

FIFTH EDITION

# CORNERSTONES



OF MANAGERIAL ACCOUNTING

*Mowen • Hansen • Heitger*

FIFTH EDITION

# CORNERSTONES

## OF MANAGERIAL ACCOUNTING

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**Cornerstones of Managerial Accounting,  
Fifth Edition**  
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## BRIEF CONTENTS

CHAPTER 1	Introduction to Managerial Accounting	2
CHAPTER 2	Basic Managerial Accounting Concepts	26
CHAPTER 3	Cost Behavior	66
CHAPTER 4	Cost-Volume-Profit Analysis: A Managerial Planning Tool	116
	“MAKING THE CONNECTION”	170
CHAPTER 5	Job-Order Costing	172
CHAPTER 6	Process Costing	230
CHAPTER 7	Activity-Based Costing and Management	280
CHAPTER 8	Absorption and Variable Costing, and Inventory Management	342
CHAPTER 9	Profit Planning	380
CHAPTER 10	Standard Costing: A Managerial Control Tool	430
	“MAKING THE CONNECTION”	474
CHAPTER 11	Flexible Budgets and Overhead Analysis	476
CHAPTER 12	Performance Evaluation and Decentralization	522
CHAPTER 13	Short-Run Decision Making: Relevant Costing	572
CHAPTER 14	Capital Investment Decisions	622
	“MAKING THE CONNECTION”	670
CHAPTER 15	Statement of Cash Flows	674
CHAPTER 16	Financial Statement Analysis	714
	Glossary	760
	Check Figures	768
	Index	772



## NEW TO THIS EDITION

- **Addition of “Why” to Cornerstone Examples:** Each Cornerstone now includes a “Why” portion, reinforcing for students the reasons behind the calculations.
- **Increased Readability and Refined Design:** The new edition features improved design for various features to improve readability including the Q&A inserts, Cornerstones, capitalization of account titles, and better placement of exhibits.
- **Additional Conceptual Material in End-of-Chapter:** Additional Conceptual Connection questions are identified in the end-of-chapter content. These questions ask students to go beyond the calculations to articulate the conceptual context behind the work they’ve just completed and how that information may impact a company’s decision-making.
- **Additional Excel Spreadsheet Templates:** To give students additional practice using Excel to complete their homework, each chapter will have an average of two additional templates.

## NEW TO CENGAGENOW

- **Author-Revised Feedback:** CengageNOW helps students progress farther outside the classroom and keeps them from getting stuck in their studies by providing them with meaningful, written feedback as they work. In this edition, that feedback has been fully revised by the author team to guide students and to be consistent with material presented in the text.
- **Post-Submission Feedback:** Also available in CengageNOW is the ability to show the full solution in addition to newly added source calculations to enhance the learning process. Now students can see where they may have gone wrong so that they can correct it through further practice.
- **Animated Activities:** Animated Activities in CengageNOW are the perfect prelecture assignment to expose students to concepts before class! These illustrations visually guide students through selected core topics using a realistic company example to illustrate how the concepts relate to the everyday activities of a business. Animated Activities are assignable or available for self-study and review.
- **Blueprint Connections:** Blueprint Connections in CengageNOW are shorter extensions of the Blueprint Problems that build upon concepts covered and introduced within the Blueprint Problems. These scenario-based exercises help reinforce students’ knowledge of the concept, strengthen analytical skills, and are useful as in-class activities or as homework/review after the lecture and before the exam.
- **Conceptual Conversion Questions:** End-of-chapter questions or requirements within larger questions that were previously short answer format have been converted to be assignable and gradable within CengageNOW.



# CHAPTER-BY-CHAPTER ENHANCEMENTS

## Chapter 1: Introduction to Managerial Accounting

- Revised Exhibit 1.2: The Value Chain.
- Revised 10% of the end-of-chapter material.
- Updated chapter opener image.

## Chapter 2: Basic Managerial Accounting Concepts

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- Revised 'Important Equations.'
- Added new important equation:  $\text{Conversion Cost} = \text{Direct Labor} + \text{Manufacturing Overhead}$ .
- Added new important equation:  $\text{Prime Cost} = \text{Direct Materials} + \text{Direct Labor}$ .
- Updated chapter opener image.

## Chapter 3: Cost Behavior

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Revised Exhibit 3.3: Semi-Variable Cost.
- Revised 'Important Equations.'
- Updated chapter opener image.

## Chapter 4: Cost-Volume-Profit Analysis: A Managerial Planning Tool

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Revised 'Important Equations.'
- Added 3 additional spreadsheet templates.

## Chapter 5: Job-Order Costing

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Revised 'Important Equations.'

## Chapter 6: Process Costing

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Added 2 additional spreadsheet templates.
- Updated chapter opener image.

## Chapter 7: Activity-Based Costing and Management

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Added 4 additional spreadsheet templates.
- Revised 'Important Equations.'

## Chapter 8: Absorption and Variable Costing, and Inventory Management

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Added 4 additional spreadsheet templates.
- Added new important equation:  $\text{Variable Costing Product Cost} = \text{Direct Materials} + \text{Direct Labor} + \text{Variable Overhead}$ .
- Added new important equation:  $\text{Absorption Costing Product Cost} = \text{Direct Materials} + \text{Direct Labor} + \text{Variable Overhead} + \text{Fixed Overhead}$ .

## Chapter 9: Profit Planning

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Added 2 additional spreadsheet templates.
- Added new important equation:  $\text{Ending Cash Balance} = \text{Cash Available} - \text{Expected Cash Disbursements}$ .
- Added new important equation:  $\text{Cash Available} = \text{Beginning Cash Balance} + \text{Expected Cash Receipts}$ .

## Chapter 10: Standard Costing: A Managerial Control Tool

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Added 2 additional spreadsheet templates.
- Updated chapter opener image.

## Chapter 11: Flexible Budgets and Overhead Analysis

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Updated chapter opener image.
- Revised 'Important Equations.'

## Chapter 12: Performance Evaluation and Decentralization

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Updated chapter opener image.

## Chapter 13: Short-Run Decision Making: Relevant Costing

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Revised 'Important Equations.'

## Chapter 14: Capital Investment Decisions

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Revised 'Important Equations.'
- Added 2 additional spreadsheet templates.

## Chapter 15: Statement of Cash Flows

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Added 2 additional spreadsheet templates.
- Updated chapter opener image.

## Chapter 16: Financial Statement Analysis

- Added the 'Why' to each Cornerstone.
- Revised 25% of the end-of-chapter material.
- New design improves readability of the Q&A feature.
- Added 4 additional spreadsheet templates.
- Updated chapter opener image.
- Updated chapter opener with current data for Apple, Inc.
- Updated dates in Exhibit 16.2: Ratio Analysis.





# SUPERIOR SUPPLEMENTS

## CengageNOW for Cornerstones of Managerial Accounting, 5e

CengageNOW offers:

- **Auto-graded Homework** (static and algorithmic), Test Bank, Personalized Study Plan, Gradebook, and eBook are all in one resource.
- **Smart Entry** helps eliminate common data entry errors and prevents students from guessing their way through homework.
- **Learning Outcomes Reporting** provides the ability to analyze student work from the gradebook. Each problem is tagged by topic, learning objective, level of difficulty, time estimates, Bloom's Taxonomy, AICPA, ACBSP, IMA, and other business program standards to allow greater guidance in developing assessments and evaluating student progress.
- **Assignments Options** are the most robust and flexible in the industry.
- **Enhanced Feedback** provides additional pre- and post-submission guidance.
- **Cornerstones Videos** further reinforce concepts and examples for visual learners.
- **Blueprint Problems and Connections** are scenario-based exercises to help reinforce knowledge of the concept, strengthen analytical skills, and are best used as homework or review.
- **Animated Activities** are visual illustrations that guide students through selected core topics using a realistic company example to illustrate how concepts relate to everyday business activities.
- **Conceptual Conversion** to select problems and/or requirements that are short answer in the text are now converted to be assignable and gradeable in CNOW.

## Solutions Manual

Author-written and carefully verified multiple times to ensure accuracy and consistency with the text, the Solutions Manual contains answers to all Discussion Questions, Multiple-Choice Questions, Cornerstone Exercises, Exercises, Problems, and Cases that appear in the text. These solutions help you easily plan, assign, and efficiently grade assignments. All solutions are given in simplified Excel spreadsheets and also are available in PDF format. The Solutions Manual is available electronically for instructors only on the IRCD and on the password protected portion of the text's website at <http://login.cengage.com>.

## Test Bank

The Test Bank has been revised and verified to ensure accuracy and is available in both Word® and ExamView® formats. It includes questions clearly identified by topic, learning objectives, level of difficulty, **Time Estimate**, **Bloom's Taxonomy**, AICPA, ACBSP, IMA, and other business program standards to allow greater guidance in developing assessments and evaluating student

progress. The Test Bank is available electronically for instructors only on the IRCD and on the password protected portion of the text's website at <http://login.cengage.com>. ExamView® testing software is available only on the IRCD.

## PowerPoint® Lecture Slides

The PowerPoint® slides have been revised and 'toned down' to allow for greater ease in preparing and presenting lectures to encourage lively classroom discussions. All Cornerstones within each chapter appear in the slides. The slides are available for instructors only on the IRCD and on the password protected portion of the text's website at <http://login.cengage.com>.

