Component Costs

Debt $P_{AR} = \$1{,}000$ $n = 25$ yrs $C = \$80/yr$

1st Block Yield = 9% FC = $3.31

$$P = 80(PVIF_a - 9\% - 25) + \frac{1000}{(1.09)^{25}}$$

$P = \$901.77$

$-FC = \$3.31$

$I_0 = \$818.46$

$$818.46 = 80(PVIFa - k_{BT} 25) + \frac{1000}{(1+k_{BT})^{25}}$$

$k = 10.0\%$ TAX RATE

$k_{i_1} = .10(1-.40) = \underline{6\%}$

$k_{i_2} = 8\%$ $k_{i_3} = \underline{11\%}$ (Given)

Preferred

Yield to investor 16%

Flotation costs = 20% of price

$$\text{Yield} = .16 = \frac{D}{P} \quad k_p = \frac{D}{I_0} \quad I_0 = .80P$$

$$\therefore k_{p_1} = \frac{D}{.80P} = \frac{.16}{.8} = \underline{20\%}$$

$k_{p_2} = 23\%$ $k_{p_3} = 25\%$ (Given)