



Stephen L. Slavin

Union County College
Cranford, New Jersey

The New School University
New York City

**Mc
Graw
Hill**
Education

Expanded Contents

Preface x

1 A Brief Economic History of the United States 1

Introduction 1

The American Economy in the 19th Century 2

- Agricultural Development 2
- The National Railroad Network 4
- The Age of the Industrial Capitalist 5

The American Economy in the 20th Century 6

- The Roaring Twenties 7
- The 1930s: The Great Depression 7
- The 1940s: World War II and Peacetime Prosperity 10
- The 1950s: The Eisenhower Years 14
- The Soaring Sixties: The Years of Kennedy and Johnson 14
- The Sagging Seventies: The Stagflation Decade 15
- The 1980s: The Age of Reagan 15
- The State of American Agriculture 16
- The “New Economy” of the Nineties 17
- The Ominous 00s 18

Economics in Action: America’s Place in History 19

2 Resource Utilization 25

Economics Defined 25

The Central Fact of Economics: Scarcity 26

- Scarcity and the Need to Economize 26
- The Economic Problem 26
- The Four Economic Resources 26
- Opportunity Cost 28

Full Employment and Full Production 29

The Production Possibilities Curve 32

Productive Efficiency 38

Economic Growth 38

Economics in Action: Will You Be Underemployed When You Graduate? 41

3 The Mixed Economy 49

The Three Questions of Economics 49

- What Shall We Produce? 49
- How Shall These Goods and Services Be Produced? 50

For Whom Shall the Goods and Services Be Produced? 50

To Sum Up 51

The Invisible Hand, the Price Mechanism, and Competition 51

- The Invisible Hand 51
- The Price Mechanism 52
- Competition 52
- Trust 53
- Equity and Efficiency 53

The Circular Flow Model 54

The Economic Role of Government 55

Market Failure 56

- Externalities 56
- Curbing Environmental Pollution 58
- Lack of Public Goods and Services 59

Government Failure 60

Capital 62

The “Isms”: Capitalism, Communism, Fascism, and Socialism 64

- The Decline and Fall of the Communist System 67
- Transformation in China 67
- Last Word: The End of the Isms? 68

Economics in Action 1: The Bridge to Nowhere 69

Economics in Action 2: The Internal Revenue Code 69

4 Supply and Demand 75

Demand 75

Supply 76

Equilibrium 78

Surpluses and Shortages 78

Shifts in Demand and Supply 79

Price Ceilings and Price Floors 83

Applications of Supply and Demand 88

- Interest Rate Determination 88
- College Parking 89
- The Rationing Function of the Price System 90

Last Word 91

Economics in Action: High Gas Prices—Something Only an Economist Could Love 91

5 The Household–Consumption Sector 99

- GDP and Big Numbers 99
- Consumption 100
- Individual Saving 101
- Average Propensity to Consume and Average Propensity to Save 102
- Marginal Propensity to Consume and Marginal Propensity to Save 104
- Graphing the Consumption and Saving Functions 105
 - Reading a Graph 105
- The Consumption Function 106
- The Saving Function 108
- Autonomous Consumption and Induced Consumption 110
- What the Consumer Buys 111
- Determinants of the Level of Consumption 113
 - The Level of Disposable Income 113
 - Credit Availability 114
 - Stock of Liquid Assets in the Hands of Consumers 114
 - Stock of Durable Goods in the Hands of Consumers 115
 - Keeping Up with the Joneses 115
 - Maintaining a “Basic” Standard of Living 115
 - Consumer Expectations 115
 - The Wealth Effect 116
- The Permanent Income Hypothesis 116
- Is the Consumer Really King? 116
- Why Do We Spend So Much and Save So Little? 117
- Total Saving: Individual Saving + Business Saving + Government Saving 119
- Economics in Action: The American Consumer—World-Class Shopper 120

6 The Business–Investment Sector 127

- Proprietorships, Partnerships, and Corporations 127
 - The Proprietorship 127
 - The Partnership 128
 - The Corporation 128
 - Stocks and Bonds 131
 - Capitalization and Control 131
 - Market Capitalization 132
 - The Business Population 134
- Investment 135
 - Investment Defined 135
 - Why Isn’t Education Spending Classified as Investment? 137
- How Do Savings Get Invested? 138
- Gross Investment versus Net Investment 139

