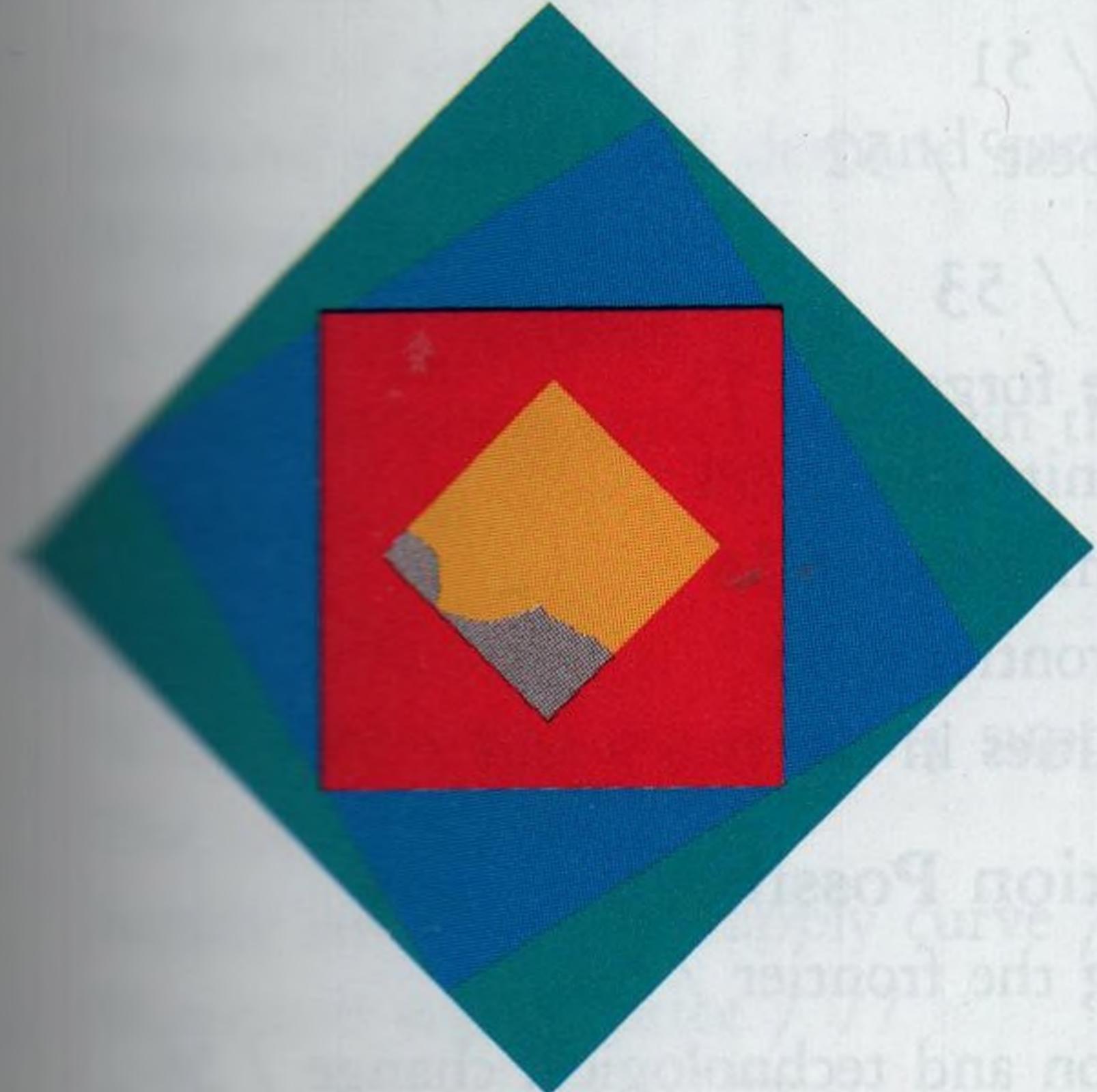


Contents



Chapter 1 What Is Economics? 5

Seven Big Questions / 6

- Production, consumption, and technological change / 6
- Wages and earnings / 7
- Unemployment / 7
- Inflation / 7
- Government / 7
- International trade / 8
- Wealth and poverty / 8
- Big questions with no easy answers / 8

Scarcity / 9

- Economic activity / 9
- Choice / 10
- Opportunity cost / 10
- Competition and cooperation / 10

The Economy / 11

- What is an economy? / 12
- The economy's working parts / 12
- Coordination mechanisms / 14
- Closed and open economies / 16

Economic Science / 17

- What is and what ought to be / 17
- Observation and measurement / 18
- Economic theory / 18
- Economic model / 18
- Microeconomic and macroeconomic models / 20
- Model, theory, and reality / 21

Our Advancing Knowledge

Adam Smith and the Birth of Economic Science / 22

Summary † / 24

Key Concepts / 25

Review Questions / 26

Problems / 26

†Summary, Key Concepts, Review Questions, and Problems appear at the end of each chapter.

