Chapter 27: The Monetary System

Questions for Review: Answers

1. Money is different from other assets in the economy because it is the most liquid asset available. Other assets vary widely in their liquidity.

2. Commodity money is money with intrinsic value, like gold, which can be used for purposes other than as a medium of exchange. Fiat money is money without intrinsic value; it has no value other than its use as a medium of exchange. Our economy today uses fiat money.

3. Demand deposits are balances in bank accounts that depositors can access on demand simply by writing a check. They should be included in the stock of money because they can be used to buy goods and services.

4. If the Fed wants to increase the supply of money with open-market operations, it purchases U.S. government bonds on the open market. The purchase increases the number of dollars in the hands of the public, thus raising the money supply.

5. The discount rate is the interest rate on loans that the Federal Reserve makes to banks. If the Fed raises the discount rate, fewer banks will borrow from the Fed, so banks' reserves will be lower, and thus the money supply will be lower.

6. Reserve requirements are regulations on the minimum amount of reserves that banks must hold against deposits. An increase in reserve requirements raises the reserve ratio, lowers the money multiplier, and decreases the money supply.

7. The Fed can't control the money supply perfectly because: (1) the Fed doesn't control the amount of money that households choose to hold as deposits in banks; and (2) the Fed does not control the amount that banks choose to lend. The actions of households and banks affect the money supply in ways the Fed can't perfectly control or predict.

Problems and Applications: Answers

1. a. A U.S. penny is money in the U.S. economy because it is used as a medium of exchange to buy goods or services, it serves as a unit of account because prices in
<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings</td>
<td>$50</td>
</tr>
<tr>
<td>Checking</td>
<td>$0</td>
</tr>
<tr>
<td>Loan</td>
<td>$100</td>
</tr>
</tbody>
</table>

**Checking Account**

Don't forget to balance your checking account regularly. You can also withdraw cash from your savings account by writing a check.

**Savings Account**

Your interest rate is 1.5% on balances above $1,000.

**Debit Card**

Use your debit card for purchases and cash withdrawals. Remember to check your statements regularly.

**Loan**

Your current loan balance is $100. Please make payments on time to avoid penalties.

**Bank Hours**

The bank is open from 9:00 AM to 5:00 PM, Monday through Friday.
7.

If you're 1,000, your receipt is forwarded with the sample payment. Should you feel any discomfort or have questions, please do not hesitate to contact the bank.

8.

Assists Lenders

Debentures/Loan Bank

Loans: $16 million
Deposits: $40 million
Reserves: $24 million

Assists Lenders

Debentures/Loan Bank

Loans: $22 million
Deposits: $50 million
Reserves: $25 million

By agreeing to this loan, you acknowledge that the debentures/loan bank reserves the right to adjust terms and conditions as necessary.
Hancock Phase Company

1. If people have $1,000 in currency and $1,400 in demand deposits, the quantity of money M₀ is $2,400.

2. The quantity of money M₀ is $2,400.

3. If people hold all money as demand deposits, banks with 10% excess reserves:

   A. If people hold all money as currency, the quantity of money is $2,400.

4. If banks' reserves are 20% of deposits, $2,000 billion of reserves would be required to guarantee solvency of the banking system.

5. If banks' reserves are 10% of deposits, $1,000 billion of reserves would be required to guarantee solvency of the banking system.

6. If the required reserve ratio is increased to 20% of deposits, the monetary base decreases.

7. Thus, excess reserves are:

   A. 10% of deposits are excess reserves.

8. Excess reserves are:

   A. 10% of deposits are excess reserves.

9. When banks hold only required reserves, no excess reserves exist and there is no effect on the money stock. When banks hold excess reserves, their deposits expand in proportion to the holding of excess reserves. The larger the amount of excess reserves that banks hold, the larger the expansion of deposits and the money stock.

10. When a bank lends, it receives an excess reserve if the proceeds of the loan exceed the amount lent.

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18. When a bank lends, it receives an excess reserve if the proceeds of the loan exceed the amount lent.
1. Determine the amount of currency (C) and demand deposits (D) and the amount of money in the system. If the banks held 0% of their reserves as currency, the quantity of money would be $280,000. If the banks held 10% of their reserves as currency, the quantity of money would be $29,400.

2. Determine the fraction of currency (c) and demand deposits (d) and the fraction of money in the system. If the banks held 0% of their reserves as currency, the quantity of money would be $280,000. If the banks held 10% of their reserves as currency, the quantity of money would be $29,400.

3. Check your answers by using the formula for the quantity of money. The quantity of money (M) is equal to the amount of currency (C) plus the amount of demand deposits (D) multiplied by the reserve ratio (r).

4. To determine the quantity of money, first calculate the total amount of deposits (D) by adding the amount of currency (C) and the amount of demand deposits (D). Then, multiply the total amount of deposits by the reserve ratio (r) to get the reserve requirement (R).

5. The reserve requirement (R) is equal to the amount of deposits (D) multiplied by the reserve ratio (r).

6. Finally, divide the reserve requirement (R) by the reserve ratio (r) to get the amount of money in the system (M).

7. The amount of money in the system (M) is equal to the amount of currency (C) plus the amount of demand deposits (D) multiplied by the reserve ratio (r).