管理经济学(英文)

McGUIGAN · MOYER

# MANAGERIAL ECONOMICS

**Third Edition** 

# **MANAGERIAL ECONOMICS**

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In memory of my father and mother —J.R.M.

To Craig
—R.C.M.

# **PREFACE**

Managerial economics is concerned with determining the means of achieving given objectives in the most efficient manner, while considering both explicit and implicit constraints on the application of the means.

This text deals with the application of economic theory to the decision-making problems faced by both private and public enterprise. The major emphasis is to provide the theory and tools essential to the analysis and solution of those problems which have significant economic consequences, both for the firm and society at large. Effective decision-making requires an understanding of the constraints, both explicit and implicit, imposed on the decision-maker by the environment. To accomplish this, major issues associated with government regulation of the firm, as well as the increasingly important implicit constraints on the actions of private and public enterprises, are examined. These issues include a consideration of the externalities associated with economic decisions.

A survey of managerial economics and business economics courses in various schools quickly leads one to the conclusion that while there is a broad consensus on content in some areas, coverage of other topics varies considerably between schools. For example, in some programs, capital budgeting and the cost of capital are covered in a managerial economics course, while in others they receive major emphasis in corporation or managerial finance. Similarly, a consideration of market structure, conduct and performance, and government regulation of business may be found either in separate courses or introduced in the context of a managerial economics type of course.

In organizing the book we have attempted to recognize the difference existing in various curricula. The broad topic coverage provided by the text gives instructors maximum flexibility in designing a course suited to the needs of their students and the demands of their curricula. Several alternative course structures are outlined in the section following this preface.

For some students Part II, dealing with tools of analysis, will provide a first exposure to useful economic and analytical concepts and tools. For others, this section provides a handy reference source for the review of material encountered in previous courses.

Part III examines the areas of demand analysis and forecasting techniques. Part IV deals with production and cost analysis, while Part V focuses on price determination in theory and practice. Part VI considers long-term investment decision-making in private, public and not-for-profit enterprises. Finally, Part VII covers issues related to the regulation of private enterprise.

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Although the primary focus of the book is on private sector management, the text is written with a recognition that many students in economics departments and schools of business and management have been finding their way into management and policy-making positions in the public and not-for-profit sectors of the economy. Consequently, we have provided them with the material in Chapters 17, 20 and 21 so that they can become familiar with the philosophy of public involvement in the economy and be exposed to specific tools of analysis which will be useful in management positions in this sector. In addition to this explicit coverage of the public and not-for-profit sectors, we have also used examples and developed problems throughout the book which illustrate the broader applications of managerial economics' tools and models. We think that the traditional private sector-oriented business student should also find this material to be an important addition to one's understanding of the operation of the economy.

In this third edition we have made a number of important changes and additions based upon our experience with the book and the thoughtful comments of reviewers, users and potential users. The most significant of these changes are:

- 1. Increased the number of exercises by approximately 50 percent.
- 2. Added several more short case problems in key chapters.
- 3. Organized the text around the objective of maximizing shareholder wealth and enhanced the discussion of objectives in not-for-profit enterprises.
- Added a new chapter (2) dealing with risk and uncertainty. This chapter includes a discussion of utility functions, and decision making under risk and uncertainty.
- 5. Provided a separate chapter dealing with mathematical programming (4), including the interpretation of computer program output.
- 6. Expanded the econometrics chapter (5) to cover the multivariate linear regression model in more depth—including the interpretation of computer program output and a discussion of the Durbin-Watson statistic.
- Added an appendix (6A) containing an indifference curve analysis of demand.
- 8. In the forecasting chapter (7) we have added a discussion of second order exponential smoothing and Box-Jenkins forecasting.
- 9. Expanded and updated the discussion of input-output analysis (9).
- 10. Added the Cournot oligopoly model in Chapter 14.
- 11. Added substantially more examples and updated examples and references throughout the text.
- 12. Expanded the test bank available to instructors.

The text is designed for upper-level undergraduates and first-level graduate students in economics departments, business schools and schools of public administration. Students are presumed to have a background in the basic principles of economics. Prior work in statistics and quantitative methods are recommended, although Chapters 3, 4 and 5 provide a quick review (or introduction) to these areas. Although a knowledge of differential calculus is also helpful (it is reviewed in Chapter 3), in all cases where a calculus solution to a problem is presented, an alternative approach, such as graphical, algebraic or tabular analysis, is also presented.

Instructors are encouraged to consider using the companion paperback book, Managerial Economics: Readings, Cases and Exercises by Moyer, McGuigan and PREFACE

livx

Trivoli (West Publishing, 1979). This book supplements the main text by providing a carefully selected group of readings, cases and problems which illustrate concepts of managerial economic analysis and provide students with an additional opportunity to put their new skills to work.