Chapter 2 Making and Using Graphs 27*Three Kinds of Lies* / 28**Graphing Data** / 29

Two-variable graphs / 29

Time-series graphs / 30

Scatter diagrams / 35

Graphs Used in Economic Models / 38

Things that go up and down together / 38

Things that move in opposite directions / 39

Things that have a maximum and a minimum / 39

Things that are independent / 40

The Slope of a Relationship / 41

The definition of slope / 41

Calculating slope / 41

Graphing Relationships Among More Than Two Variables / 44

Other things being equal / 44

Chapter 3 Production, Specialization, and Exchange

49

Making the Most of It / 50**The Production Possibility Frontier** / 51

A model economy / 51

On the frontier is best? / 52

Opportunity Cost / 53

The best alternative forgone / 53

Measuring opportunity cost / 54

Increasing opportunity cost / 54

The shape of the frontier / 55

Production possibilities in the real world / 55

Changing Production Possibilities / 56

The cost of shifting the frontier / 56

Capital accumulation and technological change / 56

The real world again / 57

Gains from Trade / 59

Comparative advantage: Jane meets Joe / 59

Reaping the gains from trade / 60

Absolute advantage / 61

Exchange in the Real World / 62

Property rights / 62

Money / 63

Reading Between the Lines*Overcoming Obstacles to the Gains from Trade* / 64

Chapter 4 Demand and Supply 69

Slide, Rocket, and Roller Coaster / 70

Demand / 71

What determines the quantity demanded? / 71

The law of demand / 71

Demand schedule and demand curve / 72

Willingness to pay / 72

A change in demand / 73

Movement along versus a shift in the demand curve / 74

Supply / 76

What determines the quantity supplied? / 76

The law of supply / 76

Supply schedule and supply curve / 76

Minimum supply price / 77

A change in supply / 77

Movement along versus a shift in the supply curve / 78

Price Determination / 80

Price as a regulator / 80

Equilibrium / 80

Predicting Changes in Price and Quantity Traded / 82

A change in demand / 83

A change in supply / 86

Changes in both supply and demand / 87

Walkmans, apartments, and coffee / 87

Our Advancing Knowledge

Discovering the Laws of Demand and Supply / 84

Reading Between the Lines

Demand and Supply in Action:

A Temporary Increase in Demand / 90

Reading Between the Lines

Demand and Supply in Action:

An Increase in Supply / 92

Chapter 5 Elasticity 101

OPEC's Dilemma / 102

Price Elasticity of Demand / 103

Two possible scenarios / 103

Slope depends on units of measurement / 104

A units-free measure of response / 104

Calculating elasticity / 104

Elastic and inelastic demand / 106

Elasticity and the slope of the demand curve / 107

The size of the elasticity of demand / 107

Two Time-Frames for Demand / 110

Short-run demand / 110

Long-run demand / 111

Two demand curves / 111

Elasticity, Revenue, and Expenditure / 112

More Demand Elasticities / 113

Income elasticity of demand / 113

Cross elasticity of demand / 115

Elasticity of Supply / 117

Momentary supply / 117

Long-run supply / 120

Short-run supply / 120

Three supply curves / 120

Reading Between the Lines

Warning: Travel with Care / 118

Chapter 6 Markets in Action 125*Turbulent Times / 126***Housing Markets and Rent Ceilings / 127**

The market response to an earthquake / 128

After the earthquake / 129

A regulated housing market / 130

Search activity / 131

Black markets / 131

Rent ceilings in practice / 132

The Labor Market and Minimum Wage Regulation / 133

The minimum wage / 136

The minimum wage in reality / 137

Anticipating the Future / 138

Making forecasts / 138

Demand fluctuations / 140

Supply fluctuations / 141

***Inventories / 142**

Demand fluctuations / 143

Supply fluctuations / 143

The stock market / 144

Volatility in stock prices / 145

Reading Between the Lines*A Black Market for Personal Computers / 134***Part 3 Households' Choices****Talking with GARY BECKER / 151****Chapter 7 Utility and Demand 155***Water, Water, Everywhere / 156***Individual Demand and Market Demand / 157****Household Consumption Choices / 158**

