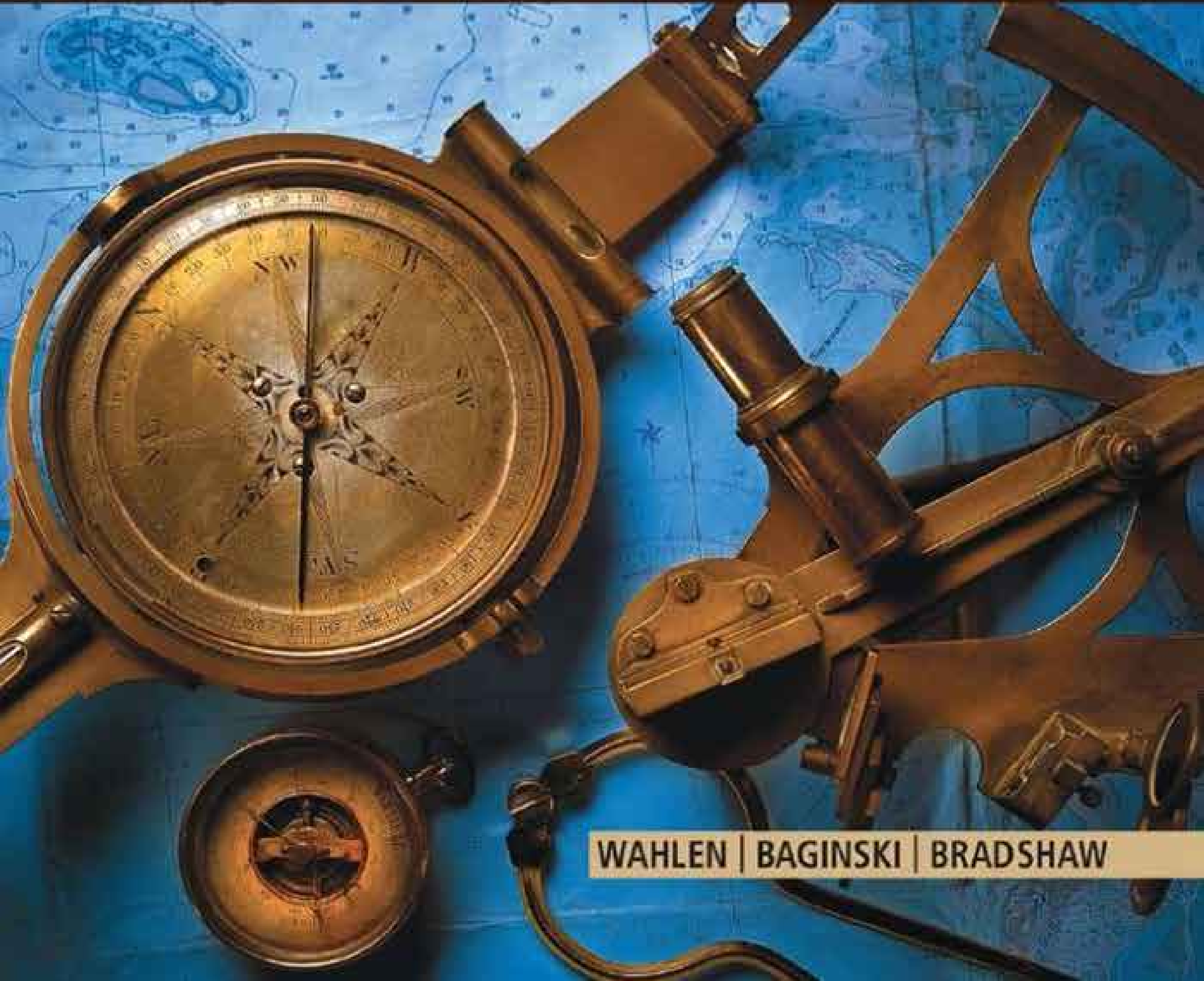
8E

Financial Reporting, Financial Statement Analysis, and Valuation

A Strategic Perspective



WAHLEN | BAGINSKI | BRADSHAW

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A Strategic Perspective

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Financial Reporting, Financial Statement Analysis and Valuation, 8e

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For our students,

with thanks for permitting us to take the journey with you

For Clyde Stickney and Paul Brown,

with thanks for allowing us the privilege to carry on their legacy of teaching through this book

For our families, with love,

Debbie, Jessica, Jaymie, Lynn, Drew, Marie, Kim, Ben, and Lucy

Jim

Steve

MARK

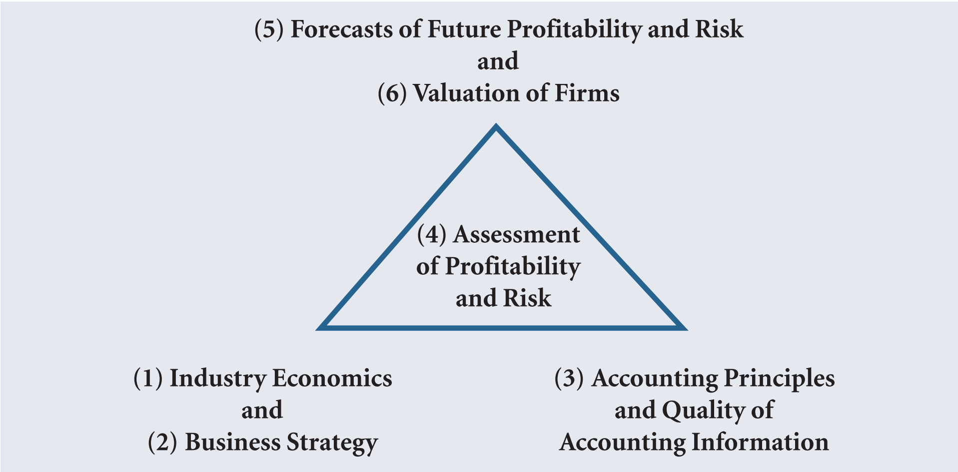
PREFACE

The process of financial reporting, financial statement analysis, and valuation is intended to help investors and analysts to deeply understand a firm's profitability and risk and to use that information to forecast future profitability and risk, and ultimately value the firm, enabling intelligent investment decisions. This process is central to the role of accounting, financial reporting, capital markets, investments, portfolio management, and corporate management in the world economy. When conducted with care and integrity, thorough and thoughtful financial statement analysis and valuation are fascinating and rewarding activities that can create tremendous value for society. However, as the recent financial crises in our capital markets reveal, when financial statement analysis and valuation is conducted carelessly and without integrity, it can create enormous loss of value in the capital markets and trigger deep recession in even the most powerful economies in the world. The stakes are high.

In addition, the game is changing. The world is shifting toward a new approach to financial reporting, and expectations for high quality and high integrity financial analysis and valuation are increasing among investors and securities regulators. Many of the world's most powerful economies, including the European Union, Canada, and Japan, have shifted to International Financial Reporting Standards (IFRS). The U.S. Securities and Exchange Commission (SEC) accepts financial statement filings based on IFRS from non-U.S. registrants, and is considering whether to converge financial reporting from U.S. Generally Accepted Accounting Principles (GAAP) to IFRS for U.S. registrants. Given the pace and breadth of financial reform legislation, it is clear that it is no longer "business as usual" on Wall Street and around the world for financial statement analysis and valuation.

