# Brief Contents

## PART I  Introduction to Economics  1

1. The Scope and Method of Economics  1
2. The Economic Problem: Scarcity and Choice  25
3. Demand, Supply, and Market Equilibrium  47
4. Demand and Supply Applications  79
5. Elasticity  97

## PART II  The Market System: Choices Made by Households and Firms  117

6. Household Behavior and Consumer Choice  121
7. The Production Process: The Behavior of Profit-Maximizing Firms  147
8. Short-Run Costs and Output Decisions  167
9. Long-Run Costs and Output Decisions  189
10. Input Demand: The Labor and Land Markets  215
11. Input Demand: The Capital Market and the Investment Decision  233
12. General Equilibrium and the Efficiency of Perfect Competition  253

## PART III  Market Imperfections and the Role of Government  269

13. Monopoly and Antitrust Policy  269
14. Oligopoly  293
15. Monopolistic Competition  313
17. Uncertainty and Asymmetric Information  353
18. Income Distribution and Poverty  367
19. Public Finance: The Economics of Taxation  389

## PART IV  Concepts and Problems in Macroeconomics  409

20. Introduction to Macroeconomics  409
22. Unemployment, Inflation, and Long-Run Growth  441

## PART V  The Core of Macroeconomic Theory  457

23. Aggregate Expenditure and Equilibrium Output  459
24. The Government and Fiscal Policy  477
26. Money Demand and the Equilibrium Interest Rate  525
27. Aggregate Demand in the Goods and Money Markets  541
28. Aggregate Supply and the Equilibrium Price Level  559
29. The Labor Market In the Macroeconomy  581

## PART VI  Further Macroeconomics Issues  599

30. Financial Crises, Stabilization, and Deficits  599
31. Household and Firm Behavior in the Macroeconomy: A Further Look  615
32. Long-Run Growth  635
33. Alternative Views in Macroeconomics  649

## PART VII  The World Economy  663

34. International Trade, Comparative Advantage, and Protectionism  663
35. Open-Economy Macroeconomics: The Balance of Payments and Exchange Rates  687
36. Economic Growth in Developing and Transitional Economies  713

Glossary  735
Index  751
Photo Credits  781
PART I  Introduction To Economics  1

1  The Scope and Method of Economics  1

   Why Study Economics?  2
      To Learn a Way of Thinking  2
      To Understand Society  4
      To Understand Global Affairs  5
      To Be an Informed Citizen  5

   ECONOMICS IN PRACTICE  iPod and the World  6
      The Scope of Economics  6
      Microeconomics and Macroeconomics  6
      The Diverse Fields of Economics  7

   ECONOMICS IN PRACTICE  Trust and Gender  9
      The Method of Economics  9
      Descriptive Economics and Economic Theory  10
      Theories and Models  10
      Economic Policy  13
      An Invitation  15

Summary 15  Review Terms and Concepts 16  Problems 16
Appendix: How to Read and Understand Graphs 17

2  The Economic Problem: Scarcity and Choice  25

   Scarcity, Choice, and Opportunity Cost  26
      Scarcity and Choice in a One-Person Economy  26
      Scarcity and Choice in an Economy of Two or More  27

   ECONOMICS IN PRACTICE  Frozen Foods and Opportunity Costs  28
      The Production Possibility Frontier  33
      The Economic Problem  38

   ECONOMICS IN PRACTICE  Trade-Offs among the Rich and Poor  39
      Economic Systems and the Role of Government  39
      Command Economies  40
      Laissez-Faire Economies: The Free Market  40
      Mixed Systems, Markets, and Governments  42
      Looking Ahead  42

Summary 43  Review Terms and Concepts 43  Problems 44

3  Demand, Supply, and Market Equilibrium  47

   Firms and Households: The Basic Decision-Making Units  47
   Input Markets and Output Markets: The Circular Flow  48

   Demand in Product/Output Markets  50
      Changes in Quantity Demanded versus Changes in Demand  51
      Price and Quantity Demanded: The Law of Demand  51
      Other Determinants of Household Demand  54