- Building Capital 140
- Raising Capital to Start Your Own Business 140
- The Determinants of the Level of Investment 141
 - (1) The Sales Outlook 141
 - (2) Capacity Utilization Rate 141
 - (3) The Interest Rate 142
 - (4) The Expected Rate of Profit 142
 - Why Do Firms Invest? 143
- Graphing the C + I Line 144
- The Summing Up of Investment 145
- Last Word: America’s Business Environment 146
- Economics in Action: “Benedict Arnold Corporations”? 147

7 The Government Sector 153

- Introduction: The Growing Economic Role of Government 153
- Government Spending 154
 - Federal Government Spending 154
 - State and Local Government Spending 156
 - Government Purchases versus Transfer Payments 157
- Graphing the C + I + G Line 158
- Taxes 159
 - The Average Tax Rate and the Marginal Tax Rate 159
 - Types of Taxes 161
 - Sources of Federal Revenue 163
 - Recent Tax Legislation 166
 - Sources of State and Local Revenue 168
 - The State and Local Fiscal Dilemma 168
 - Comparison of Taxes in the United States and Other Countries 170
- The Economic Role of Government 170
 - (1) Provision of Public Goods and Services 171
 - (2) Redistribution of Income 171
 - (3) Stabilization 171
 - (4) Economic Regulation 172
 - Conclusion 172

Economics in Action 1: Will Social Security Be There for You? 173

Economics in Action 2: Should Millionaires Pay More Taxes? 174

8 The Export–Import Sector 181

- The Basis for International Trade: Specialization and Exchange 181
- Specialization and Exchange 182
- U.S. Exports and Imports 183
- Outsourcing and Offshoring 186
- A Summing Up: C + I + G + X_n 186

World Trade Agreements and Free Trade Zones 187

- Free Trade Zones 187
- World Trade Agreements 190

Economics in Action: Is Your School Sweatshirt
Sewn in a Sweatshop? 193**9** Gross Domestic Product 199

What Is Gross Domestic Product? 199

How GDP Is Measured 201

Two Things to Avoid When Compiling GDP 203

- Multiple Counting 203
- Treatment of Transfer Payments and Financial Transactions 204

Nominal GDP versus Real GNP 205

International GDP Comparisons 210

Per Capita Real GDP 210

Shortcomings of GDP as a Measure of National
Economic Well-Being 213

- Production That Is Excluded 213
- Volunteer Work 215
- Treatment of Leisure Time 216
- Human Costs and Benefits 216
- What Goes into GDP? 217

Economics in Action: GDP or GPI? 218

10 Economic Fluctuations,
Unemployment, and Inflation 225

Economic Fluctuations 225

- Is There a Business Cycle? 225
- Cycle Turning Points: Peaks and Troughs 226
- The Conventional Three-Phase Business Cycle 227
- Are Economic Fluctuations Becoming Less
Extreme? 228
- Business Cycle Theories 230

Business Cycle Forecasting 231

Unemployment 233

- The Problem 233
- How the Unemployment Rate Is Computed 234
- How Accurate Is the Unemployment Rate? 236
- Types of Unemployment 238
- Natural Unemployment Rate 240

Inflation 241

- Defining Inflation 241
- Deflation and Disinflation 243
- The Post-World War II History of Inflation 244
- The Construction of the Consumer Price Index 246
- Anticipated and Unanticipated Inflation: Who Is Hurt by
Inflation and Who Is Helped? 247
- What's a Dollar Worth Today? 249
- Theories of the Causes of Inflation 249
- Inflation as a Psychological Process 251
- Creeping Inflation and Hyperinflation 251

The Misery Index 254

Economics in Action: Where Are All the Jobs? 255

11 Classical and Keynesian
Economics 263

Part I: The Classical Economic System 263

- Say's Law 263
- Supply and Demand Revisited 265

The Classical Equilibrium: Aggregate Demand
Equals Aggregate Supply 267

- The Aggregate Demand Curve 267
- The Long-Run Aggregate Supply Curve 269
- The Short-Run Aggregate Supply Curve 270

Part II: The Keynesian Critique of the Classical
System 273

Part III: The Keynesian System 276

- The Keynesian Aggregate Expenditure Model 276

Disequilibrium and Equilibrium 279

- (1) Aggregate Demand Exceeds Aggregate Supply 279
- (2) Aggregate Supply Exceeds Aggregate Demand 280
- (3) Summary: How Equilibrium Is Attained 280