An excellent student *Study Guide*, prepared by Professor Dwight Porter of the College of St. Thomas, contains chapter summaries and outlines and a series of self-test problems and questions. This paperback *Study Guide* is also available from West Publishing (1983).

# **ACKNOWLEDGMENTS**

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Detroit, Michigan (J.R.M.) Lubbock, Texas (R.C.M.) November 1982

# ALTERNATIVE COURSE STRUCTURES

This text is the most encyclopedic managerial economics text available on the market today. We have provided an extensive topic coverage to meet the varying needs of users across a broad range of institutions. With a few exceptions, the individual chapters in this text can stand alone. This provides the instructor with the maximum flexibility in organizing a course designed to meet the special needs of the curriculum and the students.

We have indicated below a number of alternative suggested chapter coverage configurations which are designed to meet the needs of many users. Of course, individual instructors may want to make further adjustments.

#### OPTION 1 PRIVATE SECTOR FOCUS (Theory Emphasis)

- Chapter 1. Introduction and Goals of the Organization
- Chapter 2. Decision-Making Under Risk and Uncertainty
- Chapter 3. Classical Optimization Techniques
- Chapter 6. Theory of Demand
- Appendix 6A. Indifference Curve Analysis of Demand
- Chapter 7. Business and Economic Forecasting
- Chapter 8. Empirical Estimation of Demand
- Chapter 10. Theory of Production
- Chapter 11. Theory of Cost
- Chapter 12. Empirical Determination of Production and Cost Functions
- Chapter 13. Price and Output Determination: Pure Competition, Monopolistic Competition, and Monopoly
- Chapter 14. Price and Output Determination: Oligopoly
- Appendix 14A. Theory of Games
- Chapter 15. Further Topics in Pricing
- Chapter 16. Capital Budgeting and the Cost of Capital
- Chapter 18. Market Structure, Conduct, and Performance
- Chapter 19. Government Regulation and Support of Private Business

#### OPTION 2 PRIVATE SECTOR FOCUS (Empirical Emphasis)

- Chapter 1. Introduction and Goals of the Firm
- Chapter 2. Decision-Making Under Risk and Uncertainty

Chapter 3. Classical Optimization Techniques

Chapter 4. Linear Programming

Chapter 5. Econometrics

Chapter 6. Theory of Demand

Chapter 7. Business and Economic Forecasting

Appendix 7A. Double Exponential Smoothing Models

Chapter 8. Empirical Estimation of Demand

Chapter 9. Forecasting: Additional Topics

Chapter 10. Theory of Production

Appendix 10A. Production and Linear Programming

Chapter 11. Theory of Cost

Appendix 11A. The Learning Curve

Appendix 11B. Breakeven Analysis: An Application of Cost Theory

Chapter 12. Empirical Determination of Production and Cost Functions

Chapter 13. Price and Output Determination: Pure Competition, Monopolistic Competition, and Monopoly

Chapter 14. Price and Output Determination: Oligopoly

Chapter 15. Further Topics in Pricing

#### OPTION 3 PUBLIC SECTOR/REGULATORY FOCUS

Chapter 1. Introduction and Goals of the Organization

Chapter 3. Classical Optimization Techniques

Chapter 6. Theory of Demand

Chapter 7. Business and Economic Forecasting

Chapter 8. Empirical Estimation of Demand

Chapter 10. Theory of Production

Chapter 11. Theory of Cost

Appendix 11A. The Learning Curve

Appendix 11B. Breakeven Analysis: An Application of Cost Theory

Chapter 13. Price and Output Determination: Pure Competition, Monopolistic Competition, and Monopoly

Chapter 14. Price and Output Determination: Oligopoly

Chapter 15. Further Topics in Pricing

Chapter 16. Capital Budgeting and the Cost of Capital

Chapter 17. Cost-Benefit Analysis and Public Sector Management

Chapter 18. Market Structure, Conduct and Performance

Chapter 19. Government Regulation and Support of Private Business

Chapter 20. The Problem of Economic Externalities

Chapter 21. Public Utility Regulation

# CONTENTS

Preface xv

Acknowledgments xviii

Alternative Course Structures xix

### PART I INTRODUCTION Chapter 1. Managerial Economics: Introduction and Goals 1 of the Organization 2

Glossary of New Terms 2
What is Managerial Economics? 2
Managerial Economics and Economic Theory 3
The Decision-making Model 4
The Importance of Economic Model Building 5
Models of Firm Behavior 6
Explicit and Implicit Constraints on Decisions 12
Alternative Objectives of the Firm 15
Goals in the Public Sector and the Not-for-Profit Enterprise 19
Summary 23
References 24
Exercises 25

