Contents in Brief

Preface xvii
Economics and the Internet xxiii

PART ONE  BASIC CONCEPTS

Chapter 1  The Fundamentals of Economics 3
Appendix 1  How to Read Graphs 18
Chapter 2  Markets and Government in a Modern Economy 25
Chapter 3  Basic Elements of Supply and Demand 46

PART TWO  MICROECONOMICS: SUPPLY, DEMAND, AND PRODUCT MARKETS

Chapter 4  Applications of Supply and Demand 67
Chapter 5  Demand and Consumer Behavior 85
Appendix 5  Geometrical Analysis of Consumer Equilibrium 102
Chapter 6  Production and Business Organization 108
Chapter 7  Analysis of Costs 125
Appendix 7  Production, Cost Theory, and Decisions of the Firm 142
Chapter 8  Analysis of Perfectly Competitive Markets 147
Chapter 9  Imperfect Competition and Its Polar Case of Monopoly 166
Chapter 10  Oligopoly and Monopolistic Competition 183
Chapter 11  Uncertainty and Game Theory 203

PART THREE  FACTOR MARKETS: LABOR, LAND, AND CAPITAL

Chapter 12  How Markets Determine Incomes 225
Chapter 13  The Labor Market 243
Chapter 14  Land and Capital 267
Appendix 14  Markets and Economic Efficiency 286
# BRIEF CONTENTS

## PART FOUR
**APPLIED MICROECONOMICS: INTERNATIONAL TRADE, GOVERNMENT, AND THE ENVIRONMENT**

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Comparative Advantage and Protectionism</td>
<td>297</td>
</tr>
<tr>
<td>16</td>
<td>Government Taxation and Expenditure</td>
<td>322</td>
</tr>
<tr>
<td>17</td>
<td>Promoting More Efficient Markets</td>
<td>344</td>
</tr>
<tr>
<td>18</td>
<td>Protecting the Environment</td>
<td>363</td>
</tr>
<tr>
<td>19</td>
<td>Efficiency vs. Equality: The Big Trade-off</td>
<td>385</td>
</tr>
</tbody>
</table>

## PART FIVE
**MACROECONOMICS: THE STUDY OF ECONOMIC GROWTH AND BUSINESS CYCLES**

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Overview of Macroeconomics</td>
<td>413</td>
</tr>
<tr>
<td>21</td>
<td>Measuring Economic Activity</td>
<td>434</td>
</tr>
<tr>
<td>22</td>
<td>Consumption and Investment</td>
<td>455</td>
</tr>
<tr>
<td>23</td>
<td>Business Fluctuations and the Theory of Aggregate Demand</td>
<td>476</td>
</tr>
<tr>
<td>24</td>
<td>The Multiplier Model</td>
<td>491</td>
</tr>
<tr>
<td>25</td>
<td>Money, Banking, and Financial Markets</td>
<td>511</td>
</tr>
<tr>
<td>26</td>
<td>Central Banking and Monetary Policy</td>
<td>541</td>
</tr>
</tbody>
</table>

## PART SIX
**ECONOMIC GROWTH AND MACROECONOMIC POLICY**

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>The Process of Economic Growth</td>
<td>567</td>
</tr>
<tr>
<td>28</td>
<td>The Challenge of Economic Development</td>
<td>591</td>
</tr>
<tr>
<td>29</td>
<td>Exchange Rates and the International Financial System</td>
<td>612</td>
</tr>
<tr>
<td>30</td>
<td>Open-Economy Macroeconomics</td>
<td>635</td>
</tr>
</tbody>
</table>

## PART SEVEN
**UNEMPLOYMENT, INFLATION, AND ECONOMIC POLICY**

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>Unemployment and the Foundations of Aggregate Supply</td>
<td>661</td>
</tr>
<tr>
<td>32</td>
<td>Ensuring Price Stability</td>
<td>683</td>
</tr>
<tr>
<td>33</td>
<td>The Warring Schools of Macroeconomics</td>
<td>709</td>
</tr>
<tr>
<td>34</td>
<td>Policies for Growth and Stability</td>
<td>730</td>
</tr>
</tbody>
</table>

