

ECONOMICS

Principles and Policy

William J. Baumol

New York University and Princeton University

Alan S. Blinder

Princeton University

LIECHTENSTEIN
Bibliothek

THOMSON

SOUTH · WESTERN

Australia • Brazil • Canada • Mexico • Singapore • Spain • United Kingdom • United States

BRIEF CONTENTS

PART GETTING ACQUAINTED WITH ECONOMICS

- CHAPTER 1 WHAT IS ECONOMICS? 3
- CHAPTER 2 THE ECONOMY: MYTH AND REALITY 21
- CHAPTER 3 THE FUNDAMENTAL ECONOMIC PROBLEM:
SCARCITY AND CHOICE 37
- CHAPTER 4 SUPPLY AND DEMAND: AN INITIAL LOOK 53

PART II THE BUILDING BLOCKS OF DEMAND AND SUPPLY

- CHAPTER 5 CONSUMER CHOICE:
INDIVIDUAL AND MARKET DEMAND 79
- CHAPTER 6 DEMAND AND ELASTICITY 103
- CHAPTER 7 PRODUCTION, INPUTS, AND COST:
BUILDING BLOCKS FOR SUPPLY ANALYSIS 123
- CHAPTER 8 OUTPUT, PRICE, AND PROFIT:
THE IMPORTANCE OF MARGINAL ANALYSIS 151
- CHAPTER 9 INVESTING IN BUSINESS: STOCKS AND BONDS 173

PART MARKETS AND THE PRICE SYSTEM

- CHAPTER 10 THE FIRM AND THE INDUSTRY
UNDER PERFECT COMPETITION 195
- CHAPTER 11 MONOPOLY 213
- CHAPTER 12 BETWEEN COMPETITION AND MONOPOLY 231
- CHAPTER 13 LIMITING MARKET POWER:
REGULATION AND ANTITRUST 259

PART IV THE VIRTUES AND LIMITATIONS OF MARKETS

- CHAPTER 14 THE CASE FOR FREE MARKETS I: THE PRICE SYSTEM 283
- CHAPTER 15 THE SHORTCOMINGS OF FREE MARKETS 307
- CHAPTER 16 THE CASE FOR FREE MARKETS II: INNOVATION AND GROWTH 331
- CHAPTER 17 EXTERNALITIES, THE ENVIRONMENT, AND NATURAL RESOURCES 353
- CHAPTER 18 TAXATION AND RESOURCE ALLOCATION 375

PART V THE DISTRIBUTION OF INCOME

- CHAPTER 19 PRICING THE FACTORS OF PRODUCTION 395
- CHAPTER 20 LABOR: THE HUMAN INPUT 417
- CHAPTER 21 POVERTY, INEQUALITY, AND DISCRIMINATION 441

PART VI THE MACROECONOMY: AGGREGATE SUPPLY AND DEMAND

CHAPTER 22 AN INTRODUCTION TO MACROECONOMICS 463
CHAPTER 23 THE GOALS OF MACROECONOMIC POLICY 483
CHAPTER 24 ECONOMIC GROWTH: THEORY AND POLICY 509
CHAPTER 25 AGGREGATE DEMAND AND THE POWERFUL CONSUMER 529
CHAPTER 26 DEMAND-SIDE EQUILIBRIUM: UNEMPLOYMENT OR INFLATION? 551
CHAPTER 27 SUPPLY-SIDE EQUILIBRIUM: UNEMPLOYMENT AND INFLATION? 575

PART VII FISCAL AND MONETARY POLICY

CHAPTER 28 MANAGING AGGREGATE DEMAND: FISCAL POLICY 595
CHAPTER 29 MONEY AND THE BANKING SYSTEM 615
CHAPTER 30 MANAGING AGGREGATE DEMAND: MONETARY POLICY 635
CHAPTER 31 THE DEBATE OVER MONETARY AND FISCAL POLICY 651
CHAPTER 32 BUDGET DEFICITS IN THE SHORT AND LONG RUN 673
CHAPTER 33 THE TRADE-OFF BETWEEN INFLATION AND UNEMPLOYMENT 691

PART VIII THE UNITED STATES IN THE WORLD ECONOMY

CHAPTER 34 INTERNATIONAL TRADE AND COMPARATIVE ADVANTAGE 711
CHAPTER 35 THE INTERNATIONAL MONETARY SYSTEM:
ORDER OR DISORDER? 733
CHAPTER 36 EXCHANGE RATES AND THE MACROECONOMY 751

TABLE OF CONTEKTS

Preface xx_ix

PART GETTING ACQUAINTED WITH ECONOMICS 1

CHAPTER1 WHAT IS ECONOMICS? 3

IDEAS FOR BEYOND THE FINAL EXAM 4

- Idea 1: How Much Does It Really Cost? 4
- Idea 2: Attempts to Repeal the Laws of Supply and Demand—The Market Strikes Hack 5
- Idea 3: The Surprising Principle of Comparative Advantage 5
- Idea 4: Trade is a Win-Win Situation 5
- Idea 5: The Importance of Thinking at the Margin 6
- Idea 6: Externalities—A Shortcoming of the Market Cured by Market Methods 6
- Idea 7: The Trade-Off between Efficiency and Equality 6
- Idea 8: Government Policies Can Limit Economic Fluctuations—But Don't Always Succeed 7
- Idea 9: The Short-Run Trade-Off between Inflation and Unemployment 7
- Idea 10: Productivity Growth Is (Almost) Everytiing in the Long Run 8
- Epilogue 8

INSIDE THE ECONOMIST'S TOOL KIT 8

- Economics as a Discipline 8
- The Need for Abstraction 8
- The Role of Economic Theory 11
- What Is an Economic Model? 11
- Reasons for Disagreements: Imperfect Information and Value Judgments 12

Summary 13

Key Terms 13

Discussion Questions 13

APPENDIX: USING GRAPHS: A REVIEW 14

GRAPHS USED IN ECONOMIC ANALYSIS 14

TWO-VARIABLE DIAGRAMS 14

THE DEFINITION AND MEASUREMENT OF SLOPE 15

RAYS THROUGH THE ORIGIN AND 45° LINES 16

SQUEEZING THREE DIMENSIONS INTO TWO: CONTOUR MAPS 17

Summary 18

Key Terms 18

Test Yourself 19

CHAPTER2 THE ECONOMY: MYTH AND REALITY 21

THE AMERICAN ECONOMY: A THUMBNAIL SKETCH 22

- A Private-Enterprise Economy 23
- A Relatively "Closed" Economy 23
- A Growing Economy ... 24
- But with Bumps along the Growth Path 24

THE INPUTS: LABOR AND CAPITAL 25

- The American Workforce: Who Is in It? 25
- The American Workforce: What Does It Do? 27
- The American Workforce: What It Earns 29
- Capital and Its Earnings 29

THE OUTPUTS: WHAT DOES AMERICA PRODUCE? 30

THE CENTRAL ROLE OF BUSINESS FIRMS 30

WHAT'S MISSING FROM THE PICTURE? GOVERNMENT 31

- The Government as Referee 32
- The Government as Business Regulator 32
- Government Expenditures 33
- Taxes in America 33
- The Government as Redistributor 34

