

影印

世界工商管理名典系列 (影印版)

# Advanced Management Accounting

Third Edition

# 高级管理会计

(第三版)

Robert S. Kaplan  
Anthony A. Atkinson



清华大学出版社

<http://www.tup.tsinghua.edu.cn>



Prentice Hall



## (京)新登字 158 号

Advanced Management Accounting, 3rd ed./Robert S. Kaplan, Anthony A. Atkinson.

© 1998 by Prentice Hall, Inc.

Original English Language Edition Published by Prentice Hall, Inc., A Simon & Schuster Company.

本书英文影印版由西蒙与舒斯特国际出版公司授权清华大学出版社独家出版、发行。

未经出版者书面许可,不得以任何方式复制或抄袭本书的任何部分。

本书封面贴有 Prentice Hall 激光防伪标签,无标签者不得销售。

北京市版权局著作权合同登记号: 01-98-0962

书 名: 高级管理会计

作 者: Robert S. Kaplan, Anthony A. Atkinson

出版者: 清华大学出版社(北京清华大学校内,邮编 100084)

因特网地址: [www.tup.tsinghua.edu.cn](http://www.tup.tsinghua.edu.cn)

印刷者: 清华大学印刷厂

发行者: 新华书店总店北京科技发行所

开 本: 787×1092 1/16 印张: 51.25

版 次: 1998 年 7 月第 1 版 1998 年 7 月第 1 次印刷

书 号: ISBN 7-302-03036-7/F·185

印 数: 0001~3000

定 价: 68.00 元

## 出版说明

为了适应我国社会主义市场经济的建设和发展,满足国内广大读者了解、学习和借鉴国外先进的管理经验和掌握经济理论的前沿动态,清华大学出版社与 Prentice Hall 国际出版公司合作影印出版一系列英文版经济管理方面的图书。我们所选择的图书,基本上是已再版多次、在国外深受欢迎、并被广泛采用的优秀教材,绝大部分是该领域中较具权威性的经典之作。在选书的过程中,我们得到了很多专家、学者的支持、帮助与鼓励,在此深表谢意!本书由中国人民大学会计系荆新教授推荐,对外经济贸易大学国际工商管理学院余恕莲教授审阅,在此一并致谢!

由于原作者所处国家的政治、经济和文化背景等与我国不同,对书中所持观点,敬请广大读者在阅读过程中注意加以分析和鉴别。

我们期望这套影印书的出版对我国经济科学的发展能有所帮助,对我国经济管理专业的教学能有所促进。

欢迎广大读者给我们提出宝贵的意见和建议;同时也欢迎有关的专业人士向我们推荐您所接触到的国外优秀图书。

清华大学出版社第三编辑室

1998.6

---

---

# Preface

*Advanced Management Accounting*, third edition, is a major revision from the second edition that was published in 1989. In the preface for the second edition, we were already describing the enormous changes underway for both manufacturing and service operations, and highlighting the rapid evolution in the technology for information processing. These advances created a challenging new environment for management accounting systems. If anything, rapid changes in the theory and practice of management accounting during the past ten years have accelerated, and to keep pace we have introduced significant new coverage and deleted some older material as we wrote the third edition.

The role for management accounting continues to undergo major changes. Management accountants are no longer only scorekeepers of past performance. They have become value-adding members of management teams, creating information vital for enhancing operational excellence, and for formulating and implementing new strategies. A significant development in this new role is a great increase in the importance and use of nonfinancial measures of performance. This book provides extensive coverage of the new management accounting practices being adopted by innovative companies around the world, including activity-based costing, kaizen and target costing, and the Balanced Scorecard.

A research project sponsored by the Institute of Management Accountants and the Financial Executives Institute<sup>1</sup> surveyed U.S. corporate accounting and financial executives about the relative importance of various accounting knowledge and skill areas (AKSAs), and about the extent to which entry-level accountants bring these AKSAs to their initial job. The four AKSAs rated as most important for management accountants were budgeting, product and service costing, control and performance evaluation, and strategic cost management, including activity-based costing. These four AKSAs, how-

---

<sup>1</sup>*What Corporate America Wants in Entry-Level Accountants* (Institute of Management Accountants: Montvale, NJ; 1994).

ever, also showed the largest gap between corporate expectations and actual preparation of entry-level accountants. In this third edition, we provide comprehensive treatments of these four highly rated AKSAs.