## Spreadsheet Templates and Solutions

All spreadsheet problems and solutions, identified by a spreadsheet icon in the text, are available for instructors only on the IRCD and on the password protected portion of the text's website at <http://login.cengage.com>. All spreadsheet template files are available for students at [www.cengagebrain.com](http://www.cengagebrain.com).

## Instructor's Resource CD-ROM (ISBN-10: 1285055098 | ISBN-13: 9781285055091)

Place all of the key teaching resources you need at your fingertips with this all-in-one resource. The IRCD includes everything you need to plan, teach, grade, and assess student understanding and progress. This CD contains:

- Solutions Manual
- Test Bank in Microsoft® Word and ExamView®
- Microsoft® PowerPoint slides
- Instructor's Manual
- Spreadsheet Templates and Solutions

All resources on the IRCD are also available to instructors only on the password protected portion of the text's website at <http://login.cengage.com>.

## CengageBrain.com Free Study Tools for Students

This robust product website provides immediate access to a rich array of interactive learning resources for students that include flashcards, chapter-by-chapter online quizzes, sample final exam, crossword puzzles, PowerPoint® student slides, and the Cornerstones Videos. Students should go to [www.cengagebrain.com](http://www.cengagebrain.com). At the CengageBrain.com homepage, search by the author, title, or ISBN of the text at the top of the page. CengageBrain.com will lead students to the product page to access the free study resources.



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# CONTENTS

## CHAPTER 1

<b>Introduction to Managerial Accounting</b>	<b>2</b>
<b>The Meaning of Managerial Accounting</b>	<b>4</b>
<i>Information Needs of Managers and Other Users</i>	4
<i>Planning</i>	4
<i>Controlling</i>	5
<i>Decision Making</i>	5
<b>Financial Accounting and Managerial Accounting</b>	<b>6</b>
<i>Financial Accounting</i>	6
<i>Managerial Accounting</i>	7
<i>Comparison of Financial and Managerial Accounting</i>	7
<i>Exhibit 1.1 Comparison of Financial and Managerial Accounting</i>	7
<b>Current Focus of Managerial Accounting</b>	<b>8</b>
<i>New Methods of Costing Products and Services</i>	8
<i>Customer Orientation</i>	8
<i>Exhibit 1.2 The Value Chain</i>	9
<i>Cross-Functional Perspective</i>	10
<i>Total Quality Management</i>	10
<i>Time as a Competitive Element</i>	11
<i>Efficiency</i>	11
<b>The Role of the Managerial Accountant</b>	<b>12</b>
<i>Exhibit 1.3 Kicker Inc. Organizational Chart</i>	13
<b>Managerial Accounting and Ethical Conduct</b>	<b>14</b>
<i>Ethical Behavior</i>	14
<i>Company Codes of Ethical Conduct</i>	15
<i>Standards of Ethical Conduct for Managerial Accountants</i>	15
<b>Certification</b>	<b>16</b>
<i>Exhibit 1.4 Statement of Ethical Professional Practice</i>	17
<i>The Certified Management Accountant</i>	18
<i>The Certified Public Accountant</i>	18
<i>The Certified Internal Auditor</i>	18

## CHAPTER 2

<b>Basic Managerial Accounting Concepts</b>	<b>26</b>
<b>The Meaning and Uses of Cost</b>	<b>28</b>
<i>Cost</i>	28
<i>Accumulating and Assigning Costs</i>	28
<i>Cost Objects</i>	29
<i>Assigning Costs to Cost Objects</i>	30
<i>Exhibit 2.1 Object Costing</i>	31
<b>Product and Service Costs</b>	<b>32</b>
<i>Providing Cost Information</i>	33

<i>Determining Product Cost</i>	33
<i>Exhibit 2.2 Product Costs Include Direct Materials, Direct Labor, and Overhead</i>	34
<b>Cornerstone 2.1 Calculating Product Cost in Total and Per Unit</b>	<b>35</b>
<b>Cornerstone 2.2 Calculating Prime Cost and Conversion Cost in Total and Per Unit</b>	<b>36</b>
<i>Exhibit 2.3 The Impact of Product versus Period Costs on the Financial Statements</i>	37
<b>Preparing Income Statements</b>	<b>38</b>
<i>Cost of Goods Manufactured</i>	38
<b>Cornerstone 2.3 Calculating the Direct Materials Used in Production</b>	<b>39</b>
<b>Cornerstone 2.4 Calculating Cost of Goods Manufactured Cost of Goods Sold</b>	<b>40</b>
<b>Cornerstone 2.5 Calculating Cost of Goods Sold</b>	<b>41</b>
<i>Exhibit 2.4 Relationship between the Flow of Costs, Inventories, and Cost of Goods Sold</i>	42
<i>Income Statement: Manufacturing Firm</i>	42
<b>Cornerstone 2.6 Preparing an Income Statement for a Manufacturing Firm</b>	<b>42</b>
<b>Cornerstone 2.7 Calculating the Percentage of Sales Revenue for Each Line on the Income Statement</b>	<b>44</b>
<i>Income Statement: Service Firm</i>	45
<b>Cornerstone 2.8 Preparing an Income Statement for a Service Organization</b>	<b>45</b>

## CHAPTER 3

<b>Cost Behavior</b>	<b>66</b>
<b>Basics of Cost Behavior</b>	<b>68</b>
<i>Measures of Output and the Relevant Range</i>	68
<i>Fixed Costs</i>	70
<i>Exhibit 3.1 Colley Computers Fixed Cost of Supervision</i>	71
<i>Variable Costs</i>	72
<i>Exhibit 3.2 Colley Computers Variable Cost of DVD-ROM Drives</i>	73
<i>The Reasonableness of Straight-Line Cost Relationships</i>	73
<i>Exhibit 3.3 Semi-Variable Cost</i>	73
<b>Mixed Costs and Step Costs</b>	<b>74</b>
<i>Mixed Costs</i>	74
<i>Exhibit 3.4 Mixed Cost Behavior</i>	75
<i>Step Cost Behavior</i>	75
<i>Exhibit 3.5 Step Costs: Narrow Steps and Wide Steps</i>	75
<i>Accounting Records and Need for Cost Separation</i>	76
<b>Methods for Separating Mixed Costs into Fixed and Variable Components</b>	<b>76</b>
<b>Cornerstone 3.1 Creating and Using a Cost Formula</b>	<b>77</b>