Given the profound importance of financial reporting, financial statement analysis, and valuation, and given our rapidly changing world in accounting and the capital markets, this textbook provides you with a principled and disciplined approach to analysis and valuation. This textbook demonstrates and explains a thoughtful and thorough six-step framework you should use for financial statement analysis and valuation. You should begin an effective analysis of a set of financial statements with an evaluation of **(1)** the economic characteristics and current conditions of the industries in which a firm competes and **(2)** the particular strategies the firm executes to compete in each of these industries. Your analysis process should then move to **(3)** assessing how well the firm's financial statements reflect the economic effects of the firm's strategic decisions and actions. Your assessment requires an understanding of the accounting principles and methods used to create the financial statements, the relevant and reliable information that the financial statements provide, and the appropriate adjustments that you should make to improve the quality of that information. In this text we help you embrace financial reporting and financial statement analysis based on U.S. GAAP and IFRS. Next, you should **(4)** assess the profitability and risk of the firm using financial statement ratios and other analytical tools, and then **(5)** forecast the firm's future profitability and risk, incorporating information about expected changes in the economics of the industry and the firm's strategies. Finally, you can **(6)** value the firm using various valuation methods, making an investment decision by comparing likely ranges of the value of the share to the share price observed in the capital market. This six-step process forms the conceptual and pedagogical framework for this book, and it is a principled and disciplined approach you can use for intelligent analysis and valuation decisions.

All textbooks on financial statement analysis include step (4), assessing the profitability and risk of a company. Textbooks differ, however, with respect to their emphases on the other five steps. Consider the following depiction of these steps.



Our view is that these six steps must form an integrated approach for effective and complete financial statement analysis. We have therefore structured and developed this book to provide balanced, integrated coverage of all six elements. We sequence our study by beginning with industry economics and firm strategy, moving to a general consideration of GAAP and IFRS and the quality of accounting information, and providing a structure and tools for the analysis of profitability and risk. We then delve deeply into specific accounting issues and the determinants of accounting quality, and then conclude with forecasting and valuation. We anchor each step in the sequence on the firm's profitability and risk, which are the fundamental drivers of value. We continually relate each part to those preceding and following it to maintain this balanced, integrated perspective.

The premise of this book is that you will learn financial statement analysis most effectively by performing the analysis on actual companies. The book's narrative sets forth the important concepts and analytical tools and demonstrates their application using the financial statements of PepsiCo. Each chapter contains a set of questions, exercises, problems, and cases based primarily on financial statement data of actual companies. Each chapter also contains an integrative case involving Starbucks so you can apply the tools and methods throughout the text. A financial statement analysis package (FSAP) is available to aid you in your analytical tasks (discussed later).

Some of the Highlights of This Edition

The 8th edition continues to improve with two excellent coauthors, Stephen Baginski and Mark Bradshaw, who joined the authorship team for the 7th edition, replacing Clyde Stickney and Paul Brown. Clyde Stickney, the original author of the first three editions of this book and coauthor of the fourth, fifth, and sixth editions, is enjoying his well-earned retirement. Paul Brown, a coauthor of the fourth, fifth, and sixth editions, is now the president of Monmouth University. Mark and Steve are both internationally recognized research scholars and award-winning teachers in accounting, financial statement analysis, and valuation. They continue to bring many fresh new ideas and insights to produce a new edition with a strong focus on thoughtful and disciplined fundamental analysis, a broad and deep coverage of accounting issues including IFRS, and expanded analysis of companies within a global economic environment.

The next section highlights the content of each chapter. Listed below are some of the major highlights in this edition that impact all chapters or groups of chapters.

1. **The exposition of each chapter has been streamlined.** Known for being a well-written, accessible text, this edition presents each chapter in more concise, direct discussion, so you can get the key insights quickly and efficiently.
2. The chapters now include **quick checks after each section**, so you can be sure you have obtained the key insights from reading each section. In addition, each section and each of the end-of-chapter questions, exercises, problems, and cases is **cross-referenced to learning objectives**, so you can be sure that you can implement the critical skills and techniques associated with each of the learning objectives.
3. The chapters on profitability analysis (**Chapter 4**) and risk analysis (**Chapter 5**) provide **disaggregation of return on common equity** along traditional lines of profitability, efficiency, and leverage, as well as along operating versus financing lines.
4. The book's companion website, at www.cengagebrain.com, contains an **updated Appendix D** with descriptive statistics on 20 commonly used financial ratios computed over the past ten years for 48 industries. These ratios data enable you to benchmark your analyses and forecasts against industry averages.
5. The chapters on accounting quality have been **restructured to provide broader and deeper coverage of accounting for financing, investing, and operating activities**. The reorganization provides a logical flow, beginning in **Chapter 6** with a discussion of the determinants of accounting quality, how to evaluate accounting quality, and how to adjust reported earnings and financial statements to cleanse low-quality accounting items. Then the discussion proceeds across the primary business activities of firms in the natural sequence in which the activities occur—raising financial capital, investing that capital in productive assets, and operating the business. **Chapter 7** discusses accounting for financing activities. **Chapter 8** describes accounting for investing activities, and **Chapter 9** deals with accounting for operating activities.
6. The chapters on accounting quality have also been expanded to provide **more in-depth analysis of balance sheet quality, to augment income statement quality**.
7. Each chapter includes **relevant new discussion of current U.S. GAAP and IFRS, as well as how U.S. GAAP compares to IFRS**, and how you should deal with such differences in financial statement analysis. End-of-chapter materials contain many problems and cases involving non-U.S. companies, with **application of financial statement analysis techniques to IFRS-based financial statements**.
8. Each chapter provides references to specific standards in U.S. GAAP using the **new FASB Codification system**.
9. The chapters provide a number of **relevant insights from empirical accounting research**, pertinent to financial statement analysis and valuation.
10. The end-of-chapter material for each chapter contains portions of an **updated, integrative case applying the concepts and tools discussed in that chapter to**

Starbucks. This series of cases builds on the illustrations in the chapter in which the concepts and tools are applied to PepsiCo.

11. Each chapter contains **new or substantially revised and updated end-of-chapter material, including new problems and cases**. This material is relevant, real-world, and written for maximum learning value.
12. The Financial Statement Analysis Package (**FSAP**) available with this book has been **substantially revised and made more user-friendly**.

Overview of the Text

This section describes briefly the content and highlights of each chapter.

Chapter 1—Overview of Financial Reporting, Financial Statement Analysis, and Valuation. This chapter introduces you to the six interrelated sequential steps in financial statement analysis that serve as the organization structure for this book. It presents you with several frameworks for understanding the industry economics and business strategy of a firm and applies them to PepsiCo. It also reviews the purpose, underlying concepts, and content of each of the three principal financial statements, including those of non-U.S. companies reporting using IFRS. It also contains a section describing key provisions of the Sarbanes-Oxley Act of 2002. This chapter also provides the rationale for analyzing financial statements in capital market settings, including showing you some very compelling results from an empirical study of the association between unexpected earnings and market-adjusted stock returns as well as various empirical results showing that fundamental analysis can help investors generate above-market returns. The chapter's appendix, which can be found on this book's companion website at www.cengagebrain.com, presents an extensive discussion to help you do a term project involving the analysis of one or more companies. Our examination of the course syllabi of users of the previous edition indicated that most courses require students to engage in such a project. This appendix guides you in how to proceed, where to get information, and so on.

In addition to the updated integrative case involving Starbucks, the chapter includes an updated version of a case involving Nike.

Chapter 2—Asset and Liability Valuation and Income Recognition. This chapter covers three topics we believe you need to review from previous courses before delving into the more complex topics in this book.