The book's introduction, surveys the rich historical role for management accounting in the development of large industrial and service enterprises. Chapter 1 provides a comprehensive summary of cost definitions and cost classifications. It uses a comprehensive example to illustrate how traditional notions of fixed and variable costs can be imbedded in a much richer framework of committed and flexible costs. The chapter treats committed costs as arising from managerial decisions to supply capacity to perform anticipated work. It introduces the vital distinction between the costs of resources supplied versus the costs of resources used. It also examines the importance of identifying sustaining costs, at various hierarchical levels and decision points, where managers have the opportunity to make long-term decisions about whether to introduce or continue to support products, lines of business, customers, channels, and market segments. Chapter 2 builds on this framework to address short-term budgeting and decision making with the existing supply of resources. This chapter provides a comprehensive model for short-term budgeting and for optimizing the use of short-term committed resources.

Chapter 3 draws heavily on the treatment of service department costs from the first and second editions, but imbeds this subject in the context of a general treatment of cost system design. Thus, we view the assignment of service and support department costs as the initial assignment stage, from resources to production cost centers, when designing cost systems for operational control and for product and service costing. Chapter 4 extends this framework and introduces activity-based costing, allowing resource costs to flow, not just to production cost centers, but to activities. The chapter builds on this activity framework, to provide a comprehensive introduction to activity-based costing (ABC). It shows how to use a range of different types of activity cost drivers to assign resource costs more accurately to cost objects: products, services and customers. The chapter concludes by summarizing the principal benefits and design trade-offs associated with introducing an activity-based cost system.

Chapter 5, Activity-Based Management (ABM), incorporates material from the pricing chapter in the second edition, and extends this material by describing a full range of strategic and operational decisions that are better informed by the more accurate information drawn from an ABC system. ABM actions include, in addition to re-pricing, decisions about product and customer mix, product design, process improvements, operations strategy, and technology investments. Chapter 6 addresses operational ABM for process improvements and discusses the roles of kaizen costing in continuous improvement, and target costing for influencing future product costs at the design stage.

In summary, we use the conceptual framework of activity-based costing to provide an integrated treatment for these first six chapters. Chapters 1, 4, 5, and 6 are virtually completely new material for *Advanced Management Accounting*, third edition, and Chapters 2 and 3 have been re-written, from the second edition, to fit within this integrated framework.

To accommodate all this new material, we eliminated the two chapters on regression analysis, which were a central feature of the first two editions. The deletion decision was strongly influenced by the theoretical advance that statistical analyses can measure only the results of management decisions (how much capacity to provide, and how



quickly managers adjust resource capacity to changes in the demands for resources). Of more relevance for managers is not estimates of the cost of supplying resources, but the cost of the actual demands (the costs of resources used) that activities make on most organizational resources. This role is now accomplished through ABC systems, not statistical analysis. We have also deleted the chapter on joint costs, recognizing that this issue is more a cost accounting topic (for inventory valuation) rather than one that facilitates managerial decision-making and control. And the linear programming section from the second edition has been replaced by Excel's Solver algorithm used to solve the short-term resource allocation example in Chapter 2.

Chapter 7, Decentralization, introduces the second half of the book. Rewritten slightly from the second edition to reflect the impact of ABC and the Balance Scorecard, this chapter remains highly relevant for communicating the challenges of motivating, controlling, and evaluating decentralized organizational units. Chapter 8, the Balanced Scorecard, provides a new comprehensive framework for strategic and operational control. The chapter summarizes the advances in the 1990s of translating strategy into an integrated set of financial and non-financial performance measures tied to customers, innovation and operational processes, and enhanced employee and system capabilities.

