END OF CHAPTER EXERCISES

Chapter 7 : Bond Markets

Investments : Spot and Derivatives Markets

(Keith Cuthbertson, Dirk Nitzsche)

- 1. What is a Treasury (or Gilt) 'strip'?
- 2. What are the key features of a bond which help determine its yield to maturity?
- 3. The quoted price for a UK gilt-edged stock is "£ 105.21875 xd" (xd = "ex-dividend", that is excluding the next 'dividend'/coupon payment). What is the (clean) price of this gilt (per £100 nominal) and will this be the price paid by the investor ?
- 4. Assume that you require a 10 percent (compound) return on a zero coupon bond with a par (face value) of £1000 and five years to maturity. What price would you pay for the bond ?
- 5. Consider a 7 percent coupon, US government bond that has a par value of \$1000 and matures five years from now. The coupon payments are made annually. The current yield to maturity YTM (redemption yield) for such bonds is 8%. Calculate the market price of the bond and state whether you expect this bond to sell at par, at a premium (over par), or at a discount ?
- 6. Consider the following German government, coupon bond (ie. "Bunds") :

Price = \notin 769.42 Coupon = 7% p.a. (paid every 6 months) Par value = \notin 1000 Maturity = 15 years

Show that the semi-annual yield is r = 5%, so that the yield to maturity on a "bond equivalent basis" (i.e. simple annual yield) is 10%.

7. Why are coupon bonds priced using spot rates (yields)? What then is the significance of the yield to maturity YTM?