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# **FINANCIAL STATEMENT ANALYSIS & VALUATION**

# Financial Statement Analysis & Valuation

Fifth Edition

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**Cambridge**  
BUSINESS PUBLISHERS

To my daughters, Joanne and Stacey

—PDE

To my husband Brittan, and my children Loic, Maclean, Lacey, Quinn, and Kay

—MLM

To my wife Susan, and my children Christian, Peter and Philip

—GAS

To my wife Sharon, my daughter Jasmine, and my parents 滕惠清 and 张祥林

—XZ

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Professor Easton holds undergraduate degrees from the University of Adelaide and the University of South Australia. He holds a graduate degree from the University of New England and a PhD in Business Administration (majoring in accounting and finance) from the University of California, Berkeley.

Professor Easton's research on corporate valuation has been published in the *Journal of Accounting and Economics*, *Journal of Accounting Research*, *The Accounting Review*, *Contemporary Accounting Research*, *Review of Accounting Studies*, and *Journal of Business Finance and Accounting*. Professor Easton has served as an associate editor for 11 leading accounting journals and he is currently an associate editor for the *Journal of Accounting Research*, *Journal of Business Finance and Accounting*, and *Journal of Accounting, Auditing, and Finance*. He is an editor of the *Review of Accounting Studies*.

Professor Easton has held appointments at the University of Chicago, the University of California at Berkeley, Ohio State University, Macquarie University, the Australian Graduate School of Management, the University of Melbourne, Tilburg University, National University of Singapore, Seoul National University, and Nyenrode University. He is the recipient of numerous awards for excellence in teaching and in research. Professor Easton regularly teaches accounting analysis and security valuation to MBAs. In addition, Professor Easton has taught managerial accounting at the graduate level.

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Professor McAnally teaches financial reporting, analysis, and valuation in the full-time, Professional, and Executive MBA programs. Through the Mays Center for Executive Development, she works with corporate clients. She has also taught at the University of Alberta, University of Calgary, IMADEC (in Austria) and at the Indian School of Business at the Hyderabad and Mohali campuses. She has received numerous faculty-determined and student-initiated teaching awards at the MBA and executive levels. Those awards include the Beazley Award, the Trammell Foundation Award, the MBA Teaching Award (multiple times), the MBA Association Distinguished Faculty Award (three times), the Award for Outstanding and Memorable Faculty Member, and the Distinguished Achievement Award.

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Professor Sommers' research focuses on market-based empirical studies of the relations between currently available accounting data, expectations of future accounting data, expected cost of capital and valuation. His research has been published in *Journal of Accounting Research* and *Journal of Business, Finance, and Accounting*. Professor Sommers serves on the editorial board of *Review of Accounting Studies*.

Professor Sommers teaches financial accounting, including international accounting, in the undergraduate and graduate programs as well as in executive education at Southern Methodist University. He has taught financial statement analysis and valuation for over ten years at the graduate level and his teaching materials were previously utilized as resources for another textbook in this area. Professor Sommers' teaching has earned him numerous awards including Outstanding MBA Teaching as well as recognition from student organizations.

Professor Sommers is an active member of the American Accounting Association and its Financial Accounting and Reporting Section. He has served as chairman of the Trueblood Seminar for Professors sponsored by Deloitte. Professor Sommers is recognized as an expert in the areas of financial reporting, financial analysis, estimation of cost of capital, and business valuation.

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Professor Zhang's research focuses on financial statement analysis and security valuation. His work has been published in highly respected research journals including *The Accounting Review*, *Journal of Accounting and Economics*, *Journal of Accounting Research*, and *Review of Accounting Studies*. Professor Zhang has served on the editorial board of several journals, and has been a reviewer for many others top journals in the fields of finance and accounting.

Professor Zhang teaches undergraduate, MBA, and PhD courses in accounting and analysis. He is consistently ranked among the best instructors by students at the University of California, Berkeley. Professor Zhang is a respected consultant having performed consulting services for several hedge funds. He has also served as an advisor to the Investment Club at the University of California, Berkeley.

## Mid-Module and Module-End Reviews

Financial statement analysis and valuation can be challenging—especially for students lacking business experience or previous exposure to finance, management, and other business courses. To reinforce concepts presented in each module and to ensure student comprehension, we include multiple mid-module and module-end reviews that require students to recall and apply the financial statement analysis and valuation techniques and concepts described in each module. To aid students in developing their comparative analysis skills, most of those review problems center on a company or companies that compete with the focus company of that module. For representative examples, **SEE PAGES 3-4; 8-12; 11-20.**

## Experiential Learning

Students retain information longer if they can apply the lessons learned from the module content. To meet this need for experiential learning, we conclude each module with a hands-on analysis project. A series of questions guides students' inquiry and helps students synthesize the material in the module and integrate material across modules. For representative examples, **SEE PAGES 1-43; 3-62; 11-68.**

## Excellent, Class-Tested Assignment Materials

Excellent assignment material is a must-have component of any successful textbook (and class). We went to great lengths to create the best assignments possible from contemporary financial statements. In keeping with the rest of the book, we used real company data extensively. We also ensured that assignments reflect our belief that students should be trained in analyzing accounting information to make business decisions, as opposed to working on mechanical tasks. Assignments encourage students to analyze accounting information, interpret it, and apply the knowledge gained to a business decision or in a valuation context. There are six categories of assignments: **Questions, Mini Exercises, Exercises, Problems, IFRS Applications, and Analysis Discussion Points.**

## FIFTH EDITION CHANGES

- The **Table of Contents** is reorganized to facilitate eLearning, with additional in-module Reviews and Guided Example videos for all modules.
- **Expanded and updated Analyst Adjustments and New Assignments supporting the adjustments:** The authors have included additional Analyst Adjustment boxes and updated the existing ones throughout the book. Also, this edition includes assignments that require students to use the adjustment techniques, which often includes the reformulation of financial statement numbers.
- **New regulations:** This edition reflects the release of new standards on **Revenue Recognition, Leases, Marketable Securities**, and all other important accounting disclosures.
- **DuPont Model:** Module 3 now opens with DuPont Analysis (moved from an appendix) as a simple, yet powerful, analysis framework. For those instructors interested, a disaggregation of ROE that separates operating and nonoperating items is shown later in the module as a natural extension of DuPont analysis. Evidence of its usefulness is provided as the authors apply the model and its extension to real companies.
- **Revenue, Operating Expenses, and Receivables:** Module 5 is reorganized and streamlined to reduce its length and focus its discussion on revenue, operating expenses, and receivables.
- **Receivables and Payables:** Module 5 now includes accounts receivable which are naturally paired with revenues. Accounts payable is moved to Module 6 and presented with inventories. A new section on days to collect receivables, days sales in inventory, days to pay accounts payable, and the cash conversion cycle is added to Module 6. These new metrics are applied to actual companies for demonstration.
- **R&D Costs:** Module 6 now includes R&D facilities along with restructuring activities as many analysts view them as a natural extension of operating assets.
- **Share-Based Compensation:** Module 8 includes a complete rewrite of share-based compensation with greater emphasis on restricted stock.
- **Taxes:** Coverage of analysis of income taxes is moved from Module 5 to Module 10 based on instructor feedback.