Utility / 158

Utility and consumption / 158

Marginal utility / 159

Utility maximization / 160

Equalizing marginal utility per dollar spent / 162

Predictions of Marginal Utility Theory / 163

The effects of changes in prices / 163

The effects of a rise in income / 165

Criticisms of Marginal Utility Theory / 166

Utility can't be observed or measured / 166

"People aren't that smart" / 167

Some Implications of Marginal Utility Theory / 167

Consumer surplus and the gains from trade / 167

Calculating consumer surplus / 168

The paradox of value / 168

Chapter 8 Possibilities, Preferences, and Choices (Alternative to Chapter 7) / 173*Subterranean Movements / 174***Consumption Possibilities / 175***Constraint / 175**The budget equation / 176**Changes in prices and income / 177***Preferences / 179***A preference map / 180**Indifference curves and preferences / 181**Degree of substitutability / 182***Choice / 184***Properties of the best affordable point / 184***Predicting Consumer Behavior / 185***A change in price: The demand curve / 186**A change in income / 186**A change in price: Income and substitution effects / 189***Model, Theory, and Reality / 190***The model / 190**Assumptions / 190**Implications / 190**The theory / 191**What the theory is not / 191**Back to the facts / 191***Other Household Choices / 191***Time allocation and labor supply / 191**Consumption and savings / 195**Other choices / 195***Reading Between the Lines***Growing Pains at 40 / 192***Our Advancing Knowledge***Understanding Human Behavior / 194***Appendix: Utility and Preferences / 198***Utility and Indifference Curves / 198**Maximizing Utility and Choosing the Best Affordable Point / 199**Differences Between the Theories / 200***Chapter 9 Organizing Production / 205***Trees, Forests, and Apples / 206***The Firm's Economic Problem / 207***What is a firm? / 207**What firms have in common / 207**Forms of business organization / 207**The pros and cons of the different forms / 209***Business Finance / 211***How firms raise money / 211**Cost: Accountant's and economist's measures / 216**Plant and machinery / 217**Other costs / 219***Economic Efficiency / 220****Firms and Markets / 222***Why firms? / 223***Comparing Monopolies and Markets / 224***Price and output / 224**Allocative efficiency / 224**Redistribution / 224**Rent seeking / 224**Gains from monopoly / 224**Reading Between the Lines / 224**Local Monopolies / 224**Reading Between the Lines / 224**Regulation / 224**Reading Between the Lines / 224**Obstacles to entry / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Excess capacity / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing Knowledge / 224**Cost Curves / 224**Reading Between the Lines / 224**Our Advancing*

Chapter 10 Output and Costs	227
<i>Survival of the Fittest / 228</i>	
Firms' Objectives and Constraints / 229	
The objective: Profit maximization / 229	
Constraints / 229	
The short run and the long run / 230	
*The Short-run Production Function / 230	
Total, marginal, and average product curves / 230	
The shape of the short-run production function / 235	
Short-run Cost / 235	
Total, marginal, and average cost / 237	
Short-run cost curves / 237	
Real world short-run costs / 239	
Plant Size, Cost, and Capacity / 240	
The capacity utilization puzzle / 241	
Short-run cost and long-run cost / 241	
The production function / 242	
Diminishing returns / 243	
Returns to scale / 243	
Plant Size and Cost / 244	
Four different plants / 244	
Long-run average cost curve / 244	
Shifts in cost curves / 245	
Returns to Scale in Reality / 245	
Excess capacity / 245	
Operating "flat-out" / 245	
Our Advancing Knowledge	
<i>Cost Curves / 250</i>	

Chapter 11 Producing at Least Cost (Optional Chapter)	256
<i>A Dollar a Day in Amazonia / 257</i>	
Input Substitution / 258	
The substitutability of capital and labor / 259	
Isoquants / 260	
The marginal rate of substitution and the isoquant / 261	
The isoquant map / 261	
Isocost Lines / 263	
The isocost equation / 263	
The effect of input prices / 265	
The isocost map / 265	
The Least-Cost Technique / 266	
Marginal rate of substitution equals relative input price / 267	
Changes in input prices / 267	
Real World Choice of Technique / 268	
Industry variations in capital intensity / 268	
Differences across countries / 268	
Marginal Product and Marginal Cost / 270	
Marginal rate of substitution and marginal product / 270	
Marginal cost / 271	

Chapter 12 Competition 279**Hot Rivalry in Ice Cream** / 280**Perfect Competition** / 281

When a firm can't influence price / 281

Industry and firm elasticity of demand / 282

Competition in everyday life / 283

Firms' Choices in Perfect Competition / 283

Profit and revenue / 283

Profit-maximizing output / 285

Marginal calculations / 285

Profits in the short run / 288

Temporary plant shutdown / 288

The firm's supply curve / 291

Short-run Equilibrium / 292

Short-run industry supply curve / 293

Short-run competitive equilibrium / 293

Long-run Equilibrium / 294

Entry and exit / 294

Changes in plant size / 297

Predictions / 298

A permanent decrease in demand / 298

A permanent increase in demand / 298

Technological change / 302

Farms in distress / 302

Competition and Efficiency / 307

Allocative efficiency / 307

The invisible hand / 308

Obstacles to efficiency / 308

Reading Between the Lines**Biotechnology in the Milk Industry** / 304**Chapter 13 Monopoly** 314**The Profits of Generosity** / 315**How Monopoly Arises** / 316

