

Chapter 5: The Behavior of Interest Rates

1 Determinants of Asset Demand

- Wealth
- Expected return
- Risk
- Liquidity

2 Supply and Demand in the Bond Market

$$i = R^e = \frac{F - P}{P} = \frac{F}{P} - 1 \quad (1)$$

2.1 Market Equilibrium

$$B^d = B^s \quad (2)$$

- See Figure 1

2.2 Changes in Equilibrium Interest Rates

2.2.1 Shifts in the Demand for Bonds

- Wealth

- Expected return

Problem 1: When the 1-year interest rate rises and the expected return rises for the 1-year bonds, does the demand curve shift? Explain.

Problem 2: When the 1-year interest rate expected to prevail in the next year, does the demand curve for 2-year bonds shift? Assuming that the supply curve does not shift, explain what will happen to the 2-year interest rate.

- Risk
- Liquidity

See Table 2 and Figure 2

2.2.2 Shifts in the Supply for Bonds

- Expected profitability of investment opportunities\
- Expected inflation

See Figures 4 and 5

- Government budget

Government deficit = The Government expenditures - its revenues

See Table 3 and Figure 3

2.2.3 Changes in the Equilibrium Interest Rate

Problem 3: When the expected inflation rises, what happens to the nominal interest rate? Explain with the demand and supply analysis for bonds.

See Figures 4 and 5

Problem 4: When the government deficit rises and the government finances it by issuing bonds, what happens to the interest rate? Explain with the demand and supply analysis for bonds.

3 Supply and Demand in the Market for Money: The Liquidity Preference Framework

Each investor is under the wealth constraint: when you add quantities of all assets demanded, the total sum is equal to the wealth. Assume that the only assets are money and bonds for simplicity.

$$B^s + M^s = B^d + M^d \quad (3)$$

Rewrite this as

$$B^s - B^d = M^s - M^d \quad (4)$$

If the money market is in equilibrium, then the bond market is also in equilibrium.

The nominal interest rate gives the opportunity cost of holding money.

See Figure 8.

3.1 Changes in Equilibrium Interest Rates in the Liquidity Preference Framework

3.1.1 Shifts in the Demand for Money

- Income Effect
- Price-Level Effect

3.1.2 Shifts in the Supply for Money

3.1.3 Changes in the Equilibrium Interest Rate

- Changes in Income

- Changes in the Price Level
- Changes in the Money Supply

See Table 4 and Figures 9 and 10