   ECONOMICS IN PRACTICE  Kindle in the College Market?  55
      Shift of Demand versus Movement Along a Demand Curve  56
      From Household Demand to Market Demand  58

   Supply in Product/Output Markets  60
      Price and Quantity Supplied: The Law of Supply  61
      Other Determinants of Supply  62
      Shift of Supply versus Movement Along a Supply Curve  63
      From Individual Supply to Market Supply  65

   Market Equilibrium  66
      Excess Demand  66
      Excess Supply  68
      Changes in Equilibrium  69

   ECONOMICS IN PRACTICE  High Prices for Tomatoes  70
      Demand and Supply in Product Markets: A Review  72
      Looking Ahead: Markets and the Allocation of Resources  72

   ECONOMICS IN PRACTICE  Why Do the Prices of Newspapers Rise?  73

Summary 74  Review Terms and Concepts 75  Problems 76

4  Demand and Supply Applications  79

   The Price System: Rationing and Allocating Resources  79
      Price Rationing  79
17 Uncertainty and Asymmetric Information 353

Decision Making Under Uncertainty: The Tools 353
- Expected Value 354
- Expected Utility 354
- Attitudes Toward Risk 356
- Asymmetric Information 357
  - Adverse Selection 358

ECONOMICS IN PRACTICE Adverse Selection in the Health Care Market 360
  - Market Signaling 360

ECONOMICS IN PRACTICE How to Read Advertisements 361
  - Moral Hazard 362
  - Incentives 363
  - Labor Market Incentives 363

Summary 364 Review Terms and Concepts 365 Problems 365

18 Income Distribution and Poverty 367

The Sources of Household Income 367
- Wages and Salaries 367
- Income from Property 369
- Income from the Government: Transfer Payments 370

The Distribution of Income 370
- Income Inequality in the United States 370
- The World Distribution of Income 372

ECONOMICS IN PRACTICE The New Rich Work! 373
  - Causes of Increased Inequality 373
  - Poverty 375
  - The Distribution of Wealth 376

The Utility Possibilities Frontier 376

The Redistribution Debate 377
- Arguments Against Redistribution 378
- Arguments in Favor of Redistribution 378

Redistribution Programs and Policies 380
- Financing Redistribution Programs: Taxes 380
- Expenditure Programs 381

ECONOMICS IN PRACTICE Does Price Matter in Charitable Giving? 384
  - Government or the Market? A Review 385

Summary 385 Review Terms and Concepts 386 Problems 386
PART V  The Core of Macroeconomic Theory  457

23 Aggregate Expenditure and Equilibrium Output  459

The Keynesian Theory of Consumption  460
Other Determinants of Consumption  463

ECONOMICS IN PRACTICE  Behavioral Biases in Saving Behavior  464

Planned Investment \((I)\)  464
The Determination of Equilibrium Output (Income)  465
The Saving/Investment Approach to Equilibrium  468
Adjustment to Equilibrium  469
The Multiplier  469
The Multiplier Equation  471

ECONOMICS IN PRACTICE  The Paradox of Thrift  472
The Size of the Multiplier in the Real World  473

Looking Ahead  473

Summary  474  Review Terms and Concepts  474  Problems  474
Appendix: Deriving the Multiplier Algebraically  476

24 The Government and Fiscal Policy  477

Government in the Economy  478
Government Purchases \((G)\), Net Taxes \((T)\), and Disposable Income \((Y_d)\)  478
The Determination of Equilibrium Output (Income)  480

Fiscal Policy at Work: Multiplier Effects  482
The Government Spending Multiplier  482
The Tax Multiplier  484
The Balanced-Budget Multiplier  486

The Federal Budget  487
The Budget in 2009  488
Fiscal Policy Since 1993: The Clinton, Bush, and Obama Administrations  489
The Federal Government Debt  491
The Economy’s Influence on the Government Budget  492
Automatic Stabilizers and Destabilizers  492