<i>The High-Low Method</i>	78	<b>Illustrating Relationships Among CVP Variables</b>	<b>133</b>
Cornerstone 3.2 Using the High-Low Method to Calculate Fixed Cost and the Variable Rate and to Construct a Cost Formula	79	<i>Exhibit 4.5 Cost-Volume-Profit Relationships</i>	134
Cornerstone 3.3 Using the High-Low Method to Calculate Predicted Total Variable Cost and Total Cost for Budgeted Output	80	<b>Multiple-Product Analysis</b>	<b>135</b>
Cornerstone 3.4 Using the High-Low Method to Calculate Predicted Total Variable Cost and Total Cost for a Time Period that Differs from the Data Period	81	<i>Break-Even Point in Units</i>	136
<i>Scattergraph Method</i>	83	Cornerstone 4.7 Calculating the Break-Even Units for a Multiple-Product Firm	137
<i>Exhibit 3.6 Anderson Company's Materials Handling Cost</i>	83	<i>Break-Even Point in Sales Dollars</i>	139
<i>Exhibit 3.7 Scattergraphs with Nonlinear Cost</i>	84	Cornerstone 4.8 Calculating the Break-Even Sales Dollars for a Multiple-Product Firm	139
<i>The Method of Least Squares</i>	85	<b>Cost-Volume-Profit Analysis and Risk and Uncertainty</b>	<b>141</b>
<i>Exhibit 3.8 Line Deviations</i>	85	<i>Exhibit 4.6 Summary of the Effects of Alternative 1</i>	142
<i>Exhibit 3.9 A Portion of the Summary Output from Excel for Anderson Company</i>	86	<i>Exhibit 4.7 Summary of the Effects of Alternative 2</i>	142
Cornerstone 3.5 Using the Regression Method to Calculate Fixed Cost and the Variable Rate and to Construct a Cost Formula and to Determine Budgeted Cost	86	<i>Exhibit 4.8 Summary of the Effects of Alternative 3</i>	143
<i>Comparison of Methods</i>	87	<i>Introducing Risk and Uncertainty</i>	143
<i>Exhibit 3.10 Overview of Methods for Separating Mixed Costs into Fixed and Variable Components</i>	88	<i>Exhibit 4.9 The Margin of Safety Illustrated</i>	144
<i>Managerial Judgment</i>	88	Cornerstone 4.9 Computing the Margin of Safety	144
<b>Appendix 3A: Using the Regression Programs</b>	<b>90</b>	Cornerstone 4.10 Computing the Degree of Operating Leverage	145
<i>Exhibit 3.11 Spreadsheet Data for Anderson Company</i>	90	Cornerstone 4.11 Calculating the Impact of Increased Sales on Operating Income Using the Degree of Operating Leverage	147
<i>Exhibit 3.12 Regression Output for Anderson Company</i>	91	<i>Exhibit 4.10 Differences between a Manual and an Automated System</i>	148
<i>Goodness of Fit</i>	92	<i>Sensitivity Analysis and Cost-Volume-Profit</i>	148
<b>CHAPTER 4</b>		<b>"MAKING THE CONNECTION"</b>	<b>170</b>
<b>Cost-Volume-Profit Analysis: A Managerial Planning Tool</b>	<b>116</b>	<b>CHAPTER 5</b>	
<b>Break-Even Point in Units and in Sales Dollars</b>	<b>118</b>	<b>Job-Order Costing</b>	<b>172</b>
<i>Using Operating Income in Cost-Volume-Profit Analysis</i>	118	<b>Characteristics of the Job-Order Environment</b>	<b>174</b>
<i>Exhibit 4.1 The Contribution Margin Income Statement</i>	119	<i>Job-Order Production and Costing</i>	174
Cornerstone 4.1 Preparing a Contribution Margin Income Statement	119	<i>Process Production and Costing</i>	175
<i>Break-Even Point in Units</i>	120	<i>Production Costs in Job-Order Costing</i>	175
Cornerstone 4.2 Calculating the Break-Even Point in Units	121	<b>Normal Costing and Overhead Application</b>	<b>175</b>
<i>Exhibit 4.2 Contribution Margin and Fixed Cost at Breakeven for Whittier Company</i>	122	<i>Exhibit 5.1 Comparison of Job-Order and Process Costing</i>	175
<i>Break-Even Point in Sales Dollars</i>	122	<i>Actual Costing versus Normal Costing</i>	176
Cornerstone 4.3 Calculating the Variable Cost Ratio and the Contribution Margin Ratio	124	<i>Importance of Unit Costs to Manufacturing Firms</i>	176
Cornerstone 4.4 Calculating the Break-Even Point in Sales Dollars	125	<i>Importance of Unit Costs to Service Firms</i>	177
<b>Units and Sales Dollars Needed to Achieve a Target Income</b>	<b>126</b>	<i>Normal Costing and Estimating Overhead</i>	177
<i>Units to Be Sold to Achieve a Target Income</i>	127	Cornerstone 5.1 Calculating the Predetermined Overhead Rate and Applying Overhead to Production	178
Cornerstone 4.5 Calculating the Number of Units to Be Sold to Earn a Target Operating Income	127	<i>Exhibit 5.2 Actual and Applied Overhead</i>	180
<i>Sales Revenue to Achieve a Target Income</i>	129	Cornerstone 5.2 Reconciling Actual Overhead with Applied Overhead	180
Cornerstone 4.6 Calculating Sales Needed to Earn a Target Operating Income	129	<i>Departmental Overhead Rates</i>	181
<b>Graphs of Cost-Volume-Profit Relationships</b>	<b>130</b>	Cornerstone 5.3 Calculating Predetermined Departmental Overhead Rates and Applying Overhead to Production	181
<i>The Profit-Volume Graph</i>	130	Cornerstone 5.4 Converting Departmental Data to Plantwide Data to Calculate the Overhead Rate and Apply Overhead to Production	183
<i>Exhibit 4.3 Profit-Volume Graph</i>	131	<i>Unit Costs in the Job-Order System</i>	184
<i>The Cost-Volume-Profit Graph</i>	131	<b>Keeping Track of Job Costs with Source Documents</b>	<b>184</b>
<i>Exhibit 4.4 Cost-Volume-Profit Graph</i>	132	<i>Job-Order Cost Sheet</i>	184
<i>Assumptions of Cost-Volume-Profit Analysis</i>	133	<i>Exhibit 5.3 Job-Order Cost Sheet</i>	185
		<i>Materials Requisitions</i>	185
		<i>Exhibit 5.4 Materials Requisition Form</i>	186
		<i>Time Tickets</i>	186
		<i>Exhibit 5.5 Time Ticket</i>	186
		<b>The Flow of Costs through the Accounts</b>	<b>187</b>

<i>Accounting for Materials</i>	187	<b>Cornerstone 6.4 Measuring Output and Assigning Costs: Weighted Average Method</b>	241
<i>Exhibit 5.6 Flow of Costs through the Accounts of a Job-Order Costing Firm</i>	188	<i>Five Steps in Preparing a Production Report</i>	242
<i>Exhibit 5.7 Summary of Materials Cost Flows</i>	188	<b>Cornerstone 6.5 Preparing a Physical Flow Schedule</b>	243
<i>Accounting for Direct Labor Cost</i>	189	<i>Production Report</i>	244
<i>Exhibit 5.8 Summary of Direct Labor Cost Flows</i>	189	<b>Cornerstone 6.6 Preparing a Production Report: Weighted Average Method</b>	245
<i>Accounting for Overhead</i>	189	<i>Evaluation of the Weighted Average Method</i>	246
<i>Accounting for Actual Overhead Costs</i>	190	<b>Multiple Inputs and Multiple Departments</b>	<b>246</b>
<i>Accounting for Finished Goods</i>	190	<i>Nonuniform Application of Manufacturing Inputs</i>	246
<i>Exhibit 5.9 Summary of Overhead Cost Flows</i>	191	<b>Cornerstone 6.7 Calculating Equivalent Units, Unit Costs, and Valuing Inventories with Nonuniform Inputs</b>	247
<i>Exhibit 5.10 Summary of Cost Flows from Work in Process to Finished Goods</i>	191	<i>Exhibit 6.4 Production Report: Weighted Average Method</i>	249
<i>Exhibit 5.11 Schedule of Cost of Goods Manufactured</i>	192	<i>Multiple Departments</i>	249
<i>Accounting for Cost of Goods Sold</i>	192	<b>Cornerstone 6.8 Calculating the Physical Flow Schedule, Equivalent Units, and Unit Costs with Transferred-In Goods</b>	250
<i>Exhibit 5.12 Statement of Cost of Goods Sold</i>	193	<b>Appendix 6A: Production Report—First-In, First-Out Costing</b>	<b>251</b>
<b>Cornerstone 5.5 Preparing Brief Job-Order Cost Sheets</b>	194	<i>Differences between the First-In, First-Out and Weighted Average Methods</i>	251
<i>Accounting for Nonmanufacturing Costs</i>	195	<i>Example of the First-In, First-Out Method</i>	251
<i>Exhibit 5.13 Income Statement</i>	196	<b>Cornerstone 6.9 Calculating Output and Cost Assignments: First-In, First-Out Method</b>	251
<b>Appendix 5A: Journal Entries Associated with Job-Order Costing</b>	<b>196</b>	<i>Exhibit 6.5 Physical Flow Schedule</i>	253
<i>Exhibit 5.14 Posting of Journal Entries to the Accounts</i>	198	<b>Cornerstone 6.10 Preparing a Production Report: First-In, First-Out Method</b>	255
<b>Appendix 5B: Support Department Cost Allocation</b>	<b>198</b>	<b>CHAPTER 7</b>	
<i>Types of Departments</i>	198	<b>Activity-Based Costing and Management</b>	<b>280</b>
<i>Exhibit 5.15 Steps for Determining Product Costs by Using Predetermined Departmental Overhead Rates</i>	199	<b>Limitations of Functional-Based Cost Accounting Systems</b>	<b>282</b>
<i>Methods of Support Department Cost Allocation</i>	199	<i>Nonunit-Related Overhead Costs</i>	282
<i>Exhibit 5.16 Illustration of the Direct Method</i>	200	<i>Exhibit 7.1 ABC Hierarchy</i>	283
<b>Cornerstone 5.6 Assigning Support Department Costs by Using the Direct Method</b>	200	<i>Product Diversity</i>	284
<i>Exhibit 5.17 Illustration of the Sequential Method</i>	202	<i>Illustrating the Failure of Unit-Based Overhead Rates</i>	284
<b>Cornerstone 5.7 Assigning Support Department Costs by Using the Sequential Method</b>	203	<i>Exhibit 7.2 Product-Costing Data for Rio Novo's Porto Behlo Plant</i>	285
<b>CHAPTER 6</b>		<b>Cornerstone 7.1 Calculating Consumption Ratios</b>	286
<b>Process Costing</b>	<b>230</b>	<b>Cornerstone 7.2 Calculating Activity Rates</b>	286
<b>Characteristics of Process Manufacturing</b>	<b>232</b>	<b>Cornerstone 7.3 Calculating Activity-Based Unit Costs</b>	287
<i>Types of Processes</i>	232	<i>Exhibit 7.3 Activity Rates and Activity-Based Unit Costs for Rio Novo's Porto Behlo Plant</i>	288
<i>Exhibit 6.1 Sequential Processing Illustrated</i>	232	<i>Illustrating Relationships: Product Diversity and Product Costing Accuracy</i>	289
<i>Exhibit 6.2 Parallel Processing Illustrated</i>	233	<i>Exhibit 7.4 Diversity and Product Costing Accuracy</i>	291
<i>How Costs Flow through the Accounts in Process Costing</i>	233	<b>Activity-Based Product Costing</b>	<b>291</b>
<i>Exhibit 6.3 Flow of Manufacturing Costs through the Accounts of a Process-Costing Firm</i>	234	<i>Identifying Activities and Their Attributes</i>	291
<b>Cornerstone 6.1 Calculating Cost Flows without Work in Process Inventories</b>	234	<i>Exhibit 7.5 Activity-Based Costing: Assigning Cost of Overhead</i>	292
<i>Accumulating Costs in the Production Report</i>	235	<i>Assigning Costs to Activities</i>	293
<i>Service and Manufacturing Firms</i>	236	<i>Exhibit 7.6 Activity Dictionary for Hemingway Bank's Credit Card Department</i>	294
<b>The Impact of Work-in-Process Inventories on Process Costing</b>	<b>236</b>	<i>Exhibit 7.7 Work Distribution Matrix for Hemingway Bank's Credit Card Department</i>	294
<i>Equivalent Units of Production</i>	237	<b>Cornerstone 7.4 Assigning Resource Costs to Activities by Using Direct Tracing and Resource Drivers</b>	294
<b>Cornerstone 6.2 Calculating Equivalent Units of Production: No Beginning Work in Process</b>	237	<i>Assigning Costs to Products</i>	295
<b>Cornerstone 6.3 Measuring Output and Assigning Costs: No Beginning Work in Process</b>	238		
<i>Two Methods of Treating Beginning Work-in-Process Inventory</i>	239		
<b>Weighted Average Costing</b>	<b>240</b>		
<i>Overview of the Weighted Average Method</i>	241		