- First, we discuss the link between the valuation of assets and liabilities on the balance sheet and the measurement of income. We believe that you will understand topics such as revenue recognition and accounting for marketable securities, derivatives, pensions, and other topics more easily when you examine them with an appreciation for the inherent trade-off of a balance sheet versus income statement perspective. This chapter also reviews the trade-offs faced by accounting standard setters, regulators, and corporate managers who attempt to simultaneously provide both reliable and relevant financial statement information. We also examine whether firms should recognize value changes immediately in net income or delay their recognition, sending them temporarily through other comprehensive income.
- Second, we present a framework for analyzing the dual effects of economic transactions and other events on the financial statements. This framework relies on the balance sheet equation to trace these effects through the financial statements. Even students who are well grounded in double-entry accounting find this framework helpful in visually identifying the effects of various complex business

transactions, such as corporate acquisitions, derivatives, and leases. We use this framework in subsequent chapters to present and analyze transactions, as we discuss various GAAP and IFRS topics.

A_{BEG} =	L_{BEG}	+	CC_{BEG}	+	$AOCI_{BEG}$	+	RE_{BEG}
+ΔA	+ΔL		+ΔStock		+OCI		+NI – D
A_{END} =	L_{END}	+	CC_{END}	+	$AOCI_{END}$	+	RE_{END}

[A=Assets, L=Liabilities, CC=Contributed Capital, AOCI=Accumulated Other Comprehensive Income, RE=Retained Earnings, Stock=Common and Preferred Capital Stock Accounts, OCI=Other Comprehensive Income, NI=Net Income, and D=Dividends.]

- Third, we discuss the measurement of income tax expense, particularly with regard to the treatment of temporary differences between book income and taxable income. Virtually every business transaction has income tax consequences, and it is crucial that you grasp the information conveyed in income tax disclosures. Discussing consideration of the income tax consequences early in the text enhances your learning in later chapters that cover complex topics such as restructuring charges, asset impairments, depreciation, and leases.

The end-of-chapter materials include various asset and liability valuation problems involving Walmart, Biosante Pharmaceuticals, Prepaid Legal Services, and Nike, as well as an integrative case involving Starbucks.

Chapter 3—Income Flows Versus Cash Flows: Understanding the Statement of Cash Flows. Chapter 3 reviews the statement of cash flows and presents a model for relating the cash flows from operating, investing, and financing activities to a firm's position in its product life cycle. The chapter demonstrates procedures you can use to prepare the statement of cash flows when a firm provides no cash flow information. The chapter also provides new insights that place particular emphasis on how you should use information in the statement of cash flows to assess earnings quality.

The end-of-chapter materials utilize cash flow and earnings data for a number of companies including eBay, Amazon, The Walt Disney Company, Fedex, Kroger, Coca-Cola, Texas Instruments, Sirius XM Radio, Sunbeam, AerLingus, and Fuso Pharmaceuticals. A case (Prime Contractors) illustrates the relation between earnings and cash flows as a firm experiences profitable and unprofitable operations and changes its business strategy. The classic W. T. Grant case illustrates the use of earnings and cash flow information to assess solvency risk and avoid bankruptcy.

Chapter 4—Profitability Analysis. This chapter discusses the concepts and tools for analyzing a firm's profitability, integrating industry economic and strategic factors that affect the interpretation of financial ratios. It then applies these concepts and tools to the analysis of the profitability of PepsiCo. The analysis of profitability centers on the rate of return on assets and its disaggregated components, the rate of return on common shareholders' equity and its disaggregated components, and earnings per share. The chapter contains a section on the well-publicized measurement of EVA (economic value added) and shows its relation to net income under GAAP. This chapter also considers analytical tools unique to certain industries, such as airlines, service firms, and financial institutions.

A number of problems and exercises at the end of the chapter cover profitability analyses for companies such as Nucor Steel, Boston Scientific, Valero Energy, Microsoft, Oracle, Dell, Sun Microsystems, Texas Instruments, Hewlett Packard, Georgia Pacific, General Mills, Abercrombie & Fitch, Hasbro, Coca-Cola, and many others. The integrative case on Starbucks involves analysis of Starbucks in both a time-series setting and in a cross-sectional setting in comparison to Panera Bread Company. Another case involves the time-series analysis of Walmart Stores and the cross-sectional analysis of its profitability versus Target and Carrefour.

Chapter 5—Risk Analysis. This chapter begins with a discussion of recently required disclosures on the extent to which firms are subject to various types of risk, including unexpected changes in commodity prices, exchange rates, and interest rates and how firms manage these risks. The chapter provides new insights and discussion about the benefits and dangers associated with financial flexibility and the use of leverage. This edition shows you how to decompose return on common equity into components that highlight the contribution of the inherent profitability of the firm's assets and the contribution from the strategic use of leverage to enhance the returns to common equity investors. The chapter provides you an approach to in-depth financial statement analysis of various risks associated with leverage, including short-term liquidity risk, long-term solvency risk, credit risk, bankruptcy risk, and systematic and firm-specific market risk. This chapter also describes and illustrates the calculation and interpretation of risk ratios and applies them to the financial statements of PepsiCo, focusing on both short-term liquidity risk and long-term solvency risk. We also explore credit risk and bankruptcy risk in greater depth.

A unique feature of the problems in Chapters 4 and 5 is the linking of the analysis of several companies across the two chapters, including problems involving Hasbro, Abercrombie & Fitch, Coca-Cola, Starbucks, and Walmart. Chapter-ending cases involve risk analysis for Starbucks and classic cases on credit risk analysis (Massachusetts Stove Company) and bankruptcy prediction (Fly-By-Night International Group).

Chapter 6—Accounting Quality. This chapter provides an expanded discussion of the quality of income statement and balance sheet information, emphasizing faithful representation of relevant and substantive economic content as the key characteristics and identifying conditions under which managers might likely engage in earnings management. The discussion provides a framework for accounting quality analysis, which is used in the discussions of various accounting issues in Chapters 7 to 9. We consider several financial reporting topics that primarily affect the persistence of earnings, including gains and losses from discontinued operations, changes in accounting principles, other comprehensive income items, impairment losses, restructuring charges, changes in estimates, and gains and losses from peripheral activities. The chapter concludes with an assessment of accounting quality by separating accruals and cash flows and an illustration of a model to assess the risk of financial reporting manipulation (Beneish's multivariate model for identifying potential financial statement manipulators).

Chapter-ending materials include problems involving Nestlé, Checkpoint Systems, Rock of Ages, Vulcan Materials, Northrop Grumman, Intel, Enron, and Sunbeam. End-of-chapter materials also include an integrative case involving the analysis of the earnings quality of Starbucks in light of the inclusion of several potentially nonrecurring items in earnings, as well as a case on the earnings quality of Citigroup.

Chapter 7—Financing Activities. This chapter has been structured along with Chapters 8 and 9 to discuss accounting issues in their natural sequence—raising financial capital, then investing the capital in productive assets, and then managing the operations of the business. Chapter 7 discusses the accounting principles and practices under U.S. GAAP and IFRS associated with firms' financing activities. The chapter begins by describing the financial statement reporting of capital investments by owners (equity issues) and distributions to owners (dividends and share repurchases), and the accounting for equity issued to compensate employees (stock options, stock appreciation rights, and restricted stock). The chapter demonstrates how shareholders' equity reflects the effects of transactions with non-owners which flow through the income statement (net income) and those which do not (other comprehensive income). The chapter then describes the financial reporting for long-term debt (bonds, notes payable, lease liabilities, and troubled debt), hybrid securities (convertible bonds, preferred stock), and derivatives used to hedge interest rate risk. The lease discussion demonstrates the adjustments required to convert operating leases to capital leases. Throughout the chapter we highlight the differences between U.S. GAAP and IFRS in the area of equity and debt financing, and we conclude the chapter with a discussion of likely forthcoming changes in the financial reporting for debt and leases.

