Chapter 6

Practice Problems

1. Target Corp pays an annual dividend of $2.25 per share, and you just missed it. Assume that the dividend is expected to grow at 5% per year in perpetuity. Your required return is 12% per year. What should you be willing to pay for a share of Target stock?
2. Now assume that Target pays its dividend *quarterly*, and that the next four quarterly dividends add up to the annual dividend to be paid over year one. What should you be willing to pay for a share of Target stock?
3. Twitter (TWTR) doesn't yet pay a dividend, but they are expected to begin doing so in a decade. At that point, the dividend will start at $5.00 per share, and is expected to grow by 3% per year. Assume those dividends will be paid annually, and that your required return on TWTR stock is 10%. What should you be willing to pay for a share of TWTR today?
4. UPS currently pays an annual dividend of $3.00 per share (and you just missed the annual dividend). Analysts are projecting earnings growth of 10% per year over the next 5 years, and you decide that you expect UPS dividends will also grow at 10% per year over the next 5 years. In addition, you expect dividend growth to slow down to 3% per year after the fifth year. Your required return on UPS stock is 8%. What should you be willing to pay for a share of UPS today?
5. Pearson has traditionally operated in two main areas of business: education and publications. However, they just announced plans to sell their Financial Times group to Nikkei in order to focus on their core education business. The sale is expected to reduce earnings and (because they tend to keep a fixed payout ratio) dividends. However, given their new focus, earnings and dividends growth are expected to increase by 2% per year. The previous dividend (which you just missed) was $1.00 per share, and it was expected to grow by 3% per year (before the sale of FTGroup). The new value of the dividend over the coming year will be $0.80 per share, and your required return on the stock is 11%. What is the new stock price?
6. Adapting the previous question, rather than cut the dividend (which often causes a significant stock price decline), Pearson will maintain a $1.00 per share dividend, but not grow it for 5 years. It will then grow it at the new 5% per year growth rate. What is the new stock price?

Chapter 6

Practice Problems

1. Target Corp pays an annual dividend of $2.25 per share, and you just missed it. Assume that the dividend is expected to grow at 5% per year in perpetuity. Your required return is 12% per year. What should you be willing to pay for a share of Target stock? **P_0 = $33.75**

2. Now assume that Target pays its dividend *quarterly*, and that the next four quarterly dividends add up to the annual dividend to be paid over year one. What should you be willing to pay for a share of Target stock? **P_0 = $36.01**

3. Twitter (TWTR) doesn't yet pay a dividend, but they are expected to begin doing so in a decade. At that point, the dividend will start at $5.00 per share, and is expected to grow by 3% per year. Assume those dividends will be paid annually, and that your required return on TWTR stock is 10%. What should you be willing to pay for a share of TWTR today? **P_0 = $30.29**

4. UPS currently pays an annual dividend of $3.00 per share (and you just missed the annual dividend). Analysts are projecting earnings growth of 10% per year over the next 5 years, and you decide that you expect UPS dividends will also grow at 10% per year over the next 5 years. In addition, you expect dividend growth to slow down to 3% per year after the fifth year. Your required return on UPS stock is 8%. What should you be willing to pay for a share of UPS today? **P_0 = $83.59**

5. Pearson has traditionally operated in two main areas of business: education and publications. However, they just announced plans to sell their Financial Times group to Nikkei in order to focus on their core education business. The sale is expected to reduce earnings and (because they tend to keep a fixed payout ratio) dividends. However, given their new focus, earnings and dividends growth are expected to increase by 2% per year. The previous dividend (which you just missed) was $1.00 per share, and it was expected to grow by 3% per year (before the sale of FTGroup). The new value of the dividend over the coming year will be $0.80 per share, and your required return on the stock is 11%. What is the new stock price? **P_0 = $13.33**

6. Adapting the previous question, rather than cut the dividend (which often causes a significant stock price decline), Pearson will maintain a $1.00 per share dividend, but not grow it for 5 years. It will then grow it at the new 5% per year growth rate. What is the new stock price? **P_0 = $14.08**