6. Bond Valuation

① Coupon Interest will always Calculated on face value.

② Coupon rate is not return for investor because Coupon % is Calculated on face value but return % is Calculated on market price.

③ Price of bond = Present value of inflow receivable

④ Types of Bond

(a) Perpetual Bond → In this bond, investor receive equal interest at the end of each year till indefinite period. No redeemable value received by investor.

(b) Amortisable Bond → Company pays redeemable value equally each year over the life of bond.

(c) Callable Bond → If bond Contain Call feature then Company Can redeem the bond before its maturity.

(5) Current yield = $\frac{\text{Interest over next 1 year period}}{\text{Current price}} \times 100$

(6) Holding period return = Return to an investor from purchase date to sale date is known as holding period return.

$$\frac{\text{Inflow} - \text{outflow}}{\text{outflow}} \times 100$$

(7) Average YTM (Average yield to maturity)

$$= \frac{\left[\text{Annual interest net of taxes} + \left(\frac{RV - NP}{\text{life}}\right)\right]}{\left(\frac{RV + NP}{2}\right)} \times 100$$

RV = Redemption Value

NP = Net Proceeds

(8) (a) Realized return > YTM → overvalued Bond

(b) Realized return < YTM → undervalued Bond

(9) Indifference between taxable bond and tax free bond.

↓

Yield from taxable bond = Yield from tax free bond.

(10) Convertible bonds

These bonds can be converted into pre-determined number of equity shares at the option of investor.

(a) Conversion value = No of equity share per bond × Price per share

(b) Conversion premium (%) = $\frac{B_0 - CV_0}{CV_0} \times 100$

(c) Floor value (also known as Straight Value of bond)

$$\left[\text{Annual Interest} \times PVIFA(RR, n)\right] + \left[\text{Redemption value} \times PVIF(RR, n)\right]$$

(d) % of downside risk

$$\frac{B_0 - \text{Floor value}}{B_0} \times 100$$

(e) Conversion parity price of share

At parity,

Price of bond = Value of share

(8) Total favourable Income difference

↓

Coupon Interest − Dividend on Share

(9) Premium payback period

↓

$$\frac{\text{Total Conversion premium}}{\text{Annual Favourable Income difference}}$$

(11) Dirty price = Clean price + ACCrued Interest

(12) IB price of bond & redeemable value is equal to face value then Coupon rate will be equal to YTM.