(12–6) Additional Funds Needed

The Booth Company's sales are forecasted to double from $1,000 in 2010 to $2,000 in 2011. Here is the December 31, 2010, balance sheet:

Cash	$ 100	Accounts payable	$ 50
Accounts receivable	200	Notes payable	150
Inventories	200	Accruals	50
Net fixed assets	500	Long-term debt	400
		Common stock	100
		Retained earnings	250
Total assets	$1,000	Total liabilities and equity	$1,000

Booth's fixed assets were used to only 50% of capacity during 2010, but its current assets were at their proper levels in relation to sales. All assets except fixed assets must increase at the same rate as sales, and fixed assets would also have to increase at the same rate if the current excess capacity did not exist. Booth's after-tax profit margin is forecasted to be 5% and its payout ratio to be 60%. What is Booth's additional funds needed (AFN) for the coming year?

CHALLENGING

(12–7) Forecasted Statements and Ratios

Upton Computers makes bulk purchases of small computers, stocks them in conveniently located warehouses, ships them to its chain of retail stores, and has a staff to advise customers and help them set up their new computers. Upton's balance sheet as of December 31, 2010, is shown here (millions of dollars):

Cash	$ 3.5	Accounts payable	$ 9.0
Receivables	26.0	Notes payable	18.0
Inventories	58.0	Accruals	8.5
Total current assets	$ 87.5	Total current liabilities	$ 35.5
Net fixed assets	35.0	Mortgage loan	6.0
		Common stock	15.0
		Retained earnings	66.0
Total assets	$122.5	Total liabilities and equity	$122.5

Sales for 2010 were $350 million and net income for the year was $10.5 million, so the firm's profit margin was 3.0%. Upton paid dividends of $4.2 million to common stockholders, so its payout ratio was 40%. Its tax rate is 40%, and it operated at full capacity. Assume that all assets/sales ratios, spontaneous liabilities/sales ratios, the profit margin, and the payout ratio remain constant in 2011.

a. If sales are projected to increase by $70 million, or 20%, during 2011, use the AFN equation to determine Upton's projected external capital requirements.

b. Using the AFN equation, determine Upton's self-supporting growth rate. That is, what is the maximum growth rate the firm can achieve without having to employ nonspontaneous external funds?

c. Use the forecasted financial statement method to forecast Upton's balance sheet for December 31, 2011. Assume that all additional external capital is raised as a bank loan at the end of the year and is reflected in notes payable (because the debt is added at the end of the year, there will be no additional interest expense due to the new debt). Assume Upton's profit margin and dividend payout ratio will be the same in 2011 as they were in 2010. What is the amount of notes