Chapters 9 and 10, on profit centers and investment centers, are drawn from the second edition, but repositioned in the third edition to portray the measures for the financial perspective of the Balanced Scorecard. In a major semantic change, the residual income approach, described in the first two editions, has been updated to reflect the surge in interest and application of economic value added. Chapter 11, an enhanced version of the quality and just-in-time chapters in the second edition, summarizes the expanded measurement possibilities from the other three Balanced Scorecard perspectives. It includes quality and cycle time operational measures, but it adds the vitally important measures relating to customer outcomes, the value propositions required to succeed with targeted customers, product and service development, and measures of employee and system capabilities.

Chapter 12, Investments in New Technologies, expands on the second edition's coverage of investment possibilities to include enhanced organizational capabilities. Thus, what had previously been a stand-alone chapter on advanced capital budgeting has now become integrated in the management control framework. Investment decisions are made to achieve outstanding performance in the critical, strategic measures in the four Balanced Scorecard perspectives. Financial payoffs remain important, but investment payoffs also include enhanced performance for customers, for critical internal processes, and for enhancing organizational capabilities.

Chapters 13 and 14, on incentive compensation plans and on formal models for budgeting and incentives, draw from the comparable chapters in the second edition. They have been updated to incorporate new insights from recent research and experience. They also develop the frictions that arise in conventional contract theory research in a more detailed and intuitive manner.

Each chapter, with the possible exception of Chapter 14, contains material that is immediately applicable to contemporary organizations and that has been, in fact, already successfully put to work in practice. Our extensive use of case material reinforces this emphasis on practice in actual organizations. Moreover, we have selected assignment material to illustrate how the concepts in each chapter have been or can be applied not just in somewhat mechanical and idealized situations, but in the context of actual business

situations. There may be no simple answers to some of the cases we present, but we believe they will help students come to understand and be able to apply the relevant concepts in the actual organizations they will encounter after leaving the academic setting.

---

## ACKNOWLEDGMENTS

We have benefited from the contributions of many of our colleagues. We appreciate the helpful reviews and comments about how to improve the Second Edition that were provided by Professors Germain Boer, Vanderbilt University; William D. J. Cotton, SUNY—Geneseo; Michael W. Maher, University of California—Davis; Dale C. Morse, University of Oregon; Vaughan S. Radcliffe, Case Western Reserve University; and Raafat R. Roubi, Brock University. Professor Bill Cotton of SUNY—Geneseo contributed several new cases for the Third Edition. New cases were also provided by Professors Kavasseri V. Ramanathan of University of Washington, Chris Ittner of Wharton, University of Pennsylvania, and Paul Dierkes of Wake Forest University. We appreciate the permission of the Institute of Management Accountants for allowing us to use several cases from various volumes in their *Cases in Management Accounting Practice*, IMA/AAA Management Accounting Symposium series, and the American Institute of Certified Public Accountants for cases from their AICPA Case Development Program (which included cases written by Professor Paul Foote of California State University at Fullerton and Professor Lawrence Carr). And we wish to thank current and former Harvard Business School Professors Bob Anthony, George Baker, Bill Bruns, Robin Cooper, John Dearden, Bill Fruhan, David Hawkins, Ken Merchant, Jim Reece, Bill Sahlman, Bob Simons, and David Upton for use of their HBS cases.

At Prentice Hall, our editor, PJ Boardman, provided us with continual encouragement and support to complete this revision before the decade ended. Jane Avery and Katherine Evancie facilitated the editing and production process. Susan Rifkin was excellent in overseeing production of the book under tight deadlines. We are grateful for their efforts.

Finally, as always, we appreciate the patience and forbearance of our wives, Ellen and Anne, who gave us the space (both physical and time) for this project.

Robert S. Kaplan  
Anthony A. Atkinson

---

---

# Contents

*Preface* xvii

## **INTRODUCTION 1**

- Origins of Cost Management Systems 2
- The Scientific Management Movement 3
- Management Control for Diversified Organizations 6
- From Cost Management to Cost Accounting 7
- Recent Developments in Manufacturing and Service Companies 8
- Contemporary Management Accounting Developments 9
- Summary 10

## **1 UNDERSTANDING COST BEHAVIOR 12**

- The Role of Management Accounting 12
- Understanding Cost Behavior 13
- An Example of Cost Structure 14
  - Deriving the Total Cost Function* 16
  - Determining the Cost per Unit of Service Provided* 17
- Handling Indirect (Common) Costs 22
- Computing the Cost of Unused Capacity 23
- Cost-Volume-Profit Analysis 24
- Summary 27 • Problems 28