CONCLUSION: IT'S A MIXED ECONOMY 35

- Summary 35
- Key Terms 35
- Discussion Questions 35

CHAPTER3 THE FUNDAMENTAL ECONOMIC PROBLEM: SCARCITY AND CHOICE 37

ISSUE: What to Do about the Budget Deficit? 38

SCARCITY, CHOICE, AND OPPORTUNITY COST 38

- Opportunity Cost and Money Cost 39
- Optimal* Choice: Notjust.4ff>' Choice 40

SCARCITY AND CHOICE FOR A SINGLE FIRM 40

- The Production Possibilities Frontier 41
- The Principle of Increasing Costs 42

SCARCITY AND CHOICE FOR THE ENTIRE SOCIETY 43

- Scarcity and Choice Elsewhere in the Economy 43

ISSUE REVISITED: Coping with the Budget Deficit 44

THE CONCEPT OF EFFICIENCY 45

THE THREE COORDINATION TASKS OF ANY ECONOMY 46

SPECIALIZATION FOSTERS EFFICIENT RESOURCE ALLOCATION 46

- The Wonders of the Division of Labor 46
- The Amazing Principle of Comparative Advantage 47

SPECIALIZATION LEADS TO EXCHANGE 48

MARKETS, PRICES, AND THE THREE COORDINATION TASKS 48

LAST WORD: DON'T CONFUSE ENDS WITH MEANS 50

- Summary 50
- Key Terms 51
- Test Yourself 51
- Discussion Questions 51

CHAPTER4 SUPPLY AND DEMAND: AN INITIAL LOOK 53

PUZZLE: What Happened to Oil Prices? 54

THE INVISIBLE HAND 54

DEMAND AND QUANTITY DEMANDED 55

- The Demand Schedule 56
- The Demand Curve 56
- Shifts of the Demand Curve 56

SUPPLY AND QUANTITY SUPPLIED 59

- The Supply Schedule and the Supply Curve 59
- Shifts of the Supply Curve 60

SUPPLY AND DEMAND EQUILIBRIUM 62

- The Law of Supply and Demand 64

EFFECTS OF DEMAND SHIFTS ON SUPPLY-DEMAND EQUILIBRIUM 64

SUPPLY SHIFTS AND SUPPLY-DEMAND EQUILIBRIUM 65

Those Leaping Oil Prices: PUZZLE RESOLVED 66

- Application: Who Really Pays that tax? 67

BATTLING THE INVISIBLE HAND: THE MARKET FIGHTS BACK 68

- Restraining the Market Mechanism: Price Ceilings 68
- Case Study: Rent Controls in New York City 70
- Restraining the Market Mechanism: Price Floors 71

Case Study: Farm Price Supports and the Case of Sugar Prices	71
A Can of Worms	72
A SIMPLE BUT POWERFUL LESSON	74
Summary	74
Key Terms	74
Test Yourself	75
Discussion Questions	76
• PART II THE BUILDING BLOCKS OF DEMAND AND SUPPLY	77
CHAPTER 5 CONSUMER CHOICE: INDIVIDUAL AND MARKET DEMAND	79
PUZZLE: Why Shouldn't Water Be Worth More Than Diamonds?	80
SCARCITY AND DEMAND	80
UTILITY: A TOOL TO ANALYZE PURCHASE DECISIONS	81
The Purpose of Utility Analysis: Analyzing How People <i>Behave</i> , Not What They <i>Think</i>	81
Total Versus Marginal Utility	82
The "Law" of Diminishing Marginal Utility	82
Using Marginal Utility: The Optimal Purchase Rule	84
From Diminishing Marginal Utility to Downward-Sloping Demand Curves	86
CONSUMER CHOICE AS A TRADE-OFF: OPPORTUNITY COST	88
Consumer's Surplus: The Net Gain from a Purchase	88
Resolving the Diamond-Water Puzzle	90
Income and Quantity Demanded	91
FROM INDIVIDUAL DEMAND CURVES TO MARKET DEMAND CURVES	91
Market Demand as a Horizontal Sum	91
The "Law" of Demand	92
Exceptions to the "Law" of Demand	93
Summary	93
Key Terms	94
Test Yourself	94
Discussion Questions	94
APPENDIX: ANALYZING CONSUMER CHOICE GRAPHICALLY: INDIFFERENCE CURVES	95
GEOMETRY OF AVAILABLE CHOICES: THE BUDGET LINE	95
Properties of the Budget Line	95
Changes in the Budget Line	96
WHAT THE CUSTOMER PREFERS: PROPERTIES OF THE INDIFFERENCE CURVE	97
THE SLOPES OF INDIFFERENCE CURVES AND BUDGET LINES	98
Tangency Conditions	99
Consequences of Income Changes; Inferior Goods	100
Consequences of Price Changes: Deriving the Demand Curve	100
Summary	101
Key Terms	101
Test Yourself	102
CHAPTER 6 DEMAND AND ELASTICITY	103
ISSUE: Will Taxing Cigarettes Make Teenagers Stop Smoking?	104
ELASTICITY: THE MEASURE OF RESPONSIVENESS	104
Price Elasticity of Demand and the Shapes of Demand Curves	107
PRICE ELASTICITY OF DEMAND: ITS EFFECT ON TOTAL REVENUE AND TOTAL EXPENDITURE	109
ISSUE REVISITED: Will a Cigarette Tax Decrease Teenage Smoking Significantly?	110
WHAT DETERMINES DEMAND ELASTICITY?	111
ELASTICITY AS A GENERAL CONCEPT	112
1. Income Elasticity	112
2. Price Elasticity of Supply	113
3. Cross Elasticity of Demand	113

CHANGES IN DEMAND: MOVEMENTS ALONG THE DEMAND CURVE VERSUS SHIFTS IN THE DEMAND CURVE 114
 Demand Shifters 115

THE TIME PERIOD OF THE DEMAND CURVE AND ECONOMIC DECISION MAKING 116

REAL-WORLD APPLICATION: POLAROID VERSUS KODAK 117

IN CONCLUSION 118

Summary 118

Key Terms 119

Test Yourself 119

Discussion Questions 119

APPENDIX: HOW CAN WE FIND A LEGITIMATE DEMAND CURVE FROM HISTORICAL STATISTICS? 120
 AN ILLUSTRATION: DID THE ADVERTISING PROGRAM WORK? 121
 HOW CAN WE FIND A LEGITIMATE DEMAND CURVE FROM THE STATISTICS? 121

CHAPTER 7 PRODUCTION, INPUTS, AND COST: BUILDING BLOCKS FOR SUPPLY ANALYSIS 123

 PUZZLE: How Can We Tell If Larger Firms Are More Efficient? 124

SHORT-RUN VERSUS LONG-RUN COSTS: WHAT MAKES AN INPUT VARIABLE? 124
 The Economic Short Run Versus the Economic Long Run 125
 Fixed Costs and Variable Costs 125

PRODUCTION, INPUT CHOICE, AND COST WITH ONE VARIABLE INPUT 126
 Total, Average, and Marginal Physical Products 126
 Marginal Physical Product and the "Law" of Diminishing Marginal Returns 127
 The Optimal Quantity of an Input and Diminishing Returns 128