In addition to various questions and exercises, the end-of-chapter material includes problems probing accounting for various financing alternatives, Ford Motor Credit's securitization of receivables, operating versus capital leases of The Gap and Limited Brands, and stock-based compensation at Coca-Cola and Eli Lilly. End-of-chapter cases include the integrative case involving Starbucks, a case on stock compensation at Oracle, and long-term financing and solvency risk at Southwest Airlines versus Lufthansa.

Chapter 8—Investing Activities. This chapter discusses various accounting principles and methods under U.S. GAAP and IFRS associated with a firm's investments in long-lived tangible assets, intangible assets, and financial instruments. The chapter demonstrates the accounting for a firm's investments in tangible productive assets including property, plant, and equipment, covering the initial decision to capitalize or expense and the use of choices and estimates to allocate costs through the depreciation process. The chapter demonstrates and explains alternative ways that firms account for intangible assets, highlighting research and development expenditures, software development expenditures, and goodwill, including the exercise of judgment in the allocation of costs through the amortization process. The chapter reviews and applies the rules for evaluating the impairment of different categories of long-lived assets, including goodwill. The chapter then describes accounting and financial reporting of intercorporate investments in securities (trading securities, available-for-sale securities, held-to-maturity securities, and noncontrolled affiliates) and corporate acquisitions (including the market value, equity, proportionate consolidation, and full consolidation methods). The chapter reviews accounting for variable-interest entities, including the requirement to consolidate them with the firm identified as the primary beneficiary. Finally, the chapter addresses foreign investments by preparing a set of translated financial statements using the all-current method and the monetary/nonmonetary method and describing the conditions under which each method best portrays the operating relationship between a U.S. parent firm and its foreign subsidiary.

The end-of-chapter questions, exercises, problems, and cases include a problem involving Molson Coors Brewing Company and its variable interest entities, an integrative application of the chapter topics to Starbucks, and a case involving Disney's acquisition of Marvel Entertainment.

Chapter 9—Operating Activities. Chapter 9 discusses how financial statements prepared under U.S. GAAP or IFRS capture and report the firm's operating activities. The chapter opens with discussion of how financial accounting measures and reports the revenues and expenses generated by a firm's operating activities, as well as the related assets, liabilities, and cash flows. This discussion reviews the criteria for recognizing revenue and expenses under the accrual basis of accounting and applies these criteria to various types of businesses. The chapter evaluates the financial statement effects of recognizing income prior to the point of sale, at the time of sale, and subsequent to sale. The chapter analyzes and interprets the effects of FIFO versus LIFO on financial statements and demonstrates how to convert the statements of a firm from a LIFO to a FIFO basis. The chapter identifies the working capital investments created by operating activities and the financial statement effects of credit policy and credit risk. The chapter also shows how to use the financial statement and note information for corporate income taxes to analyze the firm's tax strategies, pensions, and other post-employment benefits obligations. The chapter concludes with a discussion of how a firm uses derivative instruments to hedge the risk associated with commodities and with operating transactions denominated in foreign currency.

The end-of-chapter problems and exercises examine revenue and expense recognition for a wide variety of operating activities, including revenues for software, consulting, transportation, construction, manufacturing, and others. End-of-chapter problems also involve Coca-Cola's tax notes and include an integrative case involving Starbucks, a case on alternative revenue recognition timing for the Arizona Land Development Company, and a case involving Coca-Cola's pension disclosures.

Chapter 10—Forecasting Financial Statements. This chapter describes and illustrates the procedures you should use in preparing forecasted financial statements. This material plays a central role in the valuation of companies, discussed throughout Chapters 11 to 14. The chapter begins by giving you an overview of forecasting and the importance of creating integrated and articulated financial statement forecasts. It then illustrates the preparation of projected financial statements for PepsiCo. The chapter also demonstrates how to get forecasted balance sheets to balance and how to compute implied statements of cash flows from forecasts of balance sheets and income statements. The chapter also discusses forecast shortcuts analysts sometimes take, and when such forecasts are reliable and when they are not. The Forecast and Forecast Development spreadsheets within FSAP provide templates you can use to develop and build your own financial statement forecasts.

Short end-of-chapter problems illustrate techniques for projecting key accounts for firms like Home Depot, Intel, Hasbro, and Barnes and Noble, determining the cost structure of firms like Nucor Steel and Sony, and dealing with irregular changes in accounts. Longer problems and cases require the preparation of financial statements for cases discussed in earlier chapters involving Walmart and Starbucks. The end-of-chapter material also includes a classic case involving the projection of financial statements to assist the Massachusetts Stove Company in its strategic decision to add gas stoves to its wood stove line. The problems and cases specify the assumptions you should make to illustrate the preparation procedure. We link and use these longer problems and cases in later chapters that rely on these financial statement forecasts in determining share value estimates for these firms.

Chapter 11—Risk-Adjusted Expected Rates of Return and the Dividends Valuation Approach. Chapters 11 to 14 form a unit in which we demonstrate various approaches to valuing a firm. Chapter 11 focuses on fundamental issues of valuation that you will apply in all of the valuation chapters. This chapter provides you with an extensive discussion of the measurement of the cost of debt and equity capital and the weighted average cost of capital, as well as the dividends-based valuation approach. The chapter also discusses various issues of valuation, including forecasting horizons, projecting long-run continuing dividends, and computing continuing (sometimes called terminal) value. The chapter describes and illustrates the internal consistency in valuing firms using dividends, free cash flows, or earnings. Particular emphasis is placed on helping you understand that the different approaches to valuation are simply differences in perspective (dividends capture wealth distribution, free cash flows capture wealth realization in cash, and earning represent wealth creation), and that these approaches should produce internally consistent estimates of value. In this chapter we demonstrate the cost-of-capital measurements and the dividends-based valuation approach for PepsiCo, using the forecasted amounts from PepsiCo's financial statements discussed in Chapter 10. The chapter also presents techniques for assessing the sensitivity of value estimates, varying key assumptions such as the costs of capital and long-term growth rates. The chapter also discusses and illustrates the cost-of-capital computations and dividends valuation model computations within the Valuation spreadsheet in FSAP. This spreadsheet takes the forecast amounts from the Forecast spreadsheet and other relevant information and values the firm using the various valuation methods discussed in Chapters 11 to 14.

End-of-chapter material includes the computation of costs of capital across different industries and companies, including Whirlpool, IBM, and Target Stores, as well as short dividends valuation problems for companies like Royal Dutch Shell. Longer problems and cases involve computing costs of capital and dividends-based valuation of Walmart, Starbucks, and Massachusetts Stove Company from financial statement forecasts developed in Chapter 10's problems and cases.