PART II TOOLS OF ANALYSIS 27

# Chapter 2. Decision-making Under Risk and Uncertainty 28

Glossary of New Terms 28
The Nature of a Decision Problem 28
Meaning and Measurement of Risk 30
Incorporating Risk Into the Decision-making Process 36
Decision-making Under Uncertainty 46
Summary 48
References 48
Exercises 49

# Chapter 3. Classical Optimization Techniques 52

Glossary of New Terms 52
Types of Optimization Techniques 52
Marginal Analysis 55
Differential Calculus 57
Lagrange Multiplier Techniques 69
Summary 72
References 72
Exercises 73

#### Chapter 4. Linear Programming 76

Glossary of New Terms 76
A Profit-Maximization Problem 76
The Dual Problem and Interpretation of the Dual Variables 83
A Cost-Minimization Problem 85
Additional Linear-Programming Examples 88
Summary 92
References 93
Exercise 93

### Chapter 5. Econometrics 98

Glossary of New Terms 98
Bivariate Linear Regression Model 99
Multivariate Linear Regression Model 114
Problems in Applying the Linear Regression Model 117
Nonlinear Regression Models 123
Summary 126
References 126
Exercises 126

### PART III DEMAND AND FORECASTING 133

### Chapter 6. Theory of Demand 134

The Demand Schedule and the Demand Curve 135
The Demand Function and Shifts in the Demand Curve 139
Other Factors Affecting Demand 141

Other Factors Affecting Demand 141
Price Elasticity of Demand 142

Interpreting the Elasticity Measure 146

Importance of Elasticity—Revenue Relationships 150

Empirical Price Elasticities 152

Glossary of New Terms 134

Factors Affecting the Price Elasticity of Demand 152

Income Elasticity of Demand 154

The Combined Effect of Price and Income Elasticities 156

Cross Elasticity of Demand 157

Price, Income, and Cross Elasticities: An Empirical Example 158

Other Elasticity Measures 159

Computing Partial Elasticities 160
Individual, Firm, and Market Demand Curves 161
Summary 165
References 166
Exercises 166
APPENDIX 6A. INDIFFERENCE CURVE ANALYSIS OF DEMAND 171
Indifference Curves Defined 171
Deriving the Demand Function 171
Income and Substitution Effects 173
Exercise 175

# Chapter 7. Business and Economic Forecasting 176

Glossary of New Terms 176 Significance of Forecasting 176 Selection of a Forecasting Technique 177 Naive Forecasting Techniques 179 Smoothing Techniques 184 Box-Jenkins Forecasting Techniques 188 Barometric Techniques 190 Survey and Opinion-polling Techniques 193 Econometric Methods 196 Summary 201 References 202 Exercises 203 APPENDIX 7A. DOUBLE EXPONENTIAL SMOOTHING MODELS 208 The Model 208 An Illustration 209 Exercise 210

### Chapter 8. Empirical Estimation of Demand 212

Glossary of New Terms 212
Approaches to Gathering Data 212
Statistical Estimation of the Demand Function 216
Empirical Demand Analysis—Some Applications 222
Summary 230
References 230
Exercises 231
CASE PROBLEM 235

### Chapter 9. Forecasting: Additional Topics 238

Glossary of New Terms 238
Forecasting with Input-Output Analysis 238
Technological Forecasting 246
Summary 251
References 252
Exercises 253

PART IV PRODUCTION AND COST 257

### Chapter 10. Theory of Production 258

Glossary of New Terms 258
The Production Function 260

Production Functions with One Variable Input 263

Determining the Optimal Use of the Variable Input 269

Production Functions with Two Variable Inputs 270

Determining the Optimal Combination of Inputs 277

Returns to Scale 283

Summary 287

References 288

Exercises 288

APPENDIX 10A. PRODUCTION AND LINEAR PROGRAMMING 292

Algebraic Formulation of the Output-Maximization Problem 292

Graphical Representation and Solution of the Output-Maximization

Problem 293

Profit-Maximization Problem 296

Exercise 298

### Chapter 11. Theory of Cost 300

Glossary of New Terms 300

The Meaning and Measurement of Cost 300

Short-Run Cost Functions 304

Long-Run Cost Functions 312

Economies and Diseconomies of Scale 313

Summary 317

References 317

Exercises 318

CASE PROBLEM 321

APPENDIX 11A. THE LEARNING CURVE 323

Learning Curve Relationship 323

Estimating the Learning Curve Parameters 325

The Percentage of Learning 326

Uses of the Learning Curve 326

Exercise 327

APPENDIX 11B. BREAKEVEN ANALYSIS: AN APPLICATION

OF COST THEORY 328

Linear Breakeven Analysis 329

Exercises 335

# Chapter 12. Empirical Determination of Production and Cost Functions 336

Glossary of New Terms 336

Statistical Estimation of Production Functions 336

Cobb-Douglas Production Functions 340

Some Empirical Studies of the Cobb-Douglas Production Function 344

Estimation of Cost Functions 345

Short-Run Cost Functions 346

Long-Run Cost Functions 353

Summary 358

References 358 Exercises 359

#### PART V PRICING 363

# Chapter 13. Price and Output Determination: Pure Competition, Monopolistic Competition, and Monopoly 364

Pure Competition 364
Market Price Determination 368
Pure Monopoly 371
Monopolistic Competition 374
Selling and Promotional Expenses 376
Summary 380
References 380
Exercises 380

