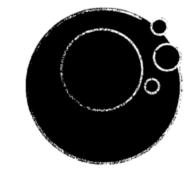
BRIEF CONTENTS



PART ONE

Introduction: Markets and Prices 23

- **1** Preliminaries 25
- 2 The Basics of Supply and Demand 43

PART TWO

Producers, Consumers, and Competitive Markets 87

- **3** Consumer Behavior 89
- 4 Individual and Market Demand 131
- **5** Uncertainty and Consumer Behavior 179
- **6** Production 209
- **7** The Cost of Production 237
- **8** Profit Maximization and Competitive Supply 289
- **9** The Analysis of Competitive Markets 327

PART THREE

Market Structure and Competitive Strategy 367

- **10** Market Power: Monopoly and Monopsony 369
- 11 Pricing with Market Power 413
- **12** Monopolistic Competition and Oligopoly 465
- **13** Game Theory and Competitive Strategy 501
- 14 Markets for Factor Inputs 543
- 15 Investment, Time, and Capital Markets 573

PART FOUR

Information, Market Failure, and the Role of Government 607

- **16** General Equilibrium and Economic Efficiency 609
- 17 Markets with Asymmetric Information 645
- **18** Externalities and Public Goods 675
- **19** Behavioral Economics 713

Appendix: The Basics of Regression 735

Glossary 743

Answers to Selected Exercises 753

Photo Credits 768

Index 769

CONTENTS



Preface 15

PART ONE	PA	RT	O	NE
----------	----	----	---	----

Introduction: Markets and Prices 23

1 Preliminaries 25

- The Themes of Microeconomics 26
 Trade-Offs 26
 Prices and Markets 27
 Theories and Models 27
 Positive versus Normative Analysis 28
- 1.2 What Is a Market? 29
 Competitive versus Noncompetitive Markets 30
 Market Price 30
 Market Definition—The Extent of a Market 31
- 1.3 Real versus Nominal Prices 34
- 1.4 Why Study Microeconomics? 39
 Corporate Decision Making: The Toyota
 Prius 39
 Public Policy Design: Fuel Efficiency Standards for

the Twenty-First Century 40

Summary 41

Questions for Review 41

Exercises 42

2 The Basics of Supply and Demand 43

- 2.1 Supply and Demand 44

 The Supply Curve 44

 The Demand Curve 45
- 2.2 The Market Mechanism 47
- 2.3 Changes in Market Equilibrium 48
- 2.4 Elasticities of Supply and Demand 55

 Point versus Arc Elasticities 58
- 2.5 Short-Run versus Long-Run Elasticities 62Demand 62Supply 67
- *2.6 Understanding and Predicting the Effects of Changing Market Conditions 71

2.7 Effects of Government Intervention—Price Controls 80
 Summary 83
 Questions for Review 83
 Exercises 84

PART TWO

Producers, Consumers, and Competitive Markets 87

3 Consumer Behavior 89

Consumer Behavior 89
3.1 Consumer Preferences 91

Market Baskets 91
Some Basic Assumptions about Preferences 92
Indifference Curves 93
Indifference Maps 94
The Shape of Indifference Curves 95
The Marginal Rate of Substitution 96
Perfect Substitutes and Perfect Complements 98

3.2 Budget Constraints 104

The Budget Line 104

The Effects of Changes in Income and Prices 106

3.3 Consumer Choice 108 Corner Solutions 111

- 3.4 Revealed Preference 114
- 3.5 Marginal Utility and Consumer Choice 117 *Rationing* 120
- *3.6 Cost-of-Living Indexes 122
 Ideal Cost-of-Living Index 123
 Laspeyres Index 124
 Paasche Index 125
 Price Indexes in the United States: Chain
 Weighting 126

Summary 127 Questions for Review 128 Exercises 128



4 Individual and Market Demand 131

4.1 Individual Demand 132
Price Changes 132
The Individual Demand Curve 132
Income Changes 134
Normal versus Inferior Goods 135
Engel Curves 136
Substitutes and Complements 138