*Exhibit 7.8 Activity Costs for Hemingway Bank’s Credit Card Department* 296

*Exhibit 7.9 Assigning Costs for Hemingway Bank’s Credit Card Department* 297

**Activity-Based Customer Costing and Activity-Based Supplier Costing** **297**

*Exhibit 7.10 Whale Curve of Cumulative Customer Profitability* 298

*Activity-Based Customer Costing* 298

**Cornerstone 7.5 Calculating Activity-Based Customer Costs** 299

*Activity-Based Supplier Costing* 300

**Cornerstone 7.6 Calculating Activity-Based Supplier Costs** 300

**Process-Value Analysis** **302**

*Exhibit 7.11 Process-Value Analysis Model* 302

*Driver Analysis: The Search for Root Causes* 303

*Activity Analysis: Identifying and Assessing Value Content* 303

**Cornerstone 7.7 Assessing Nonvalue-Added Costs** 307

*Activity Performance Measurement* 307

**Cornerstone 7.8 Calculating Cycle Time and Velocity** 308

*Quality Cost Management* 308

*Environmental Cost Management* 310

**CHAPTER 8**

**Absorption and Variable Costing, and Inventory Management** **342**

---

**Measuring the Performance of Profit Centers by Using Variable and Absorption Income Statements** **344**

*Absorption Costing* 344

*Variable Costing* 344

*Comparison of Variable and Absorption Costing Methods* 344

*Exhibit 8.1 Classification of Costs under Absorption and Variable Costing as Product or Period Costs* 344

*Inventory Valuation* 345

**Cornerstone 8.1 Computing Inventory Cost under Absorption Costing** 345

**Cornerstone 8.2 Computing Inventory Cost under Variable Costing** 346

*Exhibit 8.2 Product Cost under Absorption and Variable Costing* 347

*Income Statements Using Variable and Absorption Costing* 347

**Cornerstone 8.3 Preparing an Absorption-Costing Income Statement** 347

**Cornerstone 8.4 Preparing a Variable-Costing Income Statement** 348

*Production, Sales, and Income Relationships* 348

*Exhibit 8.3 Production, Sales, and Income Relationships* 349

*Evaluating Profit-Center Managers* 349

**Segmented Income Statements Using Variable Costing** **350**

*Direct Fixed Expenses* 350

*Common Fixed Expenses* 350

*Preparing Segmented Income Statements* 350

**Cornerstone 8.5 Preparing a Segmented Income Statement** 350

*Exhibit 8.4 Comparison of Segmented Income Statement With and Without Allocated Common Fixed Expense* 352

