



Roger A. Morin, PhD

NEW REGULATORY FINANCE

Public Utilities Reports, Inc.

**SFHHA 013213
FPL RC-16**

EXAMPLE 8-6

The current issue of Value Line Investment Survey projects Utility X's earnings and dividends for 2007, 2008, and averages for 2010–2012. Interpolating for 2009, 2010, 2011, and using the 2010–2012 forecast as the 2012 estimate, the following earnings and dividends per share estimates are obtained, along with the implied retention ratio, b.

	2006	2007	2008	2009	2010	2011
	Actual	Projected				
Earnings per Share	\$2.00	\$2.10	\$2.22	\$2.31	\$2.41	\$2.50
Dividends per Share	\$1.30	\$1.40	\$1.50	\$1.55	\$1.60	\$1.65
Retention Ratio	35%	33%	32%	33%	34%	34%
Dividend Payout	65%	67%	68%	67%	66%	66%

The resulting compound growth rate in earnings for 2007–2011 is 3.6%, while the growth in dividends is 3.3% for the same period. Following this 5-year period, dividends will resume a constant normal growth rate, which can be obtained by multiplying the 2011 implied retention ratio of 34% by the 2011 return on equity of 11% forecast by Value Line. The estimated constant growth rate is:

$$g = br = .34 \times .11 = 3.7\%$$

Substituting these estimates into Equation 8-18 with $n = 5$ years, and using the current stock price of \$15.05, we obtain:

$$\begin{aligned} \$15.05 = & \frac{1.40}{1 + K} + \frac{1.50}{(1 + K)^2} + \frac{1.55}{(1 + K)^4} + \frac{1.60}{(1 + K)^5} \\ & + \frac{1.60(1.0374)}{K - 0.0374} \times \frac{1}{(1 + K)^5} \end{aligned}$$

Solving this equation for K , the implied rate of return on common equity is 10.5%

It should be stressed that the Non-Constant Growth model embodied in Equation 8-18 is quite consistent with current valuation practices of institutional investors and is a common estimation technique used by financial analysts.³

³ The majority of college-level investment and corporate finance textbooks describe the Finite Horizon DCF model. See, for example, Reilly and Brown (2003), Sharpe, Alexander, and Bailey (1995), Brigham and Ehrhardt (2005).