Barriers to entry / 316

Single-Price Monopoly / 317

Demand and revenue / 317

Price and output decision / 320

Price Discrimination / 323

Price discrimination and total revenue / 326

Price discrimination and consumer surplus / 326

Price and output decisions with price discrimination / 327

Perfect price discrimination / 329

Discrimination among groups / 330

Limits to price discrimination / 330

Comparing Monopoly and Competition / 330

Price and output / 331

Allocative efficiency / 332

Redistribution / 333

Rent seeking / 333

Gains from monopoly / 335

Reading Between the Lines**Local Monopoly in Cable TV** / 324

Price-earning ratios / 428

Stock market volume and prices / 428

Takeovers and mergers / 428

Natural Resource Markets

Supply and demand in natural resource markets / 429

The price of a natural resource / 429

Unexpected price changes / 461

Conservation and pollution / 462

Reading Between the Lines*A Stock Market Boom* / 426*Oil Prices Key to Pollution* / 428*Oil Glut in Action* / 368*On Advances in Knowledge* / 322*Whale of Oligopoly* / 322

Chapter 14 Monopolistic Competition and Oligopoly 341

Fliers and War Games / 342

Varieties of Market Structure / 343

Monopolistic Competition / 346

Price and output in monopolistic competition / 346

Efficiency of monopolistic competition / 348

Product innovation / 348

Advertising / 348

Oligopoly / 349

Game theory / 349

Familiar games: What they have in common / 349

Rules of the oligopoly game / 353

Strategies in the oligopoly game / 353

Payoffs in the oligopoly game / 353

The Prisoner's Dilemma / 353

The payoff matrix / 356

Equilibrium / 356

Strategies and payoffs / 357

A bad outcome / 357

A Duopoly Game / 357

Cost and demand conditions / 358

Colluding to maximize profits / 359

Cheating on a collusive agreement / 360

The payoff matrix and equilibrium / 362

Repeated games / 363

Uncertainty / 365

Other oligopoly models / 365

Games and Price Wars / 366

Preserving secrecy / 366

Other Strategic Variables / 366

An R&D game in the disposable diaper industry / 367

Reading Between the Lines

Microwave Key to Popcorn War / 350

Reading Between the Lines

Oligopoly in Action / 368

Our Advancing Knowledge

Models of Oligopoly / 354

Part 6 Markets for Factors of Production

Talking with ORLEY ASHENFELTER / 375

Chapter 15 Pricing and Allocating Factors of Production 379

Many Happy Returns / 380

Factor Prices and Incomes / 381

An overview / 381

Demand for Factors / 384

Profit maximization / 384

Marginal revenue product and factor price / 384

The firm's demand for labor / 385

Market demand / 389

Elasticity of demand for labor / 389

Supply of Factors / 391

Supply of labor / 391

Supply of capital / 393

Supply of land / 395

Competitive Equilibrium / 396

Labor market equilibrium / 396

Capital market equilibrium / 396

Land market equilibrium / 398

Economic Rent and Transfer Earnings / 398

Chapter 16 Labor Markets 405*The Sweat of Our Brows / 406***Skill Differentials / 407**

The demand for skilled and unskilled labor / 407

The supply of skilled and unskilled labor / 407

Wage rates of skilled and unskilled labor / 409

Do education and training pay? / 409

Union-Nonunion Wage Differentials / 410

Unions' objectives and constraints / 411

Unions in a competitive labor market / 412

Monopsony / 412

Monopsony, minimum wage, and unions / 417

The scale of union-nonunion wage differentials / 418

Wage Differentials Between Sexes and Races / 418

Discrimination / 418

Human capital differences / 420

Degrees of specialization / 421

Comparable-Worth Laws / 422**Alternative Compensation Rules / 423**

Time-related compensation rules / 423

Performance-related compensation rules / 423

Team performance / 424

Comparative performance / 424

Principals and Agents / 424

Observing output / 425

Observing effort / 425

Observing neither output nor effort / 425

Efficient Compensation Rules / 426

Income, effort, and luck / 426

Compensation rules based on rank / 430

Avoiding monitoring costs / 432

Labor market equilibrium / 432

Reading Between the Lines*A Labor Union Faces a Fall in Demand / 414***Reading Between the Lines***Bonus Schemes in Action / 428***Chapter 17 Capital and Natural Resource Markets 437***Boom and Bust / 438***Capital, Investment, and Saving / 439**