# Preface

Welcome to the Fifth Edition of *Financial Statement Analysis & Valuation*. Our main goal in writing this book was to address the needs of today's instructors and students interested in financial analysis and valuation by providing the most contemporary, engaging, and user-oriented textbook available. This book is the product of extensive market research including focus groups, market surveys, class tests, manuscript reviews, and interviews with faculty from across the country. We are grateful to students and faculty whose insights, suggestions and feedback greatly benefited this Fifth Edition.

## TARGET AUDIENCE

*Financial Statement Analysis & Valuation* is intended for use in a financial statement analysis and/or valuation course in which profitability analysis and security valuation are emphasized. This book accommodates mini-courses lasting only a few days as well as extended courses lasting a full semester.

## INNOVATIVE APPROACH

*Financial Statement Analysis & Valuation* is applications oriented and focuses on the most salient aspects of accounting, analysis, and valuation. It teaches students how to read, analyze, and interpret financial statement data to make informed business decisions. This textbook makes financial statement analysis and valuation **engaging, relevant, and contemporary**. To that end, it consistently incorporates **real company data**, both in the body of each module and throughout the assignment material.

## FLEXIBLE STRUCTURE

The curricula, instructor preferences, and course lengths vary across colleges. Accordingly and to the extent possible, the 15 modules that make up *Financial Statement Analysis & Valuation* were designed independently of one another. This modular presentation enables each college and instructor to “customize” the book to best fit their needs. Our introduction and discussion of financial statements constitute Modules 1 and 2. Module 3 presents the analysis of financial statements with an emphasis on analysis of operating profitability. Module 4 introduces credit risk analysis. Modules 5 through 10 offer an analysis of accounting numbers and disclosures. The aim of those modules is to help us better interpret financial statements and to adjust those statements as necessary to improve our financial statement analysis. Modules 11 through 15 describe forecasting, cost of capital estimation, and company valuation.

## Flexibility for Courses of Varying Lengths

Many instructors have approached us to ask about suggested class structures based on courses of varying length. To that end, we provide the following table of possible course designs. For instructors desiring greater emphasis on accounting analysis, additional time can be spent on Modules 1 through 10. For instructors desiring greater emphasis on analysis and valuation, additional time can be spent on Modules 11 through 15.

	15 Week Semester-Course	10 Week Quarter-Course	6 Week Mini-Course	1 Week Intensive-Course
<b>MODULE 1</b> Framework for Analysis and Valuation	Week 1			
<b>MODULE 2</b> Review of Business Activities and Financial Statements	Week 2	Week 1 (Modules 1 and 2)	Week 1 (Modules 1 and 2)	Day 1 (Modules 1 and 2)
<b>MODULE 3</b> Profitability Analysis and Interpretation	Week 3 Week 2	Week 2 Day 2		
<b>MODULE 4</b> Credit Risk Analysis and Interpretation	Week 4 Week 3	Optional Optional		
<b>MODULE 5</b> Revenue Recognition and Operating Income	Week 5 Week 4	Week 3		Day 3 (Modules 5 and 6)
<b>MODULE 6</b> Asset Recognition and Operating Assets	Week 6 Week 5	Skim		
<b>MODULE 7</b> Liability Recognition and Nonowner Financing	Week 7	Optional Optional Optional		
<b>MODULE 8</b> Equity Recognition and Owner Financing	Week 8	Optional Optional Optional		
<b>MODULE 9</b> Incorporate Entities	Week 9 Week 6	Optional Optional		
<b>MODULE 10</b> Analyzing Leases, Pensions, and Taxes	Week 10 Week 7	Skim Optional		
<b>MODULE 11</b> Forecasting Financial Statements	Week 11 Week 8	Week 4		Day 4 (Modules 11 and 12)
<b>MODULE 12</b> Cost of Capital and Valuation Basics	Week 12 Week 9	Week 5		
<b>MODULE 13</b> Cash-Flow-Based Valuation	Week 13 Weeks 9 and 10	Weeks 5 and 6		Day 5 (Modules 13 and 14)
<b>MODULE 14</b> Operating-Income-Based Valuation	Week 14 Week 10	Week 6		
<b>MODULE 15</b> Market-Based Valuation	Week 15	Optional Optional Optional		

## INNOVATIVE PEDAGOGY

*Financial Statement Analysis & Valuation* includes special features specifically designed for the student with a keen interest in analysis and valuation.

### Focus Companies for Each Module

Each module's content is explained through the reporting activities of real companies. To that end, each module incorporates a "focus company" for special emphasis and demonstration. The enhanced instructional value of focus companies comes from the way they engage students in real analysis and interpretation. Focus companies were selected based on the industries that business students typically enter upon graduation.



## Focus Company by Module

<b>MODULE 1</b>	Under Armour	<b>MODULE 10</b>	Southwest Airlines and FedEx
<b>MODULE 2</b>	Apple	<b>MODULE 11</b>	Procter & Gamble
<b>MODULE 3</b>	Intel	<b>MODULE 12</b>	NextEra Energy, Inc.
<b>MODULE 4</b>	Home Depot	<b>MODULE 13</b>	Procter & Gamble
<b>MODULE 5</b>	Pfizer	<b>MODULE 14</b>	Procter & Gamble
<b>MODULE 6</b>	Home Depot	<b>MODULE 15</b>	Dollar General
<b>MODULE 7</b>	Verizon	<b>APPENDIX B</b>	Starbucks
<b>MODULE 8</b>	Johnson & Johnson	<b>APPENDIX C</b>	Harley-Davidson
<b>MODULE 9</b>	Google		

## Real Company Data Throughout

Market research and reviewer feedback tell us that one of instructors' greatest frustrations with other financial statement analysis and valuation textbooks is their lack of real, contemporary company data. We have gone to great lengths to incorporate real company data throughout each module to reinforce important concepts and engage students. We engage nonaccounting students specializing in finance, marketing, management, real estate, operations, and so forth, with companies and scenarios that are relevant to them. For representative examples, **SEE PAGES 3-18; 5-19; 6-22.**

## Analyst Adjustments

Analyst Adjustments are incorporated throughout most of the modules. These boxed elements explain and illustrate the types of adjustments analysts make to accounting information to make it more useful in their assessment of a firm. For representative examples, **SEE PAGES 5-9; 6-11; 7-7; 10-10; 10-31.**

