**Chapter 29: The Monetary System**
**Principles of Economics, 8th Edition**
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*1.* Introduction
  *a.* *This is a fairly descriptive chapter, but it contains some important material for understanding the world that we live in.*
  b. Money is important for facilitating trade.
  c. Paper money has no intrinsic value.

2. The Meaning of Money
  a. In other contexts the term money is used very loosely to mean wealth or income.
  b. Money is the set of assets in an economy that people regularly use to buy goods and services from other people. P. 604.
  c. There are three functions of money, as it is a
    i. Medium of exchange is an item that buyers give to sellers when they want to purchase goods and services. P. 605.
    ii. Unit of account is the yardstick people use to post prices and record debt. P. 605.
      (1) Wealth is the total of all stores of value.
    *iii.* Store of value is an item that people can use to transfer purchasing power from the present to the future. P. 611.
  d. *Alternatively, it can be viewed as a highly liquidity asset that facilitates transactions:*
    *i.* Liquidity is the ease with which an asset can be converted into the economy's medium of exchange. P. 605.
  e. When people decide in what form to hold their wealth, they have to balance the liquidity of each possible asset against the asset's usefulness as a store of value.
  f. The Kinds of Money
    *i.* Commodity money is money that takes the form of a commodity with intrinsic value. P. 605.
      (1) An example is gold.
    ii. Fiat money is money without intrinsic value that is used as money because of government decree. P. 606.
    iii. **In the News: Why Gold?, P. 612.**
  g. Money in the U.S. Economy
    i. It is not easy to draw a line between the assets that can be called "money" and assets that cannot.
    ii. Currency is the paper bills and coins in the hands of the public. P. 607.
    iii. Demand deposits are balances in bank accounts that depositors can access on demand by writing a check. P. 607.
  h. **FYI: Why Credit Cards Aren't Money, P. 609.**

- i. A credit card transaction does not involve money.

i. **Figure 1: Two Measures (M1 and M2) of the Money Stock for the U.S. Economy. P. 608.**
- i. M1 is basically currency in circulation and checkable deposits.
- ii. M2 is M1 plus savings accounts, smalltime deposits and money market mutual funds.

m. **Case Study: Where is All the Currency? P. 608.**
- i. There is $4,490 of currency in circulation for each American.
- ii. Who is holding it?
  - (1) Foreigners and
  - (2) Drug dealers.

3. The Federal Reserve (Fed) is the central bank of the United States. P. 609.

a. Central bank is an institution designed to oversee the banking system and regulate the quantity of money in the economy. P. 609.

b. *It is a lender of last resort.*

c. The Fed's organization
- i. It was created in 1913
- ii. The Board of Governors consists of 7 members serving 14 year terms.
- iii. The Chairman
  - (1) directs the Fed staff,
  - (2) presides over board meetings and
  - (3) testifies regularly before Congress.
- iv. 12 regional Reserve Banks.
- v. Jobs:
  - (1) Supervise banks and
  - (2) Control the money supply.
  - (3) Money supply is the quantity of money available in the economy. P. 610.
  - (4) Monetary policy is the setting of the money supply by the policymakers in the central bank. P. 610.
  - (5) *In contrast to the view presented by the media, its "powers" have traditionally been very limited.*

*d.* The Federal Open Market Committee
- *i.* It consists of the 7 members of the Board of Governors and five of the twelve regional bank presidents.
- ii. This is the key institution.
- iii. It conducts (no surprise) open market operations.

4. Banks and the Money Supply

a. The simple case of 100 percent reserve banking

i. Reserves are deposits that banks have received but have not loaned out. P. 612.
ii. If banks hold all deposits in reserve, banks do not influence the supply of money.

b. Money Creation with Fractional Reserve Banking
i. Fractional reserve banking is a banking system in which banks hold only a fraction of deposits as reserves. P. 612.
(1) When banks hold only a fraction of deposits in reserve, banks create money.
ii. Reserve ratio: The fraction of deposits that banks hold as reserves. P. 612.

| **FIRST NATIONAL BANK** | | | |
|---|---|---|---|
| **Assets** | | **Liabilities** | |
| Reserves | $10.00 | Deposits | $100.00 |
| Loans | $90.00 | | |
| | | | |
| **SECOND NATIONAL BANK** | | | |
| **Assets** | | **Liabilities** | |
| Reserves | $9.00 | Deposits | $90.00 |
| Loans | $81.00 | | |
| | | | |
| **THIRD NATIONAL BANK** | | | |
| **Assets** | | **Liabilities** | |
| Reserves | $8.10 | Deposits | $81.00 |
| Loans | $72.90 | | |

*c.* The money multiplier
*i.* The simple money multiplier is 1/rr, so the higher the reserve ratio, the less of each deposit banks loan out and the smaller the money multiplier.
*ii.* *A more realistic money multiplier would take into account currency held by the public and the potential for excess reserves by banks.*

(1) *Money(M) = C(C)urrency+ Deposits(D)*
(2) *Monetary Base(B) = C + Reserves(R)*
(3) *M/B = (C/D + 1)/(C/D +R/D)*
(4) *In the US, C/D = .4 and R/D = .1, so each dollar of B creates 2.8 dollars of M.*

iii. Money multiplier is the amount of money the banking system generates with each dollar of reserves. P. 614.

d. Bank Capital, Leverage, and the Financial Crisis of 2008-2009

i. Bank capital is the resources a bank's owners have put into the institution. P. 615.
ii. Leverage is the use of borrowed money to supplement existing funds for purposes of investment. P. 615.
iii. Leverage ratio is the ratio of assets to bank capital. P. 615.
iv. Capital requirement is a government regulation specifying a minimum amount of bank capital. P. 615.
v. In 2008-9, a shortage of capital induced the banks to reduce their lending, a phenomenon sometimes called a credit crunch, which in turn contributed to a severe downturn in economic activity.

e. The Fed's Tools of Monetary Control

i. Open market operations are the purchase and sale of U.S. government bonds by the Fed. P. 617.
(1) *This is usually the only tool used.*
i. Discount rate is the interest rate on the loans that the Fed makes to banks. P. 617.
(1) *This is like borrowing from your parents as the Fed will ask why you are there.*
(2) *The alternative source of short term funds is the federal funds market.*
ii. Reserve requirements are regulations on the minimum amount of reserves that banks must hold against deposits. P. 618.
(1) *This has too big a bang to be used normally.*

f. Problems in Controlling the Money Supply

i. The Fed does not control
the public's demand for currency or
the banks' demand for excess reserves.
i. However, both of these tend to be fairly stable.

*g.* **Case Study: Bank Runs and the Money Supply, p. 619.**

*i. This is a very important case study.*
*ii. Initially, the Great Depression was interpreted as an example of the natural tendencies of private decisions to destabilize an economy.*
*iii. However, the explanation now accepted by most economists for the Great Depression is the extreme incompetence of the Federal*

*Reserve, which permitted the money supply to decline by 28 percent between 1929 and 1933.*

**iv.** *This translated into unexpected deflation that had a devastating effect on the economy.*

h. The Federal Funds Rate

i. This is the rate on short term loans between banks. P. 628.

ii. *While the primary vehicle in monetary policy is the money supply, the Fed's actions are presented in terms of the federal funds rate.*

iii. *A reduction in the federal funds rate implies an increase in the growth rate of the money supply.*

iv. *A increase in the federal funds rate implies a reduction in the growth rate of the money supply.*

**i. In the News: A Trip to Jekll Island: How the Fed was Created, P. 620.**

5. Conclusion

6. Summary