## 2 SHORT-TERM BUDGETING, RESOURCE ALLOCATIONS, AND CAPACITY COST 33

- The Example 33
- Short-Term Planning and Budgeting 34
- Activities, Resource Use, and Costs 35
- Optimizing the Use of Short-Term Resources 35
  - Equal Sales Objective* 35
  - Total Sales Objective* 36
  - Short-Run Profit Objective* 37
- Opportunity Costs, Capacity Costs, and the Theory of Constraints 37
- The Issue of Multiple Resources 38
  - Effects of Reengineering and Continuous Improvement on Profitability* 40
- The Role of Cost Information in Allocating Short-Term Resources 40
- Budgeting Operations 43
  - Production and Resource Use* 43
  - Cash Flows* 43
- Summary 46 • Problems 47 • Cases: *Choosing a Product Mix* 55 • *California Products Corporation: Analyze Product Profitability with Machine Constraints and Committed and Flexible Costs* 56

## 3 ASSIGNING RESOURCE COSTS TO PRODUCTION COST CENTERS 60

- Why Assign Service Department Costs? 61
- Measuring Costs of Using Service Departments 63
- Avoid Estimates and Allocations for Cost Control 64
- A Fundamental Cost Accounting Equation 65
- Assigning Service Department Costs 66
- Service Departments Not Directly Supporting Production Output 72
- Primary and Secondary Activities 72
- The Nature and Problems of Reciprocal Services 73
  - Fall River Company: A Numerical Example* 74
  - The Economic Insights of the Reciprocal Method* 76
  - The Treatment of Committed Costs* 77
  - Make-or-Buy Decisions and Cost Assignments* 77
- Special Case for Arbitrary Allocations 78
- Summary 79 • Appendix 3.1: The Reciprocal Cost Procedure 80 • Problems 82 • Case: *Seligram, Inc.: Electronic Testing Operations* 90

## 4 ACTIVITY-BASED COST SYSTEMS 97

- Assigning Service Department Costs to Activities 98
  - Identifying Activities and Mapping Resource Costs to Activities* 101
  - Estimates or Allocations?* 102
- Assigning Service Department Costs: Some Fixed and Some Variable 103
- Activity Cost Drivers 104
  - Selecting Activity Cost Drivers* 108
- Designing the Optimal System 110
- Summary 112 • Cases: *The Classic Pen Company* 113 • *Western Dialysis Clinic* 116 • *Paisley Insurance Company: Activity-Based Costing in a Service Industry* 119 • *Bedford Mining* 123 • *The Rossford Plant* 125 • *The Portables Group* 131 • *John Deere Component Works (A)* 135

## 5 ACTIVITY-BASED MANAGEMENT 149

- The Product Profitability Whale Curve 150
- Pricing 150
  - Demand Curve Estimation* 152
  - Short-Term Pricing* 153
  - ABC Costing For a New Order* 154
  - Determining Profit Margins* 156
- Using ABC for Analyzing Customer Profitability 158
- Product Substitution 160
- Redesign Products 161
- Improve Processes and Operations Strategy 161
- Technology Investment 163
- Eliminate Products 163
- Activity-Based Management: A Summary 163 • Problems 164 • Cases: *Price Leadership in an Oligopoly* 168 • *Siemens Electric Motor Works (A)* 174 • *Kanthal (A)* 179 • *Indianapolis: Activity-Based Costing of City Services (A)* 187 • *The Co-operative Bank* 197 • *John Deere Component Works (B)* 213

## 6 COST BASED DECISION MAKING 222

- Target Costing 223
  - Customer Orientation* 224
  - The Target Costing Process* 225
  - Target Costing in Action: Toyota Motors* 227

