

Exercise: A \$1000 par value 10 year bond with semiannual coupons, redeemable at 1100 is purchased at 1135 to yield 12% convertible semiannually. The first coupon is X . Each subsequent coupon is 4% greater than the preceding one. Determine X .

Exercise Deposits of \$100 are made
at the ends of the first four years.
If the spot rates are $S_t = .04 + t(0.05)$,
find the net present value.

Exercise: You are given two \$1000 par value 5-year bonds A and B with 4% annual coupons maturing a par. Bond A is a regular bond and Bond B is a TIPS bond. The purchase price of Bond A is \$950. Assume the annual inflation rate in the next 5 years is 5%. Calculate the price of bond B so that both bonds have the same yield rate.

Exercise A depositor has \$100 in an account on January 1, and makes deposits at the end of each quarter as seen below. Find the dollar weighted and time weighted yield for the year.

<u>Date</u>	<u>Value just prior to Deposit</u>	<u>Deposit</u>
March 30	101.50	\$ 40
June 30	144.00	\$ 50
Sept 30	205.50	\$ 50
December 30	265.50	

Exercise A \$100 par value 12-year bond with 10% semiannual coupons is selling for \$110. If the coupons can only be invested at 7% convertible semiannually, compute the overall yield rate achieved by a bond purchaser over the 12-year period.

Exercise: A four year annuity-immediate makes annual payments. It pays 1000 at the end of year 1 and subsequent payments are 4% higher than the previous payment. Assume an annual effective interest rate of 5%. Find \bar{t} , \bar{d} and \bar{V} .