

PEARSON

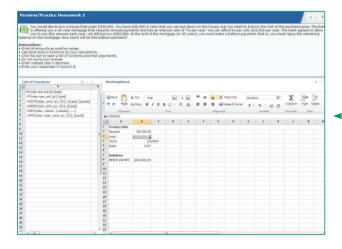


Use the Financial Calculator to solve math problems right in MyFinanceLab! The Financial Calculator is available as a smartphone application as well as on a computer and includes important functions such as future and present value.

View the Financial Calculator Tutorials

Fifteen helpful tutorials show instructors and students the many ways to use the Financial Calculator in MyFinanceLab. Tutorials include lessons on calculator functions such as IRR and bond valuation.





Select end-of-chapter problems are now available in MyFinanceLab as simulated Excel problems. Each problem has algorithmically generated values and allows students to solve the problem as they would in Excel. Each problem is autograded and has both Excel and problem-specific Learning Aids.

Did your textbook come with a MyFinanceLab Student Access Kit? If so, go to www.pearsonmylab.com to register using the code. If not, you can purchase access to MyFinanceLab online at www.pearsonmylab.com.

between 2010 and 2012, Home Depot's stock price increased by 102 percent (excluding returns from dividends), whereas Lowe's stock price increased by only 39 percent and the overall market (S&P 500) increased by roughly 55 percent.

4.2 Reading Annual Reports

Now that we have a better understanding of financial statements and performance measures, we can put those statements and measures in the broader context of the information that a firm's senior management discloses to investors in the firm's annual report. Financial statements are important components of the annual reports that public companies are required to develop and present to their shareholders. Often, the information presented in a company's annual report overlaps with information required by government regulators. For example, the U.S. Securities and Exchange Commission requires companies (domestic as well as foreign firms with shares listed in the United States) to file annual 10-K reports that describe the business and present its financial statements. In some cases, firms will simply take the 10-K document and make it part of their annual report, often adding additional sections and photos.

Most annual reports consist of multiple sections, including a letter to shareholders, management discussion and analysis, financial statements, and footnotes to the financial statements. The letter to shareholders is written by a firm's chief executive officer or board chair and is usually fairly brief (a few pages). It describes how the company performed during the past year and what goals or strategy management has set for the upcoming year. It may also include additional insights in terms of the firm's achievements and challenges.

The overall strategy of a firm should also be reflected in its financial statements. For example, a firm might pursue a strategy of aggressive growth by competing on price. In this case, the company's financial statements would likely show a large change in net sales but a lower gross margin percentage.

If a firm includes the 10-K or similar regulatory documents as part of its annual report (as is the recent practice of Home Depot), there are a number of key sections on which you can focus. (If the firm does not include the 10-K directly, it will generally provide commentary on these areas elsewhere in its annual report.) The most important sections of the 10-K document are as follows:

- Item 1 of a 10-K includes a description of the company's operations and usually includes an overview of its strategy. This section is a useful place to start in order to understand the business.
- Item 1A describes any risk factors that could have a material impact on the firm's financial results and therefore might cause actual results to differ from management's forecasts. Consequently, these factors should be taken into account when reading the management discussion and analysis section. Common categories of risks include economic factors, supply prices, competitive factors, changing consumer needs, relationships with suppliers, and availability of financing. Some of these risks may be typical of what most firms face, but be careful to watch for anything that appears unusual.
- Item 3 describes any legal proceedings in which the firm is involved that might cause potential surprises related to financial results.
- Item 7 is management's discussion and analysis of financial conditions. This section often presents highlights and commentary related to key results, such as revenue

OBJECTIVE 4.2

Describe the key components in annual reports.

and earnings. For example, this part of the report may describe management's view of any significant increases or decreases in key variables. Liquidity and debt capacity, any major changes in the business and its competitive environment, and management's assessment of the future outlook are typical topics. After reading Item 7, you can reexamine the ratio analysis to see whether management's comments appear to explain any unusual results.

We've now examined the three major financial statements of any firm: the income statement, the balance sheet, and the cash flow statement, all of which are included in the firm's annual report. As you look through these statements, you can focus on the "top line" of sales, the "bottom line" of earnings, debt levels, cash inflows and outflows, and any apparent trends. Of course, ratio analysis will provide additional insights. Be aware that there is also one other financial statement presented in a company's annual report: the statement of change in stockholders' equity. This statement provides additional details that reconcile any changes in equity. Thus, it will indicate the beginning equity value, any change in retained earnings (net earnings less any cash dividends), and any other changes, such as share issues or repurchases.