<i>Tear-Down Analysis</i>	227
<i>Quality Function Deployment</i>	228
<i>Value Engineering</i>	228
<i>Reengineering</i>	229
Kaizen Costing	229
Target Costing: A Comprehensive Example	230
<i>Value Engineering</i>	233
<i>Functional Analysis</i>	234
<i>Reengineering</i>	235
Life Cycle Costing	236
Other Costing Tools	237
<i>Quality Cost</i>	237
<i>Taguchi Cost</i>	237
Environmental, Salvage, and Disposal Costs	238
Conclusion	238 • Problems 241 • Cases: <i>Piedmont Express Forms: Process Analysis for Strategic Decision Making</i> 246 • <i>Activity-based Management at Stream International</i> 254 • <i>MosCo, Inc.</i> 268

## 7 DECENTRALIZATION 288

Why Decentralize	290
<i>The Environment of the Firm</i>	290
<i>Information Specialization</i>	290
<i>Timeliness of Response</i>	291
<i>Conservation of Central Management Time</i>	292
<i>Computational Complexity</i>	292
<i>Training for Local Managers</i>	293
<i>Motivation for Local Managers</i>	293
Summary	293
Organization of Decentralized Units	293
<i>Standard Cost Centers</i>	294
<i>Revenue Centers</i>	295
<i>Discretionary Expense Centers</i>	295
<i>Profit Centers</i>	297
<i>Investment Centers</i>	297
Developing a Performance Measure for Decentralized Operating Units	298
<i>Problems of Goal Congruence</i>	300
<i>Problems of Externalities</i>	301
<i>Overconsumption of Perquisites</i>	302
Summary	303 • Problems 304 • Cases: <i>Pinnacle Mutual Life Insurance Company</i> 306 • <i>Wattie Frozen Foods, Ltd.: A New Zealand Case Study in</i>

*Management Accounting and Extreme Decentralization* 321 • *Industrial Chemicals Company* 337 • *BP America: Cost Centers and Profit Centers* 342 • *Empire Glass Company* 346

## 8 THE BALANCED SCORECARD: MEASURING TOTAL BUSINESS UNIT PERFORMANCE 367

The Balanced Scorecard 368  
     *Financial Perspective* 368  
     *Customer Perspective* 368  
     *Internal Business Process Perspective* 371  
     *Learning & Growth Perspective* 374  
     *Summary of Balanced Scorecard Perspective* 375  
 Linking Multiple Scorecard Measures to a Single Strategy 376  
     *Cause and Effect Relationships* 376  
     *Performance Drivers* 377  
 Diagnostic Versus Strategic Measures 377  
 Four Perspectives: Are They Sufficient? 378  
 Summary 379 • Cases: *Chadwick, Inc.: The Balanced Scorecard* 380 • *Chemical Bank: Implementing the Balanced Scorecard* 383 • *United Way of Southeastern New England (UWSENE)* 397 • *Mobil USM&R (A1)* 409 • *Mobil USM&R (A2)* 417 • *Mobil USM&R (B): New England Sales and Distribution* 422 • *Mobil USM&R (C): Lubricants Business Unit* 428 • *Mobil USM&R (D): Gasoline Marketing* 435

## 9 FINANCIAL MEASURES OF PERFORMANCE 442

The Nature of Financial Control 442  
 Control in the Aggregate Using Financial Measures 442  
 Control in the Small Using Nonfinancial Measures 443  
 Operations Control and Management By Exception Using Variance Analysis 443  
     *An Example: Jersey River Book Publishing Company* 444  
     *The Role of Variance Analysis* 445  
     *The Planning Variance* 445  
     *The Flexible Budget Variance* 445  
     *Flexible Budget Variances for Unit-Related Costs—Price and Quantity Effects* 447  
     *Flexible Budget Variances for Batch-Related Costs—Batch Size and Batch Cost Effects* 448  
     *Flexible Budget Variances for Product-Related Costs* 448  
     *Facility-Sustaining Costs* 448