ECONOMICS IN PRACTICE  Governments Disagree on How Much More Spending Is Needed  493
Full-Employment Budget  493

Looking Ahead  494

Summary  494  Review Terms and Concepts  495  Problems  495


An Overview of Money  501
What Is Money?  501
Commodity and Fiat Monies  502

ECONOMICS IN PRACTICE  Dolphin Teeth as Currency  503

Measuring the Supply of Money in the United States  504
The Private Banking System  505
How Banks Create Money  505
A Historical Perspective: Goldsmiths  506
The Modern Banking System  507
The Creation of Money  508
The Money Multiplier  510

The Federal Reserve System  511
Functions of the Federal Reserve  512
Expanded Fed Activities Beginning in 2008  513
The Federal Reserve Balance Sheet  513
How the Federal Reserve Controls the Money Supply  515
The Required Reserve Ratio  515
The Discount Rate  516
Open Market Operations  517
Excess Reserves and the Supply Curve for Money  520

Looking Ahead  521

Summary  521  Review Terms and Concepts  521  Problems  522

26 Money Demand and the Equilibrium Interest Rate  525

Interest Rates and Bond Prices  525

ECONOMICS IN PRACTICE  Professor Serebryakov Makes an Economic Error  526

The Demand for Money  526
The Transaction Motive  527
The Speculation Motive  530
The Total Demand for Money  530

ECONOMICS IN PRACTICE  ATMs and the Demand for Money  531

The Effect of Nominal Income on the Demand for Money  531

The Equilibrium Interest Rate  532
Supply and Demand in the Money Market  532

Appendix A: Deriving the Fiscal Policy Multipliers  497
Appendix B: The Case in Which Tax Revenues Depend on Income  497
27 Aggregate Demand in the Goods and Money Markets 541

Planned Investment and the Interest Rate 542
Other Determinants of Planned Investment 542

ECONOMICS IN PRACTICE Small Business and the Credit Crunch 543

Planned Aggregate Expenditure and the Interest Rate 543
Equilibrium in Both the Goods and Money Markets: The IS-LM Model 544
Policy Effects in the Goods and Money Markets 545
Expansionary Policy Effects 545
Contractionary Policy Effects 547
The Macroeconomic Policy Mix 548

The Aggregate Demand (AD) Curve 549
The Aggregate Demand Curve: A Warning 549
Other Reasons for a Downward-Sloping Aggregate Demand Curve 551
Shifts of the Aggregate Demand Curve from Policy Variables 551
Looking Ahead: Determining the Price Level 553
Summary 553 Review Terms and Concepts 554 Problems 554
Appendix: The IS-LM Model 555

28 Aggregate Supply and the Equilibrium Price Level 559

The Aggregate Supply Curve 559
The Aggregate Supply Curve: A Warning 559
Aggregate Supply in the Short Run 560
Shifts of the Short-Run Aggregate Supply Curve 561
The Equilibrium Price Level 562
The Long-Run Aggregate Supply Curve 563

ECONOMICS IN PRACTICE The Simple “Keynesian” Aggregate Supply Curve 564
Potential GDP 564

29 The Labor Market in the Macroeconomy 581

The Labor Market: Basic Concepts 581
The Classical View of the Labor Market 582
The Classical Labor Market and the Aggregate Supply Curve 583
The Unemployment Rate and the Classical View 583

Explaining the Existence of Unemployment 584
Sticky Wages 584
Efficiency Wage Theory 585

ECONOMICS IN PRACTICE Does Unemployment Insurance Increase Unemployment or Only Protect the Unemployed? 586

Imperfect Information 587
Minimum Wage Laws 587
An Open Question 587

The Short-Run Relationship Between the Unemployment Rate and Inflation 588
The Phillips Curve: A Historical Perspective 589
Aggregate Supply and Aggregate Demand Analysis and the Phillips Curve 590
Expectations and the Phillips Curve 592
Inflation and Aggregate Demand 592
The Long-Run Aggregate Supply Curve, Potential Output, and the Natural Rate of Unemployment 593