<b>ANALYST ADJUSTMENTS 5.2 Adjusting for Allowances on Accounts Receivable</b>			
As we analyze allowances, we know managers have latitude in the amount of allowance they record within GAAP. Allowances such as those for sales returns and discounts (discussed in a prior section) and that for doubtful accounts (discussed here) are susceptible to managerial latitude.			
For example, if a manager records an allowance for doubtful accounts that is too small, bad debt expense is too low for that period. This overstates net income for that period as well as accounts receivable and total assets. Conversely, an allowance that is too large is consistent with an inflated bad debt expense. Under either scenario, income and total assets are misstated for that period.			
Returning to <b>Pfizer</b> , we observe that the company's allowance has been decreasing over the past three years and that a more reasonable estimate might be to keep the allowance at the same proportion of accounts receivable, gross, for those years. We can reformulate the relevant balance sheet and income statement accounts and then use the reformulated numbers (instead of the numbers as reported by the company) in subsequent analyses.			
The following Pfizer financial statement data, along with some adjustments, are used for such a reformulation.			
\$ millions	2013	2014	2015
Gross accounts receivable	\$9,835	\$8,813	\$8,560
Allowance for doubtful accounts	\$478	\$412	\$384
Percentage = Allowance / Gross accounts receivable	4.86%	4.68%	4.49%
Adjusted allowance for doubtful accounts	\$461	\$412	\$401

## Business Insights & Analysis Insights

Updated **Business Insight** boxes throughout each module showcase real-world business scenarios through the lens of financial statement analysis. For representative examples, **SEE PAGES 2-10; 6-6; 11-21.** **Analysis Insight** boxes, in select modules, highlight the importance of analysts' professional judgment in financial analysis as well as with the reformulation of financial statements. For representative examples, **SEE PAGES 4-28; 13-6.**

## Research Insights

Academic research plays an important role in the way business is conducted, accounting and analysis are performed, and students are taught. It is important for students to recognize how modern research and modern business practice interact. Therefore, we periodically incorporate relevant research to help students understand the important relation between research and modern business. For representative examples, **SEE PAGES 3-25; 5-32.**

## Decision Orientation

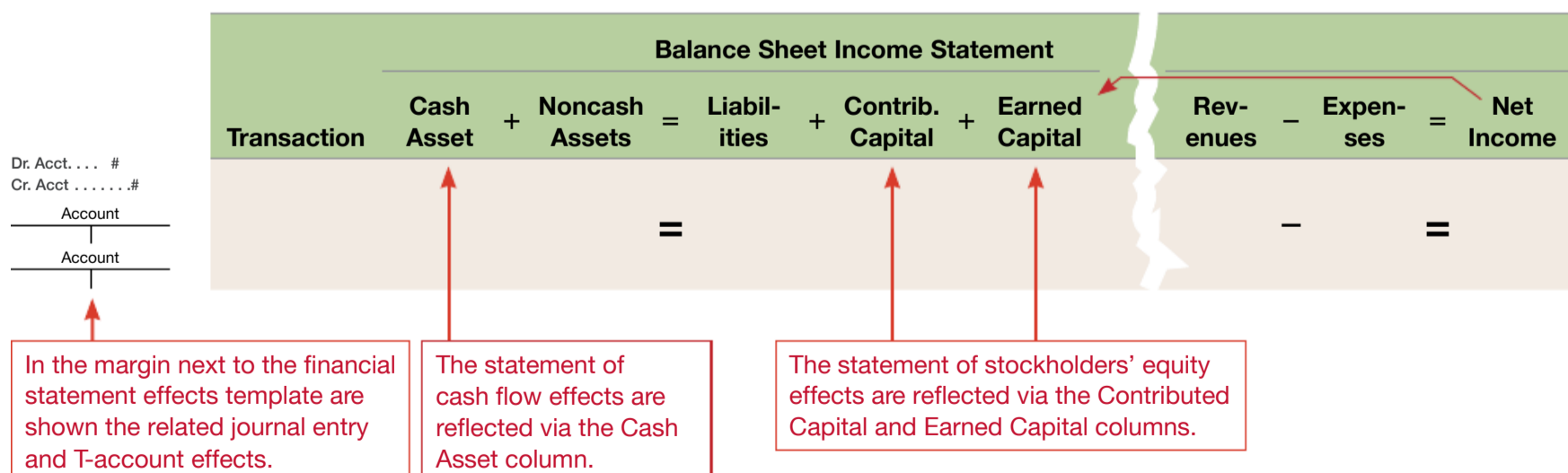
One primary goal of a financial statement analysis and valuation course is to teach students the skills needed to apply their accounting knowledge to solving real business problems and making informed business decisions. With that goal in mind, Analysis Decision boxes in each module encourage students to apply the material presented to solving actual business scenarios.

### ANALYSIS DECISION You Are the Vice President of Finance

Your company is currently rated B1/B+ by the **Moody's** and **S&P** credit rating agencies, respectively. You are considering restructuring to increase your company's credit rating. What types of restructurings might you consider? What benefits will your company receive from those restructurings? What costs will your company incur to implement such restructurings? [Answer, p. 7-33]

## Financial Statement Effects Template

As instructors, we recognize that the financial statement analysis and valuation course is not directed solely toward accounting majors. *Financial Statement Analysis & Valuation* embraces this reality. This book highlights **financial reporting, analysis, valuation, interpretation, applications and decision making**. We incorporate the following **financial statement effects template** to train students in understanding the economic ramifications of transactions and their impacts on financial statements. This analytical tool is a great resource for students in learning analysis and applying it to their future courses and careers. Each transaction is identified in the "Transaction" column. Then, the dollar amounts (positive or negative) of the financial statement effects are recorded in the appropriate balance sheet or income statement columns. The template also reflects the statement of cash flow effects (via the cash column) and the statement of stockholders' equity effects (via the contributed capital and earned capital columns). The earned capital account is immediately updated to reflect any income or loss arising from each transaction (denoted by the arrow line from net income to earned capital). This template is instructive as it reveals the financial impacts of transactions, and it provides insights into the effects of accounting choices. For those desiring a more traditional analysis, journal entries and T-accounts are shown in the margin.