**Decision Making for Inventory Management** **352**

*Inventory-Related Costs* 353

*Exhibit 8.5 Traditional Reasons for Carrying Inventory* 353

*Economic Order Quantity: The Traditional Inventory Model* 353

**Cornerstone 8.6 Calculating Ordering Cost, Carrying Cost, and Total Inventory-Related Cost** 354

*Exhibit 8.6 Illustration of Average Inventory* 355

*The Economic Order Quantity* 355

**Cornerstone 8.7 Calculating the Economic Order Quantity (EOQ)** 356

*Reorder Point* 357

**Cornerstone 8.8 Calculating the Reorder Point When Usage Is Known with Certainty** 357

**Cornerstone 8.9 Calculating Safety Stock and the Reorder Point with Safety Stock** 358

*Economic Order Quantity and Inventory Management* 359

*Just-in-Time Approach to Inventory Management* 359

**CHAPTER 9**

**Profit Planning** **380**

---

**Description of Budgeting** **382**

*Budgeting and Planning and Control* 382

*Exhibit 9.1 Planning, Control, and Budgets* 382

*Advantages of Budgeting* 383

*The Master Budget* 383

*Exhibit 9.2 The Master Budget and Its Interrelationships* 384

**Preparing the Operating Budget** **384**

*Sales Budget* 385

**Cornerstone 9.1 Preparing a Sales Budget** 386

*Production Budget* 387

*Direct Materials Purchases Budget* 387

**Cornerstone 9.2 Preparing a Production Budget** 388

**Cornerstone 9.3 Preparing a Direct Materials Purchases Budget** 389

*Direct Labor Budget* 390

*Overhead Budget* 390

**Cornerstone 9.4 Preparing a Direct Labor Budget** 390

**Cornerstone 9.5 Preparing an Overhead Budget** 391

*Ending Finished Goods Inventory Budget* 392

**Cornerstone 9.6 Preparing an Ending Finished Goods Inventory Budget** 392

*Cost of Goods Sold Budget* 393

**Cornerstone 9.7 Preparing a Cost of Goods Sold Budget** 393

*Selling and Administrative Expenses Budget* 393

**Cornerstone 9.8 Preparing a Selling and Administrative Expenses Budget** 394

*Budgeted Income Statement* 394

**Cornerstone 9.9 Preparing a Budgeted Income Statement** 395

**Preparing the Financial Budget** **395**

*Cash Budget* 396

*Exhibit 9.3 The Cash Budget* 396

**Cornerstone 9.10 Preparing a Schedule for Cash Collections on Accounts Receivable** 397

**Cornerstone 9.11 Determining Cash Payments on Accounts Payable** 398

**Cornerstone 9.12 Preparing a Cash Budget** 399

*Budgeted Balance Sheet* 401

*Exhibit 9.4 Budgeted Balance Sheet* 402

**Using Budgets for Performance Evaluation** **403**

*Frequent Feedback on Performance* 403

*Monetary and Nonmonetary Incentives* 403

*Participative Budgeting* 403

*Exhibit 9.5 The Art of Standard Setting* 404

*Realistic Standards* 405

<i>Controllability of Costs</i>	405	<b>Variable Overhead Analysis</b>	<b>484</b>
<i>Multiple Measures of Performance</i>	405	<i>Total Variable Overhead Variance</i>	484
<b>CHAPTER 10</b>		<b>Cornerstone 11.4 Calculating the Total Variable Overhead Variance</b>	<b>485</b>
<b>Standard Costing: A Managerial Control Tool</b>	<b>430</b>	<b>Cornerstone 11.5 Calculating Variable Overhead Spending and Efficiency Variances: Columnar and Formula Approaches</b>	<b>486</b>
<b>Unit Standards</b>	<b>432</b>	<i>Comparison of the Variable Overhead Spending Variance with the Price Variances of Materials and Labor Responsibility for the Variable Overhead Spending Variance</i>	487
<i>How Standards Are Developed</i>	433	<i>Responsibility for the Variable Overhead Efficiency Variance</i>	488
<i>Types of Standards</i>	433	<i>A Performance Report for the Variable Overhead Spending and Efficiency Variances</i>	488
<i>Exhibit 10.1 Types of Standards</i>	433	<b>Cornerstone 11.6 Preparing a Performance Report for the Variable Overhead Variances</b>	<b>488</b>
<i>Why Standard Cost Systems Are Adopted</i>	434	<b>Fixed Overhead Analysis</b>	<b>489</b>
<i>Exhibit 10.2 Cost Assignment Approaches</i>	435	<i>Total Fixed Overhead Variances</i>	490
<b>Standard Product Costs</b>	<b>436</b>	<b>Cornerstone 11.7 Calculating the Total Fixed Overhead Variance</b>	<b>490</b>
<i>Exhibit 10.3 Standard Cost Sheet for Corn Chips</i>	436	<b>Cornerstone 11.8 Calculating Fixed Overhead Variances: Columnar and Formula Approaches</b>	<b>491</b>
<b>Cornerstone 10.1 Computing Standard Quantities Allowed (SQ and SH)</b>	<b>437</b>	<i>Responsibility for the Fixed Overhead Spending Variance</i>	492
<b>Variance Analysis: General Description</b>	<b>438</b>	<i>Analysis of the Fixed Overhead Spending Variance</i>	493
<i>Price and Usage Variances</i>	439	<i>Responsibility for the Fixed Overhead Volume Variance</i>	493
<i>Exhibit 10.4 Variance Analysis: General Description</i>	439	<i>Analysis of the Volume Variance</i>	493
<i>The Decision to Investigate</i>	439	<i>Exhibit 11.2 Graphical Analysis of the Volume Variance</i>	493
<b>Cornerstone 10.2 Using Control Limits to Trigger a Variance Investigation</b>	<b>440</b>	<b>Activity-Based Budgeting</b>	<b>493</b>
<b>Variance Analysis: Materials</b>	<b>441</b>	<i>Static Activity Budgets</i>	494
<b>Cornerstone 10.3 Calculating the Total Variance for Materials</b>	<b>442</b>	<b>Cornerstone 11.9 Preparing a Static Budget for an Activity</b>	<b>494</b>
<i>Direct Materials Variances</i>	442	<i>Activity Flexible Budgeting</i>	495
<b>Cornerstone 10.4 Calculating Materials Variances: Formula and Columnar Approaches</b>	<b>443</b>	<b>Cornerstone 11.10 Preparing an Activity Flexible Budget</b>	<b>496</b>
<i>Using Materials Variance Information</i>	445	<b>Cornerstone 11.11 Preparing an Activity-Based Performance Report</b>	<b>497</b>
<b>Variance Analysis: Direct Labor</b>	<b>447</b>	<b>CHAPTER 12</b>	
<b>Cornerstone 10.5 Calculating the Total Variance for Labor</b>	<b>447</b>	<b>Performance Evaluation and Decentralization</b>	<b>522</b>
<i>Direct Labor Variances</i>	447	<b>Decentralization and Responsibility Centers</b>	<b>524</b>
<b>Cornerstone 10.6 Calculating Labor Variances: Formula and Columnar Approaches</b>	<b>448</b>	<i>Exhibit 12.1 Centralization and Decentralization</i>	524
<i>Using Labor Variance Information</i>	449	<i>Reasons for Decentralization</i>	524
<i>Additional Cost Management Practices</i>	450	<i>Divisions in the Decentralized Firm</i>	525
<b>Appendix 10A: Accounting for Variances</b>	<b>451</b>	<i>Types of Goods or Services</i>	525
<i>Entries for Direct Materials Variances</i>	451	<i>Exhibit 12.2 Decentralized Divisions</i>	526
<i>Entries for Direct Labor Variances</i>	452	<i>Geographic Lines</i>	526
<i>Disposition of Materials and Labor Variances</i>	452	<i>Responsibility Centers</i>	526
<b>“MAKING THE CONNECTION”</b>	<b>474</b>	<i>Exhibit 12.3 Types of Responsibility Centers and Accounting Information Used to Measure Performance</i>	527
<b>CHAPTER 11</b>		<b>Measuring the Performance of Investment Centers by Using Return on Investment</b>	<b>528</b>
<b>Flexible Budgets and Overhead Analysis</b>	<b>476</b>	<i>Return on Investment</i>	528
<b>Using Budgets for Performance Evaluation</b>	<b>478</b>	<i>Margin and Turnover</i>	528
<i>Static Budgets versus Flexible Budgets</i>	478	<b>Cornerstone 12.1 Calculating Average Operating Assets, Margin, Turnover, and Return on Investment</b>	<b>529</b>
<i>Exhibit 11.1 The Relationship between Static and Flexible Budget Variances for the Actual Quantity Produced</i>	478	<i>Exhibit 12.4 Comparison of Divisional Performance</i>	530
<b>Cornerstone 11.1 Preparing a Performance Report Based on a Static Budget (Using Budgeted Production)</b>	<b>479</b>	<i>Advantages of Return on Investment</i>	531
<b>Cornerstone 11.2 Preparing a Before-the-Fact Flexible Production Budget</b>	<b>480</b>	<i>Disadvantages of the Return on Investment Measure</i>	532
<b>Cornerstone 11.3 Preparing a Performance Report Using a Flexible Budget</b>	<b>482</b>		



**Measuring the Performance of Investment Centers by Using Residual Income and Economic Value Added** **533**

- Residual Income* 533
- Cornerstone 12.2 Calculating Residual Income 534
- Economic Value Added (EVA)* 535
- Cornerstone 12.3 Calculating Economic Value Added 536

**Transfer Pricing** **537**

- Impact of Transfer Pricing on Divisions and the Firm as a Whole* 538
- Exhibit 12.5 *Impact of Transfer Price on Transferring Divisions and the Company, ABC Inc., as a Whole* 538
- Transfer Pricing Policies* 539
- Cornerstone 12.4 Calculating Transfer Price 540

**Appendix 12A: The Balanced Scorecard—Basic Concepts** **542**

- Exhibit 12.6 *Balanced Scorecard for Ashley Hotel Strategy Translation* 543
- Exhibit 12.7 *Testable Strategy Illustrated* 545
- The Four Perspectives and Performance Measures* 546
- Exhibit 12.8 *Summary of Objectives and Measures: Financial Perspective* 547
- Exhibit 12.9 *Summary of Objectives and Measures: Customer Perspective* 548
- Cornerstone 12.5 *Computing Cycle Time and Velocity* 549
- Cornerstone 12.6 *Calculating Manufacturing Cycle Efficiency* 551
- Exhibit 12.10 *Summary of Objectives and Measures: Internal Perspective* 552
- Exhibit 12.11 *Summary of Objectives and Measures: Learning and Growth Perspective* 553

**CHAPTER 13**

**Short-Run Decision Making: Relevant Costing** **572**

---

**Short-Run Decision Making** **574**

- The Decision-Making Model* 574
- Step 1: Recognize and Define the Problem* 575
- Step 2: Identify the Alternatives as Possible Solutions* 575
- Step 3: Identify the Costs and Benefits Associated with Each Feasible Alternative* 575
- Step 4: Estimate the Relevant Costs and Benefits for Each Feasible Alternative* 576
- Step 5: Assess Qualitative Factors* 576
- Step 6: Make the Decision* 578
- Relevant Costs Defined* 578
- Cost Behavior and Relevant Costs* 580

**Some Common Relevant Cost Applications** **581**

- Make-or-Buy Decisions* 581
- Exhibit 13.1 *Make-or-Buy Decisions* 582
- Cornerstone 13.1 *Structuring a Make-or-Buy Problem* 583
- Special-Order Decisions* 585
- Exhibit 13.2 *Accept or Reject a Special Order* 585
- Cornerstone 13.2 *Structuring a Special-Order Problem* 586
- Keep-or-Drop Decisions* 587
- Cornerstone 13.3 *Structuring a Keep-or-Drop Product Line Problem* 588
- Cornerstone 13.4 *Structuring a Keep-or-Drop Product Line Problem with Complementary Effects* 590
- Further Processing of Joint Products* 591

- Exhibit 13.3 *Further Processing of Joint Products* 592
- Cornerstone 13.5 *Structuring the Sell-or-Process-Further Decision* 593

**Product Mix Decisions** **593**

- Cornerstone 13.6 *Determining the Optimal Product Mix with One Constrained Resource* 594
- Cornerstone 13.7 *Determining the Optimal Product Mix with One Constrained Resource and a Sales Constraint* 595
- Multiple Constrained Resources* 596

**The Use of Costs in Pricing Decisions** **596**

- Cost-Based Pricing* 596
- Cornerstone 13.8 *Calculating Price by Applying a Markup Percentage to Cost* 597
- Target Costing and Pricing* 598
- Cornerstone 13.9 *Calculating a Target Cost* 599

**CHAPTER 14**

**Capital Investment Decisions** **622**

---

**Types of Capital Investment Decisions** **624**

- Independent and Mutually Exclusive Projects* 624
- Making Capital Investment Decisions* 624

**Nondiscounting Models: Payback Period and Accounting Rate of Return** **625**

- Payback Period* 626
- Cornerstone 14.1 *Calculating Payback* 626
- Accounting Rate of Return* 628
- Cornerstone 14.2 *Calculating the Accounting Rate of Return* 628

**Discounting Models: The Net Present Value Method** **629**

- Net Present Value Defined* 630
- Net Present Value Illustrated* 630
- Cornerstone 14.3 *Assessing Cash Flows and Calculating Net Present Value* 631
- Illustrating Relationships: NPV, Discount Rates, and Cash Flows* 632
- Exhibit 14.1 *NPV, Discount Rates and Cash Flow* 633

**Internal Rate of Return** **633**

- Internal Rate of Return Defined* 633
- Internal Rate of Return Illustrated: Multiple-Period Setting with Uniform Cash Flows* 633
- Cornerstone 14.4 *Calculating Internal Rate of Return with Uniform Cash Flows* 634
- Internal Rate of Return Illustrated: Multiple-Period Setting with Uneven Cash Flows* 635

**Postaudit of Capital Projects** **636**

- Postaudit Illustrated* 636
- Postaudit Benefits* 638
- Postaudit Limitations* 638