MULTIPLE INPUT DECISIONS: THE CHOICE OF OPTIMAL INPUT COMBINATIONS 129
 Substitutability: The Choice of Input Proportions 130
 The Marginal Rule for Optimal Input Proportions 131
 Changes in Input Prices and Optimal Input Proportions 132

COST AND ITS DEPENDENCE ON OUTPUT 133
 Input Quantities and Total, Average, and Marginal Cost Curves 133
 The Law of Diminishing Marginal Productivity and the U-Shaped Average Cost Curve 136
 The Average Cost Curve in the Short and Long Run 137

ECONOMIES OF SCALE 138
 The "Law" of Diminishing Returns and Returns to Scale 139
 Historical Costs Versus Analytical Cost Curves 140
 Resolving the Economies of Scale Puzzle 141
 Cost Minimization in Theory and Practice 142

Summary 143

Key Terms 144

Test Yourself 144

Discussion Questions 145

APPENDIX: PRODUCTION INDIFFERENCE CURVES 145
 CHARACTERISTICS OF THE PRODUCTION INDIFFERENCE CURVES, OR ISOQUANTS 145
 THE CHOICE OF INPUT COMBINATIONS 146
 COST MINIMIZATION, EXPANSION PATH, AND COST CURVES 147
 Summary 148
 Key Terms 148
 Test Yourself 149

CHAPTER 8 OUTPUT, PRICE, AND PROFIT: THE IMPORTANCE OF MARGINAL ANALYSIS 151

 PUZZLE: Can a Company Make a Profit by Selling Below its Costs? 153

PRICE AND QUANTITY: ONE DECISION, NOT TWO 153

TOTAL PROFIT: KEEP YOUR EYE ON THE GOAL 154

ECONOMIC PROFIT AND OPTIMAL DECISION MAKING 154
 Total, Average, and Marginal Revenue 155
 Total, Average, and Marginal Cost 156
 Maximization of Total Profit 157
 Profit Maximization: A Graphical Interpretation 157

MARGINAL ANALYSIS AND MAXIMIZATION OF TOTAL PROFIT 159

Marginal Revenue and Marginal Cost: Guides to Optimization 161

Finding the Optimal Price from Optimal Output 162

GENERALIZATION: THE LOGIC OF MARGINAL ANALYSIS AND MAXIMIZATION 163

Application: Fixed Cost and the Profit-Maximizing Price 164

PUZZLE RESOLVED: Using Marginal Analysis to Unravel the Case of the "Unprofitable" Calculator 165

CONCLUSION: THE FUNDAMENTAL ROLE OF MARGINAL ANALYSIS 166**THE THEORY AND REALITY: A WORD OF CAUTION 167**

Summary 167

Key Terms 168

Test Yourself 168

Discussion Questions 168

APPENDIX: THE RELATIONSHIPS AMONG TOTAL, AVERAGE, AND MARGINAL DATA 169**GRAPHICAL REPRESENTATION OF MARGINAL AND AVERAGE CURVES 170**

Test Yourself 171

CHAPTER9 INVESTING IN BUSINESS: STOCKS AND BONDS 173

PUZZLE #1: What in the World Happened to the Stock Market? 174

PUZZLE #2: The Stock Market's Unpredictability 174

CORPORATIONS AND THEIR UNIQUE CHARACTERISTICS 175**FINANCING CORPORATE ACTIVITY: STOCKS AND BONDS 176**

Plowback, or Retained Earnings 178

What Determines Stock Prices? The Role of Expected Company Earnings 179

BUYING STOCKS AND BONDS 179

Selecting a Portfolio: Diversification 180

Following a Portfolio's Performance 181

STOCK EXCHANGES AND THEIR FUNCTIONS 182

Regulation of the Stock Market 184

Stock Exchanges and Corporate Capital Needs 184

SPECULATION 186

PUZZLE #2 RESOLVED: Unpredictable Stock Prices as "Random Walks" 187

PUZZLE #1 REDUX: The Boom and Bust of the U.S. Stock Market 190

Summary 190

Key Terms 191

Test Yourself 191

Discussion Questions 191

•"PART III MARKETS AND THE PRICE SYSTEM 193**CHAPTER10 THE FIRM AND THE INDUSTRY UNDER PERFECT COMPETITION 195**

PUZZLE: Pollution Reduction Incentives That Actually Increase Pollution 196

PERFECT COMPETITION DEFINED 196**THE PERFECTLY COMPETITIVE FIRM 197**

The Firm's Demand Curve under Perfect Competition 197

Short-Run Equilibrium for the Perfectly Competitive Firm 198

Short-Run Profit: Graphic Representation 199

The Case of Short-Term Losses 200

Shutdown and Break-Even Analysis 200

The Perfectly Competitive Firm's Short-Run Supply Curve 202

THE PERFECTLY COMPETITIVE INDUSTRY 202

The Perfectly Competitive Industry's Short-Run Supply Curve 202

Industry Equilibrium in the Short Run 203

Industry and Firm Equilibrium in the Long Run 204

Zero Economic Profit; The Opportunity Cost of Capital 207

The Long-Run Industry Supply Curve 208

PERFECT COMPETITION AND ECONOMIC EFFICIENCY 209

- PUZZLE RESOLVED: Which Is Better to Cut Pollution-The Carrot or the Stick? 210
- Summary 211
- Key Terms 212
- Test Yourself 212
- Discussion Questions 212

CHAPTER 11 MONOPOLY 213

- PUZZLE: What Happened to AT&T's "Natural Monopoly" in Telephone Service? 214
- MONOPOLY DEFINED 214**
 - Sources of Monopoly: Barriers to **Entry** and Cost Advantages 215
 - Natural Monopoly 216
- THE MONOPOLIST'S SUPPLY DECISION 217**
 - Determining the Profit-Maximizing Output 218
 - Comparing Monopoly and** Perfect Competition 219
 - Monopoly Is **Likely** to Shift Demand 221
 - Monopoly Is Likely to Shift Cost **Curves** 222
- CAN ANYTHING GOOD BE SAID ABOUT MONOPOLY? 222**
 - Monopoly May Aid Innovation 222
 - Natural Monopoly: Where Single-firm Production is Cheapest 223
- PRICE DISCRIMINATION UNDER MONOPOLY 223**
 - Is Price Discrimination **Always** Undesirable? 225
 - THE PUZZLE RESOLVED: Competition in Telephone Service 225
- Summary 227
- Key Terms 228
- Test Yourself 228
- Discussion Questions 228

CHAPTER 12 BETWEEN COMPETITION AND MONOPOLY 231

- Three Puzzling Observations 232
- PUZZLE 1: Why Are There So Many Retailers? 232
- PUZZLE 2: Why Do Oligopolists Advertise More Than "More Competitive" Firms? 232
- PUZZLE 3: Why Do Oligopolists Seem to Change Their Prices So Infrequently? 232
- MONOPOLISTIC COMPETITION 232**
 - Characteristics of Monopolistic Competition 233
 - Price and Output Determination Under Monopolistic Competition 234
 - The Excess Capacity Theorem and Resource Allocation 235
 - 1st PUZZLE RESOLVED: Explaining the Abundance of Retailers 236
- OLIGOPOLY 237**
 - 2nd PUZZLE RESOLVED: Why Oligopolists Advertise but Perfectly Competitive Firms Generally Do Not 237
 - Why** Oligopolistic Behavior Is So Difficult to Analyze 238
 - A Shopping List 238
 - Sales Maximization: An Oligopoly Model with Interdependence Ignored 242
 - 3rd PUZZLE RESOLVED: The Kinked Demand Curve Model 243
 - The Game-Theory Approach 245
 - Games with Dominant Strategies 246
 - Games without Dominant Strategies 248
 - Other Strategies: The Nash Equilibrium 248
 - Zero-Sum Games 249
 - Repeated Games 249
- MONOPOLISTIC COMPETITION, OLIGOPOLY, AND PUBLIC WELFARE 251**
- A GLANCE BACKWARD: COMPARING THE FOUR MARKET FORMS 253**
- Summary 255
- Key Terms 256
- Test Yourself 256
- Discussion Questions 256

