

$$\beta_{\text{port}} = .3(.8) + .3(1.1) + .2(1.5) + .2(1.6) = \boxed{1.19}$$

$$R_{\text{port}} = 3 + 6(\beta) = \boxed{10.1470}$$

CAPM: $R_{\text{stock}} = 7\% + \beta(11)$

$$\beta_A = \frac{\sigma_{A, \text{M}}}{\sigma_{\text{M}}^2} = \frac{.007}{.0067} = 1.04375$$

$$\beta_B = .703125$$

$$\beta_C = .203125$$

	calc R _{it}	Actual R _{it}	over/underpriced?
R _A	19.03	19	Under
R _B	14.734	15	over
R _C	9.234	9	under.

A, C are good buys.

B. Assume $\beta_D = 0$.

$$\beta_A = \beta_E \cdot X_E + \beta_D \cdot X_D = 1.2 \left(\frac{1}{3}\right) = \boxed{.4}$$

$$r_{\text{WACC}} = \frac{S}{S+B} r_S + \frac{B}{S+B} r_B (1-T_c) \quad \frac{D}{E} = \frac{B}{S} = 1 \quad S=B \quad \frac{S}{S+B} = \frac{1}{2}$$

$$= \frac{1}{2}(13) + \frac{1}{2}(9)(.66) = 9.47$$

$$\text{NPV} = -72 + 13.5 \left[\frac{1}{.0947} - \frac{1}{.0947(1.0947)^5} \right] = -72 + 51.876 = \boxed{-20.124 \text{ m.}}$$

3.8426