Chapter 12—Valuation: Cash-Flow Based Approaches. Chapter 12 focuses on valuation using the present value of free cash flows. This chapter distinguishes free cash flows to all debt and equity stakeholders and free cash flows to common equity shareholders and the settings where one or the other measure of free cash flows is appropriate for valuation. The chapter develops and demonstrates valuation using free cash flows for common equity shareholders, and valuation using free cash flows to all debt and equity stakeholders. The chapter also considers and applies techniques for projecting free cash flows and measuring the continuing value after the forecast horizon. The chapter applies both of the discounted free cash flows valuation methods to PepsiCo, demonstrating how to measure the free cash flows to all debt and equity stakeholders, as well as the free cash flows to common equity. The valuations for PepsiCo use the forecasted amounts from PepsiCo's projected financial statements discussed in Chapter 10. The chapter also presents techniques for assessing the sensitivity of value estimates, varying key assumptions such as the costs of capital and long-term growth rates. The chapter also explains and demonstrates the consistency of valuation estimates across different approaches and shows that the dividends approach in Chapter 11 and the free cash flows approaches in Chapter 12 should and do lead to identical value estimates for PepsiCo. The Valuation spreadsheet in FSAP uses projected amounts from the Forecast spreadsheet and other relevant information and values the firm using both of the free cash flows valuation approaches.

Updated shorter problem material asks you to compute free cash flows from financial statement data for companies like 3M and Dick's Sporting Goods. Problem material also includes using free cash flows to value firms in leveraged buyout transactions, such as May Department Stores, Experian Information Solutions, and Wedgewood Products. Longer problem material includes the valuation of Walmart, Coca-Cola, Starbucks, and Massachusetts Stove Company. The chapter also introduces the Holmes Corporation case, which is an integrated case relevant for Chapters 10 to 13 in which you select forecast assumptions, prepare projected financial statements, and value the firm using the various methods discussed in Chapters 10 to 13. This case can be analyzed in stages with each chapter or as an integrated case after Chapter 13.

Chapter 13—Valuation: Earnings-Based Approaches. Chapter 13 emphasizes the role of accounting earnings in valuation, focusing on valuation methods using the residual income approach. The residual income approach uses the ability of a firm to generate income in excess of the cost of capital as the principal driver of a firm's value in excess of its book value. We apply the residual income valuation method to the forecasted amounts for PepsiCo from Chapter 10. The chapter also demonstrates that the dividends valuation methods, the free cash flows valuation methods, and the residual income valuation methods are consistent with a fundamental valuation approach. In the chapter we explain and demonstrate that these approaches yield identical estimates of value for PepsiCo. The Valuation spreadsheet in FSAP includes valuation models that use the residual income valuation method.

End-of-chapter materials include various problems involving computing residual income across different firms, including Abbott Labs, IBM, Target Stores, Microsoft, Intel, Dell, Southwest Airlines, Kroger, and Yum! Brands. Longer problems also involve the valuation of other firms such as Steak ‘n Shake in which you are given the needed financial statement information. Longer problems and cases enable you to apply the residual income approach to Coca-Cola as well as to Walmart, Starbucks, and Massachusetts Stove Company, considered in Chapters 10, 11, and 12.

Chapter 14—Valuation: Market-Based Approaches. Chapter 14 demonstrates how to analyze and use the information in market value. In particular, the chapter describes and applies market-based valuation multiples, including the market-to-book ratio, the price-to-earnings ratio, and the price-earnings-growth ratio. The chapter describes and illustrates the theoretical and conceptual approaches to market multiples and contrasts them with the practical approaches to market multiples. The chapter demonstrates how the market-to-book ratio is consistent with residual ROCE valuation and the residual income model discussed in Chapter 13. The chapter also describes the factors that drive market multiples, so you can adjust multiples appropriately to reflect differences in profitability, growth, and risk across comparable firms. An applied analysis demonstrates how you can reverse engineer a firm’s stock price to infer the valuation assumptions that the stock market appears to be making. We apply all of these valuation methods to PepsiCo. The chapter concludes with a new discussion of the role of market efficiency, as well as striking evidence on using earnings surprises to pick stocks and form portfolios (the Bernard-Thomas post-earnings announcement drift anomaly) as well as using value-to-price ratios to form portfolios (the Frankel-Lee strategy), both of which appear to help investors generate significant above-market returns.

End-of-chapter materials include problems involving computing and interpreting market-to-book ratios for pharmaceutical companies, Enron, Coca-Cola, Walmart, and Steak ‘n Shake and the integrative case involving Starbucks.

Appendices. Appendix A includes the financial statements and notes for PepsiCo used in the illustrations throughout the book. Appendix B, available at www.cengagebrain.com, is PepsiCo’s letter to the shareholders and management’s discussion and analysis of operations, which we use when interpreting PepsiCo’s financial ratios and in our financial statement projections. Appendix C presents the output from FSAP for PepsiCo, including the Data spreadsheet, the Analysis spreadsheet (profitability and risk ratio analyses), the Forecasts and Forecast Development spreadsheets, and the Valuations spreadsheet. Appendix D, also available online, provides descriptive statistics on 20 financial statement ratios across 48 industries over the years 2003 to 2013.

Chapter Sequence and Structure

Our own experience and our discussions with other professors suggest that there are various approaches to teaching the financial statement analysis course, each of which works well in particular settings. We have therefore designed this book for flexibility with respect to the sequence of chapter assignments. The following diagram sets forth the overall structure of the book.

Chapter 1: Overview of Financial Reporting, Financial Statement Analysis, and Valuation

Chapter 2: Asset and Liability Valuation and Income Recognition | **Chapter 3: Income Flows Versus Cash Flows**

Chapter 4: Profitability Analysis | **Chapter 5: Risk Analysis**

Chapter 6: Accounting Quality

Chapter 7: Financing Activities | **Chapter 8: Investing Activities** | **Chapter 9: Operating Activities**

Chapter 10: Forecasting Financial Statements

Chapter 11: Risk-Adjusted Expected Rates of Return and the Dividends Valuation Approach

Chapter 12: Valuation: Cash-Flow-Based Approaches | **Chapter 13: Valuation: Earnings-Based Approaches**

Chapter 14: Valuation: Market-Based Approaches

The chapter sequence follows the six steps in financial statement analysis discussed in Chapter 1. Chapters 2 and 3 provide the conceptual foundation for the three financial statements. Chapters 4 and 5 present tools for analyzing the financial statements. Chapters 6 to 9 describe how to assess the quality of accounting information under U.S. GAAP and IFRS and then examine the accounting for financing, investing, and operating activities. Chapters 10 to 14 focus primarily on forecasting financial statements and valuation.

Some schools teach U.S. GAAP and IFRS topics and financial statement analysis in separate courses. Chapters 6 to 9 are an integrated unit and sufficiently rich for the U.S. GAAP and IFRS course. The remaining chapters will then work well in the financial statement analysis course. Some schools leave the topic of valuation to finance courses. Chapters 1 to 10 will then work well for the accounting prelude to the finance course. Some instructors may wish to begin with forecasting and valuation (Chapters 10 to 14) and then examine data issues that might affect the numbers used in the valuations (Chapters 6 to 9). This textbook is adaptable to other sequences of the various topics.

Overview of the Ancillary Package

FSAP

The Financial Statement Analysis Package (FSAP) is available on the companion website for this book (www.cengagebrain.com) to all purchasers of the text. The package performs various analytical tasks (common-size and rate of change financial statements, ratio computations, risk indicators such as the Altman-Z score and the Beneish manipulation index), provides a worksheet template for preparing financial statements forecasts, and applies amounts from the financial statement forecasts to valuing a firm using various valuation methods. A user manual for FSAP is embedded within FSAP.