Valediction 754
Glossary of Terms 756
Index 779
Preface xvii

Economics and the Internet xxiii

PART ONE
BASIC CONCEPTS

Chapter 1
The Fundamentals of Economics 3

A. Introduction 3
For Whom the Bell Tolls • Scarcity and Efficiency: The Twin Themes of Economics 4 • Microeconomics and Macroeconomics • The Logic of Economics 5 • Cool Heads at the Service of Warm Hearts 6 •

B. The Three Problems of Economic Organization 7
Market, Command, and Mixed Economies 8 •

C. Society’s Technological Possibilities 8
Inputs and Outputs 9 • The Production-Possibility Frontier 9 • Putting the PPF to Work • Opportunity Costs • Efficiency •

Summary 15 • Concepts for Review 15 • Further Reading and Internet Websites 16 • Questions for Discussion 16 •

Appendix 1
How to Read Graphs 18

The Production-Possibility Frontier 18 • Production-Possibility Graph • Slopes and Lines • Shifts of and Movement Along Curves • Some Special Graphs •

Summary 23 • Concepts for Review 24 • Questions for Discussion 24 •
Chapter 2
Markets and Government in a Modern Economy

A. What Is a Market?
Not Chaos, but Economic Order • How Markets Solve the Three Economic Problems • Monarchs of the Marketplace • A Picture of Prices and Markets • The Invisible Hand •

B. Trade, Money, and Capital
Trade, Specialization, and Division of Labor 31 • Money: The Lubricant of Exchange 33 • Capital 33 • Capital and Private Property •

C. The Economic Role of Government
Efficiency 36 • Imperfect Competition • Externalities • Public Goods • Equity 38 • Macroeconomic Growth and Stability 40 • Twilight of the Welfare State? 41 •

Summary 42 • Concepts for Review 43 • Further Reading and Internet Websites 44 • Questions for Discussion 44 •

Chapter 3
Basic Elements of Supply and Demand

A. The Demand Schedule
The Demand Curve 48 • Market Demand • Forces behind the Demand Curve • Shifts in Demand •

B. The Supply Schedule
The Supply Curve 52 • Forces behind the Supply Curve • Shifts in Supply •

C. Equilibrium of Supply and Demand
Equilibrium with Supply and Demand Curves 56 • Effect of a Shift in Supply or Demand • Interpreting Changes in Price and Quantity • Supply, Demand, and Immigration • Rationing by Prices 60 •
PART TWO
MICROECONOMICS: SUPPLY, DEMAND, AND PRODUCT MARKETS

Chapter 4  Applications of Supply and Demand 67

A. Elasticity of Demand and Supply  67
Price Elasticity of Demand 68 • Calculating Elasticities • Price Elasticity in Diagrams • Elasticity and Revenue 72 • The Paradox of the Bumper Harvest • Price Elasticity of Supply 74 •

B. Applications to Major Economic Issues  75
The Economics of Agriculture 75 • Long-Run Relative Decline of Farming • Impact of a Tax on Price and Quantity 77 • Minimum Floors and Maximum Ceilings 79 • The Minimum-Wage Controversy • Energy Price Controls •

Summary 82 • Concepts for Review 83 • Further Reading and Internet Websites 83 • Questions for Discussion 83 •

Chapter 5  Demand and Consumer Behavior 85

Choice and Utility Theory 85 • Marginal Utility and the Law of Diminishing Marginal Utility • A Numerical Example • Equimarginal Principle: Equal Marginal Utilities per Dollar for Every Good 88 • Why Demand Curves Slope Downward • Leisure and the Optimal Allocation of Time • An Alternative Approach: Substitution Effect and Income Effect 90 • Substitution Effect • Income Effect • From Individual to Market Demand 91 • Demand Shifts • Substitutes and Complements • Empirical Estimates of Price and Income Elasticities • The Economics of Addiction 93 • The Paradox of Value 96 • Consumer Surplus 96 • Applications of Consumer Surplus •

Summary 98 • Concepts for Review 99 • Further Reading and Internet Websites 99 • Questions for Discussion 100 •