- **Equity Carve-Outs:** Coverage is moved to Module 9 because many view carve-outs as a divestiture of a special type of investment and this coverage is set as a new appendix (to reflect their reduced occurrence in practice).
- **Streamlined Forecasting Module:** Module 11 is markedly shortened and rewritten for clarity. It now begins with a concrete example of forecasting mechanics (as the opening section for those faculty wishing to cover just the mechanics and not the refinements). Module 11 uses a new **Procter & Gamble** analyst report provided by **Morgan Stanley**, which is set as an appendix.
- **Updated financial data and assignments:** All data and financial statements are updated throughout the book to reflect each company's latest available financial statement filings and disclosures.
- **Bond Ratings:** Greatly enhanced the discussion of the determination of bond ratings with an example of **Moody's** ratings for **Verizon**.
- **Expanded Analysis of Allowances Accounts:** Added section in Module 6 on accounting for sales allowances, including accounting and analysis of *Schedule II allowance disclosures* (including effects on sales and adequacy of the allowance account).
- **Pension accounting:** Revised discussion of pension accounting, including a new section on fair valuation of pension obligations, the treatment of pension plans in bankruptcy, and an analysis of pension plans disclosures such as what is operating versus nonoperating (Module 10).
- **Global Analysis:** The sections on global analysis are updated to include new developments.
- **Updated Comprehensive Case:** Appendix C shows a case analysis using **Harley-Davidson** financial statements and notes.

## SUPPLEMENT PACKAGE

### For Instructors



**myBusinessCourse:** A web-based learning and assessment program intended to complement your textbook and instruction. This easy-to-use course management system grades homework automatically and provides students with additional help when you are not available. Further, detailed diagnostic tools assess class and individual performance. myBusinessCourse is ideal for online courses or traditional face-to-face courses for which you want to offer students more resources to succeed. Assignments with the  in the margin are available in myBusinessCourse. eLecture videos  are available for the module Learning Objectives, and Guided Examples  for the in-module Reviews are available for you to assign students.

**Solutions Manual:** Created by the authors, the *Solutions Manual* contains complete solutions to all assignments.

**PowerPoint:** Created by the authors, the PowerPoint slides outline key elements of each module.

**Test Bank:** Written by the authors, the test bank includes multiple-choice items, exercises, short essay questions, and problems.

**Computerized Test Bank:** This computerized version of the test bank enables you to add and edit questions; create up to 99 versions of each test; attach graphic files to questions; import and export ASCII files; and select questions based on type or learning objective. It provides password protection for saved tests and question databases and is able to run on a network.

**Website:** All instructor materials are accessible via the book's website (password protected) along with other useful links and information. [www.cambridgepub.com](http://www.cambridgepub.com)




### For Students

**eLectures:** Each module's Learning Objectives include an eLecture video available in our online learning management system, myBusinessCourse (see below for more information).

**Guided Examples:** Guided Example videos are available for each Review, also in myBusinessCourse (see below for more information).



**myBusinessCourse** is a web-based learning and assessment program intended to complement your textbook and faculty instruction. This easy-to-use program provides you with additional help when

your instructor is not available. Guided Example videos  are available for all in-module Reviews, and eLecture videos  are available for each Learning Objective, aligned with the topics presented in the text. With Instructor-Led MBC courses, assignments with the in the  margin are also available and are automatically graded. Access is free with new copies of this textbook (look for page containing the access code towards the front of the book). If you buy a used copy of the book, you can purchase access at [www.mybusinesscourse.com](http://www.mybusinesscourse.com).

**Website:** Useful links are available to students free of charge on the book's website.

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# 1

# Framework for Analysis and Valuation

## Analyst Playbook

*Analyst Playbook visually organizes the topics, eLecture videos, Guided Example videos, and assignments by Learning Objective.*

LO	Learning Objective	Topics Page eLecture	Guided Example Assignments
1-1	<b>Explain and assess the four main business activities.</b> Planning :: Operating :: Investing :: Financing	1-5 e1-1 Review 1-1	1, 21, 56
1-2	<b>Identify and discuss the users and suppliers of financial statement information.</b> Information Demand :: Information Supply :: Global Setting	1-6 e1-2 Review 1-2	8, 9, 13, 17, 18, 22, 29, 35, 39, 58, 59
1-3	<b>Describe and examine the four financial statements.</b> Balance Sheet :: Income Statement :: Statement of Stockholders' Equity :: Statement of Cash Flows	1-12 e1-3 Review 1-3	2, 3, 4, 5, 6, 7, 23, 24, 25, 26, 27, 28, 33, 34, 36, 42, 43, 44, 45, 46, 53, 56, 57
1-4	<b>Assess business operations within the context of a competitive environment.</b> Competitive Environment :: Business Environment :: Competitive Advantage	1-20 e1-4 Review 1-4	10, 11, 30
1-5	<b>Explain and apply basic profitability analysis.</b> Return on Assets :: Return on Equity :: Relevance of Financial Statements	1-24 e1-5 Review 1-5	19, 20, 31, 32, 37, 38, 40, 41, 42, 43, 44, 47, 48, 49, 50, 51, 52, 54, 55, 57



**Under Armour Inc.** develops, markets, and distributes its branded performance apparel, footwear, and accessories for men, women, and youth. A distinctive element of its marketing and promotion strategy is the direct sales to high-performing athletes and teams at all levels. As a result, Under Armour products have enormous visibility on the Internet and television as well as in magazines and at live sporting events. This exposure helps establish “on-field authenticity” for the brand as consumers see Under Armour products worn by athletes in a wide range of sports.

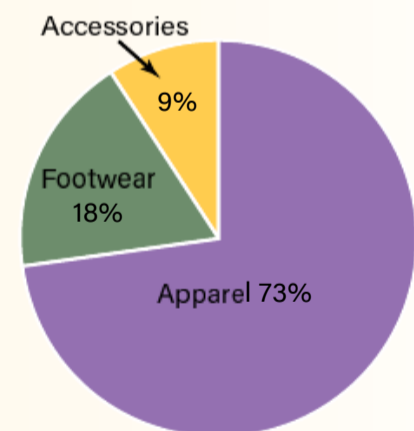
Over the past three years, Under Armour’s revenues have increased by 70% and its profits by 43%. It reported nearly \$3 billion in assets, and it financed 58% of its assets with stockholder investment and the other 42% with borrowed money—a conservative financing strategy. Under Armour has used the cash it generates to ramp up inventories; invest in property, plant, and equipment; and acquire other companies that are central to its strategy.

The financial information Under Armour reports is critical to a diverse set of users, including the company’s own management team, stockholders, lenders, suppliers, government regulators, and others. Understanding the information contained in these financial statements is central to effective decision-making by these parties.

