

EE431/438 Economics of Financial Markets and Institutions

Exercise 5: Debt Market and Structure of Interest Rate

Measuring Interest Rate

Deadline : Friday, 14 October 2011

1. Answer part a, b, and c.
 - a. Calculate the present value of \$1,000 zero-coupon bond with 5 years to maturity if the required annual interest rate is 6%.
 - b. Repeat the calculation for an interest rate of 7%.
 - c. Calculate the present value if the interest rate is 6% with 6 years to maturity.
2. Assume you just deposited \$1,000 into a bank account. The current real interest rate is 2% and inflation is expected to be 6% over the next year. According to Fisher's equation, what nominal interest rate would you require from the bank over the next year? How much money will you have at the end of one year? If you are saving to buy a stereo that currently sells for \$1,050, will you have enough to buy it?
3. A 10-year, 7% coupon bond with a face value of \$1,000 is currently selling for \$871.65. Compute your rate of return if you sell the bond next year for \$880.10.
4. Consider a **8-years**, 7.5% coupon bond selling for 6,933 Baht with the par value 8,000 Baht. The coupon payment is made annually. Calculate the yield to maturity.
5. The yield to maturity of a coupon bond usually cannot be solved directly. Explain how to determine the yield to maturity of a coupon bond by using trial and error technique.
6. Suppose that a corporate bond has a coupon rate of 20%, a face value of £1,000, a yield to maturity of 10%, and matures in two years. The coupon payment is made annually. Obtain an expression for the price of the bond.