Appendix 5  Geometrical Analysis of Consumer Equilibrium 102
Chapter 6  Production and Business Organization 108

A. Theory of Production and Marginal Products 108
Basic Concepts 108 • The Production Function •
Total, Average, and Marginal Product • The Law of Diminishing Returns • Returns to Scale 112 • Short Run and Long Run 113 • Technological Change
114 • Productivity and the Aggregate Production Function 116 • Productivity • Productivity Growth from Economies of Scale • Empirical Estimates of the Aggregate Production Function •

B. Business Organizations 118
The Nature of the Firm 118 • Big, Small, and Infinitesimal Businesses 119 • The Individual Proprietorship • The Partnership • The Corporation •

Summary 121 • Concepts for Review 122 • Further Reading and Internet Websites 123 • Questions for Discussion 123 •

Chapter 7  Analysis of Costs 125

A. Economic Analysis of Costs 125
Total Cost: Fixed and Variable 125 • Fixed Cost • Variable Cost • Definition of Marginal Cost 126 • Average Cost 128 • Average or Unit Cost • Average Fixed and Variable Cost • Minimum Average Cost • The Link between Production and Costs 131 • Diminishing Returns and U-Shaped Cost Curves • Choice of Inputs by the Firm 132 • Marginal Products and the Least-Cost Rule •

B. Economic Costs and Business Accounting 134
The Income Statement, or Statement of Profit and Loss 134 • The Balance Sheet 136 • Accounting Conventions •

C. Opportunity Costs 137
Opportunity Cost and Markets 138 •

Summary to Appendix 107 • Concepts for Review 107 • Questions for Discussion 107 •
A. Patterns of Imperfect Competition

Definition of Imperfect Competition • Varieties of Imperfect Competitors 168 • Monopoly • Oligopoly • Monopolistic Competition • Sources of Market Imperfections 170 • Costs and Market Imperfection • Barriers to Entry •

B. Marginal Revenue and Monopoly

The Concept of Marginal Revenue 173 • Price, Quantity, and Total Revenue • Marginal Revenue and Price • Profit-Maximizing Conditions 176 • Monopoly Equilibrium in Graphs • Perfect Competition as a Polar Case of Imperfect Competition • The Marginal Principle: Let Bygones Be Bygones 179 •

Summary 181 • Concepts for Review 181 • Further Reading and Internet Websites 182 • Questions for Discussion 182 •

Chapter 10 Oligopoly and Monopolistic Competition

A. Behavior of Imperfect Competitors

Measures of Market Power • The Nature of Imperfect Competition 185 • Theories of Imperfect Competition 185 • Collusive Oligopoly • Monopolistic Competition • Rivalry among the Few • Game Theory • Price Discrimination 190 •

B. Innovation and Information

Behavior of Large Corporations 191 • Divorce of Ownership and Control • Information, Innovation, and Schumpeterian Economics 192 • The Economics of Information • Intellectual Property Rights • The Dilemma of the Internet • The Schumpeterian Hypothesis •

C. A Balance Sheet on Imperfect Competition

Economic Costs of Imperfect Competition 196 • The Cost of Inflated Prices and Insufficient Output • Measuring the Waste from Imperfect Competition • Intervention Strategies 198 •

Summary 199 • Concepts for Review 200 • Further Reading and Internet Websites 200 • Questions for Discussion 201 •

Chapter 11 Uncertainty and Game Theory

A. Economics of Risk and Uncertainty

Speculation: Shipping Assets or Goods across Space and Time 204 • Arbitrage and Geographic Price Patterns • Speculation and Price Behavior over Time • Shedding
Risks through Hedging ● The Economic Impacts of Speculation ● Risk and Uncertainty 207 ● Insurance and Risk Spreading 209 ● Capital Markets and Risk Sharing ● Market Failures in Information 210 ● Moral Hazard and Adverse Selection ● Social Insurance ●

B. Game Theory 212
Thinking about Price Setting ● Basic Concepts 212 ● Alternative Strategies ● Some Important Examples of Game Theory 215 ● To Collude or Not to Collude ● The Prisoner’s Dilemma ● The Pollution Game ● Deadly Arms Races ● Games, Games, Everywhere . . .

