Chapter Seven Exercises

1. You have decided to endow an economics chair at your college named, coincidentally, in your honor. Assuming that salaries are paid once a year, at the end of each year, and that the college can earn 10% per year on your gift, how much must you donate in order to provide $100,000 a year forever? A trustee points out that salaries may rise each year. If so, how large an endowment is needed to provide $100,000 at the end of the first year and 5 percent more each succeeding year, forever? 10 percent more each succeeding year, forever?

2. Write a paragraph refuting this August 1987 argument for buying stocks:

   > The power of any market move is limited because at some price, something else becomes more attractive. The exception is when the returns on other investments are considered to be so poor by comparison as to be irrelevant.
   >
   > Consider the alternatives. Look at the stock market so far this year. The industrial indexes such as the Dow and the S&P 400 are up roughly 40%. . . . Most conventional investment alternatives such as money-market funds or bonds, or even most real asset investments, aren't anywhere close to that eight-month return.

3. National Polyester currently pays a dividend of $10 a share, but expects its dividend to decline steadily by 5 percent a year. If shareholders require a 10 percent return on their investment, what price will they pay now for this stock? What will happen to the stock's intrinsic value as time passes? (Be specific.) Why would anyone ever invest in a negative-growth stock? Would you?

4. An article in the *American Banker's Association Journal* discusses the estimation of commercial damages when one company's violation of a contract forces another to go out of business. Instead of trying to estimate the liquidation value, the author argues that a company with current net earnings of $50,000 growing at 5 percent a year would, at a 25 percent discount rate, have a "capitalization rate" of 5, giving it a value of 5($50,000) = $250,000. Where did the value 5 for the capitalization rate come from? The author goes on to argue that, "It is common for appraisers in lawsuits to use a capitalization rate that is based on broad industry norms . . . This method should be used with caution." Why?

5. In 1986 Michael Sherman, the head of Shearson Lehman's investment policy committee, recommended a portfolio of 70 percent stocks, 30 percent long-term bonds, and no short-term bonds: "If you have cash [short-term bonds] in your account, it means you don't trust what you're doing. . . . More stocks than bonds generally indicates a positive outlook both in Treasury rates and the economy." (The opposite occurred in early 1982, when more bonds than stocks in portfolios said that investors liked interest rates but not the economy.) Explain why forecasts of interest rates and the economy should influence the portfolio allocation between stocks and bonds. Are there any circumstances in which you would recommend holding a substantial amount of cash?