

BONDS - PREMIUM / DISCOUNT

If price > redemption value, then bond is "sold at a premium":

$$\begin{aligned}\text{Premium} &= P - C = (Fr - Ci) a_{\overline{n}|i} \quad (i < g) \\ &= C(g - i) a_{\overline{n}|i}\end{aligned}$$

If price < redemption value, then bond is "sold at a discount":

$$\begin{aligned}\text{Discount} &= C - P = (Ci - Fr) a_{\overline{n}|i} \quad (i > g) \\ &= C(i - g) a_{\overline{n}|i}\end{aligned}$$

Profit or loss upon redemption of bond is reflected in yield rate.

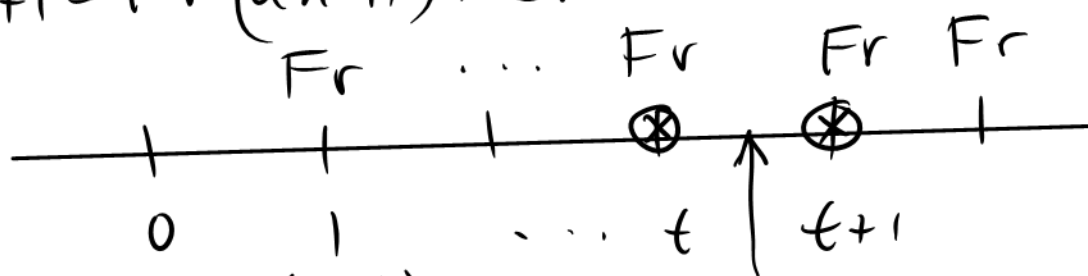
THIS PAGE WAS INTENTIONALLY LEFT BLANK

PRICE BETWEEN COUPON DATES

Usual formula for price of bond immediately after payment of coupon

$$P_t = Fr(a\overline{n}|i) + Cv^n \quad [n \text{ is remaining term of bond}]$$

$$P_{t+1} = Fr(a\overline{n-1}|i) + Cv^{n-1}$$



$$P_{t+1} = P_t(1+i) - Fr$$

$$P_{t+k} = P_t(1+i)^k \quad \text{where } 0 < k < 1$$

$$P_{t+k} = (P_{t+1} + Fr)(1+i)^{1-k} \quad 0 < k < 1$$

Assumes compound interest

Also use simple interest

$$P_{t+k} = P_t(1+ki) \quad 0 < k < 1$$

THIS PAGE WAS INTENTIONALLY LEFT BLANK