CHAPTER13	LIMITING MARKET POWER; REGULATION AND ANTITRUST	259
THE PUBLIC INTEREST ISSUE: MONOPOLY POWER VERSUS MERE SIZE		260
PART 1; REGULATION		261
WHAT IS REGULATION?		261
PUZZLE: Why Do Regulators Often Raise Prices?		262
SOME OBJECTIVES OF REGULATION		262
Control of Market Power Resulting from Economies of Scale and Scope		262
Universal Service and Rate Averaging		263
TWO KEY ISSUES THAT FACE REGULATORS		264
Setting Prices to Protect Consumers' Interests and Allow Regulated Firms to Cover Their Costs		264
Marginal versus Average Cost Pricing		264
Preventing Monopoly Profit but Keeping Incentives for Efficiency and Innovation		266
THE PROS AND CONS OF "BIGNESS"		267
Economies of Large Size		267
Required Scale for Innovation		267
DEREGULATION		268
The Effects of Deregulation		268
THE PUZZLE REVISITED: Why Regulators Often Push Prices Upward		270
PART 2: ANTITRUST LAWS AND POLICIES		271
MEASURING MARKET POWER: CONCENTRATION		272
Concentration: Definition and Measurement—The Herfindahl-Hirschman Index		272
The Evidence of Concentration in Reality		274
A CRUCIAL PROBLEM FOR ANTITRUST; THE RESEMBLANCE OF MONOPOLIZATION AND VIGOROUS COMPETITION		275
ANTICOMPETITIVE PRACTICES AND ANTITRUST		275
Predation- Pricing		275
The Microsoft Case: Bottlenecks, Bundling, and Network Externalities		276
USE OF ANTITRUST LAWS TO PREVENT COMPETITION		277
CONCLUDING OBSERVATIONS		278
Summary		279
Key Terms		280
Discussion Questions		280
• PART IV	THE VIRTUES AND LIMITATIONS OF MARKETS	281
CHAPTER14	THE CASE FOR FREE MARKETS I: THE PRICE SYSTEM	283
PUZZLE: Crossing the San Francisco-Oakland Bay Bridge: Is the Price Right?		284
EFFICIENT RESOURCE ALLOCATION AND PRICING		284
Pricing to Promote Efficiency: An Example		285
Can Price Increases Ever Serve the Public Interest?		286
SCARCITY AND THE NEED TO COORDINATE ECONOMIC DECISIONS		288
Three Coordination Tasks in the Economy		289
Input-Output Analysis: The Near Impossibility of Perfect Central Planning		292
Which Buyers and Which Sellers Get Priority?		294
HOW PERFECT COMPETITION ACHIEVES EFFICIENCY: A GRAPHIC ANALYSIS		295
HOW PERFECT COMPETITION ACHIEVES OPTIMAL OUTPUT: A MARGINAL ANALYSIS		298
The Invisible Hand at Work		300
Other Roles of Prices: Income Distribution and Fairness		300
Yet Another Free-Market Achievement: Growth versus Efficiency		302
San Francisco Bridge Pricing Revisited		302
TOWARD ASSESSMENT OF THE PRICE MECHANISM		303
Summary		304
Key Terms		304
Test Yourself		304
Discussion Questions		305

CHAPTER 15 THE SHORTCOMINGS OF FREE MARKETS	307
PUZZLE: Why Are Health-Care Costs in Canada Rising?	308
WHAT DOES THE MARKET DO POORLY?	308
EFFICIENT RESOURCE ALLOCATION: A REVIEW	308
EXTERNALITIES: GETTING THE PRICES WRONG	310
Externalities and Inefficiency	310
Externalities Are Everywhere	312
Government Policy and Externalities	313
PROVISION OF PUBLIC GOODS	314
ALLOCATION OF RESOURCES BETWEEN PRESENT AND FUTURE	315
The Role of the Interest Rate	315
How Does It Work in Practice?	316
SOME OTHER SOURCES OF MARKET FAILURE	317
Imperfect Information: "Caveat Emptor"	317
Rent Seeking	317
Moral Hazard	318
Principals, Agents, and Recent Stock Option Scandals	319
MARKET FAILURE AND GOVERNMENT FAILURE	321
THE COST DISEASE OF SOME VITAL SERVICES IN THE ECONOMY	322
Deteriorating Personal Services	322
Personal Services Are Getting Alore Expensive	323
Why Are These "In-Person" Services Costing So Much More?	324
Uneven Labor Productivity Growth in the Economy	324
A Future of More Goods but Fewer Services: Is It Inevitable?	325
Government May Make the Problem Worse	326
THE PUZZLE RESOLVED: Explaining the Rising Costs of Canadian Health Care	326
THE MARKET SYSTEM ON BALANCE	327
EPILOGUE: THE UNFORGIVING MARKET, ITS GIFT OF ABUNDANCE, AND ITS DANGEROUS FRIENDS	328
Summary	329
Key Terms	329
Test Yourself	330
Discussion Questions	330
CHAPTER 16 THE CASE FOR FREE MARKETS II: INNOVATION AND GROWTH	331
THE MARKET ECONOMY'S INCREDIBLE GROWTH RECORD	332
INNOVATION, NOT INVENTION, IS THE UNIQUE FREE-MARKET ACCOMPLISHMENT	334
THE BIG PUZZLE: What Accounts for the Free Market's Incredible Growth Record?	334
SOURCES OF FREE-MARKET INNOVATION: ROLE OF THE ENTREPRENEUR	335
Breakthrough Invention and the Entrepreneurial Finn	336
The Large Enterprises and Their Innovation "Assembly Lines"	338
The Market Economy and the Speedy Dissemination of New Technology	341
MICROECONOMIC ANALYSIS OF THE INNOVATIVE FIRM	342
Financing the Innovation "Arms Race": Firms with High R&D Costs and Low Marginal Costs	342
The Profits of Innovation	343
How Much Will a Profit-Maximizing Firm Spend on Innovation?	344
A Kinked Revenue Curve Model of Spending on Innovation	345
Innovation as a Public Good	346
Effects of Process Research on Outputs and Prices	346
DO FREE MARKETS SPEND ENOUGH ON R&D ACTIVITIES?	347
Innovation as a Beneficial Externality	348
Why the Shortfall in Innovation Spending May Not Be So Big After All	349
CONCLUSION: THE MARKET ECONOMY AND ITS INNOVATION ASSEMBLY LINE	349
TOWARD SOLUTION OF THE PUZZLE: How the Market Achieved its Unprecedented Growth	350
Summary	351
Key Terms	351
Discussion Questions	352