**Mutually Exclusive Projects** **638**

- Net Present Value Compared with Internal Rate of Return* 638
- Exhibit 14.2 *Net Present Value Compared with Internal Rate of Return* 639
- NPV Analysis for Mutually Exclusive Projects Illustrated* 640
- Cornerstone 14.5 *Calculating Net Present Value and Internal Rate of Return for Mutually Exclusive Projects* 640

<i>Special Considerations for Advanced Manufacturing Environment</i>	641	<i>Exhibit 16.1 Common-Size Analysis</i>	716
<i>Exhibit 14.3 Investment Data; Direct, Intangible, and Indirect Benefits</i>	643	<i>Horizontal Analysis</i>	717
<b>Appendix 14A: Present Value Concepts</b>	<b>644</b>	<b>Cornerstone 16.1 Preparing Common-Size Income Statements Using Base Period Horizontal Analysis</b>	<b>717</b>
<i>Future Value</i>	644	<i>Vertical Analysis</i>	718
<i>Present Value</i>	645	<b>Cornerstone 16.2 Preparing Income Statements Using Net Sales as the Base: Vertical Analysis</b>	<b>718</b>
<i>Present Value of an Uneven Series of Cash Flows</i>	645	<i>Percentages and Size Effects</i>	719
<i>Exhibit 14A.1 Present Value of an Uneven Series of Cash Flows</i>	646	<b>Ratio Analysis</b>	<b>719</b>
<i>Present Value of a Uniform Series of Cash Flows</i>	646	<i>Standards for Comparison</i>	720
<i>Exhibit 14A.2 Present Value of an Annuity</i>	646	<i>Exhibit 16.2 Ratio Analysis</i>	720
<b>Appendix 14B: Present Value Tables</b>	<b>646</b>	<i>Classification of Ratios</i>	721
<i>Exhibit 14B.1 Present Value of a Single Amount</i>	647	<i>Exhibit 16.3 Income Statement and Statement of Retained Earnings for Payne Company for Year 2</i>	721
<i>Exhibit 14B.2 Present Value of an Annuity</i>	648	<i>Exhibit 16.4 Comparative Balance Sheets for Payne Company for Years 1 and 2</i>	722
<b>“MAKING THE CONNECTION”</b>	<b>670</b>	<b>Liquidity Ratios</b>	<b>722</b>
<b>CHAPTER 15</b>		<i>Current Ratio</i>	723
<b>Statement of Cash Flows</b>	<b>674</b>	<i>Quick or Acid-Test Ratio</i>	723
<b>Overview of the Statement of Cash Flows</b>	<b>676</b>	<b>Cornerstone 16.3 Calculating the Current Ratio and the Quick (or Acid-Test) Ratio</b>	<b>724</b>
<i>Cash Defined</i>	676	<i>Accounts Receivable Turnover Ratio</i>	725
<i>Sources and Uses of Cash</i>	676	<b>Cornerstone 16.4 Calculating the Average Accounts Receivable, the Accounts Receivable Turnover Ratio, and the Accounts Receivable Turnover in Days</b>	<b>726</b>
<i>Exhibit 15.1 Sources and Uses of Cash</i>	676	<i>Inventory Turnover Ratio</i>	727
<b>Cornerstone 15.1 Classifying Activities and Identifying Them as Sources or Uses of Cash</b>	<b>677</b>	<b>Cornerstone 16.5 Calculating the Average Inventory, the Inventory Turnover Ratio, and the Inventory Turnover in Days</b>	<b>728</b>
<i>Noncash Exchanges</i>	678	<b>Leverage Ratios</b>	<b>729</b>
<i>Methods for Calculating Operating Cash Flows</i>	678	<i>Times-Interest-Earned Ratio</i>	729
<b>Preparation of the Statement: Indirect Method</b>	<b>678</b>	<b>Cornerstone 16.6 Calculating the Times-Interest-Earned Ratio</b>	<b>729</b>
<i>Exhibit 15.2 Balance Sheets: Lemmons Company</i>	679	<i>Debt Ratio</i>	730
<i>Step 1: Compute the Change in Cash</i>	679	<b>Cornerstone 16.7 Calculating the Debt Ratio and the Debt-to-Equity Ratio</b>	<b>731</b>
<b>Cornerstone 15.2 Computing the Change in Cash</b>	<b>679</b>	<b>Profitability Ratios</b>	<b>731</b>
<i>Step 2: Compute Operating Cash Flows</i>	680	<i>Return on Sales</i>	732
<b>Cornerstone 15.3 Calculating Operating Cash Flows Using the Indirect Method</b>	<b>680</b>	<b>Cornerstone 16.8 Calculating the Return on Sales</b>	<b>732</b>
<i>Step 3: Compute Investing Cash Flows</i>	682	<i>Return on Total Assets</i>	732
<b>Cornerstone 15.4 Computing Investing Cash Flows</b>	<b>682</b>	<b>Cornerstone 16.9 Calculating the Average Total Assets and the Return on Assets</b>	<b>733</b>
<i>Step 4: Compute Financing Cash Flows</i>	683	<i>Return on Common Stockholders' Equity</i>	733
<b>Cornerstone 15.5 Computing Financing Cash Flows</b>	<b>683</b>	<b>Cornerstone 16.10 Calculating the Average Common Stockholders' Equity and the Return on Stockholders' Equity</b>	<b>734</b>
<i>Step 5: Prepare the Statement of Cash Flows</i>	684	<i>Earnings per Share</i>	735
<b>Cornerstone 15.6 Preparing the Statement of Cash Flows</b>	<b>684</b>	<b>Cornerstone 16.11 Computing Earnings per Share</b>	<b>735</b>
<b>The Direct Method: An Alternative Approach</b>	<b>685</b>	<i>Price-Earnings Ratio</i>	736
<b>Cornerstone 15.7 Calculating Operating Cash Flows Using the Direct Method</b>	<b>686</b>	<b>Cornerstone 16.12 Computing the Price-Earnings Ratio</b>	<b>736</b>
<b>Worksheet Approach to the Statement of Cash Flows</b>	<b>687</b>	<i>Dividend Yield and Payout Ratios</i>	736
<i>Exhibit 15.3 Balance Sheets: Portermart Company</i>	688	<b>Cornerstone 16.13 Computing the Dividend Yield and the Dividend Payout Ratio</b>	<b>737</b>
<b>Cornerstone 15.8 Preparing a Statement of Cash Flows Using a Worksheet Approach</b>	<b>688</b>	<i>Impact of the Just-in-Time Manufacturing Environment</i>	738
<i>Analysis of Transactions</i>	690	<i>The Importance of Profitability Ratios to External Users of the Financial Statements</i>	738
<i>Exhibit 15.4 Worksheet-Derived Statement of Cash Flows for Portermart Company</i>	692		
<i>The Final Step</i>	692		
<b>CHAPTER 16</b>		<b>Glossary</b>	<b>760</b>
<b>Financial Statement Analysis</b>	<b>714</b>	<b>Check Figures</b>	<b>768</b>
<b>Common-Size Analysis</b>	<b>716</b>	<b>Index</b>	<b>772</b>



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# 1

## Introduction to Managerial Accounting



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After studying Chapter 1, you should be able to:

- 1 Explain the meaning of managerial accounting.
- 2 Explain the differences between managerial accounting and financial accounting.
- 3 Identify and explain the current focus of managerial accounting.
- 4 Describe the role of managerial accountants in an organization.
- 5 Explain the importance of ethical behavior for managers and managerial accountants.
- 6 Identify three forms of certification available to managerial accountants.



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# EXPERIENCE MANAGERIAL DECISIONS

with BuyCostumes.com

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The greatest benefit of managerial accounting is also its biggest challenge—to provide managers with information that improves decisions and creates organizational value. This information helps inform managers about the impact of various strategic and operational decisions on key nonfinancial performance measures and their eventual impact on the organization's financial performance. The information is challenging to prepare and analyze because it requires an understanding of all value chain components that affect the organization, including research and development, production, marketing, distribution, and customer service.

Since its inception in 1999, **BuyCostumes.com** has blended the right managerial accounting information and an innovative business model to provide costumes to customers in over 50 countries. Using

the Internet and marketing creativity, BuyCostumes.com serves a market of 150 million U.S. consumers who spend \$3.6 billion on costumes each year.

According to CEO Jalem Getz, BuyCostumes.com measures key performance indicators to guide its decision making. For example, managerial accountants

*“Using the Internet and marketing creativity, BuyCostumes.com serves a market of 150 million U.S. consumers who spend \$3.6 billion on costumes each year.”*

analyze measures of customer satisfaction, average time between order placement and costume arrival for each shipping method, and the profitability of individual customer types. As customer trends change, competitors emerge, and techno-

logical advances occur, BuyCostumes.com's managerial accounting information adapts to provide crucial insight into the company's performance and how its strategy should evolve to remain the world's largest Internet costume retailer.

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**OBJECTIVE 1**

Explain the meaning of managerial accounting.

## THE MEANING OF MANAGERIAL ACCOUNTING

What do we mean by managerial accounting? Quite simply, **managerial accounting** is the provision of accounting information for a company's internal users. It is the firm's internal accounting system and is designed to support the information needs of managers. Unlike financial accounting, managerial accounting is not bound by any formal criteria such as generally accepted accounting principles (GAAP). Managerial accounting has three broad objectives:

- To provide information for planning the organization's actions.
- To provide information for controlling the organization's actions.
- To provide information for making effective decisions.