# Chapter 14. Price and Output Determination: Oligopoly 386

Glossary of New Terms 386 Ignoring Interdependencies 387 Cartels and Other Forms of Collusion 390 Price Leadership 393 The Kinked Demand Curve Model 395 Game Theory Approach 397 Baumol's Revenue Maximization Model 398 Summary 401 References 402 Exercises 402 THEORY OF GAMES 406 APPENDIX 14A. Two-Person Zero-Sum Games 406 Two-Person Nonzero-Sum Games 410 n-Person Games 413 Exercises 414

### Chapter 15. Further Topics in Pricing 418

Glossary of New Terms 418
Pricing for the Multiproduct Firm 419
Joint Products 421
Price Discrimination 423
Mathematics of Price Discrimination 428
Transfer Pricing 431
Pricing in Practice 437
Full-Cost Pricing Versus Marginal Analysis 439
Incrementalism: Marginalism in Practice 440
Summary 442
References 442
Exercises 443
CASE PROBLEM 446

### PART VI LONG-TERM INVESTMENT DECISIONS 449

### Chapter 16. Capital Budgeting and the Cost of Capital 450

Glossary of New Terms 450

The Nature of Capital Expenditure Decisions 450

Some Basic Definitions 451

A Basic Framework for Capital Budgeting 452

The Capital-Expenditure Selection Process 453

Capital Budgeting and Risk 459

Estimating the Firm's Cost of Capital 460

Determining the Optimal Capital Budget and the Marginal Cost of Capital 466

Summary 468

References 469

Exercises 470

CASE PROBLEM 472

### Chapter 17. Cost-Benefit Analysis and Public Sector Management 474

Glossary of New Terms 474

Public Involvement in the Economy: A Rationale 476

Introduction to Cost-Benefit Analysis 480

Uses of Cost-Benefit Analysis 480

Steps in Cost-Benefit Analysis 483

Objectives and Constraints in Cost-Benefit Analysis 484

Analysis and Valuation of Benefits and Costs 486

Investment Evaluation Models 489

The Social Rate of Discount 490

Cost-Benefit Analysis: A Critique 493

Cost-Benefit Analysis: Some Examples 494

Cost-Effectiveness Analysis 498

Summary 500

References 501

Exercises 502

CASE PROBLEM 507

### PART VII REGULATION OF PRIVATE ENTERPRISE 511

# Chapter 18. Market Structure, Conduct, and Performance 512

Glossary of New Terms 512

Market Performance 513

Market Conduct 515

Market Structure 516

Market and Environmental Conditions 516

Aggregate Concentration in the U.S. Economy 517

Economic Motivations for Growth and Diversification 521

Market Concentration 524

Condition of Entry 526

Market Power and Performance 528

Summary 533 References 534 Exercises 535

## Chapter 19. Government Regulation and Support of Private Business 538

Glossary of New Terms 538
Policies to Support Business by Restricting Competition 539
Government Policies of Subsidy and Promotion 544
A Comprehensive Example: The U.S. Maritime Industry 545
Operating Controls: An Economic Analysis 549
Government Policies to Protect and Inform Consumers 554
Antitrust: Government Regulation of Market Conduct and Structure 557
Evaluation of Antitrust Cases 560
The Deregulation Movement 562
Summary 563
References 564
Exercises 564
CASE PROBLEM 568

# Chapter 20. The Problem of Economic Externalities 576

Glossary of New Terms 576
Externalities 576
Production Externalities: Economies and Diseconomies 579
Consumption Externalities 580
Pecuniary or Secondary Price Effects 581
Economic Externalities and Resource Allocation 581
The Reciprocal Nature of Externalities 585
Possible Solutions to the Externalities Problem 585
An Example: Externalities and Urban Renewal 589
A Further Example: Highway Congestion 591
Summary 592
References 593
Exercises 593

### Chapter 21. Public Utility Regulation 596

Glossary of New Terms 596
The Regulated Sector of the Economy 598
The Economic Rationale for Regulation 599
The Regulatory Process 603
Special Issues in Utility Regulation 608
Criticism of Regulatory Performance 614
Summary 617
References 617
Exercises 617