

**Solution to FIN 533 homework**  
**Due November 5**

1.  $k = k_{rf} + (k_M - k_{rf})\beta = 4\% + (10\% - 4\%)1.0 = 10\%$   
 $D_1=\$3.36, D_2=\$3.7632, D_3=\$4.2148 \quad P_3 = \frac{\$4.4255}{0.10 - 0.05} = \$88.5105$

CF0=0

C01=\$3.36

C02=\$3.7632

C03=\$4.2148 + \$88.5105

I=10%

NPV=\$75.83

or

$$\begin{aligned} \$3.36(1.10)^{-1} &= && \$1.0071 \\ \$3.7632(1.10)^{-2} &= && 1.0791 \\ (\$4.2148 + 88.5105)(1.10)^{-3} &= && \underline{21.5816} \\ &&& \$23.6678 \end{aligned}$$

2.  $D_1=\$2.20, D_2=\$2.42, D_3=\$2.5410, D_4=\$2.6681, D_5=\$2.8015$

$$P_5 = \frac{\$2.8575}{0.12 - 0.02} = \$28.5748$$

CF0=0

C01=\$2.2000

C02=\$2.4200

C03=\$2.5410

C04=\$2.6681

C05=\$2.8015 + \$28.5748

I=12%

NPV=\$25.20