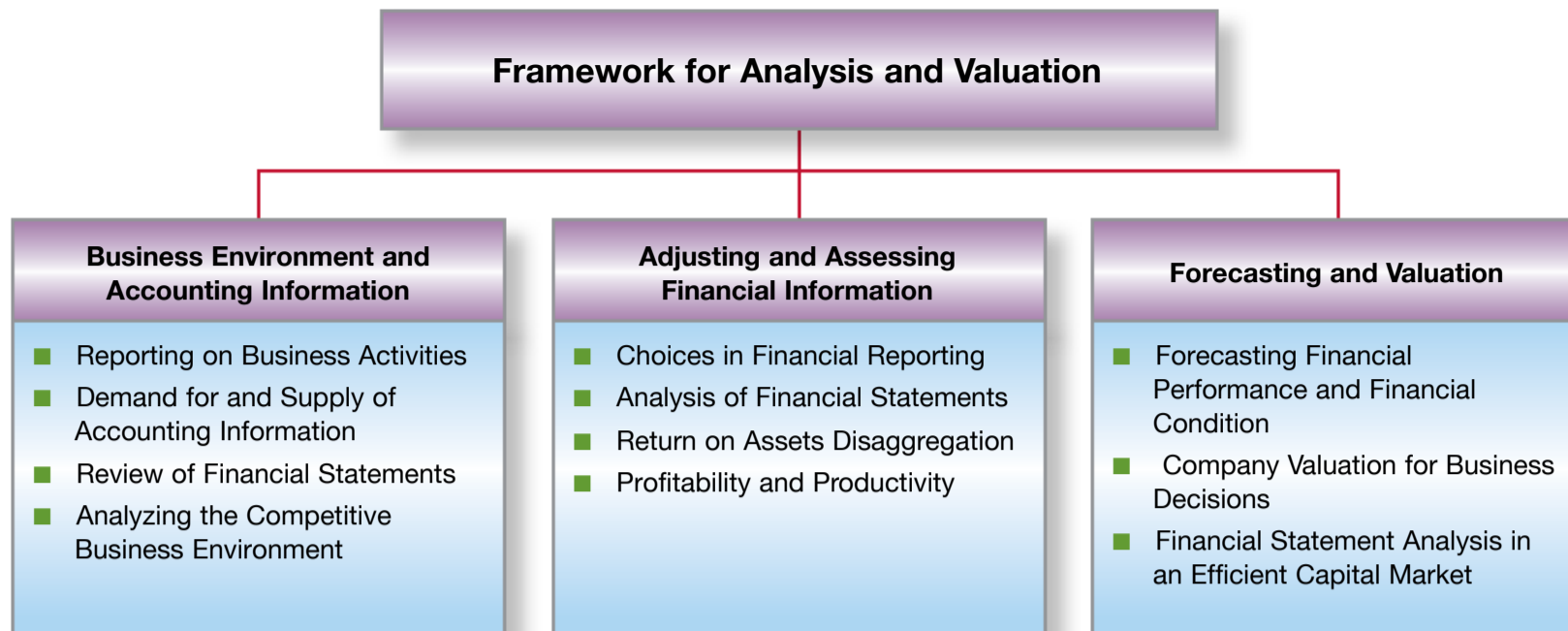
This module introduces the financial statements that companies such as Under Armour disclose. It also presents basic tools to analyze financial information. We begin with an overview of the information environment companies face, and we discuss the demand for and supply of financial information. We then review financial statements and explain what information they convey. We discuss business analysis, which is an important part of drawing inferences from financial statements. Profitability is described and is used as a focus for much of our application of accounting information. The appendix explains how we access reports filed with the SEC. [Source: *Under Armour*, 2015 10-K report.]

*A Focus Company introduces each module and illustrates the relevance of financial statement analysis in business.*

**Under Armour Product Sales**





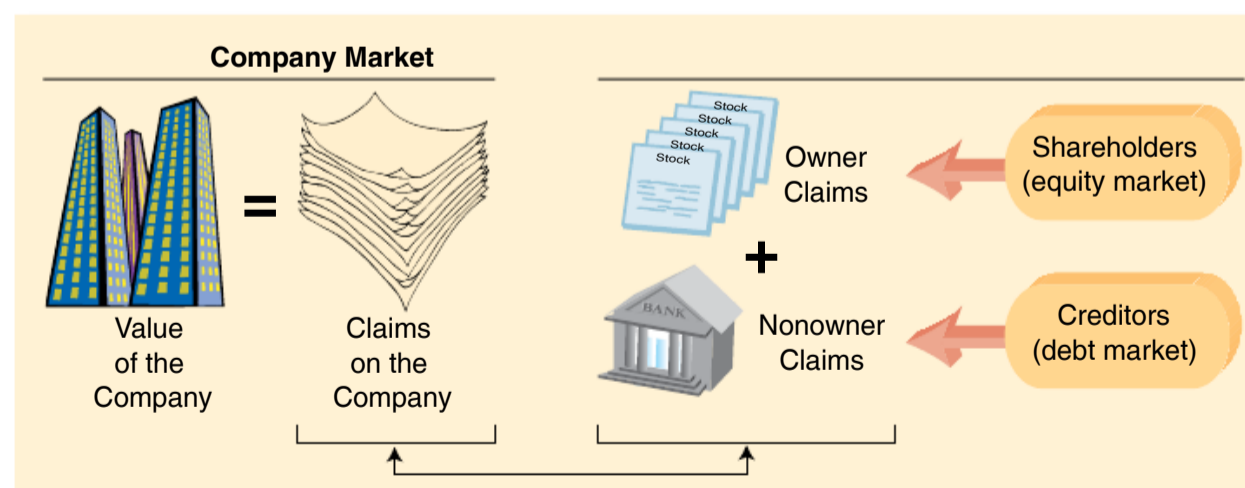


**Module Organization**  
Charts visually depict the key topics and their sequence within the module.

**Financial statement analysis** is the process of extracting information from financial statements to better understand a company's current and future performance and financial condition. Financial statements serve many objectives. Management uses financial statements to raise financing for the company, to meet disclosure requirements, and to serve as a benchmark for executive bonuses. Investors and analysts use financial statements to help decide whether to buy or sell stock. Creditors and rating agencies use financial statements to help decide on the creditworthiness of a company's debt and lending terms. Regulatory agencies use financial statements to encourage enactment of social and economic policies and to monitor compliance with laws. Legal institutions use financial statements to assess fines and reparations in litigation. Various other decision makers rely on financial statements for purposes ranging from determining demands in labor union negotiations to assessing damages for environmental abuses.

**Valuation** is the process of drawing on the results of financial statement analysis to estimate a company's worth (enterprise value). A company's worth can be viewed as a collection of assets, and those assets have claims on them. Owner claims are reflected in equity shares (securities) of a company. Nonowner claims are reflected in obligations and debt shares (securities) of the company. The valuation process seeks to assess the worth of equity shares or debt shares, or both.

**Financial statement analysis and valuation** is the joint process of scrutinizing a company's financial statements and valuing its equity and debt. The relations between the company (its assets) and the market claims on the company are depicted here:



We see that company value equals owner and nonowner claims, where those claims are valued by the equity and debt markets.

