

$$Interest = p \times r \times t$$

$$PV = \frac{FV}{(1 + r)^t}$$

$$APR = \left[\sqrt[nr\ of\ periods]{(1 + EAR)} - 1 \right] * nr\ of\ periods$$

$$PV (\text{perpetuity}) = \frac{CF}{r}$$

$$FV(\text{annuity}) = CF * \left[\frac{1}{r} - \frac{1}{r * (1 + r)^t} \right] * (1 + r)^t$$

$$\text{FV}_{\text{Annuity Due}} = \text{FV}_{\text{Ordinary Annuity}} \times (1 + r)$$

$$NPV = C_0 + C_1 * \left[\frac{1}{r} - \frac{1}{r * (1 + r)^t} \right]$$

$$P_0 = \frac{\text{Div}_1}{(1 + r)^1} + \frac{\text{Div}_2}{(1 + r)^2} + \dots + \frac{\text{Div}_t + P_t}{(1 + r)^t}$$

$$P_0 = \frac{DIV_1}{r - g}$$

$$g = ROE * \text{plowback ratio}$$

$$price = \text{coupon} * \left[\frac{1}{r} - \frac{1}{r * (1 + r)^t} \right] + \frac{\text{face value}}{(1 + r)^t}$$

$$\text{coupon payment} = \text{coupon rate} * \text{face value}$$

$$RoR = \frac{\text{coupon} + (P_1 - P_0)}{P_0}$$

$$FV = PV * (1 + r)^t$$

$$EAR = \left(1 + \frac{APR}{\text{number of periods}} \right)^{\text{number of periods}} - 1$$

$$1 + \text{real rate} = \frac{1 + \text{nominal rate}}{1 + \text{inflation}}$$

$$PV(\text{annuity}) = CF * \left[\frac{1}{r} - \frac{1}{r * (1 + r)^t} \right]$$

$$\text{PV}_{\text{Annuity Due}} = \text{PV}_{\text{Ordinary Annuity}} \times (1 + r)$$

$$NPV = C_0 + \frac{C_1}{(1 + r)^1} + \frac{C_2}{(1 + r)^2} + \dots + \frac{C_t}{(1 + r)^t}$$

$$V_0 = \frac{\text{Div}_1 + P_1}{1 + r}$$

$$P_0 = \frac{DIV_1}{r}$$

$$DIV_1 = DIV_0 * (1 + g)$$

$$\text{Expected return} = r = \frac{\text{Div}_1 + P_1 - P_0}{P_0}$$

$$\text{coupon rate} = \frac{\text{coupon payment}}{\text{face value}}$$

$$\text{current yield} = \frac{\text{coupon payment}}{\text{price}}$$

$$r_e = r_f + \beta(r_m - r_f)$$

$$\text{WACC} = \left[\frac{D}{V} \times (1 - T_c) r_{\text{debt}} \right] + \left[\frac{P}{V} \times r_{\text{preferred}} \right] + \left[\frac{E}{V} \times r_{\text{equity}} \right]$$