

EC 247 Financial Instruments and Capital Markets

Class Exercise 1

Question 1

- Calculate the present value of \$1,000 zero-coupon bond with 5 years to maturity if the required annual interest rate is 6%.
- Repeat the calculation for an interest rate of 7%.
- Calculate the present value if the interest rate is 6% with 6 years to maturity.

Question 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. 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?

Question 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.

Question 4

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. Obtain an expression for the price of the bond assuming semi-annual compounding.

Question 5

What is the yield to maturity on a bond that has a price of £3,000 and pays £150 annually forever?
