policy; a restricted, or "lean-and-mean" policy; or a moderate policy.

- Short-term financing generally is riskier but cheaper than long-term financing. Thus, a firm must determine what level of financing risk it can handle. Firms that are able to take on substantial amounts of financial risk are more likely to finance current assets with more short-term debt (i.e., follow the aggressive approach) than firms that are not able to handle as much financial risk (i.e., follow the conservative approach). Most firms follow the maturity matching, or "self-liquidating," approach, a moderate approach that is between the aggressive and conservative approaches.

PROBLEMS

For more problems, login to CourseMate for CFIN at CengageBrain.com

14-1 Radcliff Company's normal daily credit sales are $50,000. The average collection period is 30 days. (a) What is the average accounts receivable that is reported on Radcliff's balance sheet? (b) If Radcliff's opportunity cost is 10 percent, how much would the company save if the average collection period can be reduced to 20 days?

14-2 The balance in Gigantic Inn's (GI) accounts payable averages $164,000, and its payables deferral period (DPO) is 10 days. (a) How much does GI normally purchase each day from its suppliers. (b) If GI's opportunity cost is 8 percent, how much can the company save if it can increase its DPO by five days?

14-3 Big Bang Fireworks normally purchases $120,000 of inventory each day. Each item normally remains in inventory 18 days before it is sold. (a) What is the average amount of inventory that is reported on Big Bang's balance sheet? (b) What is the inventory turnover?

14-4 A+ Airplanes normally sells $125,000 of its product on credit each day, and it takes an average of 40 days to collect the credit sales. (a) What is the average accounts receivable that is reported on A+'s balance sheet? (b) What is the company's accounts receivable turnover?

14-5 Cyber Letter Service's (CLS) days sales outstanding (DSO) currently is 50 days. (a) If annual sales are $144,000, what is the average balance in accounts receivable? (b) If CLS can reduce its DSO to 45 days, what impact would this change have on its accounts receivable balance?

14-6 Lights Out Utilities (LOU) purchases $15,000 in raw materials from its suppliers each day. LOU's accounts payable turnover is 12. (a) What is LOU's payables deferral period (DPO)? (b) What is the average accounts payable balance that is reported on LOU's financial statements?

14-7 The average inventory shown on Drip-Fixer Plumbing's balance sheet is $270,000. The inventory conversion period is nine days. (a) What is the inventory turnover? (b) What amount of inventory does Drip-Fixer normally purchase each day?

14-8 BestSell Auctions carries an average inventory equal to $100,000. The company's cost of goods sold averages $1.5 million. What are BestSell's (a) inventory turnover, and (b) inventory conversion period?

14-9 CEO Manufacturing generally has inventory that equals $48,000. If the inventory turnover for the company is 18, what are its (a) inventory conversion period and (b) cost of goods sold?

14-10 Lester's Landscaping and Lawn Service (3LS) projects net income for this year to be $138,000, and that its net profit margin will be 3 percent. Cost of goods sold normally equal 75 percent of sales. If 3LS turns over its inventory 20 times during the year, what is the average amount of inventory that is shown on its balance sheet?

14-11 Roughneck Drilling generally carries an amount of receivables equal to $160,000, and its annual credit sales equal $3.2 million. What are Roughneck's (a) receivables turnover and (b) receivables collection period (DSO)?

14-12 Eagle Eyeware generally has accounts receivables that equal $265,000. If the accounts receivables turnover for the company is 6, what are its (a) receivables collection period (DSO) and (b) annual credit sales?

14-13 At any point in time, Tarcomed Hospitals owes its suppliers $45,000. The company's cost of goods sold averages $810,000. What are Tarcomed's (a) payables turnover and (b) payables deferral period (DPO)?

14-14 The accounts payables of Aesop Publishing generally equal $6.4 million. If the turnover of accounts payables is 30, what are its (a) payables deferral period (DPO) and (b) annual credit purchases?

14-15 Balloon Payment Financial (BPF) has an inventory conversion period of 45 days, a receivables collection period of 30 days, and a payables deferral period of 20 days. (a) What is the length of the firm's cash conversion cycle? (b) If BPF's annual sales are $1,800,000 and all sales are on credit, what is the average balance in accounts receivable? (c) How many times per year does BPF turn over its inventory? (d) What would happen to BPF's cash conversion cycle if, on average, inventories could be turned over 12 times a year?