CHAPTER 17 EXTERNALITIES, THE ENVIRONMENT, AND NATURAL RESOURCES	353
PUZZLE: Those Resilient Natural Resource Supplies	354
PART 1; THE ECONOMICS OF ENVIRONMENTAL PROTECTION	354
EXTERNALITIES: A CRITICAL SHORTCOMING OF THE MARKET MECHANISM	354
The Facts: Is the World Really Getting Steadily More Polluted?	355
The Role of Individuals and Governments in Environmental Damage	358
Pollution and the Law of Conservation of Matter and Energy	358
SUPPLY-DEMAND ANALYSIS OF ENVIRONMENTAL EXTERNALITIES	361
BASIC APPROACHES TO ENVIRONMENTAL POLICY	361
Emissions Taxes versus Direct Control	363
Another Financial Device to Protect the Environment: Emissions Permits	365
TWO CHEERS FOR THE MARKET	366
PART 2: THE ECONOMICS OF NATURAL RESOURCES	367
ECONOMIC ANALYSIS: THE FREE MARKET AND PRICING OF DEPLETABLE RESOURCES	367
Scarcity and Rising Prices	367
Supply-Demand Analysis and Consumption	368
ACTUAL RESOURCE PRICES IN THE TWENTIETH CENTURY	369
Interferences with Price Patterns	370
Is Price Interference Justified?	372
On the Virtues of Rising- Prices	373
Growing Reserves of Exhaustible Natural Resources: THE PUZZLE REVISITED	373
Summary	373
Key Terms	374
Test Yourself	374
Discussion Questions	374
CHAPTER 18 TAXATION AND RESOURCE ALLOCATION	375
ISSUE: Were the Tax Cuts of 2001-2003 Sound Policy?	376
THE LEVEL AND TYPES OF TAXATION	376
Progressive, Proportional, and Regressive Taxes	377
Direct versus Indirect Taxes	377
THE FEDERAL TAX SYSTEM	377
The Federal Personal income Tax	377
The Payroll Tax	379
The Corporate Income Tax	379
Excise Taxes	379
The Payroll Tax and the Social Security System	379
THE STATE AND LOCAL TAX SYSTEM	381
Sales and Excise Taxes	381
Property Taxes	381
Fiscal Federalism	382
THE CONCEPT OF EQUITY IN TAXATION	382
Horizontal Equity	382
Vertical Equity	382
The Benefits Principle	383
THE CONCEPT OF EFFICIENCY IN TAXATION	383
Tax Loopholes and Excess Burden	385
SHIFTING THE TAX BURDEN: TAX INCIDENCE	385
The Incidence of Excise Taxes	387
The Incidence of the Payroll Tax	388
WHEN TAXATION CAN IMPROVE EFFICIENCY	389
EQUITY, EFFICIENCY, AND THE OPTIMAL TAX	389
Issue Revisited: The Pros and Cons of the Bush Tax Cuts	390
Summary	390
Key Terms	391
Test Yourself	391
Discussion Questions	392

• **PART V THE DISTRIBUTION OF INCOME 393**

CHAPTER 19 PRICING THE FACTORS OF PRODUCTION 395

PUZZLE: Why Does a Higher Return to Savings Reduce the Amount Some People Save? 396

THE PRINCIPLE OF MARGINAL PRODUCTIVITY 396

INPUTS AND THEIR DERIVED DEMAND CURVES 397

INVESTMENT, CAPITAL, AND INTEREST 399

 The Demand for Funds 400

 The Downward-Sloping Demand Curve for Funds 401

 The Supply of Funds: THE PUZZLE RESOLVED 402

 The Issue of Usury Laws: Are Interest Rates Too High? 402

THE DETERMINATION OF RENT 403

 Land Rents: Further Analysis 404

 Generalization: Economic Rent Seeking 406

 Rent as a Component of an Input's Compensation 407

 An Application of Rent Theory: Salaries of Professional Athletes 408

 Rent Controls: The Misplaced Analog' 409

PAYMENTS TO ENTREPRENEURSHIP: ARE PROFITS TOO HIGH OR TOO LOW? 409

 What Accounts for Profits? 410

 Taxing Profits 412

CRITICISMS OF MARGINAL PRODUCTIVITY THEORY 412

Summary 413

Key Terms 414

Test Yourself 414

Discussion Questions 414

APPENDIX: DISCOUNTING AND PRESENT VALUE 415

 Summary 416

 Key Term 416

 Test Yourself 416

CHAPTER 20 LABOR: THE HUMAN INPUT 417

ISSUE: Do Cheap Foreign Labor and Technological Progress Contribute to Lagging Wages? 419

WAGE DETERMINATION IN COMPETITIVE LABOR MARKETS 419

 The Demand for Labor and the Determination of Wages 420

 Influences on MRP_L : Shifts in the Demand for Labor 420

 Technical Change, Productivity Growth, and the Demand for Labor 421

 The Service Economy and the Demand for Labor 422

THE SUPPLY OF LABOR 423

 Rising Labor-Force Participation 423

 An Important Labor Supply Conundrum 424

 The Labor Supply Conundrum Resolved 425

WHY DO WAGES DIFFER? 426

 Labor Demand in General 427

 Labor Supply in General 427

 Ability and Earnings; The Rent Component of Wages 428

 Investment in Human Capital 428

 Education and Earnings: Dissenting Views 429

 The Effects of Minimum Wage Legislation 430

UNIONS AND COLLECTIVE BARGAINING 431

 Unions as Labor Monopolies 433

 Monopsony and Bilateral Monopoly 435

 Collective Bargaining and Strikes 436

ISSUE REVISITED: Foreign Competition, Technology, and American Jobs: Are Union Fears Justified? 438

Summary 439

Key Terms 440

Test Yourself 440

Discussion Questions 440

CHAPTER21 POVERTY, INEQUALITY, AND DISCRIMINATION 441

ISSUE: Were the Bush Tax Cuts Unfair?	442
THE FACTS: POVERTY	442
Counting the Poor: The Poverty Line	443
Absolute versus Relative Poverty'	444
THE FACTS: INEQUALITY	445
SOME REASONS FOR UNEQUAL INCOMES	446
THE FACTS: DISCRIMINATION	448
THE TRADE-OFF BETWEEN EQUALITY AND EFFICIENCY	449
POLICIES TO COMBAT POVERTY	451
Education as a Way Out	451
The Welfare Debate and the Trade-Off	451
The Negative Income Tax	452
OTHER POLICIES TO COMBAT INEQUALITY	454
The Personal Income Tax	454
Death Duties and Other Taxes	454
POLICIES TO COMBAT DISCRIMINATION	454
A LOOK BACK	456
Summary	456
Key Terms	457
Test Yourself	457
Discussion Questions	457
APPENDIX: THE ECONOMIC THEORY OF DISCRIMINATION	458
DISCRIMINATION BY EMPLOYERS	458
DISCRIMINATION BY FELLOW WORKERS	458
STATISTICAL DISCRIMINATION	458
THE ROLES OF THE MARKET AND THE GOVERNMENT	459
Summary	460
Key Term	460

p PART VI THE MACROECONOMY; AGGREGATE SUPPLY AND DEMAND 461**CHAPTER22 AN INTRODUCTION TO MACROECONOMICS 463**

ISSUE: Was It George Bush's Fault?	464
DRAWING A LINE BETWEEN MACROECONOMICS AND MICROECONOMICS	464
Aggregation and Macroeconomics	464
The Foundations of Aggregation	465
The Line of Demarcation Revisited	465
SUPPLY AND DEMAND IN MACROECONOMICS	466
A Quick Review	466
Moving to Macroeconomic Aggregates	467
Inflation	467
Recession and Unemployment	467
Economic Growth	467
GROSS DOMESTIC PRODUCT	468
Money as the Measuring Rod: Real versus Nominal GDP	468
What Gets Counted in GDP?	469
Limitations of the GDP: What GDP Is Not	470
THE ECONOMY ON A ROLLER COASTER	472
Growth, but with Fluctuations	472
Inflation and Deflation	473
The Great Depression	474
From World War II to 1973	476

