Chapter 11 Monetary Policy and Central Bank

1. Central Bank

* The Federal Reserve System (the Fed)
* The bank of the commercial banks.
* Duties:   
  a. regulate the commercial banks   
  b. apply monetary policies

2. Money demand (MD)

* The need to use money as medium of exchange.
* MD: the negative relationship between interest rate and the quantity money demanded.
* If price level increases, people have to hold more money to pay bills and buy goods and services. Thus MD increases. The MD curve shifts to the right.

Vice versa.

* If income level increases, people tend to hold more money so that they can spend more. Thus MD increases. The MD curve shifts to the right.

Vice versa.

3. Money supply (MS)

* Money supply is the amount of money circulating in an economy. Money supply is measured by M1 and M2.
* Money supply is controlled by the Fed.

4. Money market equilibrium

* Equilibrium interest rate occurs where MD and MS interact.
* What can the Fed do if it wants to raise the interest rate?
* What can the Fed do if it wants to lower the interest rate?

5. Three Monetary policies

**Policy #1. Open-Market Operation**

* If the Fed **buys** government bonds in the open market,
* MS increases;
* interest rate decrease;
* investment increases;
* GDP increases.

**Example.** What would happen to money supply if the Fed buys $1000 worth of government bonds from the open market? Assume the reserve ratio is 10%.

* The seller of the government bond received $1000 from the Fed;
* The seller saves the $1000 in a bank;
* Through the multiplier effect, MS = (1/0.1)($1000) = $10,000

Answer: MS increases by $10,000.

**Policy #2. Changes in the discount rate**

* The *i* charged by the Fed on its loan to the banks.
* If the Fed decreases the discount rate,
* Banks would tend to borrow more from the Fed to make loans to firms
* MS increases;
* interest rate decrease;
* investment increases;
* GDP increases.

**Policy #3. Changes in the reserve ratio**

* If the Fed decreases the reserve ratio,
* MS increases;
* interest rate decrease;
* investment increases;
* GDP increases.

Case study 1. If an economy is in recession, what monetary policy should the Fed apply?

Case study 2. If an economy is overheated, what monetary policy should the Fed employ?