Formula Sheet: MBA 611 – Test #2

$$FV = PV(1+i)^n \qquad PV = \frac{FV}{(1+i)^n}$$

$$FV_A = CF[\frac{(1+i)^n - 1}{i}] \qquad PV_A = CF[\frac{1}{i} - \frac{1}{i(1+i)^n}]$$

EVA = residual income = income earned – income required

EVA = income earned – cost of capital x investment

Economic Profit = EP = (ROI – r) x capital invested

V = D + E

$$r_E = r_A + (r_A - r_D)\frac{D}{E}$$

$$r_A = r_D\frac{D}{V} + r_E\frac{E}{V}$$

$$B_A = B_{portfolio} = B_D\frac{D}{V} + B_E\frac{E}{V}$$

$$PV\ (tax\ shield) = \frac{corporate\ tax\ rate\ x\ interest\ payment}{expected\ return\ on\ debt} = \frac{T_c(r_D D)}{r_D} = T_C D$$

$$Relative\ tax\ advantage\ of\ debt = \frac{1 - T_p}{(1 - T_{pE})(1 - T_c)} = \frac{1}{1 - T_C}$$

$$WACC = r_D(1 - T_C)\frac{D}{V} + r_E\frac{E}{V}$$

$$WACC = r_D(1 - T_C)\frac{D}{V} + r_P\frac{P}{V} + r_E\frac{E}{V}$$

$$Opportunity\ cost\ of\ capital = r = r_D\frac{D}{V} + r_E\frac{E}{V}$$

$$r_E = r + (r - r_D)\frac{D}{E}$$

APV = base-case NPV + sum of PV of financing side effects

APV = base-case NPV + PV (interest tax shields)