Keynesian Policy Prescriptions 280

Economics in Action: Keynes and Say in the
21st Century 281**12** Fiscal Policy and the National
Debt 287

Putting Fiscal Policy into Perspective 287

Part I: The Recessionary Gap and the Inflationary
Gap 288

- The Recessionary Gap 288
- The Inflationary Gap 289

Part II: The Multiplier and Its Applications 290

- The Multiplier 291
- Applications of the Multiplier 292

Part III: The Automatic Stabilizers 294

- Personal Income and Payroll Taxes 295
- Personal Savings 295
- Credit Availability 295
- Unemployment Compensation 295
- The Corporate Profits Tax 296
- Other Transfer Payments 297

Part IV: Discretionary Fiscal Policy 298

- Making the Automatic Stabilizers More Effective 298
- Public Works 298
- Changes in Tax Rates 299
- Changes in Government Spending 299
- Who Makes Fiscal Policy? 299

Part V: Fiscal Policy Lags 301

- Defining the Lags 301
- Chronology of the Lags in 2008 301

Part VI: The Economic Stimulus Package of 2009 302

- The Economic Stimulus Act of 2009 302
- How Effective Was the Stimulus Package? 303
- Was the Deficit Too Big? 303
- The Chinese Stimulus Plan 304
- Stimulus II 304

Part VII: The Deficit Dilemma 304

- Deficits, Surpluses, and the Balanced Budget 304
- Deficits and Surpluses: The Record 305
- Why Are Large Deficits So Bad? 306
- Must We Balance the Budget Every Year? 307

Part VIII: The Crowding-Out and Crowding-In

Effects 307

Part IX: The National Debt 309**Last Word: The Debt Ceiling, the Fiscal Cliff, and Budget Sequestration 315****Economics in Action 1: A Jobless Recovery? 316****Economics in Action 2: Trillion-Dollar Deficits as Far as the Eye Can See 316**

13 Money and Banking 325

Money 325

- The Three Jobs of Money 325
- Medium of Exchange 325
- Standard of Value 325
- Store of Value 325
- Other Useful Properties of Money 325
- Money versus Barter 327
- Our Money Supply 328
- How Do We Pay Our Bills? 329
- M1 and M2 329
- Our Growing Money Supply 331
- The Demand for Money 331

Banking 333

- A Short History of Banking 333
- Modern Banking 335

Bank Regulation 339

- Branch Banking and Bank Chartering 339
- The Federal Deposit Insurance Corporation 341
- The Savings and Loan Debacle 341

Economics in Action: Overdraft Privileges 343

14 The Federal Reserve and Monetary Policy 349

The Federal Reserve System 349

- The Federal Reserve District Banks 350
- The Board of Governors 350
- Independence of the Board of Governors 352
- Legal Reserve Requirements 352
- Primary and Secondary Reserves 354

The Creation and Destruction of Money 354

- The Creation of Money 354
- The Destruction of Money 355
- Limits to Deposit Creation 355

Deposit Expansion 355

- How Deposit Expansion Works 355
- The Deposit Expansion Multiplier 356
- Cash, Checks, and Electronic Money 357

The Tools of Monetary Policy 358

- How Open-Market Operations Work 358
- The Federal Open Market Committee 360
- Discount Rate and Federal Funds Rate Changes 362
- Paying Interest on Reserve Deposits 363
- Changing Reserve Requirements 364
- Summary: The Tools of Monetary Policy 365

The Fed's Effectiveness in Fighting Inflation and Recession 366

- A Summing Up: The Transmission Mechanism 366
- The Liquidity Trap 368

Monetary Policy Lags 369**The Depository Institutions Deregulation and Monetary Control Act of 1980 370****The Banking Act of 1999 371****The Housing Bubble, the Subprime Mortgage Mess, and the Financial Crisis of 2008 372****Restoring a Normally Functioning Financial System 374**

- The \$700,000,000,000 TARP Bailout 374
- Quantitative Easing 375
- Financial Regulatory Reform 376

Economics in Action: Should Ben Bernanke Have Been Given a Second Term? 377

15 A Century of Economic Theory 385

The Equation of Exchange 385**The Quantity Theory of Money 387****Classical Economics 388****Keynesian Economics 390****The Monetarist School 391**