Contents

The Great Stagflation, 1973-1980	476
Reaganomics and Its Aftermath	477
Clintonomics: Deficit Reduction and the "New Economy"	477
The Bush Economy and the 2004 Election	478
ISSUE REVISITED: Was It George Bush's Fault?	479
THE PROBLEM OF MACROECONOMIC STABILIZATION: A SNEAK PREVIEW	479
Combating Unemployment	479
Combating Inflation	480
Does It Really Work?	480
Summary	481
Key Terms	482
Test Yourself	482
Discussion Questions	482
CHAPTER 23 THE GOALS OF MACROECONOMIC POLICY	483
PART 1: THE GOAL OF ECONOMIC GROWTH	484
PRODUCTIVITY GROWTH: FROM LITTLE ACORNS ...	484
ISSUE: Is Faster Growth Always Better?	486
THE CAPACITY TO PRODUCE: POTENTIAL GDP AND THE PRODUCTION FUNCTION	486
THE GROWTH RATE OF POTENTIAL GDP	487
ISSUE REVISITED: Is Faster Growth Always Better?	488
PART 2: THE GOAL OF LOW UNEMPLOYMENT	489
THE HUMAN COSTS OF HIGH UNEMPLOYMENT	490
COUNTING THE UNEMPLOYED: THE OFFICIAL STATISTICS	491
TYPES OF UNEMPLOYMENT	492
HOW MUCH EMPLOYMENT IS "FULL EMPLOYMENT"?	494
UNEMPLOYMENT INSURANCE: THE INVALUABLE CUSHION	494
PART 3: THE GOAL OF LOW INFLATION	495
INFLATION: THE MYTH AND THE REALITY	495
Inflation and Real Wages	495
The Importance of Relative Prices	497
INFLATION AS A REDISTRIBUTOR OF INCOME AND WEALTH	498
REAL VERSUS NOMINAL INTEREST RATES	498
INFLATION DISTORTS MEASUREMENTS	499
Confusing Real and Nominal Interest Rates	499
The Malfunctioning Tax System	500
OTHER COSTS OF INFLATION	500
THE COSTS OF LOW VERSUS HIGH INFLATION	501
LOW INFLATION DOES NOT NECESSARILY LEAD TO HIGH INFLATION	502
Summary	503
Key Terms	504
Test Yourself	504
Discussion Questions	504
APPENDIX: HOW STATISTICIANS MEASURE INFLATION	505
INDEX NUMBERS FOR INFLATION	505
THE CONSUMER PRICE INDEX	505
USING A PRICE INDEX TO "DERATE" MONETARY FIGURES	506
USING A PRICE INDEX TO MEASURE INFLATION	506
THE GDP DEFLATOR	506
Summary	507
Key Terms	507
Test Yourself	507

CHAPTER24 ECONOMIC GROWTH: THEORY AND POLICY 509**Puzzle:** Why Does College Education Keep Getting More Expensive? 510**THE THREE PILLARS OF PRODUCTIVITY GROWTH 510**

Capital 511

Technology 511

Labor Quality: Education and Training 512

LEVELS, GROWTH RATES, AND THE CONVERGENCE HYPOTHESIS 512**GROWTH POLICY: ENCOURAGING CAPITAL FORMATION 514****GROWTH POLICY: IMPROVING EDUCATION AND TRAINING 516****GROWTH POLICY: SPURRING TECHNOLOGICAL CHANGE 518****THE PRODUCTIVITY SLOWDOWN AND SPEED-UP IN THE UNITED STATES 519**

The Productivity Slowdown, 1973-1995 520

The **Productivity** Speed-up, 1995-?? 521**Puzzle Resolved:** Why the Relative Price of College Tuition Keeps Rising 522**GROWTH IN THE DEVELOPING COUNTRIES 523**

The Three Pillars Revisited 523

Some Special Problems of the Developing Countries 525

FROM THE LONG RUN TO THE SHORT RUN 526

Summary 526

Key Terms 526

Test Yourself 527

TV "r" "r" CV7

Discussion Questions 527

CHAPTER25 AGGREGATE DEMAND AND THE POWERFUL CONSUMER 529**ISSUE:** Demand Management and the Ornery Consumer 530**AGGREGATE DEMAND, DOMESTIC PRODUCT, AND NATIONAL INCOME 530****THE CIRCULAR FLOW OF SPENDING, PRODUCTION, AND INCOME 531****CONSUMER SPENDING AND INCOME: THE IMPORTANT RELATIONSHIP 533****THE CONSUMPTION FUNCTION AND THE MARGINAL PROPENSITY TO CONSUME 536****FACTORS THAT SHIFT THE CONSUMPTION FUNCTION 537****ISSUE REVISITED:** Why the Tax Rebates Failed in 1975 and 2001 538**THE EXTREME VARIABILITY OF INVESTMENT 540****THE DETERMINANTS OF NET EXPORTS 540**

National Incomes 541

Relative Prices and Exchange Rates 541

HOW PREDICTABLE IS AGGREGATE DEMAND? 541

Summary 542

Key Terms 543

Test Yourself 543

Discussion Questions 543

APPENDIX: NATIONAL INCOME ACCOUNTING 544**DEFINING GDP: EXCEPTIONS TO THE RULES 544****GDP AS THE SUM OF FINAL GOODS AND SERVICES 544****GDP AS THE SUM OF ALL FACTOR PAYMENTS 545****GDP AS THE SUM OF VALUES ADDED 547****Summary 54R**

Key Terms 548

Test Yourself 548

Discussion Questions 549

CHAPTER26 DEMAND-SIDE EQUILIBRIUM: UNEMPLOYMENT OR INFLATION? 551**ISSUE:** Why Does the Market Permit Unemployment? 552**THE MEANING OF EQUILIBRIUM GDP 552****THE MECHANICS OF INCOME DETERMINATION 553**