Financial assets and real assets / 439

Capital and investment / 439

Saving and portfolio choice / 440

Capital Markets in the United States Today / 442

The nation's balance sheet / 443

Demand for Capital / 445

Net present value of investment / 445

Demand curve for capital / 447

Changes in the demand for capital / 448

The Supply of Capital / 449

Interest rate / 449

Supply curve of capital / 449

Changes in the supply of capital / 450

Portfolio choices / 450

Interest Rates and Asset Prices / 451

Two sides of the same coin / 451

Equilibrium interest rate / 451

Stock market value of a firm / 452

Rational expectations / 453

Price-earnings ratio / 453

Stock market volume and prices / 453

Takeovers and mergers / 454

Natural Resource Markets / 455

Supply and demand in a natural resource market / 455

The price of a natural resource / 459

Unexpected price changes / 461

Conservation and doomsday / 462

Reading Between the Lines*A Stock Market Boom / 456*

Chapter 18	<i>The Distribution of Income and Wealth</i>	467
<i>Riches and Rags / 468</i>		
Distribution of Income and Wealth in the United States Today / 469		
Lorenz curves for income and wealth / 470		
Inequality over time / 472		
Who are the rich and the poor? / 472		
Income redistribution / 474		
Comparing Like with Like / 477		
Wealth versus income / 477		
Human capital / 477		
Human and nonhuman capital / 477		
Annual or lifetime income and wealth / 478		
Factor Prices and Endowments / 481		
Labor market and wages / 481		
Distribution of endowments / 482		
Choices and the Distribution of Income and Wealth / 483		
Wages and the supply of labor / 483		
Savings and bequests / 484		
Ideas About Fairness / 485		
End-state theories / 486		
How much inequality is consistent with end-state theories? / 486		
The big tradeoff / 486		
The process view of justice / 487		
<i>Reading Between the Lines</i>		
<i>Microwave Key to Popcorn War / 490</i>		
<i>Reading Between the Lines</i>		
<i>Oligopoly in Action / 498</i>		
<i>Our Advancing Knowledge</i>		
<i>Models of Oligopoly / 501</i>		

Part 7 Markets and Government

Talking with ALFRED KAHN / 491

Chapter 19	<i>Market Failure</i>	495
<i>Government—The Solution or the Problem? / 496</i>		
The Government Sector / 497		
The structure and scale of government / 497		
The scale and growth of government / 497		
The economic theory of government / 498		
Public Goods / 499		
Private goods and public goods / 499		
Free riding / 500		
Benefits and costs / 500		
Private provision / 503		
Public provision / 503		
Externalities / 504		
Private property rights and externalities / 504		
Taxes and external costs / 505		
Subsidies and external benefits / 509		
Reading Between the Lines		
<i>The Greenhouse Effect / 506</i>		
<hr/>		
Chapter 20	<i>Public Choice</i>	513
Rhetoric and Reality / 514		
The Political Marketplace / 515		
The behavior of politicians and voters / 516		
Externalities / 520		
Interest groups and redistribution / 520		
Voting for income redistribution / 522		
Model and reality / 524		
The behavior of bureaucrats / 524		
Voter ignorance and well-informed interest groups / 525		
Taxes and Subsidies / 528		
Excise taxes / 529		
Why do tax rates vary? / 530		
Subsidies / 532		
Subsidies with quotas / 533		
Our Advancing Knowledge		
<i>Public Choice / 518</i>		
Reading Between the Lines		
<i>The Political Economy of Tax Reform / 526</i>		

Chapter 21 Regulation and Antitrust Law / 537**Public Interest or Special Interests? / 538****Market Intervention / 539**

Regulation / 539

Antitrust law / 539

Surpluses and their distribution / 540

The Economic Theory of Regulation / 540

The demand for regulation / 540

The supply of regulation / 540

Equilibrium / 541

Regulation and Deregulation / 542

The scope of regulation / 542

The regulatory process / 543

Natural monopoly / 544

Public interest or capture? / 547

Cartel regulation / 547

Making predictions / 549

Antitrust Law / 549

Landmark antitrust cases / 549

Public or special interest? / 557

Reading Between the Lines**Airline Deregulation / 550****Reading Between the Lines****Regulating Long Distance Phone Rates / 554****Net Present Value and Investment / 671****Calculating Net Present Value / 671****Expected Inflation and Real Interest Rate / 672****Investment Demand / 673****Chapter 22 Inflation, Unemployment, Cycles, and Deficits / 565****Shopping Cart Blues / 566****Inflation / 567**

The inflation rate and the price level / 567

The recent inflation record / 568

Inflation and the value of money / 568

Is inflation a problem? / 569

The problem of unanticipated inflation / 569

The problem of anticipated inflation / 571

Indexing / 572

Unemployment / 572

What is unemployment? / 572

Measuring unemployment / 572

The unemployment record / 573

The benefits and costs of unemployment / 573

Gross National Product / 575

Nominal GNP and real GNP / 576

Real GNP—The record / 576

The importance of real GNP / 577

The Business Cycle / 579

Unemployment and the business cycle / 580

The stock market and the business cycle / 580

Inflation and the business cycle / 582

Government Deficit and International Deficit / 583

Government deficit / 583

International deficit / 584

Chapter 23 Measuring Output and the Price Level 588

Reading the Tea Leaves / 589

The Circular Flow of Expenditure and Income / 590

Circular flows in a model economy / 590
Income and expenditure accounts / 594

U.S. National Income and Product Accounts / 595

The expenditure approach / 595
The factor incomes approach / 596
The output approach / 598
Measured and actual gross national product / 600