This book provides a framework and several tools to help us analyze companies and value their securities. To this end, it is helpful to imagine ourselves as a specific user of financial statements. For example, imagine we are a stock investor—how do we identify a stock to buy or whether to sell a stock we own? Imagine we are a bond trader—how do we identify

a bond to acquire or whether to dispose of a bond we own? Imagine we are a manager—how do we decide whether to acquire another company or divest of a current division? Imagine we are an equity or credit analyst—how do we assess and communicate an investment appraisal or credit risk report? This focused perspective will enhance our learning process and makes it relevant.

This module begins with an overview of the demand for and supply of accounting information. We then review financial statements and explain what they convey about a company. We provide an introduction to analysis of the business environment, which is a crucial part of understanding the context in which we draw inferences from financial statements. Profitability is described next as it frames much of our analysis of financial statements. In concluding the module, we discuss the application of information garnered from financial statement analysis and business analysis to produce forecasts that are used in valuation. We include (in the appendix) a discussion of accessing SEC filings, which are required for all companies traded publicly in the U.S.

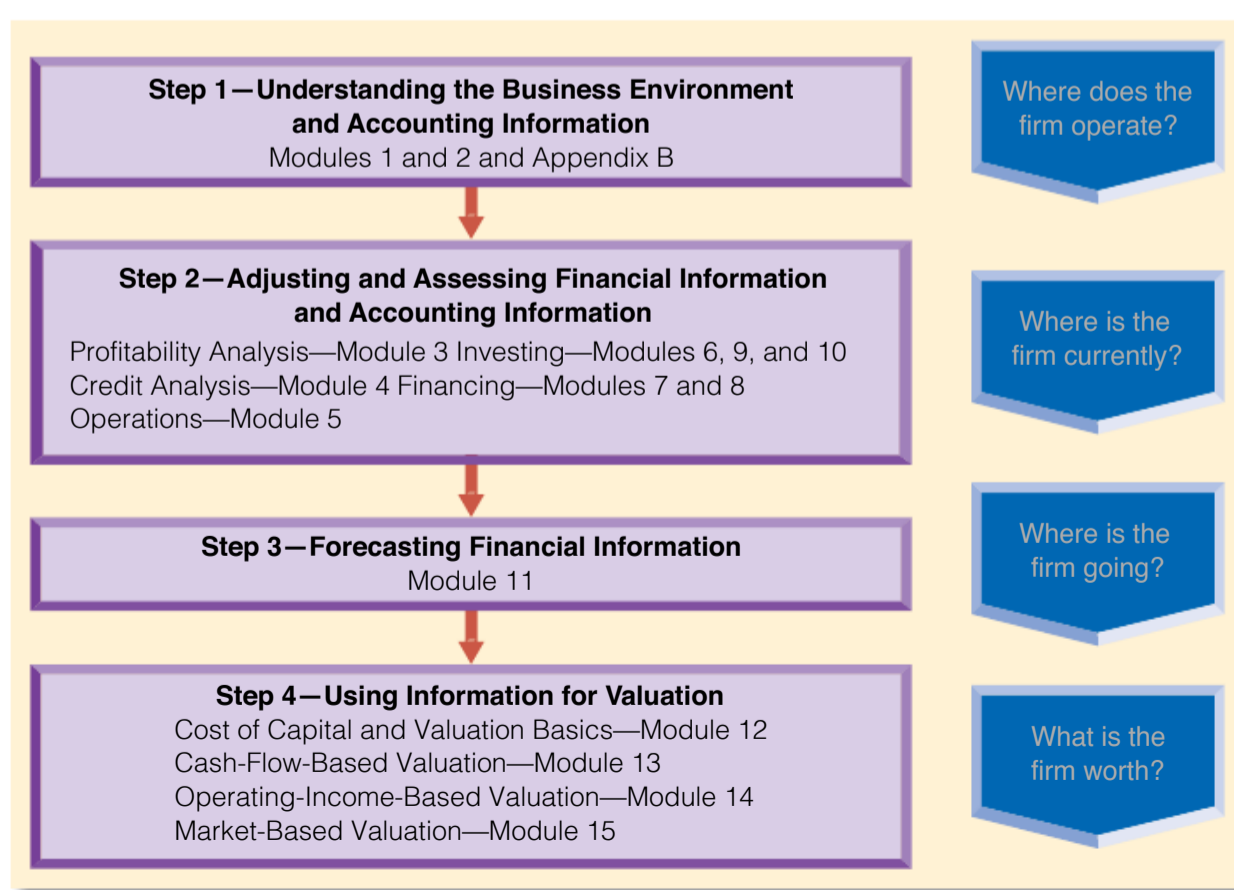
The remainder of the book is organized around four key steps in financial statement analysis and valuation. These steps are portrayed graphically below.

**STEP 1** consists of Modules 1 and 2 where we develop an understanding of the business environment and company-reported accounting information, including the statement of cash flows in Appendix B. This helps answer the question: What is the setting in which the company operates?

**STEP 2** consists of Modules 3 and 4, which introduce both profitability and credit risk analysis, and Modules 5 through 10, which provide tools for adjusting and assessing financial statement information. This step is the core of financial statement analysis, allowing us to adjust financial statements as necessary to improve our analysis and better reflect business performance and financial condition. The adjustments and assessments answer the question: What is the company's current financial performance and condition?

**STEP 3** consists of Module 11, which applies our knowledge of the business environment and company's current status to form predictions about future financial performance and condition. Forecasting reflects our beliefs of where the company is heading.

**STEP 4** consists of Modules 12 through 15, which explores how forecasted information is used in a variety of valuation methods. The valuation estimates based on forecasted numbers help answer the question: What is the company worth? All business decisions should be informed by an analysis of value or the change in value. This book explains the explicit connections that allow us to estimate company value from financial information. All four steps are repeated in Appendix C, which examines Harley-Davidson as a case analysis.



## STEP 1 BUSINESS ENVIRONMENT AND ACCOUNTING



### LO1

Explain and assess the four main business activities.

**eLecture icons identify topics for which there are instructional videos in myBusinessCourse (MBC).** See the Preface for more information on MBC.

Financial accounting information serves many purposes. To understand this, imagine that we are a specific user of accounting information. For example, imagine we are a:

- Stock investor—how might we use accounting information to identify a stock to buy?
- Bond trader—how might we use accounting information to assess a company's ability to repay its debt?
- Manager—how might we use accounting information to decide whether to acquire another company or divest a current division?
- Equity and/or credit analyst—how might we use accounting information to prepare an investment appraisal or credit report?

This book explains the concepts, preparation, and application of financial accounting information and, most importantly, how decision makers use such information.