- The Importance of the Rate of Monetary Growth 391
- The Basic Propositions of Monetarism 392
- The Monetary Rule 394
- The Decline of Monetarism 394

Supply-Side Economics 394

- The Work Effect 395
- The Saving and Investment Effect 395
- The Elimination of Productive Market Exchanges 395
- The Laffer Curve 396
- Andrew Mellon: Our First Supply-Side Economist 396

Rational Expectations Theory 397

- The Three Assumptions of Rational Expectations Theory 398

21st-Century Economic Theory 400

- The Supply-Side Revival? 400
- The Economic Behaviorists 401

Conventional Macropolicy to Fight Recessions and Inflation 402

- Fighting Recessions 402
- Two Policy Dilemmas 402
- Fighting the Great Recession 403
- Conventional Macropolicy to Fight Inflation 403
- Fighting Inflationary Recessions 403
- The Limits of Macropolicy 404

Conclusion 404**Economics in Action: True Believers 405****16 Economic Growth and Productivity 413**

The Industrial Revolution and American Economic Development 413**The Record of Productivity Growth 415**

- How Saving and Investment Affect Productivity Growth 416
- How Labor Force Changes Affect Productivity Growth 419

The Role of Technological Change 423**Our Inefficient Transportation System 424****Our Bloated Health Care System 425**

- Types of Health Care Insurance 426
- Four Factors Pushing Up the Cost of Health Care 427

The Shift to a Service Economy 429**Additional Factors Affecting Our Rate of Growth 430****Summary 432****Economic Growth in the Less Developed Countries 434****Economics in Action: China's Rapid Economic Growth 436****17 Demand, Supply, and Equilibrium 445**

Demand Defined 445**Individual Demand and Market Demand 446****Changes in Demand 447**

- Increases in Demand 448
- Decreases in Demand 448
- Changes in Quantity Demanded and Changes in Demand 449
- Practice Problems 450
- What Causes Changes in Demand? 450

Supply Defined 454**Individual Supply and Market Supply 455****Changes in Supply 456**

- Practice Problems 456
- What Causes Changes in Supply? 457

Graphing the Demand and Supply Curves 459

- Graphing the Demand Curve 459
- Graphing the Supply Curve 460

The Equilibrium Point 461**Shifts in Demand and Supply 464****Economics in Action: Why Can't I Sell My House? 465****18 The Price Elasticities of Demand and Supply 477**

The Elasticity of Demand 477

- The Price Elasticity of Demand 478
- Measuring Elasticity 478
- The Meaning of Elasticity 479
- Determinants of the Degree of Elasticity of Demand 485
- Advertising 487

Elasticity and Total Revenue 489

- Elastic Demand and Total Revenue 489
- Inelastic Demand and Total Revenue 490
- Income Elasticity of Demand 490
- Cross Elasticity of Demand 492

Price Elasticity of Supply 493

- Elasticity over Time 494

Tax Incidence 496**Economics in Action: The Price Elasticity of Demand for Oil 499****19 Theory of Consumer Behavior 509**

Utility 510

- What Is Utility? 510
- Marginal Utility 510
- Total Utility 511
- Maximizing Utility 511
- The Water-Diamond Paradox 513
- Some Limitations of Utility Applications 514

Consumer Surplus 514**Do Price Gougers Rip Us Off? 518****Economics in Action: All-You-Can-Eat Buffets 519****20 Cost 525**

Costs 525

- Fixed Costs 526
- Variable Costs 526
- Total Cost 526
- Marginal Cost 526

The Short Run and the Long Run 529

The Short Run 529

The Long Run 529

Average Cost 529

Average Fixed Cost 530

Average Variable Cost 530

Average Total Cost 530

Graphing the AFC, AVC, ATC, and MC Curves 532

Why Are the AVC and ATC Curves U-Shaped? 536

The Production Function and the**Law of Diminishing Returns 537**

Economies of Scale 539

Diseconomies of Scale 540

A Summing Up 542

The Decision to Operate or Shut Down 542The Decision to Go Out of Business or Stay
in Business 544

