

Take a trip to a library that has *The Value Line*. (See the list of libraries on the class web site.) Consult *The Value Line* and choose one or two stocks from the list below. Perform the following valuation model calculations:

1. Price-to-Earnings Ratio Model to predict next year's (Spring 2016) stock price.
2. Price-to-Cash Flow Ratio Model to predict next year's (Spring 2016) stock price.
3. Price-to-Sales Ratio Model to predict next year's (Spring 2016) stock price.
4. Constant Perpetual Dividend Growth Discount Model to predict the current present values at:
 - a. 12% required rate of return
 - b. 10% required rate of return
 - c. 8% required rate of return
5. Discounted Cash Flow Model to predict the current present values at:
 - a. 10% required rate of return
 - b. 8% required rate of return

Reminder: The models will not work if the growth rate is greater than the required rate of return. You may need to try higher required rates of return if the growth rate is greater than the required rate of rate.

Notes: You may need to compute the 5-year averages for the earnings per share, cash flow per share, and sales per share if *The Value Line* does not have them. The growth rate of each is computed by the following example:

$$(2016 \text{ projected value} - 2015 \text{ actual value}) / (2015 \text{ actual value}) \quad (\text{Or instead use 2014 and 2013 actual values})$$

Use the actual 2015 or prior dividends per share and the projected 2016, 2017, or 2018 dividends per share for the Constant Perpetual Dividend Growth Discount Model. As with the price ratios growth rates, the dividend growth rate is computed by the following formula:

$$(\text{Next Year's Dividends} - \text{Last Year's Dividends}) / (\text{Last Year's Dividends})$$

Remember that sometimes, the model will produce aberrant results (such as division by zero or negative values) depending upon the required rate of return. If this happens, you can adjust the required rate of return up or down until you get reasonable values. Or you could simply display "N/A" as the result.

Of course, you could simply use The Value Line's projected annual rates, but that is not as much fun, is it?

For the Discounted Cash Flow Model, use the *Value Line* estimated or actual dividends and extrapolate the estimated dividends from 2016 to 2018. (Or use the dividend growth rate you calculated for the Constant Perpetual Dividend Growth Discount Model to calculate estimates of the 2016 through 2018 dividends.) Use an appropriate value for the target price of late 2018. (You can use your own prediction or look at *The Value Line* target price range and choose a price somewhere in the middle. How is that for accuracy? Remember that we want to eliminate any pretense of absolute precision. We are predicting the weather!)

Eligible Stocks: *The above models work best with large-cap stocks with long histories of paying dividends. (a.k.a. Blue-chip, value stocks)* Abbott Laboratories, AFLAC, Air Products and Chemicals, Anheuser-Busch InBev, Aon, AT&T, Automatic Data Processing, Baker Hughes, Ball Corporation, Bank of America, Bank of New York, Best Buy, BlackRock, The Blackstone Group, Boeing, Bristol-Myers Squibb, Cardinal Health, Caterpillar, Chevron, Citigroup, Clorox, Colgate-Palmolive, ConAgra, ConocoPhillips, CSX, CVS/Caremark, Corning, Deere, Dr Pepper, Dupont, Emerson Electric, ExxonMobil, FedEx, Fifth Third Bancorp, Gannett, General Dynamics, General Mills, Halliburton, Harley-Davidson, H. J. Heinz, Hershey's, Honeywell, IBM, Illinois Tool Works, Ingersoll-Rand, Intel, Johnson Controls, Kellogg's, Kimberly-Clark, Kraft, Eli Lilly, Lockheed-Martin, Marathon Oil, Marsh & McLennan, McDonald's, Medtronic, Merck, Microsoft, Mondelez, Newmont Mining, Norfolk Southern, Northrop Grumman, PepsiCo, Pfizer, Pitney-Bowes, PPG Industries, Raytheon, Schlumberger, Southern Co, State Street Corp, Sysco, Target, Texas Instruments, 3M, Travelers, Tyson, Union Pacific, United Health, United Technologies, UPS, USB, Verizon, Walmart, Wells Fargo, Xcel Energy, Yum Brands

P.S. Flip through *The Value Line* index and gawk at the sheer number of publicly traded companies. Could any one person ever become capable and qualified to give advice on more than a small percentage of the companies available for investment? Can you now understand why mutual funds have entire teams of analysts and portfolio managers? *The Value Line* index also contains market commentary and sample portfolios. What do they say about the current market conditions?