4.2 Income and Substitution Effects 139
Substitution Effect 140
Income Effect 141
A Special Case: The Giffen Good 142

4.3 Market Demand 144
From Individual to Market Demand 144
Elasticity of Demand 146
Speculative Demand 149

4.4 Consumer Surplus 152

Consumer Surplus and Demand 152

4.5 Network Externalities 155
Positive Network Externalities 155
Negative Network Externalities 157

*4.6 Empirical Estimation of Demand 159

The Statistical Approach to Demand Estimation 160

The Form of the Demand Relationship 161

Interview and Experimental Approaches to Demand

Determination 163

Summary 164 Questions for Review 164 Exercises 165

5 Uncertainty and Consumer Behavior 179

5.1 Describing Risk 180
Probability 180
Expected Value 181
Variability 181
Decision Making 183

5.2 Preferences Toward Risk 185.

Different Preferences Toward Risk 186

5.3 Reducing Risk 190
Diversification 190
Insurance 191
The Value of Information 194

*5.4 The Demand for Risky Assets 196
Assets 196
Risky and Riskless Assets 197
Asset Returns 197

The Trade-Off Between Risk and Return 199
The Investor's Choice Problem 200

Summary 205 Questions for Review 205 Exercises 205

6 Production 209

The Production Decisions of a Firm 209
6.1 Firms and Their Production Decisions 210
Why Do Firms Exist? 211
The Technology of Production 212
The Production Function 212
The Short Run versus the Long Run 213

6.2 Production with One Variable Input (Labor) 214

Average and Marginal Products 214

The Slopes of the Product Curve 215

The Average Product of Labor Curve 217

The Marginal Product of Labor Curve 217

The Law of Diminishing Marginal Returns 218

Labor Productivity 222

6.3 Production with Two Variable Inputs 224
Isoquants 224
Input Flexibility 226
Diminishing Marginal Returns 226
Substitution Among Inputs 226
Production Functions—Two Special Cases 228

