Solution to Question Book for Lecture Note 6

Valuing Bonds and Common Stocks

5-1 \$928.39.

5-2 12.48%.

5-3 8.55%.

5-4 7%; 7.33%.

5-5 2.5%.

5-6 0.3%.

5-7 \$1,085.80.

5-8 YTM = 6.62%;
YTC = 6.49%.

5-9 a. 5%: VL = \$1,518.98;
VS = \$1,047.62.
8%: VL = \$1,171.19;
VS = \$1,018.52.
12%: VL = \$863.78;
VS = \$982.14.

5-10 a. YTM at \$829 = 13.98%;
YTM at \$1,104 = 6.50%.

5-11 14.82%.

5-12 a. 10.37%.
b. 10.91%.
c. −0.54%.
d. 10.15%.

5-13 8.65%.

5-14 10.78%.

5-15 YTC = 6.47%.

5-16 a. 10-year, 10% coupon = 6.75%;
10-year zero = 9.75%;
5-year zero = 4.76%;
30-year zero = 32.19%;
\$100 perpetuity = 14.29%.

5-17 C0 = \$1,012.79;
Z0 = \$693.04;
C1 = \$1,010.02;
Z1 = \$759.57;
C2 = \$1,006.98;
Z2 = \$832.49;
C3 = \$1,003.65;
Z3 = \$912.41;
C4 = \$1,000.00;
Z4 = \$1,000.00.

5-18 5.8%.

5-19 1.5%.

5-20 6.0%.

5-21 a. \$1,251.22.
b. \$898.94.

5-22 a. 8.02%.
b. 7.59%.

5-23 a. r_1 = 9.20%;
r_5 = 7.20%.

7-1 D1 = \$1.5750;
D3 = \$1.7364;
D5 = \$2.1011.

7-2 $\hat{P}_0$ = \$18.75.

7-3 $\hat{P}_1$ = \$22.00;
$\hat{r}_s$ = 15.50%.

7-4 r_{ps} = 10%.

7-5 \$50.50.

7-6 g = 9%.

7-7 $\hat{P}_3$ = \$27.32.

7-8 a. 13.3%.
b. 10%.
c. 8%.
d. 5.7%.

7-9 \$25.26.

7-10 a. r_C = 10.6%; r_D = 7%.

7-11 \$25.03.

7-12 $\hat{P}_0$ = \$19.89.

7-13 a. \$125.
b. \$83.33.

7-14 a. 7%.
b. 5%.
c. 12%.

7-15 a. (1) \$9.50.
(2) \$13.33.
b. (1) Undefined.

7-16 a. $\hat{P}_0$ = \$21.43.
b. $\hat{P}_0$ = \$26.47.
c. $\hat{P}_0$ = \$32.14.
d. $\hat{P}_0$ = \$40.54.

7-17 b. PV = \$5.29.
d. \$30.01.

7-18 a. D5 = \$3.52.
b. $\hat{P}_0$ = \$39.42.
c. D_1/P_0 = 5.10%;
D6/P5 = 7.00%.

7-19 $\hat{P}_0$ = \$54.11.