Summary 220 ● Concepts for Review 221 ● Further Reading and Internet Websites 221 ● Questions for Discussion 221 ●

PART THREE
FACTOR MARKETS: LABOR, LAND, AND CAPITAL 223

Chapter 12 How Markets Determine Incomes 225

A. Income and Wealth 225

Income 226 ● Factor Incomes vs. Personal Incomes ● Role of Government ● Wealth 228 ●

B. Input Pricing by Marginal Productivity 229


Summary 240 ● Concepts for Review 241 ● Further Reading and Internet Websites 241 ● Questions for Discussion 241 ●

Chapter 13 The Labor Market 243

A. Fundamentals of Wage Determination 243

The General Wage Level 243 ● Demand for Labor 244 ● Marginal Productivity Differences ● International
Comparisons • The Supply of Labor 247 • Determinants of Supply • Empirical Findings • Wage Differentials 248 • Differences in Jobs: Compensating Wage Differentials • Differences in People: Labor Quality • Differences in People: The "Rents" of Unique Individuals • Segmented Markets and Noncompeting Groups •

B. Economics of Labor Unions 254
History and Practice of Labor Unions 254 • Government and Collective Bargaining • How Unions Raise Wages 255 • Theoretical Indeterminacy of Collective Bargaining • Effects on Wages and Employment 256 • Has Unionization Raised Wages? • Effects on Employment • The Lump-of-Labor Fallacy •

C. Discrimination by Race and Gender 258
Discrimination 258 • Economic Explanations of Discrimination 258 • Definition of Discrimination • Discrimination by Exclusion • Taste for Discrimination • Statistical Discrimination • Economic Discrimination against Women 260 • Empirical Evidence 261 • Reducing Labor Market Discrimination 262 • Uneven Progress •

Summary 264 • Concepts for Review 265 • Further Reading and Internet Websites 265 • Questions for Discussion 265 •

Chapter 14 Land and Capital 267

A. Land and Rent 267
Rent as Return to Fixed Factors • Taxing Land •

B. Capital and Interest 270
Basic Concepts 270 • Prices and Rentals on Capital Goods • Rate of Return on Capital Goods • Financial Assets vs. Tangible Assets • Financial Assets and Interest Rates • Real vs. Nominal Interest Rates • Present Value of Assets 272 • Present Value for Perpetuities • General Formula for Present Value • Acting to Maximize Present Value • Profits 274 • Reported Profit Statistics • Determinants of Profits • Review •
The Theory of Capital and Interest 276 •
Roundaboutness • Diminishing Returns and the Demand for Capital • Determination of Interest and the Return on Capital • Graphical Analysis of the Return on Capital • Applications of Classical Capital Theory 279 • Taxes and Inflation • Technological Disturbances • Uncertainty and Expectations •
Empirical Findings 280 • Returns on Different Assets • Returns to Labor and Capital • Valedictory Thoughts on Factor Prices, Efficiency, and Distribution 282 •
Appendix 14 Markets and Economic Efficiency


Summary to Appendix 292 ● Concepts for Review 293 ● Questions for Discussion 293 ●

PART FOUR
APPLIED MICROECONOMICS:
INTERNATIONAL TRADE, GOVERNMENT, AND THE ENVIRONMENT

Chapter 15 Comparative Advantage and Protectionism

A. The Nature of International Trade
International vs. Domestic Trade ● Trends in Foreign Trade ● The Sources of International Trade in Goods and Services 298 ● Diversity in Natural Resources ● Differences in Tastes ● Differences in Costs ●

B. Comparative Advantage among Nations
The Principle of Comparative Advantage 299 ● Uncommon Sense ● Ricardo’s Analysis of Comparative Advantage ● The Economic Gains from Trade ● Graphical Analysis of Comparative Advantage 301 ● America without Trade ● Opening Up to Trade ● Extensions to Many Commodities and Countries 305 ● Many Commodities ● Many Countries ● Triangular and Multilateral Trade ● Qualifications and Conclusions 306 ●