Monetary and Fiscal Policy Effects 565
Long-Run Aggregate Supply and Policy Effects 567

Causes of Inflation 567
Demand-Pull Inflation 567
Cost-Push, or Supply-Side, Inflation 568
Expectations and Inflation 568
Money and Inflation 569

ECONOMICS IN PRACTICE Inflationary Expectations in China 570
Sustained Inflation as a Purely Monetary Phenomenon 571

The Behavior of the Fed 571
Targeting the Interest Rate 571
The Fed’s Response to the State of the Economy 572

ECONOMICS IN PRACTICE Markets Watch the Fed 573
Fed Behavior Since 1970 574
Interest Rates Near Zero 575
Inflation Targeting 576

Looking Ahead 576
Summary 576 Review Terms and Concepts 577 Problems 577

Appendix: The IS-LM Model 555
PART VI  Further Macroeconomics Issues  599

30  Financial Crises, Stabilization, and Deficits  599

The Stock Market, the Housing Market, and Financial Crises  600
   Stocks and Bonds  600
   Determining the Price of a Stock  600
   The Stock Market Since 1948  601
ECONOMICS IN PRACTICE  Bubbles or Rational Investors?  603
   Housing Prices Since 1952  604
   Household Wealth Effects on the Economy  604
   Financial Crises and the 2008 Bailout  604
   Asset Markets and Policy Makers  605
ECONOMICS IN PRACTICE  Financial Reform Bill  606
   Time Lags Regarding Monetary and Fiscal Policy  606
   Stabilization  607
   Recognition Lags  608
   Implementation Lags  608
   Response Lags  608
   Summary  609
   Government Deficit Issues  610
   Deficit Targeting  610
Summary  612  Review Terms and Concepts  613  Problems  613

31  Household and Firm Behavior in the Macroeconomy: A Further Look  615

Households: Consumption and Labor Supply Decisions  615
   The Life-Cycle Theory of Consumption  615
   The Labor Supply Decision  617
   Interest Rate Effects on Consumption  619
   Government Effects on Consumption and Labor Supply: Taxes and Transfers  619
   A Possible Employment Constraint on Households  620
   A Summary of Household Behavior  621
   The Household Sector Since 1970  621
ECONOMICS IN PRACTICE  Household Reactions to Winning the Lottery  622

Firms: Investment and Employment Decisions  624
   Expectations and Animal Spirits  624
   Excess Labor and Excess Capital Effects  625
   Inventory Investment  625
   A Summary of Firm Behavior  627
   The Firm Sector Since 1970  627
   Productivity and the Business Cycle  629
   The Short-Run Relationship Between Output and Unemployment  630
   The Size of the Multiplier  631
Summary  632  Review Terms and Concepts  633  Problems  633

32  Long-Run Growth  635

The Growth Process: From Agriculture to Industry  636
   Sources of Economic Growth  637
   Increase in Labor Supply  638
   Increase in Physical Capital  639
   Increase in the Quality of the Labor Supply (Human Capital)  640
ECONOMICS IN PRACTICE  Education and Skills in the United Kingdom  641
   Increase in the Quality of Capital (Embodied Technical Change)  641
   Disembodied Technical Change  642
   More on Technical Change  642
   U.S. Labor Productivity: 1952 I–2010 I  643
   Growth and the Environment and Issues of Sustainability  644
Summary  646  Review Terms and Concepts  647  Problems  647

33  Alternative Views in Macroeconomics  649

Keynesian Economics  649
   Monetarism  650
      The Velocity of Money  650
      The Quantity Theory of Money  650
      Inflation as a Purely Monetary Phenomenon  652
      The Keynesian/Monetarist Debate  653
Supply-Side Economics  653
      The Laffer Curve  654
      Evaluating Supply-Side Economics  654
New Classical Macroeconomics  655
      The Development of New Classical Macroeconomics  655
      Rational Expectations  656