The Price Level and Inflation / 601

Consumer price index / 601
GNP deflator / 603
Inflation and relative price changes / 605
The consumer price index and the cost of living / 606

Reading Between the Lines

Consumer Prices in July Increased by a Modest 0.2% / 608

Chapter 24 Aggregate Demand and Aggregate Supply 612

What Makes Our Garden Grow? / 613

Aggregate Demand / 614

Why the aggregate demand curve slopes downward / 615
Money and the real balance effect / 615
Changes in aggregate demand / 617
Shifts of the aggregate demand curve / 620

Aggregate Supply / 620

Long-run aggregate supply / 621
Short-run aggregate supply / 622
Changes in both long-run and short-run aggregate supply / 624
Changes in short-run aggregate supply / 625
Shifts in the aggregate supply curves / 625

Macroeconomic Equilibrium / 626

Determination of real GNP and the price level / 626
Macroeconomic equilibrium and full employment / 627
The effects of a change in aggregate demand / 628
The effects of a change in short-run aggregate supply / 630

Trends and Cycles in the U.S. Economy / 631

The economy in 1988–89 / 631
Growth, inflation, and cycles / 634

Reading Between the Lines

The Tightrope Between Inflation and Recession / 632

Chapter 25 Expenditure Decisions 643*Fear and Trembling in the Shopping**Index / 644***The Components of Aggregate****Expenditure / 645**

Relative importance of the components of aggregate expenditure / 645

Volatility of the components of aggregate expenditure / 645

Consumption Expenditure and Saving / 646

The consumption function and the saving function / 648

The average propensities to consume and to save / 649

The marginal propensities to consume and to save / 650

The U.S. consumption function / 652

Shifts in the consumption function / 653

The aggregate consumption function / 653

Investment / 655

What determines investment? / 655

Investment demand / 661

Accelerator principle / 661

Investment demand in the United States / 663

Net Exports / 665

Exports / 665

Imports / 666

Net export function / 667

Our Advancing Knowledge**Consumption and Saving / 656****Appendix: Net Present Value and Investment / 671****Calculating Net Present Value / 671****Expected Inflation and Real Interest Rate / 672****Investment Demand / 673****Chapter 26 Expenditure and Income 674***Economic Amplifier or Shock Absorber? / 675***Aggregate Expenditure and Real GNP / 676**

Aggregate expenditure schedule / 676

Aggregate expenditure curve / 677

Autonomous and induced expenditure / 678

Slope of the aggregate expenditure curve / 678

Equilibrium Expenditure / 679

When planned expenditure equals real GNP / 679

Convergence to equilibrium / 679

Fluctuations in Expenditure and in Real GNP / 681

A change in autonomous expenditure / 682

A change in the marginal propensity to spend / 682

The effects of a change in the marginal propensity to spend / 684

The paradox of thrift / 685

The Multiplier / 686

The multiplier and the marginal propensity to spend / 686

Why is the multiplier greater than 1? / 688

Fiscal policy multipliers / 690

The multiplier in recession and recovery / 692

Aggregate Expenditure and Aggregate Demand / 693

Aggregate planned expenditure and the price level / 693

Aggregate demand curve and autonomous expenditure / 695

Equilibrium GNP and the price level / 696

Chapter 27 Money, Banking, and Prices	701
<i>Money Makes the World Go Around</i> / 702	
What Is Money? / 703	
The definition of money / 703	
The functions of money / 703	
The different forms of money / 705	
Money in the United States today / 707	
Financial Intermediaries / 711	
Commercial banks / 714	
Other financial intermediaries / 715	
The economic functions of financial intermediaries / 716	
Financial innovation / 716	
How banks create money / 717	
Real world money multipliers / 719	
Bank panic and failure / 720	
Money and the Price Level / 720	
Money in the <i>AD-AS</i> model / 720	
The quantity theory of money / 721	
Historical evidence on the quantity theory of money / 722	
International evidence on the quantity theory of money / 723	
Reading Between the Lines	
<i>Economical Money</i> / 712	

Chapter 28 The Federal Reserve, Money, and Interest Rates 727	
<i>Fiddling with the Knobs</i> / 728	
The Federal Reserve System / 729	
The origins of the Federal Reserve System / 729	
The structure of the Federal Reserve System / 730	
The Fed's power center / 731	
Policy tools / 731	
The Fed's balance sheet / 733	
How open market operations work / 734	
The multiplier effect of an open market operation / 734	
The U.S. money multiplier / 737	
Other policy tools / 739	
The Demand for Money / 740	
The motives for money holding / 741	
The influences on money holding / 741	
The demand for real money / 743	
Shifts in the demand curve for real money / 744	
The demand for money in the United States / 746	
Interest Rate Determination / 748	
Interest rates and asset prices / 748	
Money market equilibrium / 748	
Changing the interest rate / 750	
The Fed in action / 750	
Profiting by predicting the Fed / 752	