THE AGGREGATE DEMAND CURVE	556
DEMAND-SIDE EQUILIBRIUM AND FULL EMPLOYMENT	558
THE COORDINATION OF SAVING AND INVESTMENT	559
CHANGES ON THE DEMAND SIDE: MULTIPLIER ANALYSIS	560
The Magic of the Multiplier	561
Demystifying the Multiplier : How It Works	562
Algebraic Statement of the Multiplier	563
THE MULTIPLIER IS A GENERAL CONCEPT	565
THE MULTIPLIER AND THE AGGREGATE DEMAND CURVE	566
Summary	567
Key Terms	568
Test Yourself	568
Discussion Questions	569
APPENDIX A: THE SIMPLE ALGEBRA OF INCOME DETERMINATION AND THE MULTIPLIER	569
Test Yourself	570
Discussion Questions	570
APPENDIX B: THE MULTIPLIER WITH VARIABLE IMPORTS	570
Summary	573
Test Yourself	573
Discussion Question	573
CHAPTER27 SUPPLY-SIDE EQUILIBRIUM: UNEMPLOYMENT AND INFLATION?	575
PUZZLE: Why Did Inflation Fall While the Economy Boomed?	576
THE AGGREGATE SUPPLY CURVE	576
Why the Aggregate Supply Curve Slopes Upward	576
Sh. fa of the Agregate Supply Curve	577
EQUILIBRIUM OF AGGREGATE DEMAND AND SUPPLY	579
INFLATION AND THE MULTIPLIER	580
RECESSIONARY AND INFLATIONARY GAPS REVISITED	581
ADJUSTING TO A RECESSIONARY GAP: DEFLATION OR UNEMPLOYMENT?	583
Does the Economy Have a Self-Correcting Mechanism?	584
An Example trom Recent History: Deflation in Japan	?84
ADJUSTING TO AN INFLATIONARY GAP: INFLATION	584
Demand Inflation and Stagflation	585
A U.S. Example	586
STAGFLATION FROM A SUPPLY SHOCK	587
APPLYING THE MODEL TO A GROWING ECONOMY	588
Demand-Side Fluctuations	588
Supply-Side Fluctuations	589
PUZZLE RESOLVED: Explaining The Roaring Nineties	591
A ROLE FOR STABILIZATION POLICY	591
Summary	591
Key Terms	592
Test Yourself	592
Discussion Questions	592
• PART VII FISCAL AND MONETARY POLICY	593
CHAPTER28 MANAGING AGGREGATE DEMAND: FISCAL POLICY	595
ISSUE: Aggregate Demand, Aggregate Supply, and The Tax-Cut Debate of 2004	596
INCOME TAXES AND THE CONSUMPTION SCHEDULE	596
THE MULTIPLIER REVISITED	597
The Tax Multiplier	597
Income Taxes and the Multiplier	597

Automatic Stabilizers	598
Government Transfer Payments	599
ISSUE REVISITED: The Bush-Kerry Debate over Taxes and Spending	600
PLANNING EXPANSIONARY FISCAL POLICY	600
PLANNING CONTRACTIONARY FISCAL POLICY	601
THE CHOICE BETWEEN SPENDING POLICY AND TAX POLICY	601
ISSUE REDUX: Bush versus Kerry	602
SOME HARSH REALITIES	602
THE IDEA BEHIND SUPPLY-SIDE TAX CUTS	603
Some Flies in the Ointment	604
ISSUE: Kerry and Bush Otice More	605
Toward an Assessment of Supply-Side Economics	606
Summary	607
Key Terms	607
Test Yourself	607
Discussion Questions	608
APPENDIX A: GRAPHICAL TREATMENT OF TAXES AND FISCAL POLICY	608
MULTIPLIERS FOR TAX POLICY	610
Summary	611
Key Terms	611
Test Yourself	611
Discussion Questions	611
APPENDIX B: ALGEBRAIC TREATMENT OF FISCAL POLICY	611
Test Yourself	613
CHAPTER29 MONEY AND THE BANKING SYSTEM	615
ISSUE: Why Are Banks so Heavily Regulated?	616
THE NATURE OF MONEY	616
Barter versus Monetary Exchange	617
The Conceptual Definition of Money	618
What Serves as Money?	618
HOW THE QUANTITY OF MONEY IS MEASURED	620
M1	620
M2	621
Other Definitions of the Money Supply	621
THE BANKING SYSTEM	622
How Banking Began	622
Principles of Bank Management: Profits versus Safety	623
Bank Regulation	624
THE ORIGINS OF THE MONEY SUPPLY	625
How Bankers Keep Books	625
BANKS AND MONEY CREATION	626
The Limits to Money Creation by a Single Bank	626
Multiple Money Creation by a Series of Banks	627
The Process in Reverse: Multiple Contractions of the Money Supply	630
WHY THE MONEY CREATION FORMULA IS OVERSIMPLIFIED	631
THE NEED FOR MONETARY POLICY	632
Summary	633
Key Terms	633
Test Yourself	634
Discussion Questions	634
CHAPTER30 MANAGING AGGREGATE DEMAND: MONETARY POLICY	635
ISSUE: Just Why Is Alan Greenspan so Important?	636
MONEY AND INCOME: THE IMPORTANT DIFFERENCE	636

AMERICA'S CENTRAL BANK: THE FEDERAL RESERVE SYSTEM	637
Origins and Structure	637
Central Bank Independence	638
IMPLEMENTING MONETARY POLICY: OPEN-MARKET OPERATIONS	639
The Market for Bank Reserves	639
The Mechanics of an Open-Market Operation	640
Open-Market Operations, Bond Prices, and Interest Rates	642
OTHER METHODS OF MONETARY CONTROL	642
Lending to Banks	643
Changing Reserve Requirements	644
HOW MONETARY POLICY WORKS	644
Investment and Interest Rates	645
Monetary Policy and Total Expenditure	645
MONEY AND THE PRICE LEVEL IN THE KEYNESIAN MODEL	646
Application: Why the Aggregate Demand Curve Slopes Downward	647
FROM MODELS TO POLICY DEBATES	648
Summary	648
Key Terms	649
Test Yourself	649
Discussion Questions	650
CHAPTER 31 THE DEBATE OVER MONETARY AND FISCAL POLICY	651
ISSUE: Should We Forsake Stabilization Policy?	652
VELOCITY AND THE QUANTITY THEORY OF MONEY	652
Some Determinants of Velocity	654
Monetarism; The Quantity Theory Modernized	655
FISCAL POLICY, INTEREST RATES, AND VELOCITY	655
Application: The Multiplier Formula Revisited	656
Application: The Government Budget and Investment	657
DEBATE: SHOULD WE RELY ON FISCAL OR MONETARY POLICY?	657
DEBATE: SHOULD THE FED CONTROL THE MONEY SUPPLY OR INTEREST RATES?	658
Two Imperfect Alternatives	660
What Has the Fed Actually Done?	660
DEBATE: THE SHAPE OF THE AGGREGATE SUPPLY CURVE	661
DEBATE: SHOULD THE GOVERNMENT INTERVENE?	663
Lags and the Rules-versus-Discretion Debate	665
DIMENSIONS OF THE RULES-VERSUS-DISCRETION DEBATE	665
How Fast Does the Economy's Self-Correcting Mechanism Work?	665
How Long Are the Lags in Stabilization Policy?	666
How Accurate Are Economic Forecasts?	666
The Size of Government	666
Uncertainties Caused by Government Policy	666
A Political Business Cycle?	667
ISSUE REVISITED: What Should Be Done?	668
Summary	669
Key Terms	670
Test Yourself	670
Discussion Questions	670
CHAPTER 32 BUDGET DEFICITS IN THE SHORT AND LONG RUN	673
ISSUE: Did the September 2001 Terrorist Attacks Warrant Fiscal Stimulus?	674
SHOULD THE BUDGET BE BALANCED? THE SHORT RUN	674
The Importance of the Policy Mix	675
SURPLUSES AND DEFICITS: THE LONG RUN	676