Choosing Plant Size 546

The Long-Run Average Total Cost Curve 548

Economics in Action: Wedding Hall or City Hall? 549

**21 Profit, Loss, and Perfect
Competition 557**

Part I: Profit and Loss 557**Total Revenue and Marginal Revenue 558**

Graphing Demand and Marginal Revenue 558

Economic and Accounting Profit 559**Profit Maximization and Loss Minimization 559**

A Summing Up 566

Efficiency 568

Review of Efficiency and Profit Maximization 568

Part II: Perfect Competition 569**Definition of Perfect Competition 569****The Perfect Competitor's Demand Curve 572**

The Short Run 573

The Long Run 577

Third Method of Calculating Profit and Loss 579**The Perfect Competitor: A Price Taker, Not a Price
Maker 581****Efficiency, Price, and Profit 582****Economics in Action: The Internet Effect: A More
Perfect Knowledge and Lower Prices 582**

22 Monopoly 593

Monopoly Defined 593

The Graph of the Monopolist 594

Calculating the Monopolist's Profit 596

Review of the Monopolist's Economic Analysis 597

The Monopolist Losing Money 599

Alternative Method of Calculating the Monopolist's Profit
or Loss 600The Monopolist in the Short Run and in the Long Run 601
Are All Monopolies Big Companies? 601**Barriers to Entry 602****Limits to Monopoly Power 606****Economies of Scale and Natural Monopoly 606**

What Is Natural Monopoly? 606

Two Policy Alternatives 608

Is Bigness Good or Bad? 609

When Is Bigness Bad? 609

When Is Bigness Good? 611

The Economic Case against Bigness 611

Conclusion 611

Last Word 612**Economics in Action: Would You Allow Walmart to
Open a Supercenter in Your Community? 612**

23 Monopolistic Competition 621

Monopolistic Competition Defined 621

The Monopolistic Competitor in the Short Run 622

The Monopolistic Competitor in the Long Run 624

Product Differentiation 625**Advertising and Monopolistic Competition 626****The Typical Monopolistic Competitor 627****Price Discrimination 628****Is the Monopolistic Competitor Inefficient? 632****Economics in Action: Selling Status 634**

24 Oligopoly 639

Oligopoly Defined 639**Two Measures of the Degree of Oligopolization 640**

Concentration Ratios 641

The Herfindahl–Hirschman Index (HHI) 641

The Competitive Spectrum 643

Cartels 643

Open Collusion 645

Covert Collusion 646

Price Leadership 647

Cutthroat Competition 648

Game Theory 651

Conclusion 652

**Economics in Action: Cutthroat Competition in the
College Textbook Market 652****Appendix: The Four Types of Competition: A
Review 661****Perfect Competition 661****Monopoly 662**

Monopolistic Competition 662
 Oligopoly 662
 Perfect Competition versus Imperfect
 Competition 662
 Summary Tables 663

25 Corporate Mergers and Antitrust 667

A Historical Perspective on Corporate
 Concentration 667

Antitrust 668

The Political Background 668
 The Sherman Antitrust Act 668
 The Clayton Antitrust Act 670
 The Federal Trade Commission Act (1914) 670

Modern Antitrust 671

Partial Breakdown of the Rule of Reason 671
 The 60 Percent Rule 672
 Two Landmark Cases 672
 European Antitrust 673

Types of Mergers 674

Horizontal Mergers 674
 Vertical Mergers 674
 Conglomerate Mergers 675

Deregulation 676

Corporate Misconduct 677

How Effective Is Antitrust? 677

The Trend toward Bigness 677

Economics in Action: Pharmaceutical Fraud 680

26 Demand in the Factor Market 687

Derived Demand 687

Productivity 687

Prices of Substitute Resources 688

Marginal Revenue Product (MRP) 689

The MRP of the Perfect Competitor 690
 The MRP of the Imperfect Competitor 693

Changes in Resource Demand 695

Changes in Resource Demand versus Changes in Quantity
 of Resource Demanded 695
 The Four Reasons for Changes in Resource Demand 695
 Optimum Resource Mix for the Firm 697

Economics in Action: Washing Machines and
 Women's Liberation 699

27 Labor Unions 705

A Short History of the American Labor Movement 705

The Early Years 705
 Key Labor Legislation 706

Craft Unions versus Industrial Unions 708
 Union Organizing since the 1950s 710
 The Formation of Change to Win 712

