The Monetary System

Chapter 29

Your Journal Question

- You want this item!
- The question is: What is the advantage of using money as a means of exchange for this item as opposed to anything else?

The History of Money

- First, there was barter
- Then, there was Commodity money
  - This money takes the form of a commodity with intrinsic value.
  - Examples: Gold, silver, cigarettes.
- Finally, there was Fiat money is used as money because of government decree.
  - It does not have intrinsic value, it has value because of decree.
  - Examples: Coins, currency, check deposits.
  - Money Museum of Richmond Federal Reserve Bank
  - Money Museum of San Francisco Federal Reserve Bank
The Meaning of Money

Money is the set of assets in the economy that people regularly use to buy goods and services from other people.

Three Functions of Money

- Money has three functions in the economy:
  - Medium of exchange
  - Unit of account
  - Store of value

Money in the U.S. Economy

- Currency is the paper bills and coins in the hands of the public.
- Demand deposits are balances in bank accounts that depositors can access on demand by writing a check.
### Money in the U.S. Economy

<table>
<thead>
<tr>
<th>Measure</th>
<th>Amount in 1998</th>
<th>What’s Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>$1,092 billion</td>
<td>Currency, Traveler’s checks, Demand deposits, Other checkable deposits</td>
</tr>
<tr>
<td>M2</td>
<td>$4,412 billion</td>
<td>Everything in M1, Saving deposits, Small time deposits, Money market mutual funds, A few minor categories</td>
</tr>
</tbody>
</table>

NOTE: \( M3 = M2 + \) Large Time Deposits

### Where Is All The Currency?

- In 1998 there was about $460 billion of U.S. currency outstanding.
  - That is $2,240 in currency per adult.
- Who is holding all this currency?
  - Currency held abroad
  - Currency held by illegal entities

### The Federal Reserve

- The Federal Reserve (Fed) serves as the nation’s central bank.
  - It is designed to oversee the banking system.
  - It regulates the quantity of money in the economy.
  - It was created in 1914 to restore confidence in the nation’s banking system.
  - [Online Tour of the Federal Reserve System](#)
The Federal Reserve System

- The Structure of the Federal Reserve System:
  - The primary elements in the Federal Reserve System are:
    1) The Board of Governors
    2) The Regional Federal Reserve Banks
    3) The Federal Open Market Committee

Three Primary Functions of the Fed

- Regulates banks to ensure they follow federal laws intended to promote safe and sound banking practices.
- Acts as a banker’s bank, making loans to banks and as a lender of last resort.
- Conducts monetary policy by controlling the money supply.
Fed’s Tools of Monetary Control

- The Fed has three tools in its monetary toolbox:
  - Open-market operations
  - Changing the reserve requirement
  - Changing the discount rate

Problems in Controlling the Money Supply

- The Fed’s control of the money supply is not precise.
- The Fed must wrestle with two problems that arise due to fractional-reserve banking.
  - The Fed does not control the amount of money that households choose to hold as deposits in banks.
  - The Fed does not control the amount of money that bankers choose to lend.

Banks and The Money Supply

Banks can influence the quantity of demand deposits in the economy and the money supply.
Banks and The Money Supply

- **Reserves** are deposits that banks have received but have not loaned out.
- In a *fractional reserve banking* system, banks hold a fraction of the money deposited as reserves and lend out the rest.
- When a bank makes a loan from its reserves, the money supply increases.

Money Creation

- The money supply is affected by the amount deposited in banks and the amount that banks loan.
- Deposits into a bank are recorded as both assets and liabilities.
- The fraction of total deposits that a bank has to keep as reserves is called the reserve ratio.
- Loans become an asset to the bank.

Money Creation

- This T-Account shows a bank that...  
  ...accepts deposits,  
  ...keeps a portion as reserves,  
  ...and lends out the rest.  
  - It assumes a reserve ratio of 10%.

### First National Bank

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserves</td>
<td>Deposits $100.00</td>
</tr>
<tr>
<td>Loans $90.00</td>
<td>Total Liabilities $100.00</td>
</tr>
<tr>
<td>Total Assets $100.00</td>
<td></td>
</tr>
</tbody>
</table>
Money Creation

<table>
<thead>
<tr>
<th>First National Bank</th>
<th></th>
<th>Second National Bank</th>
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<td><strong>Assets</strong></td>
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Money Supply = $190.00!

The Money Multiplier

How much money is eventually created in this economy?

Original deposit = $100.00
First National lending = $90.00 [=0.9 x $100.00]
Second National lending = $81.00 [=0.9 x $90.00]
Third National lending = $72.90 [=0.9 x $81.00]

Total money supply = $1,000

The Money Multiplier

The money multiplier is the reciprocal of the reserve ratio:

\[ M = \frac{1}{R} \]

- With a reserve requirement, \( R = 20\% \) or \( 1/5 \),
- The multiplier is 5.
- Problem of Bank Runs—it’s a wonderful life!
- Federal Deposit Insurance Corporation (FDIC)