Summary	449
Organization Control Using Profit Measures	449
Using Profits to Assess Organization Unit Performance	449
Choosing a Profit Index	450
Short Run Operating Margin	450
Controllable Contribution	451
Divisional Segment Margin	451
Divisional Profit Before Taxes	452
Common Revenues	452
Transfer Pricing	453
Market Prices	454
Using Marginal Cost Transfer Prices	456
Using Activity-Based Costs for Transfer Pricing	457
Full Costs	458
Dual-Rate Transfer Prices	460
Negotiated Market-Based Price	460
Transfer Pricing—A Summary of Practice	461
Domestic Versus International Transfer Pricing	463
Other Measures of Performance	464
Productivity Measures	465
Return on Investment	466
Material Yield	466
Labor Yield	466
Equipment Yield	467
Summary	467 • Problems
Automobile Dealership—Shuman Automobiles, Inc.	469 • Cases: Transfer Pricing in an
Pricing Among Related Businesses—Kirkpatrick Associates, Incorporated	479 • Transfer
Company (A)	484 • Transfer Pricing in a Multinational Corporation—Del Norte Paper
Transport (B)	486 • Managing Profit Center Performance—Wilkinson
The New Brunswick Company	490 • Internal Transfer Pricing With an Outside Market—
	496

## 10 FINANCIAL MEASURES OF PERFORMANCE: RETURN ON INVESTMENT (ROI) AND ECONOMIC VALUE ADDED (EVA<sup>™</sup>) 499

Relating Profits to Assets Employed	499
A Historical Perspective	500
The Matsushita Internal Capital System	502
The Danger of ROI Control	504
A Simple Example	504

Technical Shortcomings of the ROI Measure	505
Economic Value Added (Residual Income)	506
Expense Versus Capitalize	509
<i>Leased Assets</i>	511
Price-Level Adjustments	514
Depreciation Method	518
Summary of Technical Adjustments to ROI and EVA Calculations	520
Linking ABC to Economic Value Added: Assigning Assets	520
Summary	523
• Problems	524
• Cases: <i>Using EVA and MVA at Outsource, Inc.</i>	532
• <i>Purity Steel Corporation, 1995</i>	537
• <i>Western Chemical Corporation: Divisional Performance Measurement</i>	544

## **11 MEASURING CUSTOMER, INTERNAL BUSINESS PROCESS, AND EMPLOYEE PERFORMANCE 551**

Customer Perspective	551
<i>Market and Account Share</i>	551
<i>Customer Retention</i>	552
<i>Customer Acquisition</i>	552
<i>Customer Satisfaction</i>	553
<i>Customer Profitability</i>	553
<i>Beyond the Core: Meeting Customer's Expectations</i>	553
Internal Business Perspective: Operations and Innovation Processes	557
<i>Operational Excellence: Time, Quality, and Cost Measurements</i>	558
<i>Innovation Measures</i>	564
Employee Capabilities	567
<i>Core Employee Measurement Group</i>	567
<i>Strategic Job Coverage</i>	568
Summary and Conclusion	569
• Problems	570
• Cases: <i>Draper Instruments</i>	578
• <i>Texas Instruments: Materials and Control Group</i>	582

## **12 INVESTING TO DEVELOP FUTURE CAPABILITIES TECHNOLOGY 593**

Is a New Theory Needed?	594
<i>Short Time Horizon</i>	595
<i>Excessively High Discount Rates</i>	595
<i>Risk Adjustments</i>	597
<i>Alternatives to New Investment</i>	598

<i>Incremental versus Global Analysis</i>	600
<i>Front-End Investment Costs</i>	600
<i>Benefits Invisible Using Traditional Cost Systems</i>	602
Measuring All The Benefits from the New Process	603
<i>Reduced Inventory Levels</i>	603
<i>Less Floor Space</i>	603
<i>Quality Improvements</i>	604
<i>More-Accurate, Less-Precise Estimates</i>	604
<i>The Difficult-to-Quantify Benefits</i>	604
Investing in Organizational Capabilities	605
<i>External Integration: Linking Design to the Customer</i>	605
<i>Internal Integration: Connecting Functions Within the Organization</i>	606
<i>Flexibility: Responsiveness to Change</i>	606
<i>Experimentation: Achieving Continuous Improvement</i>	607
<i>Cannibalization: Achieving Radical Improvement</i>	607
Summary on Building Organizational Capabilities	608 • <i>The Bottom Line</i> 609 • <i>Problems</i> 611 • <i>Cases: Othello Corporation (A): Capital Equipment Planning and Control</i> 613 • <i>Wilmington Tap and Die</i> 627 • <i>Stermon Mills Incorporated</i> 638 • <i>Burlington Northern: The ARES Decision (A)</i> 651 • <i>Burlington Northern: The ARES Decision (B)</i> 667

