- b. What effect will the decrease in the reserve requirement have on the money multiplier? \_\_\_\_\_

2. Economists frequently talk about open market operations that decrease the size of the money supply. Yet in reality, the Open Market Committee rarely sells securities. It is almost always true that it buys securities.
  - a. What impact does the Fed's purchase of securities in the open market have on the money supply? \_\_\_\_\_
  - b. Explain how the excess reserves are created. \_\_\_\_\_
  
3. The Federal Reserve has many critics. There is always someone who believes that the money supply should grow faster or slower than it has. There is talk that the Fed should be abolished because of its independence and that control of the money supply should be put in the hands of Congress.
  - a. Would better control of the money supply result if it were administered by Congress? \_\_\_\_\_
  - b. Would it be better to have both fiscal policy and monetary policy under the control of Congress? Explain. \_\_\_\_\_
  
4. The Federal Reserve announced an increase in the discount rate from 6 1/2 percent to 7 percent in 1989.
  - a. What does an increase in the discount rate mean? \_\_\_\_\_
  - b. Since the discount rate does not directly affect excess reserves, how can the increase in the discount rate affect the money supply? \_\_\_\_\_

### PRACTICE TEST

Circle the correct answer.

1. All of the following are tools of the Fed except:
  - a. the discount rate.
  - b. open market operations.
  - c. the reserve requirement.
  - d. the level of inventories.
  
2. When a bank that was paying 4 percent to borrow from the Fed must now pay 6 percent, it has experienced a change in:
  - a. the reserve requirement.
  - b. the discount rate.
  - c. open market operations.
  - d. the prime rate.

3. If the Fed wished to increase the money supply by \$500 and the reserve requirement were 10 percent, it would change excess reserves by:
  - a. \$50.
  - b. \$500.
  - c. \$5.
  - d. \$5000.
  
4. If the Fed sells bonds in the open market, you would expect that the money supply would:
  - a. increase.
  - b. decrease.
  - c. not change.
  - d. impossible to tell.
  
5. The immediate objective of the Fed is to:
  - a. guarantee the safety of bank deposits.
  - b. print money.
  - c. control the money supply.
  - d. set banking hours.

#### ANSWERS

##### Matching

1. d
2. b
3. e
4. c
5. a

##### True-False

1. F
2. T
3. F
4. F
5. T

#### In the News

1. a. A decrease in the reserve requirement will cause the money supply to increase. Banks hold less in required reserves and therefore have more to loan out. The checkable deposits created by the loan process will be larger.

- b. A decrease in the reserve requirement will increase the size of the money multiplier. That is because the money multiplier is the reciprocal of the reserve requirement.
- 2. a. When the Fed buys securities on the open market, there is an expansionary effect on the money supply.
- b. When the Fed buys securities on the open market, the seller of the securities will get a check drawn on the Fed. That check is then deposited in a bank, and the bank's reserves go up. A portion of the increase in reserves is excess reserves.
- 3. a. What is meant by "better"? If we want control of the money supply based on the needs of the economy, then we may prefer that the money supply be in the hands of the Fed where some independence from political pressure is possible. If we want control of the money supply based on political needs, then the money supply should be in the hands of Congress. Note that the Congress did have control of the money supply before it created the Fed. Congress found that it needed an independent organization to control the money supply.
- b. There are some who believe that joint control of monetary and fiscal policy would be desirable. That would allow the tools to be used in a complementary fashion to achieve one set of goals rather than have the tools fight against each other. But again, independence of the political process is probably desirable.
- 4. a. An increase in the discount rate means that the Fed is trying to decrease the rate of growth of the money supply.
- b. An increase in the discount rate signals banks that the Fed is less willing to make loans to the member banks. So if banks find that they are in need of extra reserves, the Fed will not supply them. That encourages banks to be more conservative about making loans and will decrease the money supply.

#### Practice Test

1.d., 2.b., 3.a, 4.b., 5.c.