Jobs: Exportable and Nonexportable 713

The Economic Power of Labor Unions 713

The Economic Power of Large Employers 714

Collective Bargaining 716

Strikes, Lockouts, and Givebacks 716
 The Collective Bargaining Agreement 718
 The Strike 719
 Averting Strikes: Mediation and Arbitration 720

Will You Ever Be a Member of a Labor Union? 720

Economics in Action: The Card Check Law 721

28 Labor Markets and Wage Rates 727

The Supply of Labor 728

Noncompeting Groups 728
 The Theory of the Dual Labor Market 728
 The Backward-Bending Individual Labor Supply Curve 729
 The Market Supply of Labor 731

The Demand for Labor 732

The Marginal Revenue Product Schedule 732
 Nonhomogeneous Jobs and Compensating Pay
 Differentials 733

Determination of the Wage Rate: Supply and
 Demand 734

High Wage Rates and Economic Rent 736

Real Wages versus Money Wages 737

The Minimum Wage and the Living Wage 742

The Minimum Wage Rate: 1938 to the Present 742
 Should There Be a Minimum Wage Rate? 743
 The Living Wage 745

The Effects of Employment Discrimination on
 Wages 746

Employment Discrimination against Women 746
 Employment Discrimination against African
 Americans 749
 Conclusion 749

Economics in Action: The Education Gap 749

29 Rent, Interest, and Profit 755

Rent 755

What Is Land? 755
 How Is Rent Determined? 757
 Economic Rent 758
 Are Prices High because Rents Are High, or Are Rents
 High because Prices Are High? 759

Interest 760

What Is Capital? 760
 How Is the Interest Rate Determined? 760
 Interest Rates and Consumer Loans 761

The Present Value of Future Income 763

Profits 766

- How Are Profits Determined? 766
- How Large Are Profits? 766
- Theories of Profit 768
- Conclusion 770

**Economics in Action: Subprime, Fringe,
and Payday Lending 771****30 Income Distribution and
Poverty 777**

Income Distribution in the United States 778

- The Poor, the Middle Class, and the Rich 778
- Distribution of Wealth in the United States 782
- Distribution of Income: Equity and Efficiency 783
- What Determines Income Distribution? 784

Poverty in America 785

- Poverty Defined 785
- Who Are the Poor? 788
- Where the Poor Live 789
- Child Poverty 789
- The Main Government Transfer Programs 791
- Theories of the Causes of Poverty 794
- The Conservative View versus the Liberal View 796
- Solutions 798

**Economics in Action 1: Will You Ever
Be Poor? 802****Economics in Action 2: The 1 Percent and the
99 Percent 803****31 International Trade 811**

Part I: A Brief History of U.S. Trade 812

- U.S. Trade before 1975 812
- U.S. Trade since 1975 812
- The Effect of the Great Recession on Our Balance
of Trade 813
- U.S. Government Trade Policy 814

Part II: The Theory of International Trade 815

- Specialization and Trade 815
- Absolute Advantage 816
- Comparative Advantage 816
- Absolute Advantage versus Comparative Advantage 818

The Arguments for Protection 820

Tariffs or Quotas 823

Conclusion 825

Part III: The Practice of International Trade 826

What Are the Causes of Our Trade Imbalance? 826

Part IV: Our Trade Deficit with Japan and China 829

Japanese Trading Practices 830

Our Trade Deficit with China 830

Trading with China and Japan: More Differences than
Similarities 831**Final Word 832**

Free Trade in Word and Deed 832

Reducing Our Trade Deficit 833

Economics in Action 1: Buy American? 834**Economics in Action 2: Globalization 834****32 International Finance 841**

The Mechanics of International Finance 841

Financing International Trade 841

The Balance of Payments 842

Exchange Rate Systems 845

The Gold Standard 845

The Gold Exchange Standard, 1944–73 846

The Freely Floating Exchange Rate System, 1973 to the
Present 847How Well Do Freely Floating (Flexible) Exchange Rates
Work? 851

The Euro 851

The Yen and the Yuan 851

The Falling Dollar and the U.S. Trade Deficit 852

Running Up a Tab in the Global Economy 855

From Largest Creditor to Largest Debtor 855

Living beyond Our Means 857

A Codependent Relationship 857

Why We Need to Worry about the Current Account
Deficit 858**Editorial: American Exceptionality 858****Glossary 865****Photo Credits 877****Index 878**