14-16 The Flamingo Corporation is trying to determine the effect of its inventory turnover ratio and days sales outstanding (DSO) on its cash flow cycle. Last year, Flamingo's sales (all on credit) were $180,000, and its cost of goods sold were 85 percent of sales. Inventory was turned over eight times during the year, and the accounts receivable turnover was 10. Flamingo's payables deferral period is 30 days. (a) Calculate Flamingo's cash conversion cycle. (b) Compute the average balances in accounts receivable, accounts payable, and inventory.

14-17 Stratosphere Wireless is examining its cash conversion cycle. The company expects its cost of goods sold, which equal 80 percent of sales, to equal $480,000 this year. Stratosphere normally turns over inventory 24 times per year, accounts receivable are turned over 15 per year, and the accounts payable turnover is 40. Calculate (a) the cash conversion cycle and (b) the average balances in accounts receivable, accounts payable, and inventory.

14-18 Refer to Table 14.1, which shows the balance sheets for Unilate Textiles on three different dates. Assume all sales and all purchases are made on credit. Calculate the length of Unilate's cash conversion cycle on September 30, 2015 and December 31, 2015.

14-19 Go back to the GCP illustration at the beginning of the chapter. Assume the collection and payment patterns of both GCP and its customers do not change. (a) Construct the balance sheet for GCP at the close of business on Day 31. Remember that the employees' salaries will have been paid at the *beginning* of the day for the *previous* 15 days they have worked, so accrued wages will include only one day of salaries (Day 31). (b) How long will it take GCP to pay off the bank loan it took out on Day 16 if the *daily cash profits* are used to repay the loan (ignore any interest costs)?

14-20 Swampy Ox Real Estate (SORE) has been growing at a constant 5 percent rate for many years, and it expects to continue this growth long into the future. On January 1 of this year, which is the slow part of its selling season, SORE's total assets were $420 million. At the height of its selling season, which is at the end of June, SORE expects total assets to be $480 million. How much of the $480 million in assets represents permanent assets, and how much represents temporary current assets?

KEY FINANCIAL PLANNING AND CONTROL CONCEPTS

To conclude this chapter, we summarize some concepts that were discussed.

- Financial planning requires the firm to forecast future operations. A firm forecasts its financial statements (called pro formas) so that arrangements can be made to accommodate expected changes in production, future financing needs, and so forth. A financial plan represents a "road map" for the firm to follow to attain future goals. The process doesn't stop when financial forecasts are completed, because the firm needs to monitor operations as the financial plan is implemented to determine whether modifications are needed.
- A firm evaluates its breakeven points and degrees of leverage to assess the risk associated with its forecasts. In general, a firm with a higher degree of leverage is considered riskier than a similar firm that has a lower degree of leverage. A firm uses the concept of leverage to estimate how fixed costs, both operating and financial, affect its "bottom line" (net) income. Everything else equal, a firm can decrease its risk by decreasing its relative fixed costs, by increasing sales, or by performing both actions. Remember from our discussions in previous chapters that, everything else equal, when a firm reduces its risk, its cost of capital decreases, and thus its value increases.
- Inadequate financial planning is the principal reason businesses fail. As a result, well-run companies generally base their operating plans on a set of well designed forecasted financial statements. Simply stated, forecasting (planning) is an essential part of successful business.

PROBLEMS

For more problems, login to CourseMate for CFIN at CengageBrain.com

17-1 Midwest Mining (MWM) expects its sales to grow by 20 percent next year. Last year, when the firm was operating at *full capacity*, MWM generated sales equal to $250,000 with assets of $800,000. MWM's current balance sheet shows that accounts payable and accruals are $150,000, notes payable are $25,000, long-term debt is $100,000, common stock is $450,000, and retained earnings are $75,000. Next year, MWM's net profit margin is expected to be the same as this past year, 5 percent, and the company plans to continue to pay 60 percent of earnings as dividends. Estimate MWM's additional funds needed (AFN) for next year.