C. Protectionism
Supply-and-Demand Analysis of Trade and Tariffs 307 ● Free Trade vs. No Trade ● Trade Barriers ● The Economic Costs of Tariffs ● The Economics of Protectionism 312 ● Noneconomic Goals ● Unsound Grounds for Tariffs ● Potentially Valid Arguments for Protection ● Other Barriers to Trade ● Multilateral
Chapter 16  Government Taxation and Expenditure  322

A. Government Control of the Economy  322

B. Government Expenditures  328
Fiscal Federalism  328  ● Federal Expenditures  ● State and Local Expenditures  ● Cultural and Technological Impacts  330  ●

C. Economic Aspects of Taxation  331

Summary  341  ● Concepts for Review  342  ● Further Reading and Internet Websites  342  ● Questions for Discussion  342  ●

Chapter 17  Promoting More Efficient Markets  344

A. Business Regulation: Theory and Practice  344
### Chapter 18  Protecting the Environment

**A. Population and Resource Limitations**
- Malthus and the Dismal Science 364
- Wealthier Is Healthier 365

**B. Natural-Resource Economics**
- Resource Categories 367
- Appropriate Resource Categories
- Inappropriate Resources
- Renewable vs. Nonrenewable Resources
- Allocation of Appropriate Natural Resources 368
- Resource Price Trends

**C. Environmental Economics**
- Externalities 372
- Public vs. Private Goods
- Market Inefficiency with Externalitys
- Analysis of Inefficiency
- Valuing Damages
- Graphical Analysis of Pollution
- Policies to Correct Externalities 376
- Government Programs
- Private Approaches
- Climate Change: To Slow or Not to Slow 379
- Quarrel and Pollute, or Reason and Compute?

### Chapter 19  Efficiency vs. Equality: The Big Trade-off

**A. The Sources of Inequality**
- The Distribution of Income and Wealth 386
- How to Measure Inequality among Income Classes
- Distribution of Wealth
- Inequality across Countries
- Inequality in Labor Income 389
- Abilities and Skills
- Intensities of Work
- Occupations
- Other Factors
- Inequality in Property Income 390
- Life-Cycle Saving as a Source of Wealth
- Entrepreneurship
- Inheritance
- Poverty in America 392
- Who Are the Poor?
- Trends in Inequality

**B. Antipoverty Policies**
- The Rise of the Welfare State
- The Costs of...
Double Counting • Details of the National Accounts 438 • Real vs. Nominal GDP: “Deflating” GDP by a Price Index • Consumption • Investment and Capital Formation • Government • Net Exports • Gross Domestic Product, Net Domestic Product, and Gross National Product • GDP and NDP: A Look at Numbers • From GDP to Disposable Income • Saving and Investment • Beyond the National Accounts 448 • Price Indexes and Inflation 449 • Price Indexes • Accounting Assessment 452 • Summary 452 • Concepts for Review 453 • Further Reading and Internet Websites 453 • Questions for Discussion 454 •

Chapter 22 Consumpation and Investment 455

A. Consumption and Saving 455

Budgetary Expenditure Patterns • Consumption, Income, and Saving 458 • The Consumption Function • The Saving Function • The Marginal Propensity to Consume • The Marginal Propensity to Save • Brief Review of Definitions • National Consumption Behavior 464 • Determinants of Consumption • The National Consumption Function • Alternative Measures of Saving •

B. Investment 468

Determinants of Investment 469 • Revenues • Costs • Expectations • The Investment Demand Curve 470 • Shifts in the Investment Demand Curve • On to the Theory of Aggregate Demand 472 • Summary 473 • Concepts for Review 473 • Further Reading and Internet Websites 474 • Questions for Discussion 474 •

Chapter 23 Business Fluctuations and the Theory of Aggregate Demand 476

A. Business Fluctuations 477

Features of the Business Cycle 478 • Business-Cycle Theories 480 • Forecasting Business Cycles 481 • Econometric Modeling and Forecasting •