- Managers use financial accounting information for planning purposes and to make operating, investing, and financing decisions.
- Investors and analysts use financial accounting information to help decide whether to buy or sell stock.
- Lenders and rating agencies use accounting information to help decide a company's credit-worthiness and lending terms.
- Regulators use accounting information to enact social and economic policies and to monitor compliance with laws.
- Legal institutions use accounting information to assess fines and reparations in litigation.
- Other decision makers rely on accounting information for purposes ranging from determining demands in labor union negotiations to levying damages for environmental abuses.

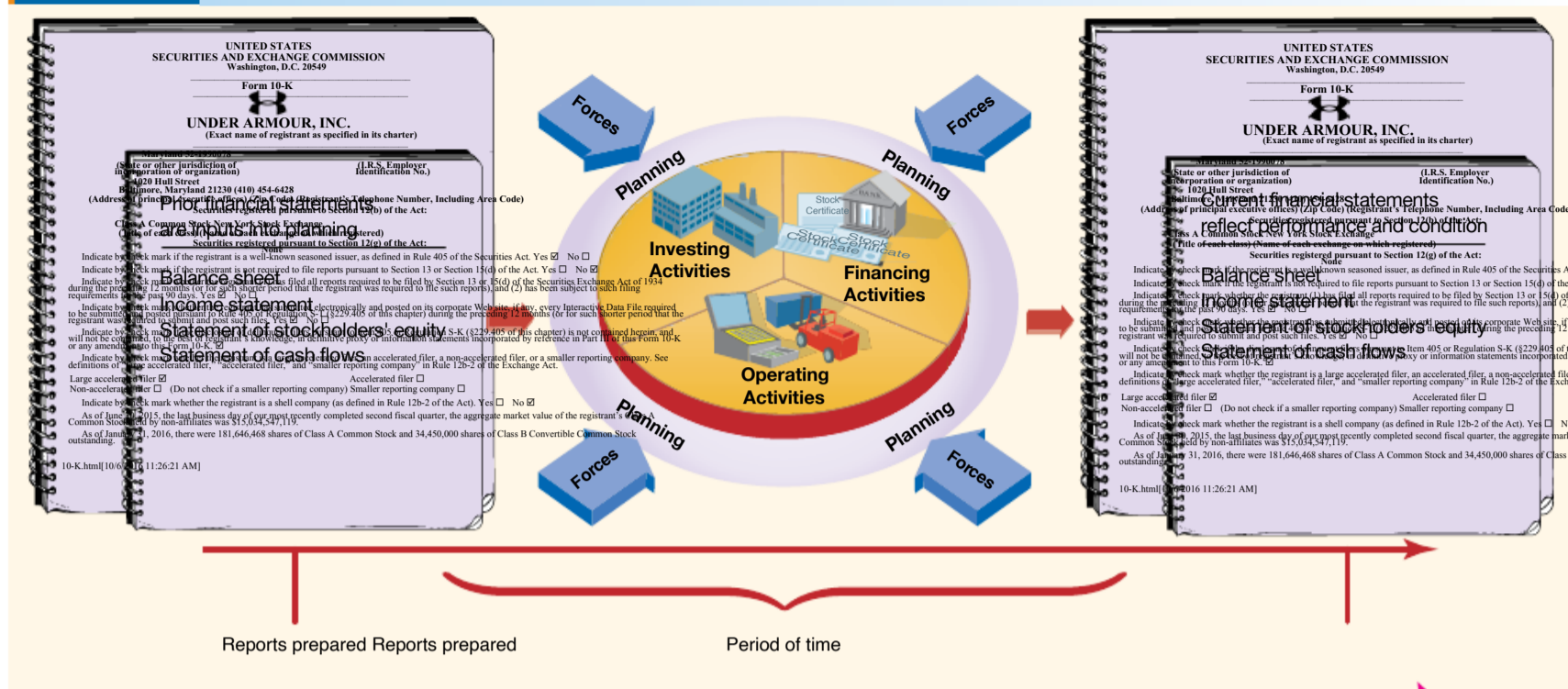
**Business Activities** To effectively analyze and use accounting information, we must consider the business context in which the information is created—see Exhibit 1.1. All companies engage in four types of activities: they *plan* business activities, *finance* those activities, *invest* in those activities, and then engage in *operating* activities. Companies conduct all these activities while confronting *business forces*, including market constraints and competitive pressures. Prior financial statements provide crucial input for strategic planning. Current financial statements provide information about the relative success of those plans, which can be used to take corrective action or make new operating, investing, and financing decisions.

Exhibit 1.1 depicts the four business activities for a typical company. The outer (purplish) ring is the planning process that reflects the overarching goals and objectives of the company within which strategic decisions are made. Those strategic decisions involve company financing, asset investment and management, and daily operations. **Under Armour**, the focus company for this module, provides the following description of its business strategy in its annual report.

**Excerpts from recent financial statements are used to illustrate and reinforce concepts.**

Our principal business activities are the development, marketing and distribution of branded performance apparel, footwear and accessories for men, women and youth...Our Connected Fitness strategy is focused on connecting with our consumers and increasing awareness and sales of our existing product offerings through our global wholesale and direct to consumer channels. We plan to engage and grow this community by developing innovative applications, services and other digital solutions to impact how athletes and fitness-minded individuals train, perform and live. Our marketing and promotion strategy begins with providing and selling our products to high-performing athletes and teams on the high school, collegiate and professional levels. We execute this strategy through out-fitting agreements, professional and collegiate sponsorships, individual athlete agreements and by providing and selling our products directly to team equipment managers and to individual athletes.

**EXHIBIT 1.1 Business Activities**



**Business Strategy** A company's *strategic* (or *business*) *plan* reflects how it plans to achieve its goals and objectives. A plan's success depends on an effective analysis of market demand and supply. Specifically, a company must assess demand for its products and services and assess the supply of its inputs (both labor and capital). The plan must also include competitive analyses, opportunity assessments, and consideration of business threats. We discuss competitive forces later in the module.

Infographics are used to convey concepts and procedures.

Historical financial statements provide insight into the success of a company's strategic plan and are an important input to the planning process. These statements highlight portions of the strategic plan that proved profitable and, thus, warrant additional capital investment. They also reveal areas that are less effective and provide information to help managers develop remedial action.

Once strategic adjustments are planned and implemented, the current period financial statements provide input into the planning process for the next year, and this process begins again. Understanding a company's strategic plan helps focus our analysis of financial statements by placing them in proper context.

**REVIEW 1-1** LO1

Which of the following statements are true?

- a. Historical financial statements provide important relevant information that allows managers to effectively plan their company's business for the upcoming year.
- b. To properly analyze the information contained in financial statements, it is important to understand the business context in which the information is created.
- c. Financial statements provide substantial information that is used in all phases of the planning process, including the way in which the company is financed and which investments are pursued.
- d. Financial statements provide important input into the evaluation of the company's success in carrying out its strategic plan.