6.4 Returns to Scale 231

Describing Returns to Scale 232

Summary 234 Questions for Review 234 Exercises 235

7 The Cost of Production 237

7.1 Measuring Cost: Which Costs Matter? 237

Economic Cost versus Accounting Cost 238

Opportunity Cost 238

Sunk Costs 239

Fixed Costs and Variable Costs 241

Fixed versus Sunk Costs 242

Marginal and Average Cost 244

7.2 Cost in the Short Run 245

The Determinants of Short-Run Cost 245

The Shapes of the Cost Curves 246

7.3 Cost in the Long Run 251

The User Cost of Capital 251

The Cost-Minimizing Input Choice 252

The Isocost Line 253

Choosing Inputs 253

	Cost Minimization with Varying Output Levels 25/
	The Expansion Path and Long-Run Costs 258
7.4	ů .
	The Inflexibility of Short-Run Production 261
	Long-Run Average Cost 262
	Economies and Diseconomies of Scale 263
	The Relationship between Short-Run
	and Long-Run Cost 266
7.5	Production with Two Outputs—Economies
	of Scope 267
	Product Transformation Curves 267
	Economies and Diseconomies of Scope 268
	The Degree of Economies of Scope 269
7.6	Dynamic Changes in Costs—The Learning
	Curve 270
	Graphing the Learning Curve 270
	Learning versus Economies of Scale 271
7.7	Estimating and Predicting Cost 275
	Cost Functions and the Measurement of Scale
	Economies 276
	mmary 278
Qu	estions for Review 279
Exe	ercises 280
8	Profit Maximization and
8	Profit Maximization and
	Competitive Supply 289
8	Competitive Supply 289 Perfectly Competitive Markets 289
8.1	Competitive Supply 289 Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291
	Competitive Supply 289 Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292
8.1	Competitive Supply 289 Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292
8.1 8.2	Competitive Supply 289 Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293
8.1	Competitive Supply 289 Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit
8.1 8.2	Competitive Supply 289 Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294
8.1 8.2	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive
8.1 8.2	Competitive Supply 289 Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295
8.1 8.2 8.3	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295 Profit Maximization by a Competitive Firm 297
8.1 8.2	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295 Profit Maximization by a Competitive Firm 297 Choosing Output in the Short Run 297
8.1 8.2 8.3	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295 Profit Maximization by a Competitive Firm 297 Choosing Output in the Short Run 297 Short-Run Profit Maximization by a Competitive
8.1 8.2 8.3	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295 Profit Maximization by a Competitive Firm 297 Choosing Output in the Short Run 297 Short-Run Profit Maximization by a Competitive Firm 297
8.1 8.2 8.3	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295 Profit Maximization by a Competitive Firm 297 Choosing Output in the Short Run 297 Short-Run Profit Maximization by a Competitive Firm 297 When Should the Firm Shut Down? 299
8.1 8.2 8.3	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295 Profit Maximization by a Competitive Firm 297 Choosing Output in the Short Run 297 Short-Run Profit Maximization by a Competitive Firm 297 When Should the Firm Shut Down? 299 The Competitive Firm's Short-Run Supply
8.1 8.2 8.3	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295 Profit Maximization by a Competitive Firm 297 Choosing Output in the Short Run 297 Short-Run Profit Maximization by a Competitive Firm 297 When Should the Firm Shut Down? 299 The Competitive Firm's Short-Run Supply Curve 302
8.1 8.2 8.3 8.4	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295 Profit Maximization by a Competitive Firm 297 Choosing Output in the Short Run 297 Short-Run Profit Maximization by a Competitive Firm 297 When Should the Firm Shut Down? 299 The Competitive Firm's Short-Run Supply Curve 302 The Firm's Response to an Input Price Change 303
8.1 8.2 8.3	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295 Profit Maximization by a Competitive Firm 297 Choosing Output in the Short Run 297 Short-Run Profit Maximization by a Competitive Firm 297 When Should the Firm Shut Down? 299 The Competitive Firm's Short-Run Supply Curve 302 The Firm's Response to an Input Price Change 303 The Short-Run Market Supply Curve 305
8.1 8.2 8.3 8.4	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295 Profit Maximization by a Competitive Firm 297 Choosing Output in the Short Run 297 Short-Run Profit Maximization by a Competitive Firm 297 When Should the Firm Shut Down? 299 The Competitive Firm's Short-Run Supply Curve 302 The Firm's Response to an Input Price Change 303 The Short-Run Market Supply Curve 305 Elasticity of Market Supply 306
8.1 8.2 8.3 8.4	Perfectly Competitive Markets 289 When Is a Market Highly Competitive? 291 Profit Maximization 292 Do Firms Maximize Profit? 292 Alternative Forms of Organization 293 Marginal Revenue, Marginal Cost, and Profit Maximization 294 Demand and Marginal Revenue for a Competitive Firm 295 Profit Maximization by a Competitive Firm 297 Choosing Output in the Short Run 297 Short-Run Profit Maximization by a Competitive Firm 297 When Should the Firm Shut Down? 299 The Competitive Firm's Short-Run Supply Curve 302 The Firm's Response to an Input Price Change 303 The Short-Run Market Supply Curve 305

Long-Run Profit Maximization 310

Long-Kun Competitive Equilibrium 311	
Economic Rent 314	
Producer Surplus in the Long Run 315	
8.8 The Industry's Long-Run Supply Curve	316
Constant-Cost Industry 317	
Increasing-Cost Industry 318	
Decreasing-Cost Industry 319	
The Effects of a Tax 320	
Long-Run Elasticity of Supply 321	
Summary 324	
Questions for Review 324	

Commetition Possible

9 The Analysis of Competitive Markets 327

9.1 Evaluating the Gains and Losses from
 Government Policies—Consumer and Producer
 Surplus 327
 Review of Consumer and Producer Surplus 328
 Application of Consumer and Producer
 Surplus 329

- 9.2 The Efficiency of a Competitive Market 333
- 9.3 Minimum Prices 338

Exercises 325

- 9.4 Price Supports and Production Quotas 342
 Price Supports 342
 Production Quotas 344
- 9.5 Import Quotas and Tariffs 351
- 9.6 The Impact of a Tax or Subsidy 355 The Effects of a Subsidy 359