B. Foundations of Aggregate Demand 483

The Downward-Sloping Aggregate Demand Curve 484 • Shifts in Aggregate Demand • Relative Importance of Factors Influencing Demand 487 • Is the Business Cycle Avoidable? • Summary 488 • Concepts for Review 488 • Further Reading and Internet Websites 489 • Questions for Discussion 489 •
A. Central Banking and the Federal Reserve System 541

The Federal Reserve System 541 • Structure of the Federal Reserve • Overview of the Fed’s Operations • Balance Sheet of the Federal Reserve Banks • The Nuts and Bolts of Monetary Policy 545 • Open-Market Operations • Operating Procedures • Discount-Rate Policy: A Second Instrument • Changing Reserve Requirements • Monetary Policy in the Open Economy •

B. The Effects of Money on Output and Prices 552

The Monetary Transmission Mechanism 552 • The Money Market 553 • Supply of and Demand for Money • The Monetary Mechanism 555 • Graphical Analysis of Monetary Policy • Monetary Policy in an Open Economy • Monetary Policy in the AD-AS Framework • Monetary Effects in the Long Run • From Aggregate Demand to Aggregate Supply •

Summary 560 • Concepts for Review 561 • Further Reading and Internet Websites 562 • Questions for Discussion 562 •

PART SIX
ECONOMIC GROWTH AND MACROECONOMIC POLICY 565

Chapter 27 The Process of Economic Growth 567

The Long-Term Significance of Growth •

A. Theories of Economic Growth 568

The Four Wheels of Growth 569 • Human Resources • Natural Resources • Capital Formation • Technological Change and Innovation • Theories of Economic Growth 573 • The Classical Dynamics of Smith and Malthus • Economic Growth with Capital Accumulation: The Neoclassical Growth Model • Geometrical Analysis of the Neoclassical Model • The Importance of Technological Change • Technological Change as an Economic Output •

B. The Patterns of Growth in the United States 580

The Facts of Economic Growth • Relationship of the Seven Trends to Economic-Growth Theories • The Sources of Economic Growth • The Productivity Slowdown 584 •
Chapter 28  The Challenge of Economic Development 591

A. Economic Growth in Poor Countries 591
Aspects of a Developing Country 591 - Human Development - The Four Elements in Development 593 - Human Resources - Natural Resources - Capital Formation - Technological Change and Innovations - Vicious Cycles to Virtuous Circles - Strategies of Economic Development 598 - The Backwardness Hypothesis - Industrialization vs. Agriculture - State vs. Market - Growth and Openness - Summary Judgment -

B. Alternative Models for Development 601

Summary 609 - Concepts for Review 610 - Further Reading and Internet Websites 610 - Questions for Discussion 611 -

Chapter 29  Exchange Rates and the International Financial System 612

International Linkages 612 - Trends in Foreign Trade 613 -

A. The Balance of International Payments 614
Balance-of-Payments Accounts 614 - Debits and Credits - Details of the Balance of Payments -

B. The Determination of Foreign Exchange Rates 618
Foreign Exchange Rates 618 - The Foreign Exchange Market 618 - Effects of Changes in Trade - Exchange Rates and the Balance of Payments - Purchasing-Power Parity and Exchange Rates -

C. The International Monetary System 624
Fixed Exchange Rates: The Classical Gold Standard 624 - Hume’s Adjustment Mechanism - International Monetary Institutions after World War II 627 - The International Monetary Fund - The World Bank -
Chapter 30 Open-Economy Macroeconomics

A. Foreign Trade and Economic Activity
Net Exports and Output in the Open Economy • Determinants of Trade and Net Exports • Short-Run Impact of Trade on GDP • The Marginal Propensity to Import and the Spending Line • The Open-Economy Multiplier • Macroeconomic Policy and the Exchange-Rate System • Trade and Economic Activity, 1980–1999

B. Interdependence in the Global Economy
Economic Growth in the Open Economy • Saving and Investment in the Open Economy • Determination of Saving and Investment at Full Employment • Promoting Growth in the Open Economy