Footnotes to the firm's financial statements are also included in the annual report, and they can serve as an additional source of detailed information. These footnotes typically include descriptions of accounting policies, details concerning income taxes, specifics related to debt obligations (such as rates and repayments schedules), hedging policies, pension plan details, segmented and geographic breakdowns of revenue or profits, any future financial obligations that the firm is facing (such as those related to employee benefits), and any related-party transactions. Footnotes can be an important source of information for "off balance sheet" items such as operating leases, which may change the nature of how various performance ratios are interpreted.

Other sections of an annual report include an auditor's letter that will usually give an "unqualified opinion" that the financial statements fairly present the financial position of the firm (if the opinion is "qualified" it suggests that not enough information was provided to the auditors or proper accounting principles have not been employed, which sends a negative signal to readers of the financial statements); a five- or ten-year summary of financial results, including a few key financial ratios; a list and brief biographical sketch of the firm's officers and directors; and a five-year stock price history, usually compared to the overall market and sector.

4.3 Relevance for Managers

OBJECTIVE 4.3

Explain why measuring financial performance is relevant for managers.

Understanding financial statements is useful, but understanding the relationships among the financial statements is even more important. We need to set benchmarks for performance in order to determine whether the firm has become more financially healthy over time and to be able to compare our firm's performance with other firms in the industry.

Financial ratios serve a number of purposes. From a lender's perspective they often form the basis for covenant restrictions. For example, if we want to increase our borrowing, we may need to generate increased cash flows because a bank might restrict its lending to a maximum multiple of EBITDA. Or we may need to ensure that our coverage ratio exceeds a minimum threshold. Financial ratios are also useful for planning and budgeting purposes. We may start by assuming that our future working capital needs—related to the age of inventory, age of receivables, and age of payables—are related to our current working capital ratio levels.

The ROE measure helps us understand how well we are rewarding our investors. As we will see in Chapter 6, it is also a major factor in determining the extent to which the firm can grow. In general, being able to measure helps us to manage better.

Since all public firms need to issue annual reports, every manager needs to be able to read and understand these reports—and not just look for pictures of coworkers! How have senior executives interpreted recent results and where does the firm appear to be headed?

SUMMARY

- **1.** Performance measures focus on the profitability, resource management, liquidity, and leverage position of a firm.
- **2.** One important overall measure of performance is return on equity (ROE), which examines the net income generated relative to the equity of the firm.
- **3.** Profitability measures such as the EBIT margin and ROIC focus on the ability of a company to earn a sufficient operating profit with reasonable expenses.
- **4.** Resource management measures focus on the ability of a firm to utilize fixed assets (the fixed asset turnover ratio) and manage its inventory (inventory period), accounts receivable (collection period), and accounts payable (payable period).

- **5.** Liquidity measures such as the current ratio and quick ratio focus on the ability of a firm to meet its short-term obligations.
- 6. Leverage measures such as debt-to-capital along with coverage ratios focus on a firm's ability to meet its long-term debt obligations, as well as its overall optimal use of debt.
- 7. A company's annual report contains key financial statements, management insights about performance and outlook, and additional financial details that can aid in interpretation of ratio analysis.

ADDITIONAL READINGS AND INFORMATION

A classic, solid foundation of the principles of accounting can be found in:

Horngren, Charles, Walter Harrison, Jr., and Suzanne Oliver, *Accounting*, 9th ed. Boston: Prentice Hall, 2012.

- The conceptual background and analytical tools necessary to understand and interpret business financial statements is in: Omiston, Aileen, and Lyn Fraser. *Understanding Financial Statements*, 10th ed. Boston: Prentice Hall, 2013.
- Merrill Lynch, now a division of Bank of America, regularly published a short classic: Merrill Lynch. *How to Read a Financial Report*. New York: Merrill Lynch, Pierce, Fenner & Smith, 2000.
- Renowned investor and chairman of Berkshire Hathaway Inc., Warren Buffett is well known for his witty and astute letters to shareholders, written annually since 1977: http://www.berkshirehathaway.com/letters/letters.html
- Usually available through major business libraries, key financial ratios—including medians, top quintile (i.e., best 25 percent), and bottom quintile (i.e., worst 25 percent)—are collected by industry and reported in: Dun & Bradstreet Industry Norms & Key Business Ratios.
- Securities and Exchange Commission 10-K filings are available through the EDGAR system at: http://www.sec.gov/edgar.shtml