DEFICITS AND DEBT: TERMINOLOGY AND FACTS	677
Some Facts about the National Debt	677
INTERPRETING THE BUDGET DEFICIT OR SURPLUS	679
The Structural Deficit or Surplus	679
On-Budget versus Off-Budget Surpluses	681
Conclusion: What Happened after 1981?	681
WHY IS THE NATIONAL DEBT CONSIDERED A BURDEN?	682
BUDGET DEFICITS AND INFLATION	683
The Monetization Issue	683
DEBT, INTEREST RATES, AND CROWDING OUT	684
The Bottom Line	686
THE MAIN BURDEN OF THE NATIONAL DEBT: SLOWER GROWTH	686
ISSUE REVISITED: Was Fiscal Stimulus Warranted in 2001 ?	687
THE ECONOMICS AND POLITICS OF THE U.S. BUDGET DEFICIT	688
Summary	689
Key Terms	689
Test Yourself	690
Discussion Questions	690
CHAPTER33 THE TRADE-OFF BETWEEN INFLATION AND UNEMPLOYMENT	691
ISSUE: Is the Trade-off Between Inflation and Unemployment a Relic of the Past?	692
DEMAND-SIDE INFLATION VERSUS SUPPLY-SIDE INFLATION: A REVIEW	692
ORIGINS OF THE PHILLIPS CURVE	693
SUPPLY-SIDE INFLATION AND THE COLLAPSE OF THE PHILLIPS CURVE	695
Explaining the Fabulous 1990s	695
ISSUE RESOLVED: Why Inflation and Unemployment Both Declined	696
WHAT THE PHILLIPS CURVE IS NOT	696
FIGHTING UNEMPLOYMENT WITH FISCAL AND MONETARY POLICY	698
WHAT SHOULD BE DONE?	699
The Costs of Inflation and Unemployment	699
The Slope of the (Short-Run) Phillips Curve	699
The Efficiency of the Economy's Self-Correcting Mechanism	690
INFLATIONARY EXPECTATIONS AND THE PHILLIPS CURVE	700
THE THEORY OF RATIONAL EXPECTATIONS	702
What Are Rational Expectations?	702
Rational Expectations and the Trade-Off	703
An Evaluation	703
WHY ECONOMISTS (AND POLITICIANS) DISAGREE	704
THE DILEMMA OF DEMAND MANAGEMENT	705
ATTEMPTS TO REDUCE THE NATURAL RATE OF UNEMPLOYMENT	705
INDEXING	706
Summary	707
Key Terms	708
Test Yourself	708
Discussion Questions	708
• PART VIII THE UNITED STATES IN THE WORLD ECONOMY	709
CHAPTER34 INTERNATIONAL TRADE AND COMPARATIVE ADVANTAGE	711
ISSUE: How Can Americans Compete with "Cheap Foreign Labor"?	712
WHY TRADE?	713
Mutual Gains from Trade	713
INTERNATIONAL VERSUS INTRANATIONAL TRADE	714
Political Factors in International Trade	714

Contents

The Many Currencies Involved in International Trade	714
Impediments to Mobility of Labor and Capital	714
THE LAW OF COMPARATIVE ADVANTAGE	715
The Arithmetic of Comparative Advantage	715
The Graphics of Comparative Advantage	716
ISSUE RESOLVED: Comparative Advantage Exposes the "Cheap Foreign Labor" Fallacy	719
TARIFFS, QUOTAS, AND OTHER INTERFERENCES WITH TRADE	719
Tariffs versus Quotas	721
WHY INHIBIT TRADE?	721
Gaining a Price Advantage for Domestic Firms	721
Protecting Particular Industries	722
National Defense and Other Noneconomic Considerations	723
The Infant-Industry Argument	724
Strategic Trade Policy	724
CAN CHEAP IMPORTS HURT A COUNTRY?	725
A Last Look at the "Cheap Foreign Labor" Argument	726
Summary	727
Key Terms	728
Test Yourself	728
Discussion Questions	728
APPENDIX: SUPPLY, DEMAND, AND PRICING IN WORLD TRADE	729
HOW TARIFFS AND QUOTAS WORK	730
Summary	731
Test Yourself	731
CHAPTER 35 THE INTERNATIONAL MONETARY SYSTEM: ORDER OR DISORDER?	733
PUZZLE: Why Has the Dollar Been Sagging?	734
WHAT ARE EXCHANGE RATES?	734
EXCHANGE RATE DETERMINATION IN A FREE MARKET	735
Interest Rates and Exchange Rates: The Short Run	737
Economic Activity and Exchange Rates: The Medium Run	738
The Purchasing-Power Parity Theory: The Long Run	738
Market Determination of Exchange Rates: Summary	740
WHEN GOVERNMENTS FIX EXCHANGE RATES: THE BALANCE OF PAYMENTS	741
A BIT OF HISTORY: THE GOLD STANDARD AND THE BRETTON WOODS SYSTEM	742
The Classical Gold Standard	742
The Bretton Woods System	743
ADJUSTMENT MECHANISMS UNDER FIXED EXCHANGE RATES	744
WHY TRY TO FIX EXCHANGE RATES?	744
THE CURRENT "NONSYSTEM"	745
The Role of the IMF	746
The Volatile Dollar	746
The Birth of the Euro	748
PUZZLE RESOLVED: Why the Dollar Rose and then Fell	748
Summary	749
Key Terms	749
Test Yourself	750
Discussion Questions	750
CHAPTER 36 EXCHANGE RATES AND THE MACROECONOMY	751
ISSUE: Should the U.S. Government Try to Stop the Dollar from Falling?	752
INTERNATIONAL TRADE, EXCHANGE RATES, AND AGGREGATE DEMAND	752
Relative Prices, Exports, and Imports	752
The Effects of Changes in Exchange Rates	753
AGGREGATE SUPPLY IN AN OPEN ECONOMY	754

THE MACROECONOMIC EFFECTS OF EXCHANGE RATES	754
Interest Rates and International Capital Flows	755
FISCAL AND MONETARY POLICIES IN AN OPEN ECONOMY	756
Fiscal Policy Revisited	756
Monetary Policy Revisited	757
INTERNATIONAL ASPECTS OF DEFICIT REDUCTION	758
The Loose Link between the Budget Deficit and the Trade Deficit	759
IS THE TRADE DEFICIT A PROBLEM?	760
ON CURING THE TRADE DEFICIT	760
Change the Mix of Fiscal and Monetary Policy	760
More Rapid Economic Growth Abroad	761
Raise Domestic Saving or Reduce Domestic Investment	761
Protectionism	761
CONCLUSION: NO NATION IS AN ISLAND	762
ISSUE REVISITED: Should the Dollar Be Allowed to Fall?	762
Summary	763
Key Terms	763
Test Yourself	764
Discussion Questions	764
GLOSSARY	765
INDEX	777