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James M. Wahlen
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BRIEF CONTENTS

CONTENTS

CHAPTER

1

Overview of Financial Reporting, Financial Statement Analysis, and Valuation

LEARNING OBJECTIVES

LO 1-1 Describe the six-step analytical framework that is the logical structure for financial statement analysis and valuation and the foundation for this book.

LO 1-2 Apply tools for assessing the economic characteristics and dynamics that drive competition in an industry, including (a) value chain analysis, (b) Porter's five forces framework, and (c) an economic attributes framework.

LO 1-3 Identify firm-specific strategies for achieving competitive advantage within an industry.

LO 1-4 Show familiarity with the purpose, underlying concepts, and format of the balance sheet, income statement, and statement of cash flows.

LO 1-5 Use tools to analyze a firm's profitability and risk, including financial ratios, common-size financial statements, and percentage change financial statements.

LO 1-6 Obtain an overview of how to use financial statement information to forecast the future business activities of a firm and to value a firm.

LO 1-7 Consider the role of financial statement analysis in an efficient capital market, and review empirical evidence on the association between changes in earnings and changes in stock prices.

LO 1-8 Review sources of financial information available for publicly held firms.

Chapter Overview

This book has three principal objectives, each designed to help you gain important knowledge and skills necessary for financial statement analysis and valuation:

1. To demonstrate how you can link the economics of an industry, a firm's strategy, and its financial statements, gaining important insights about the firm's profitability and its risk. Chapters 1–5 discuss the principal financial statements and tools for analyzing profitability and risk.
2. To enhance your understanding of the accounting principles and methods under U.S. Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS) that firms use to measure and report their financing, investing, and operating activities in a set of financial statements and, if necessary, the adjustments you may make to reported amounts to increase their relevance and reliability. Chapters 6–9 explore accounting principles in depth.

3. To demonstrate how you can use financial statement information to build forecasts of future financial statements and then use the expected future amounts of earnings, cash flows, and dividends in the valuation of firms. Chapters 10–14 focus on forecasting and valuation.

Financial statements play a central role in the analysis and valuation of a firm. Financial statement analysis is an exciting and rewarding activity, particularly when the objective is to assess whether the market is pricing a firm's shares fairly. Studying the intrinsic characteristics of a firm—such as its business model, product markets, and operating, investing, and financing decisions—and using this information to make informed judgments about the value of the firm can be done by anyone with an interest in learning and applying the many tools and techniques of analysis and valuation demonstrated in this text.

Security analysts are professionals whose primary objective is to value firms. Security analysts collect and analyze a wide array of information from financial statements and other sources to evaluate a firm's current and past performance and to predict its future performance. Then they use the expected future performance to measure the value of the firm's shares. Comparisons of thoughtful and intelligent estimates of the firm's share value with the market price for the shares provide the bases for making good investment decisions.

Besides being used to measure firm value, the tools of effective financial statement analysis can be applied in many other decision-making settings, including the following:

- Managing a firm and communicating results to investors, creditors, employees, and other stakeholders
- Assigning credit ratings or extending credit for a short-term period (for example, a bank loan used to finance accounts receivable or inventories) or a long-term period (for example, a bank loan or public bond issue used to finance the acquisition of property, plant, or equipment)
- Assessing the operating performance and financial health of a supplier, customer, competitor, or potential employer
- Evaluating firms for potential acquisitions, mergers, or divestitures
- Valuing the initial public offering of a firm's shares
- Consulting with a firm and offering helpful strategic advice
- Forming a judgment about damages sustained in a lawsuit
- Assessing the extent of auditing needed to form an opinion about a client's financial statements

LO 1-1

Describe the six-step analytical framework that is the logical structure for financial statement analysis and valuation and the foundation for this book.

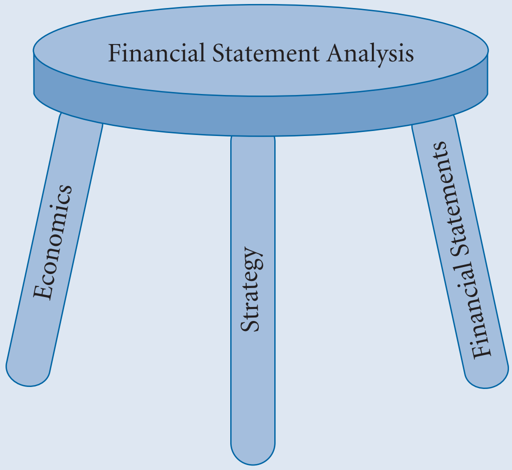
Overview of Financial Statement Analysis

We view effective financial statement analysis as a three-legged stool, as Exhibit 1.1 depicts. The three legs of the stool in the figure represent effective analysis based on the following:

1. Identifying the *economic characteristics* of the *industries* in which a firm competes and mapping those characteristics into determinants of profitability and risk
2. Describing the *strategies* that a *firm* pursues to differentiate itself from competitors as a basis for evaluating a firm's competitive advantages, the sustainability and potential growth of a firm's earnings, and its risks

Exhibit 1.1

Building Blocks for Financial Statement Analysis



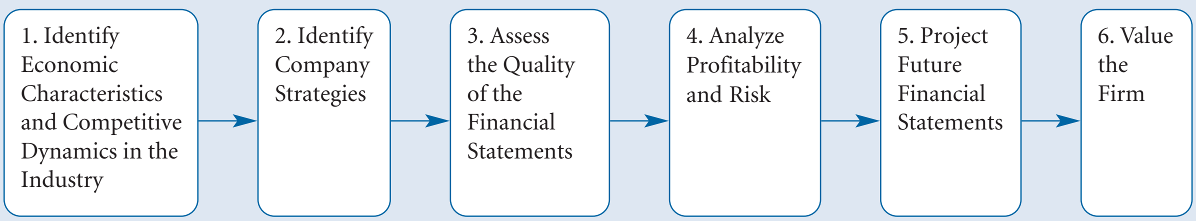
3. Evaluating the firm's *financial statements*, including the accounting concepts and methods that underlie them and the quality of the information they provide

Our approach to effective analysis of financial statements for valuation and many other decisions involves six interrelated sequential steps, depicted in Exhibit 1.2.

1. **Identify the economic characteristics and competitive dynamics of the industry in which a particular firm participates.** What dynamic forces drive competition in the industry? For example, does the industry include a large number of firms selling similar products, such as grocery stores, or only a small number of competitors selling unique products, such as pharmaceutical companies? Does technological change play an important role in maintaining a competitive advantage, as in computer software? Understanding the competitive forces in the firm's

Exhibit 1.2

Six Interrelated Sequential Steps in Financial Statement Analysis



industry in the first step establishes the economic foundation and context for the remaining steps in the process.