PROBLEMS

- 1. Star Inc. has year 1 revenues of \$80 million, net income of \$9 million, assets of \$65 million, and equity of \$40 million, as well as year 2 revenues of \$87 million, net income of \$22 million, assets of \$70 million, and equity of \$50 million. Calculate Star's return on equity (ROE) for each year based on the DuPont method and compare it with a direct ROE measure. Next, explain why the firm's ROE changed between year 1 and year 2.
- 2. Nextime Ltd. has operating profits (EBIT) of \$87 million, a tax rate of 35 percent, net working capital of \$129 million, and fixed assets of \$285 million. Calculate Nextime's return on invested capital, or ROIC. Then describe three methods by which a firm can increase its ROIC.
- **3.** Air Tech Co. manufactures a component used in aircraft radar systems. The price of each component is \$5,000. The firm's annual fixed costs are \$480,000. Its gross margin percentage is 30 percent. What is the breakeven point in sales?
- **4.** Crystal Corporation has a gross profit of \$15.5 million and net revenue of \$70 million in 2014. Its property and equipment cost \$15 million at the beginning of the year. The depreciation and amortization is \$5 million. What is the company's fixed asset turnover and gross profit margin?
- 5. Hadry Corporation has accounts receivable of \$540,516, ending inventory of \$862,000, sales of \$5,258,400, and cost of goods sold for the year just ended of \$5,519,500. What is the receivable turnover and age of inventory? How long, on an average, did a unit of inventory sit on the shelf before it was sold?

- **6.** Beware Securities has net working capital of \$35,000, current liabilities of \$18,000, cash of \$10,000, and accounts receivable of \$5,000. What is the current ratio? What is the quick ratio?
- 7. Deb Co. has interest-bearing debt of \$122 million, non-interest-bearing debt of \$33 million, and equity of \$76 million. Calculate Deb Co.'s debt-to-assets, debt-to-equity, and long-term-debt-to-capital ratios.
- **8.** IOU Inc. has EBIT of \$58,000, depreciation and amortization of \$12,000, interest expenses of \$21,000, principal repayments of \$17,000, and a tax rate of 35 percent. Calculate IOU Inc.'s interest coverage ratio and debt service coverage ratio.
- 9. Using Home Depot's 2010 and 2011 balance sheets in Figure 3.2 and statements of earnings in Figure 3.3 in Chapter 3, set up the ratios presented in Figure 4.4 for Home Depot for 2010 and 2011, indicating the numerator and denominator of each. Confirm the answers presented in Figure 4.4.
- 10. Which financial statement presents information related to changes in retained earnings and share repurchase?

Managing Day-to-Day Cash Flow

This chapter is the last of four chapters that focus on assessing a firm's performance. In the previous three chapters, we looked at some long-term factors and measures that can help us gauge a firm's financial health, such as overall economic conditions and yearly financial statements. Now, in Chapter 5, we'll turn our attention to the short term by considering day-to-day cash management. As discussed in Chapters 1 and 4, a firm's cash inflows and outflows can arise from its operating, investing, or financing activities. Properly managing these inflows and outflows is a key factor in any firm's success—not just in the short term, but also in the long term. In fact, day-to-day cash flow management has important implications for the long-term financial requirements of a company, because if the company does not manage its cash flows carefully and grows too quickly, it may need to rely too heavily on external funding, such as bank loans.

This chapter begins with a simple description of the typical cash flow cycle a business faces as it tries to balance both its cash inflows (or sources of cash) and its cash outflows (or uses of cash). After that, we examine cash flows related to operations or working capital, focusing on inventory management, accounts receivable management, and accounts payable management. Then short-term financing vehicles are discussed.

To understand how this chapter relates to our unifying theme, we must first recall the three financial-related decision-making areas within an enterprise: operating, investing, and financing. This chapter focuses on operating decisions—specifically those involving working capital, because working capital is related to the cash inflows and outflows that arise from operating an enterprise. As shown in **Figure 5.1**, operating decisions also affect the growth of a firm's profits.

LEARNING OBJECTIVES

OBJ 5.1

Explain what the cash flow cycle is and how to identify sources and uses of cash.

OBJ 5.2

Explain how to manage inventory, accounts receivable, and accounts payable.

OBJ 5.3

Describe different forms of short-term financing.

DBJ 5.4

Explain why understanding day-to-day cash flows is relevant for managers.

cash flow cycle (cash conversion cycle): The pattern and timing of where cash comes from and where it goes in a firm

5.1 Cash Flow Cycles

Cash is the bloodline of any firm, and financial management is all about balancing cash inflows and outflows. Balancing cash flows is especially important as it relates to the operating decisions of a business, but it affects a firm's investing and financing decisions as well. The **cash flow cycle**, also called the **cash conversion cycle**, was introduced in Figure 1.2 and indicates the length of time it takes for a firm to convert its inputs (such

OBJECTIVE 5.1

Explain what the cash flow cycle is and how to identify sources and uses of cash.