Using recent examples from many companies in both the for-profit and not-for-profit sectors, this textbook explains how all manufacturing (e.g., aircraft producer—**Boeing Corporation**), merchandising (e.g., clothing retailer—**Guess**) and service (e.g., healthcare provider—**Cleveland Clinic**) organizations use managerial accounting information and concepts. People in all types of positions—from corporate presidents to graphic designers to hospital administrators—can improve their managerial skills by being well-grounded in the basic concepts and use of managerial accounting information for planning, controlling, and decision making.

Furthermore, thousands of companies increasingly release to the public (i.e., suppliers, regulators, employees, human rights organizations, environmental groups, customers, etc.) very large quantities of managerial accounting information that traditionally either did not exist or was released only internally. This information is released through optional reports known as corporate sustainability reports (e.g., **Starbucks**, **McDonald's**), social responsibility reports (e.g., **Apple**, **Chiquita**), or citizenship reports (e.g., **General Electric**). The release of these reports often occurs because firms want to manage their reputation by preparing and releasing such information themselves, rather than having Internet bloggers, newspapers, and cable news networks publish their own estimates of such information. Some leading companies (e.g., **PepsiCo**, **Novo Nordisk**, **British Telecom**) have even moved so far as to combine their sustainability report with their annual report, thereby resulting in a single, integrated report containing both traditional financial accounting information as well as managerial accounting information.<sup>1</sup> The exciting reality is that the importance and scope of managerial accounting information is growing rapidly around the globe. As a result, the demand for business people who possess the ability to create, understand, use and communicate managerial accounting information continues to grow.

### Information Needs of Managers and Other Users

Managerial accounting information is needed by a number of individuals. In particular, managers and empowered workers need comprehensive, up-to-date information for the following activities:

- planning
- controlling
- decision making

### Planning

The detailed formulation of action to achieve a particular end is the management activity called **planning**. Planning requires setting objectives and identifying methods to achieve those objectives. For example, a firm may set the objective of increasing its

<sup>1</sup> For a more in-depth discussion of the future of sustainability accounting, see Robert Eccles and Michael Krzus, *One Report: Integrated Reporting for a Sustainable Strategy* (John Wiley & Sons, Inc., Hoboken, NJ: 2010) or Brian Ballou and Dan Heitger, "Accounting for the Sustainability Continuum," *Journal of Accountancy* (June 2010).

short-term and long-term profitability by improving the overall quality of its products. **DaimlerChrysler** drastically improved the quality and profitability of its **Chrysler** automobile division during the beginning of the 21st century to the point where its quality surpassed that of **Mercedes-Benz** (also owned by DaimlerChrysler).<sup>2</sup> By improving product quality, firms like DaimlerChrysler should be able to reduce scrap and rework, decrease the number of customer complaints and warranty work, reduce the resources currently assigned to inspection, and so on, thus increasing profitability. To realize these benefits, management must develop some specific methods that, when implemented, will lead to the achievement of the desired objective. A plant manager, for example, may start a supplier evaluation program to identify and select suppliers who are willing and able to supply defect-free parts. Empowered workers may be able to identify production causes of defects and to create new methods for producing a product that will reduce scrap and rework and the need for inspection. The new methods should be clearly specified and detailed.

## Controlling

Planning is only half the battle. Once a plan is created, it must be implemented and its implementation monitored by managers and workers to ensure that the plan is being carried out as intended. The managerial activity of monitoring a plan's implementation and taking corrective action as needed is referred to as **controlling**. Control is usually achieved by comparing actual performance with expected performance. This information can be used to evaluate or to correct the steps being taken to implement a plan. Based on the feedback, a manager (or worker) may decide to let the plan continue as is, take corrective action of some type to put the actions back in harmony with the original plan, or do some midstream replanning.

The managerial accounting information used for planning and control purposes can be either financial or nonfinancial in nature. For example, **Duffy Tool and Stamping** saved \$14,300 per year by redesigning a press operation.<sup>3</sup> In one department, completed parts (made by a press) came down a chute and fell into a parts tub. When the tub became full, press operators had to stop operation while the stock operator removed the full tub and replaced it with an empty one. Workers redesigned the operation so that each press had a chute with two branches—each leading to a different tub. Now when one tub is full, completed parts are routed into the other tub. The \$14,300 savings are a financial measure of the success of the redesign. The redesign also eliminated machine downtime and increased the number of units produced per hour (operational feedback), both of which are examples of nonfinancial performance. Both types of measures convey important information. Often financial and nonfinancial feedback is given to managers in the form of performance reports that compare the actual data with planned data or other benchmarks.

## Decision Making

The process of choosing among competing alternatives is called **decision making**. This managerial function is intertwined with planning and control in that a manager cannot successfully plan or control the organization's actions without making decisions regarding competing alternatives. For instance, if **BMW** contemplates the possibility of offering a car that runs on gasoline and hydrogen, its ultimate decision would be improved if information about the alternatives (e.g., pertaining to gasoline versus hydrogen versus hybrid combinations of these two automobile fuel options) is gathered and made available to managers. One of the major roles of the managerial accounting information system is to supply information that facilitates decision making.

<sup>2</sup> Sarah A. Webster and Joe Guy Collier, "Fixing a Car Company: Zetsche on Mercedes: 'A Lot of Work Is Ahead,'" *Detroit Free Press*. Taken from <http://forums.mbworl.com/forums/showthread.php?t=121650> on April 8, 2008.

<sup>3</sup> George F. Hanks, "Excellence Teams in Action," *Management Accounting* (February 1995): 35.

## YOU DECIDE What Constitutes Managerial Accounting Information?

You are the **Costco** executive who has been chosen to decide whether or not the company should continue its policy of sourcing its finest coffee from Rwanda.

**What types of information should you consider as you decide how best to structure and analyze this important long-term strategic decision? What challenges do you expect to face in making this decision?**

What constitutes managerial accounting information is growing considerably as organizations must make decisions that include the global consequences of their actions, as well as the impact on an increasingly large number of vocal, well-informed, and powerful stakeholders. Stakeholders include the company's customers, suppliers, employees, regulators, politicians, lawmakers, and local community members. Generally speaking, managerial accounting information can be *financial* in nature, such as sales revenue or cost of sales, or *nonfinancial* in nature, such as the number of quality defects or the percentage of manufacturing plants that are inspected for compliance with human rights policies. One of the most exciting—and yet daunting—aspects of managerial accounting is that one can choose to measure *anything*, assuming the resources, information technology, and creativity exist to capture the desired performance measure.

As a Costco executive, one of the first nonfinancial factors you likely would consider measuring is the quality of the Rwandan coffee to ensure that it fulfills Costco's strategic goal of creating a competitive advantage by providing premium coffee to customers. Quality could be defined by the beans' taste, shelf life longevity, or other factors valued by customers. Other important

nonfinancial performance measures might include the time required to ship the harvested beans from Rwanda to Costco stores around North America and the presence of a local farming workforce in Rwanda critical to successfully sustaining a long-term supply chain between Rwandan fields and Costco customers.

One of the most important financial items to measure would be the importance to Costco's customers of purchasing premium quality coffee, which could be measured by the additional price they are willing to pay for Rwandan coffee over and above more average quality coffee. Other financial measures might include the cost of harvesting, inspecting, and shipping beans, as well as investments in Rwandan farming communities (e.g., physical infrastructure and schools) that ensure the relationship is sustainable for future generations.

Finally, you should consider how the decision to continue sourcing premium coffee from Rwanda will be perceived by Costco's important stakeholders, including its customers who buy the coffee, suppliers who provide the coffee beans, and government officials in the United States and Rwanda who set trading policies between the two countries. Accurately measuring issues like stakeholder perceptions of such decisions can be difficult because the managerial accountant oftentimes must invent new measures, figure out where the data to create such measures might come from, and estimate how accurate these measures will be once collected.

**The managerial accountant's ability to inform executive decision makers by providing innovative, accurate, and timely performance measures can create an important competitive advantage for the organization by improving its key decisions.**

### OBJECTIVE 2

Explain the differences between managerial accounting and financial accounting.

## FINANCIAL ACCOUNTING AND MANAGERIAL ACCOUNTING

There are two basic kinds of accounting information systems: financial accounting and managerial accounting.

### Financial Accounting

**Financial accounting** is primarily concerned with producing information (financial statements) for *external* users, including investors, creditors, customers, suppliers, government agencies (Food and Drug Administration, Federal Communications Commission, etc.), and labor unions. This information has a historical orientation and is used for such things as investment decisions, stewardship evaluation, monitoring activity, and regulatory measures. Financial statements must conform to certain rules and conventions that are defined by various agencies, such as the Securities and Exchange Commission (SEC), the Financial Accounting Standards Board (FASB), and the International Accounting Standards Board (IASB). These rules pertain to issues such as the recognition of revenues; timing of expenses; and recording of assets, liabilities, and stockholders' equity.