2. **Identify strategies the firm pursues to gain and sustain a competitive advantage.** What business model is the firm executing to be different and successful in its industry? Does the firm have competitive advantages? If so, how sustainable are they? Are its products designed to meet the needs of specific market segments, such as ethnic or health foods, or are they intended for a broader consumer market, such as typical grocery stores and family restaurants? Has the firm integrated backward into the growing or manufacture of raw materials for its products, such as a steel company that owns iron ore mines? Is the firm diversified across several geographic markets or industries? Understanding the firm's strategy and the sustainability of its competitive advantages provides the necessary firm-specific context to evaluate the firm's accounting information, assess profitability and risk, and to project the firm's future business activities.
3. **Assess the quality of the firm's financial statements and, if necessary, adjust them for such desirable characteristics as sustainability or comparability.** Do the firm's financial statements provide an informative and complete representation of the firm's economic performance, financial position, and risk? Has the firm prepared its financial statements in accordance with U.S. GAAP or are they prepared in accordance with the IFRS established by the International Accounting Standards Board (IASB)? Do earnings include nonrecurring gains or losses, such as a write-down of goodwill, which you should evaluate differently from recurring components of earnings? Has the firm structured transactions or commercial arrangements or selected accounting methods so as to make the firm appear more profitable or less risky than economic conditions otherwise suggest? It is essential to understand the quality of the firm's accounting information in order to effectively analyze the firm's profitability and risk and to project its future balance sheets, income statements, and cash flows.
4. **Analyze the current profitability and risk of the firm using information in the financial statements.** Most financial analysts assess the profitability of a firm relative to the risks involved. What rate of return is the firm generating from the use of its assets? What rate of return is the firm generating for its common equity shareholders? Is the firm's profit margin increasing or decreasing over time? Are returns and profit margins higher or lower than those of its key competitors? How much leverage does the firm have in its capital structure? Ratios that reflect relations among particular items in the financial statements are the tools you can use to analyze profitability and risk. By understanding the firm's current and past profitability and risk, you will establish important information you will use in projecting the firm's future profitability and risk and in valuing its shares.
5. **Prepare forecasted financial statements.** What will be the firm's future resources, obligations, investments, cash flows, revenues, and expenses? What will be the likely future profitability and risk and, in turn, the likely future returns from investing in the company? Forecasted financial statements that rely on projections of the firm's future operating, investing, and financing activities provide the basis for projecting future profitability and risk, which provide the basis for financial decision making, including valuation.
6. **Value the firm.** What is the firm worth? Financial analysts use their estimates of share value to make recommendations for buying, selling, or holding the equity securities of various firms whose market price they think is too low, too high, or about right. Similarly, an investment banking firm that underwrites the initial

public offering of a firm's common stock must set the initial offering price, and an analyst in a corporation considering whether to acquire a company (or to divest a subsidiary or division) must assess a reasonable range of values to bid in order to acquire the target (or to expect to receive from the divestiture).

These six steps provide a logical, powerful sequence that will enable you to address very important and difficult questions, such as how to analyze and value a firm. These six interrelated steps represent the subject matter of this book. We use these six steps as the analytical framework for you to follow as you develop your skills in analyzing and valuing companies. This chapter introduces each step. Subsequent chapters develop the important concepts and tools for each step in considerably more depth.

Throughout this book, we use financial statements, notes, and other information provided by **PepsiCo, Inc.** (PepsiCo) and its subsidiaries to illustrate the various topics discussed. Appendix A at the end of the book includes the fiscal year 2012 financial statements and notes for PepsiCo, as well as statements by management and the opinion of the independent accountant regarding these financial statements. Appendix B (which can be found online at the book's companion website at www.cengagebrain.com) includes excerpts from a financial review provided by management that discusses the business strategy of PepsiCo; it also offers explanations for changes in PepsiCo's profitability and risk over time. Appendix C at the end of the book presents the output of the FSAP (Financial Statements Analysis Package), which is the financial statement analysis software that accompanies this book. The FSAP model is an Excel add-in that enables you to enter financial statement data, after which the model computes a wide array of profitability and risk ratios and creates templates for forecasting future financial statements and estimating a variety of valuation models. Appendix C presents the use of FSAP for PepsiCo, including PepsiCo's profitability and risk ratios, projected future financial statements, and valuation. FSAP is available at www.cengagebrain.com. You can use FSAP for many of the problems and cases in this book to aid in your analysis (FSAP applications are highlighted with the FSAP icon in the margin of the text). FSAP contains a user manual with guides to assist you. Appendix D (found online at the book's companion website at www.cengagebrain.com) presents tables of descriptive statistics on a wide array of financial ratios across 48 industries.

FSAP

Step 1: Identify the Industry Economic Characteristics

LO 1-2

Apply tools for assessing the economic characteristics and dynamics that drive competition in an industry, including (a) value chain analysis, (b) Porter's five forces framework, and (c) an economic attributes framework.

The economic characteristics and competitive dynamics of an industry play a key role in influencing the strategies firms in the industry employ, their profitability and risk factors, and therefore the types of financial statement relations you should expect to observe. Consider, for example, the financial statement data for firms in four different industries shown in Exhibit 1.3. This exhibit expresses all items on the balance sheets and income statements as percentages of revenue. Consider how the economic characteristics of these industries affect their financial statements.

Grocery Store Chain

The products of a particular grocery store chain are difficult to differentiate from similar products of other grocery store chains, a trait that characterizes such products as *commodities*. In addition, low barriers to entry exist in the grocery store industry; an

Exhibit 1.3

Common-Size Financial Statement Data for Four Firms (all figures as a percentage of revenue)

	Grocery Store Chain	Pharmaceutical Company	Electric Utility	Commercial Bank
BALANCE SHEET				
Cash and marketable securities	0.7%	11.0%	1.5%	261.9%
Accounts and notes receivable	0.7	18.0	7.8	733.5
Inventories	8.7	17.0	4.5	—
Property, plant, and equipment, net	22.2	28.7	159.0	18.1
Other assets	1.9	72.8	29.2	122.6
Total Assets	34.2%	147.5%	202.0%	1,136.1%
Current liabilities	7.7%	30.8%	14.9%	936.9%
Long-term debt	7.6	12.7	130.8	71.5
Other noncurrent liabilities	2.6	24.6	1.8	27.2
Shareholders' equity	16.3	79.4	54.5	100.5
Total Liabilities and Shareholders' Equity	34.2%	147.5%	202.0%	1,136.1%
INCOME STATEMENT				
Revenue	100.0%	100.0%	100.0%	100.0%
Cost of goods sold	(74.1)	(31.6)	(79.7)	—
Operating expenses	(19.7)	(37.1)	—	(41.8)
Research and development	—	(10.1)	—	—
Interest expense	(0.5)	(3.1)	(4.6)	(36.6)
Income taxes	(2.2)	(6.0)	(5.2)	(8.6)
Net Income	3.5%	12.1%	10.5%	13.0%

entrant needs primarily retail space and access to food products distributors. Thus, extensive competition and nondifferentiated products result in a relatively low net income to sales, or profit margin, percentage (3.5% in this case). Grocery stores, however, need relatively few assets to generate sales (34.2 cents in assets for each dollar of sales). The assets are described as turning over 2.9 times (100.0%/34.2%) per year. (Each dollar invested in assets generated, on average, $2.90 of revenues.) Each time the assets of this grocery store chain generate one dollar of revenue, it generates a profit of 3.5 cents. Thus, during a one-year period, the grocery store earns 10.15 cents (3.5% × 2.9) for each dollar invested in assets.

Pharmaceutical Company

The barriers to entry in the pharmaceutical industry are much higher than for grocery stores. Pharmaceutical firms must invest considerable amounts in research and development to create new drugs. The research and development process is lengthy with highly uncertain outcomes. Very few projects result in successful development of new drugs. Once new drugs have been developed, they must then undergo a lengthy government testing and approval process. If the drugs are approved, firms receive patents that give them exclusive rights to manufacture and sell the drugs for an extended period. These high entry barriers permit pharmaceutical firms to realize much higher profit margins on approved patent-protected products compared to the profit margins of grocery stores. Exhibit 1.3 indicates that the pharmaceutical firm generated a profit margin of 12.1%, more than three times that reported by the grocery store chain. Pharmaceutical firms, however, face product liability risks as well as the risk that competitors will develop superior drugs that make a particular firm's drug offerings obsolete. Because of these business risks, pharmaceutical firms tend to take on relatively small amounts of debt financing as compared to firms in industries such as electric utilities and commercial banks.