17-2 Esther's Egg Farm is constructing its pro forma financial statements for this year. At year end, assets were $400,000 and accounts payable (the only current liabilities account) were $125,000. Last year's sales were $500,000. Esther's expects to grow by 15 percent this year. Assets and accounts payable are expected to grow proportionally to sales. Common stock currently equals $140,000, and retained earnings are $98,000. Esther's plans to sell $15,000 of new common stock this year. The firm's profit margin on sales is 6 percent, and 40 percent of earnings will be paid out as dividends. How much *new* long-term debt financing will Esther's need this year to finance its expected growth?

17-3 In its most recent fiscal year, SynoCorp generated $810,000 in sales. The firm was operating at 90 percent capacity. How much more sales can SynoCorp generate before it is at full capacity?

17-4 TransCan Industries has been operating at 60 percent capacity the past few years. In each of these years, TransCan generated sales of $5.4 million. By what percentage can TransCan increase its sales before full capacity is reached?

17-5 Prime Colors (PC) sells one-gallon cans of house paint for $25 each. The variable cost to produce each can is $17.50, and fixed operating costs are $1,500. PC normally sells 30,000 gallons of paint each year, has an interest expense equal to $300, and its marginal tax rate is 40 percent. Given this information, what is PC's operating breakeven point?

17-6 Maxine's Pumps (MP) sells bilge pumps for $250 each. Each pump costs $150 to produce, and MP's fixed operating costs equal $600,000. (a) What is MP's operating breakeven point? (b) What is MP's operating income (NOI) when 10,000 pumps are sold?

17-7 Flash Gordon Memory (FGM) sells memory cards for $45 each. Fixed costs are $900,000 for output up to 200,000 cards. Variable costs are $25 per card. (a) What is FGM's operating income at sales of 75,000 cards? (b) What is the operating breakeven point?

17-8 Last Chance Gaming manufactures slot machines that are sold to individuals for $575 each. Fixed operating costs are $690,000, and each has no preferred stock. What is the firm's degree of financial leverage (DFL)?

17–15 Debbie's Sod Farm (DSF) expects its EBIT to be $2,250 this year. DSF's marginal tax rate is 40 percent, it must pay $1,000 in interest this year, and it has 500 shares of common stock outstanding. (a) Compute the EPS that DSF expects to generate this year. (b) What is DSF's degree of financial leverage (DFL)?

17–16 Beachcomber Treasures has determined that its degree of operating leverage (DOL) is 3.5 and its degree of financial leverage (DFL) is 2.0. (a) What is Beachcomber's degree of total leverage (DTL)? (b) What impact will a 5 percent decrease in sales have on Beachcomber's (i) EBIT and (ii) net income?

17–17 Ensured Insurance has a degree of financial leverage (DFL) equal to 4.0 and a degree of total leverage (DTL) equal to 10.0. Ensured expects sales to be $600,000 this year, and its net profit margin is 8 percent. (a) What is Ensured's degree of operating leverage (DOL)? (b) If Ensured's sales turn out to be 7 percent higher than expected, what will its net income be?

17–18 Analysts have evaluated the Wright Sign Company and discovered that when sales are $400,000, EBIT equals $125,000, the company's degree of operating leverage (DOL) is 2.0, its degree of financial leverage (DFL) is 4.0, and EPS equals $2.50. According to this information, what will Wright's EBIT be if sales actually equal $360,000 rather than $400,000? What will the EPS be?

17–19 Callie Corporation's products sell for $180 each. The variable cost of each product is $135, and fixed operating costs are $371,250. Callie pays $61,875 interest on its outstanding debt each year, and its marginal tax rate is 40 percent. If Callie expects to sell 11,000 units, what is its degree of operating leverage (DOL), the degree of financial leverage (DFL), and the degree of total leverage (DTL)?

17–20 LPM Corporation sells its product for $10 each. Fixed operating costs equal $100,000, and variable operating costs are 75 percent of the selling price. The firm pays $37,500 in interest, and its marginal tax rate is 35 percent. (a) What are LPM's operating breakeven point and financial breakeven point? (b) If LPM expects to sell 65,000 units, what are its degree of operating leverage (DOL), degree of financial leverage (DFL), and degree of total leverage (DTL)?