## Managerial Accounting

The managerial accounting system produces information for *internal* users, such as managers, executives, and workers. Thus, managerial accounting could be properly called *internal accounting*, and financial accounting could be called *external accounting*. Specifically, managerial accounting identifies, collects, measures, classifies, and reports financial and nonfinancial information that is useful to internal users in planning, controlling, and decision making.

## Comparison of Financial and Managerial Accounting

When comparing financial accounting to managerial accounting, several differences can be identified. Some of the more important differences follow and are summarized in Exhibit 1.1.

- *Targeted users.* Managerial accounting focuses on providing information for internal users, while financial accounting focuses on providing information for external users.
- *Restrictions on inputs and processes.* Managerial accounting is not subject to the requirements of generally accepted accounting principles set by the SEC and the FASB that must be followed for financial reporting. The inputs and processes of financial accounting are well defined. Only certain kinds of economic events qualify as inputs, and processes must follow generally accepted methods. Unlike financial accounting, managerial accounting has no official body that prescribes the format, content, and rules for selecting inputs and processes and preparing reports.
- *Type of information.* The restrictions imposed by financial accounting tend to produce objective and verifiable financial information. For managerial accounting, information may be financial or nonfinancial and may be much more subjective in nature.
- *Time orientation.* Financial accounting has a historical orientation (i.e., looking through the rear view mirror). It records and reports events that have already happened. Although managerial accounting also records and reports events that have already occurred, it strongly emphasizes providing information about future events (i.e., looking through the front windshield). Management, for example, may want to know what it will cost to produce a product next year. This future orientation is necessary for planning and decision making.
- *Degree of aggregation.* Managerial accounting provides measures and internal reports used to evaluate the performance of entities, product lines, departments, and managers. Essentially, detailed information is needed and provided. Financial accounting, on the other hand, focuses on overall firm performance, providing a more aggregated viewpoint.
- *Breadth.* Managerial accounting is much broader than financial accounting. It includes aspects of managerial economics, industrial engineering, and management science as well as numerous other areas.

### EXHIBIT 1.1

#### Comparison of Financial and Managerial Accounting

##### Financial Accounting

- Externally focused
- Must follow externally imposed rules
- Objective financial information
- Historical orientation
- Information about the firm as a whole
- More self contained

##### Managerial Accounting

- Internally focused
- No mandatory rules
- Financial and nonfinancial information; subjective information possible
- Emphasis on the future
- Internal evaluation and decisions based on very detailed information
- Broad, multidisciplinary

The accounting system should be designed to provide both financial and managerial accounting information. The key point here is flexibility—the system should be able to supply different information for different purposes.

### OBJECTIVE 3

Identify and explain the current focus of managerial accounting.

## CURRENT FOCUS OF MANAGERIAL ACCOUNTING

The business environment in which companies operate has changed dramatically over the past several decades. For instance, advances in technology, the Internet, the opening of markets around the world, increased competitive pressures and increased complexity of strategy (e.g., alliances between **McDonald's** and **The Walt Disney Company** for promotional tie-ins) and operations all have combined to produce a global business environment. Effective managerial accounting systems also have changed in order to provide information that helps improve companies' planning, control, and decision-making activities. Several important uses of managerial accounting resulting from these advances include new methods of estimating product and service cost and profitability, understanding customer orientation, evaluating the business from a cross-functional perspective, and providing information useful in improving total quality.

### New Methods of Costing Products and Services

Today's companies need focused, accurate information on the cost of the products and services they produce. In the past, a company might have produced a few products that were roughly similar to one another. Only the cost of materials and labor might have differed from one product to another and figuring out the cost of each unit was relatively easy. Now, with the increase in technology and automation, it is more difficult to generate the costing information needed by management. As Peter Drucker, internationally respected management guru, points out:

*Traditional cost accounting in manufacturing does not record the cost of nonproducing such as the cost of faulty quality, or of a machine being out of order, or of needed parts not being on hand. Yet these unrecorded and uncontrolled costs in some plants run as high as the costs that traditional accounting does record. By contrast, a new method of cost accounting developed in the last 10 years—called “activity-based” accounting—records all costs. And it relates them, as traditional accounting cannot, to value-added.<sup>4</sup>*

Activity-based costing (ABC) is a more detailed approach to determining the cost of goods and services. ABC improves costing accuracy by emphasizing the cost of the many activities or tasks that must be done to produce a product or offer a service. **United Parcel Service Inc. (UPS)** used ABC to discover and manage the cost of the activities involved with shipping packages by truck, as opposed to by plane, in order to beat **FedEx** at its overnight delivery business in quick mid-distance (up to 500 miles) overnight deliveries.<sup>5</sup> Process-value analysis focuses on the way in which companies create value for customers. The objective is to find ways to perform necessary activities more efficiently and to eliminate those that do not create customer value.

### Customer Orientation

Customer value is a key focus because firms can establish a competitive advantage by creating better customer value for the same or lower cost than competitors or creating equivalent value for lower cost than that of competitors. Customer value is the difference between what a customer receives and what the customer gives up when buying a product or service. When we talk about customer value, we consider the complete range

<sup>4</sup> Peter F. Drucker, “We Need to Measure, Not Count,” *The Wall Street Journal* (April 13, 1993): A14.

<sup>5</sup> Charles Haddad and Jack Ewing, “Ground Wars: UPS's Rapid Ascent Leaves FedEx Scrambling,” *BusinessWeek* (May 21, 2001): 64–68.

of tangible and intangible benefits that a customer receives from a purchased product. Customers receive basic and special product features, service, quality, instructions for use, reputation, brand name, and other important factors. On the other hand, customers give up the cost of purchasing the product, the time and effort spent acquiring and learning to use the product, and the costs of using, maintaining, and disposing of it.

**Strategic Positioning** Effective cost information can help the company identify strategies that increase customer value and, in so doing, create a sustainable competitive advantage.<sup>6</sup> Generally, firms choose one of two general strategies:

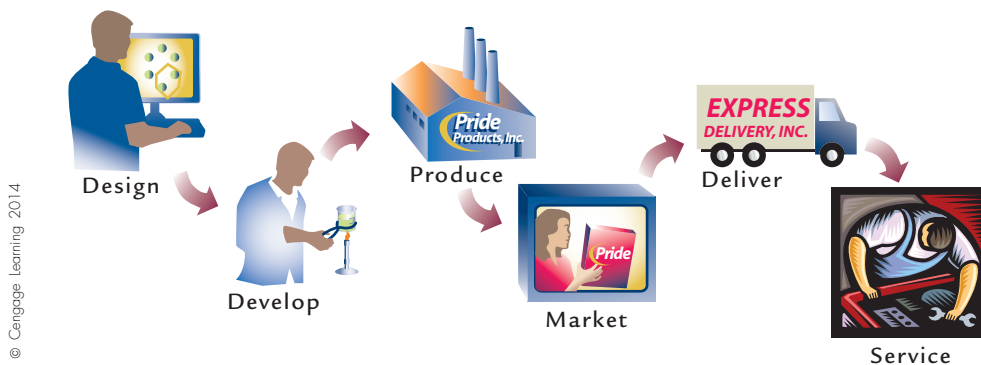
- *Cost leadership*: The objective of the cost leadership strategy is to provide the same or better value to customers at a *lower* cost than competitors.
- *Superior products through differentiation* (e.g., *highest performance quality, most desired product features, best customer service, etc.*): A differentiation strategy strives to increase customer value by providing something to customers not provided by competitors. For example, **Best Buy's** Geek Squad of computer technicians creates a competitive advantage for Best Buy by providing 24-hour in-home technical assistance for its customers. Accurate cost information is important to see whether or not the additional service provided by the Geek Squad adds more to revenue than it does to cost.

**The Value Chain** Successful pursuit of cost leadership and/or differentiation strategies requires an understanding of a firm's value chain. The **value chain** is the set of activities required to design, develop, produce, market, and deliver products and services, as well as provide support services to customers. Exhibit 1.2 illustrates the value chain. A managerial accounting system should track information about a wide variety of activities that span the value chain. For example, **Apple** spent considerable effort researching the cost of developing and manufacturing the iPhone, as well as the amount of money potential customers would be willing to spend to purchase it before releasing the most recent version. Also, customer value can be increased by improving the speed of delivery and response, as many customers believe that delivery delayed is delivery denied. **FedEx** exploited this part of the value chain and successfully developed a service that was not being offered by the **U.S. Postal Service**.

It is important to note that companies have internal customers as well. For example, the procurement process acquires and delivers parts and materials to producing departments. Providing high-quality parts on a timely basis to managers of producing departments is just as vital for procurement as it is for the company as a whole to provide high-quality goods to external customers. The emphasis on managing the internal value chain and servicing internal customers has revealed the importance of a cross-functional perspective.

( EXHIBIT 1.2 )

The Value Chain



<sup>6</sup> C. Rutledge and R. Williams, "A Seat at the Table," *Outlook Journal* (June 2004). Taken from [www.accenture.com/xd/xd.asp?it=enweb&xd=ideas%5Coutlook%5C2\\_2004%5Cm](http://www.accenture.com/xd/xd.asp?it=enweb&xd=ideas%5Coutlook%5C2_2004%5Cm) on October 6, 2005.