Summary 362 Questions for Review 362 Exercises 363

PART THREE

Market Structure and Competitive Strategy 367

10 Market Power: Monopoly and Monopsony 369

10.1 Monopoly 370

Average Revenue and Marginal Revenue 370

The Monopolist's Output Decision 371

An Example 373

A Rule of Thumb for Pricing 375

Shifts in Demand 377

The Effect of a Tax 378

*The Multiplant Firm 379

	12 CONTENTS
10.2	Monopoly Power 380 Production, Price, and Monopoly Power 383
	Measuring Monopoly Power 383
	The Rule of Thumb for Pricing 384
10.3	Sources of Monopoly Power 387
	The Elasticity of Market Demand 388
	The Number of Firms 388
	The Interaction Among Firms 389
10.4	The Social Costs of Monopoly Power 389
	Rent Seeking 390
	Price Regulation 391
	Natural Monopoly 392
	Regulation in Practice 393
10.5	1 ,
	Monopsony and Monopoly Compared 397
10.6	Monopsony Power 398
	Sources of Monopsony Power 398
	The Social Costs of Monopsony Power 399
-	Bilateral Monopoly 400
10.7	Limiting Market Power: The Antitrust Laws 401
	Restricting What Firms Can Do 402
	Enforcement of the Antitrust Laws 404
	Antitrust in Europe 404
	mmary 408 estions for Review 409
_	ercises 409
LXC	icises 409
11	Pricing with Market Power 413
11.1	Capturing Consumer Surplus 414
11.2	Price Discrimination 415
	First-Degree Price Discrimination 415
	Second-Degree Price Discrimination 418
	Third-Degree Price Discrimination 418
11.3	
	and Peak-Load Pricing 424
	Intertemporal Price Discrimination 425
	Peak-Load Pricing 426
	The Two-Part Tariff 428
*11.5	Bundling 433
	Relative Valuations 434
	Mixed Bundling 436
	Bundling in Practice 440
444 -	Tying 443
*11.6	0
	A Rule of Thumb for Advertising 445
	mmary 448 lestions for Review 448
Qι	restrons for ivenien 440

Exercises 449

12 Monopolistic Competition and Oligopoly 465

- 12.1 Monopolistic Competition 466

 The Makings of Monopolistic Competition 466

 Equilibrium in the Short Run and the Long Run 467

 Monopolistic Competition and Economic

 Efficiency 468
- 12.2 Oligopoly 470

 Equilibrium in an Oligopolistic Market 471

 The Cournot Model 472

 The Linear Demand Curve—An Example 475

 First Mover Advantage—The Stackelberg Model 477
- 12.3 Price Competition 478

 Price Competition with Homogeneous Products—
 The Bertrand Model 478

 Price Competition with Differentiated Products 479
- 12.4 Competition versus Collusion: The Prisoners' Dilemma 483
- 12.5 Implications of the Prisoners' Dilemma for Oligopolistic Pricing 486

 Price Rigidity 486

 Price Signaling and Price Leadership 487

 The Dominant Firm Model 490
- 12.6 Cartels 491

 Analysis of Cartel Pricing 492

 Summary 496

Questions for Review 497 Exercises 497

13 Game Theory and Competitive Strategy 501

- 13.1 Gaming and Strategic Decisions 501

 Noncooperative versus Cooperative Games 502
- 13.2 Dominant Strategies 504
- 13.3 The Nash Equilibrium Revisited 506

 Maximin Strategies 508

 *Mixed Strategies 510
- 13.4 Repeated Games 512
- 13.5 Sequential Games 517

 The Extensive Form of a Game 517

 The Advantage of Moving First 518
- 13.6 Threats, Commitments, and Credibility 519
 Empty Threats 520
 Commitment and Credibility 520
 Bargaining Strategy 522
- 13.7 Entry Deterrence 524
 Strategic Trade Policy and International
 Competition 527