Chapter 29 Aggregate Demand Fluctuations 755

Congress, the Fed, and the White House / 756

Money, Interest, and Aggregate Demand / 757

The interest rate transmission mechanism / 757

Adjustment process / 760

How potent is monetary policy? / 763

Time lags of monetary policy / 765

Policy formation lag / 766

Other transmission mechanisms / 766

Fiscal Policy and Aggregate Demand / 768

Fiscal and monetary policy interaction: Crowding out / 768

Influencing the composition of aggregate demand / 769

Politics of monetary and fiscal policy / 769

Fiscal policy and the exchange rate / 770

Time lags of fiscal policy / 770

The Keynesian–Monetarist Controversy / 771

Extreme Keynesianism / 771

Extreme monetarism / 775

The intermediate position / 775

Sorting out the competing claims / 775

Steering Between the Lines

Money and the Stock Market / 772

Appendix: The IS-LM Model of Aggregate Demand / 779

Equilibrium Expenditure and Real GNP / 779

The IS Curve / 781

Money Market Equilibrium / 781

The *LM* curve / 782

The equilibrium interest rate and real GNP / 783

The Aggregate Demand Curve / 784

The effects of a change in price level on the *LM* curve / 785

The aggregate demand curve derived / 786

Fiscal policy and aggregate demand / 786

Monetary policy and aggregate demand / 787

Chapter 30 Unemployment and Aggregate Supply 789

Jobs and Incomes / 790

The Short-run Aggregate Production Function / 791

The marginal product of labor / 791

Economic growth and technological change / 792

Variable growth rates / 793

The U.S. short-run aggregate production function / 793

The Demand for Labor / 794

Diminishing marginal product and the demand for labor / 795

The U.S. demand for labor / 796

The Supply of Labor / 797

The determination of hours per worker / 797

The participation rate / 799

Intertemporal substitution / 799

Wages and Employment / 799

The flexible wage theory / 800

The sticky wage theory / 803

Unemployment / 806

Indivisible labor / 806

Job search and unemployment / 806

Our Advancing Knowledge

Unemployment: Waste or “Natural”? / 808

Chapter 31 Expectations and Inflation 816**Wanted: A Crystal Ball / 817****Macroeconomic Equilibrium / 818**

Equilibrium in the markets for goods, money, and labor / 818

Individuals in a macroeconomic equilibrium / 818

The effects of price level expectations / 819

The cost of wrong forecasts / 821

Minimizing the losses from wrong expectations / 821

The Rational Expectation of the Price**Level / 822**

How people form expectations in the “real world” / 822

How economists predict people’s forecasts / 822

Calculating a rational expectation of the price level / 822

Theory and reality / 826

Rational Expectations Equilibrium / 826

Individuals in a rational expectations equilibrium / 828

Inflation / 828

Anticipated inflation / 828

Unanticipated inflation / 829

The quantity theory of money / 831

U.S. inflation and money growth since 1960 / 835

Interest Rates and Inflation / 836

Expectations of inflation and interest rates / 837

Inflation and interest rates in the United States / 838

Money supply and interest rates again / 838

Our Advancing Knowledge**Expectations / 824****Our Advancing Knowledge****The Phillips Curve / 832****Chapter 32 Recessions and Depressions 842****What Goes Up Must Come Down / 843****Two Recent Recessions / 844**

The origins of recent recessions / 844

Recession mechanism / 846

The labor market in recession / 849

Comparing the two recessions / 853

Another Great Depression? / 853

What the Great Depression was like / 853

Why the Great Depression happened / 857

Can it happen again? / 858

Reading Between the Lines**Monetary Policy in Action / 854**

The influence of the Fed on the economy / 854

The demand for real money / 854

Shifts in the demand for real money / 854

The demand for money in the economy / 854

Interest Rate Determination / 855

Interest rates and asset prices / 855

Money market equilibrium / 855

Changing the interest rate / 855

The Fed in action / 858

Profiting by predicting the Fed / 858

Chapter 33 Stabilizing the Economy / 867**Who's in Charge? / 868****The Stabilization Problem / 869**