**Solution on p. 1-43.**

Learning Objectives are highlighted at the start of the section covering that topic.

**FINANCIAL STATEMENTS: DEMAND AND SUPPLY**

Demand for financial statements has existed for centuries as a means to facilitate efficient contracting and risk-sharing. Decision makers and other stakeholders demand information on a company's past and prospective returns and risks. Supply of financial statements is driven by companies' wish to lower financing costs and other costs such as political, contracting,

eLectures **LO2**  
 Identify and discuss the users and suppliers of financial statement information.



and labor. Managers decide how much financial information to supply by weighing the costs of disclosure against the benefits of disclosure. Regulatory agencies intervene in this process with various disclosure requirements that establish a minimum supply of information.

## Demand for Information

The following broad classes of users demand financial accounting information.

- Managers and employees
- Investment analysts and information intermediaries
- Creditors and suppliers
- Stockholders and directors
- Customers and strategic partners
- Regulators and tax agencies
- Voters and their representatives

## Managers and Employees

Managers and employees are interested in the company's current and future financial health. This leads to a demand for accounting information on the financial condition, profitability, and prospects of their companies as well as comparative financial information on competing companies and business opportunities. This permits them to benchmark their company's performance and condition. Managers and employees also demand financial accounting information for use in compensation and bonus contracts that are tied to such numbers. The popularity of employee profit sharing and stock ownership plans has further increased demand for financial information. Other sources of demand include union contracts that link wage negotiations to accounting numbers and pension and benefit plans whose solvency depends on company performance. Financial statements provide useful information to company managers to address the following types of questions.

- What product lines, geographic areas, or other segments are performing well compared with our peer companies and our own benchmarks?
- Have we reached the level of profitability necessary to pay bonuses or profit-sharing payments to employees?
- Should we consider expanding or contracting our business?

## Investment Analysts and Information Intermediaries

Investment analysts and other information intermediaries, such as financial press writers and business commentators, are interested in predicting companies' future performance. Expectations about future profitability and the ability to generate cash impact stock price and a company's ability to borrow money at favorable terms. Financial reports reflect information about past performance and current resources available to companies. These reports also provide information about claims on those resources, including claims by suppliers, creditors, lenders, and stockholders. This information allows analysts to make informed assessments about future financial performance and condition so they can provide stock recommendations or write commentaries. Financial statements provide useful information to investment analysts to address the following types of questions.

- What are the expected future profit, cash flows, and dividends to use as input into stock-price models?
- Is the company financially solvent and able to meet its financial obligations?
- How do our expectations about the economy, interest rates and the competitive environment affect the company?

Analysts use financial information to prepare research reports similar to the one issued in 2016 by [Morgan Stanley](#) on Under Armour (below). Analysts use balance sheet numbers, including debt and equity ("eqty") along with income statement numbers, including revenue, earnings per share (EPS), and earnings before interest, tax, depreciation, and amortization (EBITDA) to compute

ratios that inform their price target (\$64) and their stock rating (underweight). We will discuss analysts and their activities in more depth later. For now, you should know that accounting information is a bedrock for equity analysis.

**Morgan Stanley**

March 3, 2016

**Under Armour Inc.**

**Priced for Perfection, but We See 5 Concerning Data Points; Reiterate UW**

Industry View	Stock Rating	Price Target
<b>In-Line</b>	<b>Underweight</b>	<b>\$64.00</b>

UA trades at 65x FY16 EPS and has a PEG of 3x, which compares to a group of high-growth retailers averaging 23x and 1.8x for PEG. Based on our deep-dive work, we see data points suggesting some of UA's growth levers are dissipating and represent risks not priced in.

**We've done a deep dive into UA's business:** We believe that Under Armour is a terrific company with exceptional management and much growth ahead of it. However, the question is whether UA's growth will justify the stock's 65x P/E. We don't think so. Dissecting UA's business is tricky because of its complex mix of channels, geographies, product categories, and limited

Under Armour Inc. | March 3, 2016

MORGAN STANLEY RESEARCH

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**Under Armour Inc. ( UA.N, UA US )**

Branded Apparel & Footwear / United States of America

	Underweight
<b>Stock Rating</b>	<b>Underweight</b>
<b>Industry View</b>	<b>In-Line</b>
<b>Price target</b>	<b>\$64.00</b>
Shr price, close (Mar 2, 2016)	\$83.93
Mkt cap, curr (mm)	\$18,508
52-Week Range	\$105.89-63.24

Fiscal Year Ending	12/15	12/16e	12/17e	12/18e
<b>EPS (\$)**</b>	<b>1.05</b>	<b>1.29</b>	<b>1.60</b>	<b>2.05</b>
Prior EPS (\$)**	-	-	-	-
Consensus EPS (\$)§	1.04	1.31	1.68	2.17
P/E, consensus§	77.5	64.1	49.9	38.6
EV/EBITDA**	35.9	31.0	24.8	19.3
Div yld (%)	0.0	0.0	0.0	0.0
Revenue, net (\$mm)	3,963	4,965	6,197	7,527

Excerpts of reports from Morgan Stanley, Moody's, and Deutsche Bank are incorporated to illustrate how accounting information is used by financial services.

## Creditors and Suppliers

Banks and other lenders demand financial accounting information to help determine loan terms, loan amounts, interest rates, and required collateral. Loan agreements often include contractual requirements, called **covenants**, that restrict the borrower's behavior in some fashion. For example, loan covenants might require the loan recipient to maintain minimum levels of working capital, retained earnings, and interest coverage to safeguard lenders. Covenant violations can yield technical default, enabling the creditor to demand early payment or other compensation. Suppliers demand financial information to establish credit terms and to determine their long-term commitment to supply-chain relations. Both creditors and suppliers use financial information to monitor and adjust their contracts and commitments with a company. Financial statements provide useful information to creditors and suppliers to address the following types of questions.

- Should we extend credit to this company in the form of a loan or line of credit for inventory purchases?
- What interest rate is reasonable given the company's current debt load and overall risk profile?
- Is the company in compliance with the existing loan covenants (loan conditions that restrict the borrower's behavior in some fashion, such as minimum levels of working capital, retained earnings, and cash flow, which safeguard lenders)?

Following is Under Armour's disclosure of loan covenants on its credit facility (a line of credit) from a recent annual report.

**Under Armour Credit Facility** In May 2014, the Company entered into a new unsecured \$650.0 million credit facility. . . . These additional borrowings were used to fund, in part, the acquisition of MFP. . . . The credit agreement contains covenants that, subject to significant exceptions, limit the

*continued*