Electric Utility

The principal assets of an electric utility are its capital-intensive generating plants. Thus, property, plant, and equipment dominate the balance sheet. Because of the large investments required by such assets, electric utility firms generally demanded a monopoly position in a particular locale, and until recent years, usually obtained it. Government regulators permitted this monopoly position but set the rates that utilities charged customers for electric services. Thus, electric utilities have traditionally realized relatively high profit margins (10.5% in this case) to offset their relatively low total asset turnovers (0.495 = 100.0%/202.0% in this case). The monopoly position and regulatory protection reduced the risk of financial failure and permitted electric utilities to invest large amounts of capital in long-lived assets and take on relatively high proportions of debt in their capital structures. The economic characteristics of electric utilities have changed dramatically in recent years with gradual elimination of monopoly positions and the introduction of competition that affects rates, reducing profit margins considerably.

Commercial Bank

Through their borrowing and lending activities, commercial banks serve as intermediaries in the supply and demand for financial capital. The principal assets of commercial banks are investments in financial securities and loans to businesses and consumers. The principal financing for commercial banks comes from customers' deposits and short-term borrowings. Because customers can generally withdraw deposits at any time, commercial banks invest in securities that they can quickly convert into cash if necessary. Because money is a commodity, one would expect a commercial bank to realize a small profit margin on the revenue it earns from lending (interest revenue) over the price it pays for its borrowed funds (interest expense). The profit margins on lending are indeed relatively small. In contrast, the 13.0% margin for the commercial bank shown in Exhibit 1.3 reflects the much higher profit margins it generates from offering fee-based financial services such as structuring financing packages for businesses, guaranteeing financial commitments of business customers, and arranging mergers and acquisitions. Note that the assets of this commercial bank turn over just 0.09 (100.0%/1,136.1%) times per year, reflecting the net effect of interest revenues and fees from investments and loans of 6–8% per year, which requires a large investment in financial assets.

Tools for Studying Industry Economics

Three tools for studying the economic characteristics of an industry are (1) value chain analysis, (2) Porter's five forces classification framework, and (3) an economic attributes framework. The microeconomics literature suggests other analytical frameworks as well.

Value Chain Analysis

The value chain for an industry sets forth the sequence or chain of activities involved in the creation, manufacture, and distribution of its products and services. As an example, Exhibit 1.4 portrays an example of a value chain for the pharmaceutical industry. Pharmaceutical companies invest in research and development to discover and develop new drugs. When promising drugs emerge, a lengthy drug approval process begins. Estimates suggest that it takes seven to ten years and almost $1 billion to discover and obtain approval of new drugs. To expedite the approval process, reduce costs, and permit their scientists to concentrate on the more creative drug discovery phase, pharmaceutical companies often contract with clinical research firms to conduct the testing and shepherding of new drugs through the approval process.

To the extent prices are available for products or services at each stage in the value chain, you can study where value is added within an industry. For example, you can look at the prices paid to acquire firms with promising or newly discovered drugs to ascertain the value of the drug discovery phase. The prices that clinical research firms charge to test and obtain approval of new drugs signal the value added by this activity. The higher the value added from any activity, the higher the profitability should be from engaging in that phase.

You also can use the value chain to identify the strategic positioning of a particular firm within the industry. Traditionally, pharmaceutical firms have maintained a presence in the discovery through demand creation phases, leaving distribution to pharmacies and increasingly contracting out the drug testing and approval phase.

The manufacture of drugs involves combining various chemicals and other elements. For quality control and product purity reasons, pharmaceutical companies use highly automated manufacturing processes. Pharmaceutical companies employ sales forces to market drugs to doctors, hospitals, and health maintenance organizations. In an effort to create demand, these companies have increasingly advertised new products through multiple advertising media, suggesting that consumers ask their doctors about the drug. Drug distribution typically channels through pharmacies, although bulk mail-order and Internet purchases are increasingly common (and encouraged by health insurers).

Refer to Note 1, "Basis of Presentation and Our Divisions," to the financial statements of **PepsiCo** (Appendix A) for a description of PepsiCo's divisions and segments. PepsiCo operates four business units: PepsiCo Americas Foods (PAF), PepsiCo Americas Beverages

Exhibit 1.4

Value Chain for the Pharmaceutical Industry

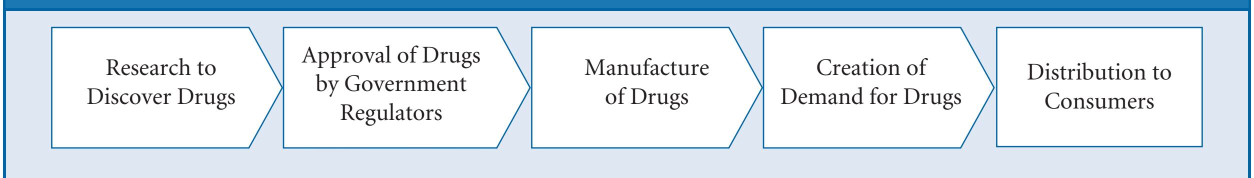


Exhibit 1.5

Division Revenues and Operating Profits for PepsiCo for 2012 (dollar amounts in millions)

	Revenues		Operating Profits		Operating Profit Margin
Frito-Lay North America	$13,574	20.7%	$ 3,646	40.0%	26.9%
Quaker Foods North America	2,636	4.0	695	7.6	26.4%
Latin America Foods	7,780	11.9	1,059	11.6	13.6%
PepsiCo Americas Beverages	21,408	32.7	2,937	32.2	13.7%
PepsiCo Europe	13,441	20.5	1,330	14.6	9.9%
Asia, Middle East & Africa	6,653	10.2	747	8.2	11.2%
Corporate unallocated	—	—	(1,302)	(14.3)	
Total	$65,492	100.0%	$ 9,112	100.0%	13.9%

(PAB), PepsiCo Europe, and PepsiCo Asia, Middle East and Africa (AMEA). The four business units include six reportable segments. PAF is organized into three divisions: Frito-Lay North America (FLNA; branded snacks, chips, and other food products), Quaker Foods North America (QFNA; cereal and related products), and Latin America Foods (LAF; branded snacks, chips, and other food products). PAB operates as a single-segment division, and it manufactures and distributes soft drinks and other beverages throughout North America. PepsiCo Europe and AMEA operate in markets outside North America and manufacture and sell branded snack foods, breakfast foods, soft drinks, and other beverages. Exhibit 1.5 shows the amounts taken from PepsiCo's Note 1, the proportions of revenues and operating profit that PepsiCo derived from each division, and the operating profit margin (operating profit divided by revenues) of each division for 2012.

Exhibit 1.6 illustrates a value chain for one of PepsiCo's principal businesses, the soft drink/beverage industry. Note that this is PepsiCo's legacy business, so for completeness you should also evaluate PepsiCo's other principal businesses, particularly in the snack food and breakfast food industries.

Although the classic PepsiCo soft drinks (for example, Pepsi, Diet Pepsi, and Mountain Dew) have not changed for many years, the company continually engages in new product development. Once a product appears to have commercial feasibility,

Exhibit 1.6

Value Chain for the Soft Drink/Beverage Industry