## 13 INCENTIVE AND COMPENSATION SYSTEMS 673

The Expectancy View of Behavior	673
Intrinsic and Extrinsic Rewards	674
Tying Rewards to Performance	675
<i>Rewards Based on Financial Performance</i>	675
<i>Rewards Based on Group or Individual Performance</i>	675
<i>Rewards Based on Nonfinancial Measures of Performance</i>	676
<i>Executive Compensation</i>	676
<i>Incentive Compensation and the Principal-Agent Relationship</i>	677
Important Attributes of Compensation Systems	681
<i>Role for Bonus and Incentive Contracts</i>	682
<i>Types of Incentives</i>	684
<i>Specific Forms Assumed by Monetary Compensation Plans</i>	684
<i>Evaluating Accounting-Based Incentive Compensation Schemes</i>	688
<i>Short-Term versus Long-Term Performance Measures</i>	692
<i>Are Chief Executives Overpaid?</i>	693



Rewarding Other Organization Members	695
<i>Gainsharing</i>	695
<i>Piecerate Systems</i>	696
<i>Labor-Related Plans</i>	696
<i>Bonus Systems</i>	697
Summary	697 • Problems 699 • Cases: <i>McDonald's Corporation: Designing an Incentive System</i> 708 • <i>Analog Devices, Inc. (A)</i> 714 • <i>The Charles River Company</i> 723 • <i>RKO Warner Video, Inc.: Incentive Compensation Plan</i> 733 • <i>Duckworth Industries, Inc.—Incentive Compensation Programs</i> 744

## **14 FORMAL MODELS IN BUDGETING AND INCENTIVE CONTRACTS 764**

Issues and Terms in Formal Incentive Models	764
<i>Wealth Leisure and Risk Attitudes</i>	764
<i>Individual Honesty and the Role of Contract Monitoring</i>	765
<i>Choosing the Right Manager and the Role of Information</i>	766
<i>Balancing Incentive and Return Considerations</i>	767
Problems of Obtaining Information for Standards and Budgets	768
<i>Using Information for Rewards and Control—The Moral Hazard Problem</i>	769
<i>Moral Hazard and Information Impactedness</i>	769
The Agency Model	770
<i>The Setting</i>	770
<i>The Motivational Problem: Why a Flat Wage Will Not Do</i>	771
<i>The Principal's Problem: How to Tie Reward to Performance</i>	771
Eliciting Honest Revelation of Privately Held Beliefs	773
<i>The Role of Uncertainty in the Soviet Incentive Model</i>	744
<i>Limitations of the Truth-Inducing Budget Scheme</i>	775
<i>Truth-Inducing Schemes for Resource Allocation Decisions</i>	777
The Role of Insurance	779
Summary	780 • Problems 782

## **INDEX 793**

---

# Introduction

Management accounting systems provide information to assist managers in their planning and control activities. Management accounting activities include collecting, classifying, processing, analyzing, and reporting information to managers. Unlike the financial accounting information prepared for external constituencies, such as investors, creditors, suppliers, and tax and regulatory authorities, management accounting information should be designed to help decision making *within* the firm. Therefore, the scope of management accounting extends beyond traditional measures of the costs and revenues from the transactions that have already occurred to include also information on sales backlogs, unit quantities, prices, demands on capacity resources, and extensive performance measures based on physical or nonfinancial measures.

Because the information to aid internal planning and control activities is not constrained by external reporting requirements, the management accounting system can use data that are less objective and less verifiable than the data used in the financial accounting system. Greater use can be made of future-oriented data such as forecasts and estimates, as well as measures of opportunity costs from transactions not taken. Ultimately, the test of a management accounting system is whether it motivates and assists managers in attaining their organizational objectives in a timely, efficient, and effective manner. Relevance is valued more than objectivity and auditability, though whatever data are used must be defensible and transparent to organizational participants.