13.8	Auctions 530		Diversifiable versus Nondiversifiable Risk 588
	Auction Formats 531		The Capital Asset Pricing Model 589
	Valuation and Information 531	15.6	Investment Decisions by Consumers 592
	Private-Value Auctions 532	15.7	Investments in Human Capital 594
	Common-Value Auctions 533	*15.8	Intertemporal Production Decisions—Depletable
	Maximizing Auction Revenue 535		Resources 598
C	Bidding and Collusion 535		The Production Decision of an Individual Resource Producer 598
	mmary 538		
	estions for Review 538		The Behavior of Market Price 599 User Cost 599
Exe	ercises 539		Resource Production by a Monopolist 600
44	Marilanta (an Eastan Israela - E42	15.0	How Are Interest Rates Determined? 602
14	Markets for Factor Inputs 543	15.9	A Variety of Interest Rates 603
14.1	Competitive Factor Markets 543	S	mmary 604
	Demand for a Factor Input When Only One Input Is	1	nimary 604 destions for Review 605
	Variable 544		ercises 605
	Demand for a Factor Input When Several Inputs Are Variable 547	LA	cicises dos
	The Market Demand Curve 548	PART	FOUR
	The Supply of Inputs to a Firm 551	Infor	mation, Market Failure, and the
	The Market Supply of Inputs 553		of Government 607
14.2	Equilibrium in a Competitive Factor Market 556	Koic	or government our
	Economic Rent 556	16	General Equilibrium and
14.3	Factor Markets with Monopsony power 560		Economic Efficiency 609
	Monopsony Power: Marginal and Average	16.1	General Equilibrium Analysis 609
	Expenditure 560	10.1	Two Interdependent Markets—Moving to General
	Purchasing Decisions with Monopsony Power 561		Equilibrium 610
	Bargaining Power 562		Reaching General Equilibrium 611
14.4	Factor Markets with Monopoly Power 564		Economic Efficiency 615
	Monopoly Power over the Wage Rate 564	16.2	Efficiency in Exchange 616
	Unionized and Nonunionized Workers 566		The Advantages of Trade 617
	mmary 569		The Edgeworth Box Diagram 617
	estions for Review 569		Efficient Allocations 618
EX	ercises 570		The Contract Curve 620
15	Investment Time and Capital		Consumer Equilibrium in a Competitive Market 621
13	Investment, Time, and Capital		The Economic Efficiency of Competitive Markets 623
	Markets 573	16.3	Equity and Efficiency 624
15.1	Stocks versus Flows 574		The Utility Possibilities Frontier 624
15.2	Present Discounted Value 575		Equity and Perfect Competition 626
	Valuing Payment Streams 576	16.4	Efficiency in Production 627
15.3	The Value of a Bond 578		Input Efficiency 627
	Perpetuities 579		The Production Possibilities Frontier 628
	The Effective Yield on a Bond 580		Output Efficiency 629
15.4	The Net Present Value Criterion for Capital		Efficiency in Output Markets 631
	Investment Decisions 583	16.5	
	The Electric Motor Factory 584		Comparative Advantage 632
	Real versus Nominal Discount Rates 585		An Expanded Production Possibilities Frontier 633
16.5	Negative Future Cash Flows 586	16.6	An Overview—The Efficiency of Competitive
15.5	Adjustments for Risk 587	I	Markets 637

)6		
		14 CONTENTS
	16.7	Why Markets Fail 638 Market Power 639 Incomplete Information 639 Externalities 639 Public Goods 640
	Su	nmary 641
	_	estions for Review 641
	Exe	ercises 642
	17	Markets with Asymmetric
		Information 645
	17.1	Quality Uncertainty and the Market for Lemons 646
		The Market for Used Cars 646
		Implications of Asymmetric Information 648
		The Importance of Reputation and
		Standardization 649
	17.2	Market Signaling 653
		A Simple Model of Job Market Signaling 654
		Guarantees and Warranties 656
	17.3	Moral Hazard 658
	17.4	The Principal-Agent Problem 660
		The Principal–Agent Problem in Private
		Enterprises 660
		The Principal–Agent Problem in Public
		Enterprises 663
		Incentives in the Principal-Agent Framework 664
*	17.5	Managerial Incentives in an Integrated
		Firm 666
		Asymmetric Information and Incentive Design in the
		Integrated Firm 666
		Applications 668
	17.6	Asymmetric Information in Labor Markets:
		Efficiency Wage Theory 669

Summary 671

Ouestions for Review 672 Exercises 672

18 Externalities and Public Goods 675

18.1 Externalities 675 Negative Externalities and Inefficiency 676 Positive Externalities and Inefficiency 678 18.2 Ways of Correcting Market Failure 681

An Emissions Standard 682	
An Emissions Fee 682	
Standards versus Fees 683	
Tradeable Emissions Permits	686
Recycling 689	

18.3 Stock Externalities 693 Stock Buildup and Its Impact 694

18.4 Externalities and Property Rights 699 Property Rights 699 Bargaining and Economic Efficiency 700 Costly Bargaining—The Role of Strategic Behavior 701

A Legal Solution—Suing for Damages 701

18.5 Common Property Resources 703

18.6 Public Goods 705 Efficiency and Public Goods 706 Public Goods and Market Failure 708

Summary 709 Questions for Review 710 Exercises 711

19 Behavioral Economics

19.1 Reference Points and Consumer Preferences 714

19.2 Fairness 718

19.3 Rules of Thumb and Biases in Decision Making 719

19.4 Bubbles 726 Informational Cascades 728

19.5 Behavioral Economics and Public Policy 731 Summing Up 733

Summary 733 Questions for Review 734 Exercises 734

Appendix: The Basics of Regression 735

Glossary 743

Answers to Selected Exercises 753

Photo Credits 768

Index 769