C. International Economic Issues at Century's End
Competitiveness and Productivity • “The Deindustrialization of America” • Trends in Productivity • Evolution of Monetary Systems in Europe • European Monetary System: Europe's Bretton Woods System • The Crisis of the European Monetary System • Speculative Attack! • Toward a Common Currency: The Euro • Costs and Benefits of Monetary Union • Final Assessment

Summary • Concepts for Review • Further Reading and Internet Websites • Questions for Discussion

PART SEVEN
UNEMPLOYMENT, INFLATION, AND ECONOMIC POLICY

Chapter 31 Unemployment and the Foundations of Aggregate Supply

A. The Foundations of Aggregate Supply
Determinants of Aggregate Supply • Potential Output • Input Costs • Aggregate Supply in the Short
Run and Long Run 664 • Why Do Short-Run AS and Long-Run AS Differ? •

B. Unemployment 666
Measuring Unemployment 666 • Impact of Unemployment 668 • Economic Impact • Social Impact • Okun’s Law 669 • Economic Interpretation of Unemployment 671 • Three Kinds of Unemployment • Microeconomic Foundations • Voluntary and Involuntary Unemployment • Sources of Wage Inflexibility • Labor Market Issues 675 • Who Are the Unemployed? • Duration of Unemployment • Sources of Joblessness • Unemployment by Age •

Summary 680 • Concepts for Review 681 • Further Reading and Internet Websites 681 • Questions for Discussion 682 •

Chapter 32 Ensuring Price Stability 683

A. Definition and Impact of Inflation 683
What Is Inflation? 683 • The History of Inflation • Three Strains of Inflation • Anticipated vs. Unanticipated Inflation • The Economic Impacts of Inflation 688 • Impacts on Income and Wealth Distribution • Impacts on Economic Efficiency • Macroeconomic Impacts on Efficiency and Growth • What Is the Optimal Rate of Inflation? •

B. Modern Inflation Theory 691
Prices in the AS-AD Framework 691 • Inertial Inflation • Demand-Pull Inflation • Cost-Push Inflation • Expectations and Inertial Inflation • Price Levels vs. Inflation • The Phillips Curve 694 • Interpretation • The Nonaccelerating Inflation Rate of Unemployment 696 • The Shifting Phillips Curve • The Vertical Long-Run Phillips Curve • Quantitative Estimates • The Declining NAIRU • Doubts about the NAIRU • Review •

C. Dilemmas of Anti-inflation Policy 702
How Long Is the Long Run? • How Much Does It Cost to Reduce Inflation? • Credibility and Inflation • How Can We Lower the NAIRU? • Wanted: A Low-Cost Anti-inflation Policy •

Summary 705 • Concepts for Review 706 • Further Reading and Internet Websites 706 • Questions for Discussion 707 •

Chapter 33 The Warring Schools of Macroeconomics 709
A. Classical Stirrings and Keynesian Revolution 710
   The Classical Tradition 710 • Say's Law of Markets • Policy Consequences • The Keynesian Revolution 711 • The Surprising Consequences • Theories and Policy 712 •

B. The Monetarist Approach 713
   The Roots of Monetarism 713 • The Equation of Exchange and the Velocity of Money • The Quantity Theory of Prices • Modern Monetarism 716 • The Essence of Monetarism • Comparison of Monetarist and Keynesian Approaches • The Monetarist Platform: Constant Money Growth • The Monetarist Experiment • The Decline of Monetarism •

C. New Classical Macroeconomics 720
   Foundations 720 • Rational Expectations • Implications for Macroeconomics 721 • Unemployment • The Illusory Phillips Curve • Misperceptions Theories • Real Business Cycles • The Ricardian View of Fiscal Policy • Efficiency Wages • Supply-Side Economics • Policy Implications 724 • Policy Ineffectiveness • The Desirability of Fixed Rules • Monetarist Rules and the Lucas Critique • State of the Debate 725 • A New Synthesis? • An Interim Appraisal 726 •

Summary 727 • Concepts for Review 728 • Further Reading and Internet Websites 728 • Questions for Discussion 729 •

Chapter 34 Policies for Growth and Stability 730