Macroeconomic policy targets / 869

Macroeconomic performance indexes / 870

The Key Players / 872

The Federal Reserve Board / 872

The Congress / 872

The administration / 873

Alternative Means Used to Stabilize the Economy / 874

Fixed rules and feedback rules / 874

Expectations and policy rules / 874

The two rules compared / 875

So feedback rules are better? / 876

Variability of aggregate demand with feedback rules / 880

Stabilization Policy and Aggregate Supply / 881

Cost-push inflation / 881

Slowdown in capacity growth / 882

Controlling inflation by announcing monetary policy / 884

Stabilizing the U.S. Economy in the 1980s and 1990s / 884

The Fed's finest hour? / 884

The Fed on a tightrope / 885

Our Advancing Knowledge**The Quantity Theory and Monetarism / 878****Reading Between the Lines****Going for a Soft Landing / 886****Chapter 34 The Deficit / 890****Spendthrift Uncle Sam / 891****The Sources of the Deficit / 892**

The federal budget since 1960 / 893

Taxes / 894

Expenditure / 895

The deficit and the business cycle / 895

The deficit in recovery / 896

The Real Deficit / 897

The real deficit of a family / 897

The government's real deficit / 898

The real and nominal deficit in the United States / 899

Deficits and Inflation / 900

Financing the deficit / 900

Unpleasant arithmetic / 901

A Burden on Future Generations? / 902

Crowding out / 902

Ricardian equivalence / 903

Eliminating the Deficit / 906

Reducing expenditure / 907

Increasing revenue / 909

Our Advancing Knowledge**David Ricardo and the Deficit / 904****Glossary / G-1****Index / I-1****Macroeconomic Domains / M-1**

Chapter 35 Trading with the World 917

Silk Routes and Rust Belts / 918

Patterns and Trends in International Trade / 919

U.S. international trade / 919

Trends in trade / 921

Opportunity Cost and Comparative Advantage / 922

Opportunity cost in Pioneerland / 922

Opportunity cost in Magic Empire / 923

Comparative advantage / 923

The Gains from Trade / 924

The basic idea / 924

Reaping the gains from trade / 924

Balanced trade / 925

Changes in production and consumption / 925

Calculating the gains from trade / 926

Gains for all / 927

Absolute advantage / 927

Gains from trade in reality / 927

A puzzle / 928

Trade Restrictions / 929

The history of tariffs / 929

How tariffs work / 931

Nontariff barriers / 935

How quotas and VERs work / 935

Why quotas and VERs might be preferred to tariffs / 937

Dumping and countervailing duties / 937

Why is international trade restricted? / 937

Compensating losers / 938

Political outcome / 938

Reading Between the Lines

Winners and Losers / 932

Chapter 36 The Balance of Payments and the Dollar 942

For Sale: America / 943

Financing International Trade / 944

Balance of payments accounts / 944

Borrowers and lenders, debtors and creditors / 947

Current account balance / 947

Bookkeeping and behavior / 949

Foreign Exchange and the Dollar / 951

Foreign exchange regimes / 951

Recent exchange rate history / 954

Exchange rate determination / 956

Why is the exchange rate so volatile? / 961

Arbitrage, Prices, and Interest Rates / 962

Arbitrage / 962

Purchasing power parity / 963

Interest-rate parity / 964

A world market / 969

Reading Between the Lines

The Making of a Mishmash / 952

Reading Between the Lines

Big Mac Currencies / 966

Chapter 37 Growth and Development 977*Round the World / 978***The International Distribution of Income / 979**

- Poorest countries / 979
- Developing countries / 980
- Newly industrialized countries / 980
- Industrial countries / 980
- Oil-rich countries / 980
- Communist countries / 980
- The world Lorenz curve / 980

Growth Rates and Income Levels / 981**Inputs, Technological Progress, and Economic Growth / 983**

- Capital accumulation / 984
- Technological change / 984

Obstacles to Economic Growth / 985

- Population growth / 985
- Low saving rate / 987
- International debt / 988
- The underdevelopment trap / 989

Overcoming the Obstacles to Economic Development / 989

- Population control / 989
- Foreign aid / 989
- Trade and development / 989
- Aggregate demand stimulation and growth / 991

Reading Between the Lines**Deflation and Development / 992****Chapter 38 Comparing Economic Systems 998***Perestroika / 999***The Fundamental Economic Problem / 1000**

- Scarcity / 1000
- Getting onto the production possibility frontier / 1000
- Producing the right quantities of goods and services / 1000
- The distribution of economic well-being / 1001

Alternative Economic Systems / 1001

- Capitalism / 1002
- Socialism / 1003
- The pros and cons of capitalism / 1003

The Varieties of Capitalism / 1004

- Japan / 1004
- Welfare state capitalism / 1005

The Soviet Union / 1006

- History / 1006
- Planning and command system / 1007

China / 1011

- The Great Leap Forward / 1011
- 1978 reforms / 1012

Comparing Capitalism and Socialism / 1013

- Capitalism / 1013
- Socialism / 1014
- Market socialism / 1015
- Perestroika* in the model economy / 1015
- Inefficiencies in capitalism / 1015
- Economic growth and average living standards / 1015
- Income inequality under the two systems / 1017

Glossary / G-1**Index / I-1****Macroeconomic Data Tables I-18**