GANCO, Econ 353, Summer 2005

Problem Set I
(Due in class on June 24, 2005)

Problems from the textbook:

Chapter 1:  13, 15
Chapter 2:  2, 4, 8, 10, 12
Chapter 3:  8, 10, 14
Chapter 4:  12, 14

plus the following:

1. If there are 15 goods in a barter economy, how many price tags will be required?

2. Consider three savings accounts. Bank A pays 8% APR (Annual Percentage Rate) compounded bi-monthly (every two months), Bank B pays 7.9% APR compounded monthly and Bank C pays 8.15% APR compounded annually. Based on APRs, which bank would you prefer?

4. Suppose you buy a bond with Face Value of $1000, annual coupon rate 10% payable annually, with a term to maturity of 3 years. Its yield to maturity is 2.55%.
   a. What is its selling price?
   b. Exactly one year later, nominal interest rates rise to 12%. If your holding period is 1 year i.e., you have to sell the bond after one year, what price would you end up selling at? What will be your rate of return in holding this bond for one year?
   c. Now, suppose you could hold it until its maturity. What is your rate of return now? Do you think you were better off by holding it until maturity? (Hint: assume that you can reinvest the proceeds from the sale of the bond and the coupon at 12%)

5. A 9-year zero-coupon bond with a Face Value of $1000 is sold at a price of $500. If the annual inflation rate is expected to be 2%, what is the expected real interest rate on this investment? If the actual inflation rate turns out to be 6%, would it benefit the issuer or the investors?