To Erin, Tessa, Jack, Abby, and Sophie
About the Authors

Robin Bade was an undergraduate at the University of Queensland, Australia, where she earned degrees in mathematics and economics. After a spell teaching high school math and physics, she enrolled in the Ph.D. program at the Australian National University, from which she graduated in 1970. She has held faculty appointments at the University of Edinburgh in Scotland, at Bond University in Australia, and at the Universities of Manitoba, Toronto, and Western Ontario in Canada. Her research on international capital flows appears in the *International Economic Review* and the *Economic Record*.

Robin first taught the principles of economics course in 1970 and has taught it (alongside intermediate macroeconomics and international trade and finance) most years since then. She developed many of the ideas found in this text while conducting tutorials with her students at the University of Western Ontario.

Michael Parkin studied economics in England and began his university teaching career immediately after graduating with a B.A. from the University of Leicester. He learned the subject on the job at the University of Essex, England’s most exciting new university of the 1960s, and at the age of 30 became one of the youngest full professors. He is a past president of the Canadian Economics Association and has served on the editorial boards of the *American Economic Review* and the *Journal of Monetary Economics*. His research on macroeconomics, monetary economics, and international economics has resulted in more than 160 publications in journals and edited volumes, including the *American Economic Review*, the *Journal of Political Economy*, the *Review of Economic Studies*, the *Journal of Monetary Economics*, and the *Journal of Money, Credit, and Banking*. He is author of the best-selling textbook, *Economics* (Addison-Wesley), now in its Ninth Edition.

Robin and Michael are a wife-and-husband duo. Their most notable joint research created the Bade-Parkin Index of central bank independence and spawned a vast amount of research on that topic. They don’t claim credit for the independence of the new European Central Bank, but its constitution and the movement toward greater independence of central banks around the world were aided by their pioneering work. Their joint textbooks include *Macroeconomics* (Prentice-Hall), *Modern Macroeconomics* (Pearson Education Canada), and *Economics: Canada in the Global Environment*, the Canadian adaptation of Parkin, *Economics* (Addison-Wesley). They are dedicated to the challenge of explaining economics ever more clearly to an ever-growing body of students.

Music, the theater, art, walking on the beach, and five fast-growing grandchildren provide their relaxation and fun.
ECONOMICS

Brief Contents

PART 1  INTRODUCTION
1  Getting Started, 1
2  The U.S. and Global Economies, 33
3  The Economic Problem, 61
4  Demand and Supply, 83

PART 2  A CLOSER LOOK AT MARKETS
5  Elasticities of Demand and Supply, 113
6  Efficiency and Fairness of Markets, 139

PART 3  HOW GOVERNMENTS INFLUENCE THE ECONOMY
7  Government Actions in Markets, 169
8  Taxes, 191
9  Global Markets in Action, 215
10  Public Goods and Public Choices, 243
11  Externalities and the Environment, 269

PART 4  A CLOSER LOOK AT DECISION MAKERS
12  Consumer Choice and Demand, 291
13  Production and Cost, 319

PART 5  PRICES, PROFITS, AND INDUSTRY PERFORMANCE
14  Perfect Competition, 347
15  Monopoly, 375
16  Monopolistic Competition, 407
17  Oligopoly, 431

PART 6  INCOMES AND INEQUALITY
18  Markets for Factors of Production, 459
19  Inequality and Poverty, 483
PART 7 MONITORING THE MACROECONOMY
20 GDP: A Measure of Total Production and Income, 509
21 Jobs and Unemployment, 539
22 The CPI and the Cost of Living, 563

PART 8 THE REAL ECONOMY
23 Potential GDP and the Natural Unemployment Rate 587
24 Economic Growth, 611
25 Finance, Saving, and Investment, 637

PART 9 THE MONEY ECONOMY
26 The Monetary System, 663
27 Money, Interest, and Inflation, 693

PART 10 ECONOMIC FLUCTUATIONS
28 Aggregate Supply and Aggregate Demand, 721
29 Aggregate Expenditure Multiplier, 747
30 The Short-Run Policy Tradeoff, 773

PART 11 MACROECONOMIC POLICY
31 Fiscal Policy, 795
32 Monetary Policy, 821
33 International Finance, 849

Glossary G-1
Index I-1
Credits C-1
PART 1 INTRODUCTION

CHAPTER 1 Getting Started

CHAPTER CHECKLIST

1.1 Definition and Questions
Scarcity, 2
Economics Defined, 3
What, How, and For Whom? 3
When Is the Pursuit of Self-Interest in the Social Interest? 4
CHECKPOINT 1.1 9

1.2 The Economic Way of Thinking 10
Core Economic Ideas, 10
Rational Choice, 10
Cost: What You Must Give Up, 11
Benefit: Gain Measured by What You Are Willing to Give Up, 11
On the Margin, 12
Responding to Incentives, 13
The Micro and Macro Views of the World, 14
Economics as Social Science, 15
Economics as Policy Tool, 16
CHECKPOINT 1.2 18

CHAPTER SUMMARY 19

CHAPTER CHECKPOINT 20

Appendix: Making and Using Graphs 23
Basic Idea, 23
Interpreting Data Graphs, 24
Interpreting Graphs Used in Economic Models, 26
The Slope of a Relationship, 29
Relationships Among More Than Two Variables, 30
APPENDIX CHECKPOINT 32

EYE on WALL STREET
Did Greedy Wall Street Bankers Cause the Global Slump? 14

EYE on the PAST
Adam Smith and the Birth of Economics as a Social Science, 17

CHAPTER 2 The U.S. and Global Economies

CHAPTER CHECKLIST 33

2.1 What, How, and For Whom? 34
What Do We Produce? 34
How Do We Produce? 36
For Whom Do We Produce? 39
CHECKPOINT 2.1 40

2.2 The Global Economy 41
The People, 41
The Countries, 41
What in the Global Economy? 42
How in the Global Economy? 44
For Whom in the Global Economy? 45
CHECKPOINT 2.2 47

2.3 The Circular Flows 48
Households and Firms, 48
Markets, 48
Real Flows and Money Flows, 48
Governments, 50
Governments in the Circular Flow, 51
Federal Government Expenditures and Revenue, 52
State and Local Government Expenditures and Revenue, 53
Circular Flows in the Global Economy, 54
CHECKPOINT 2.3 56

CHAPTER SUMMARY 57

CHAPTER CHECKPOINT 58

EYE on the U.S. ECONOMY
What We Produce, 35

EYE on the PAST
Changes in What We Produce, 36

EYE on the U.S. ECONOMY
Changes in How We Produce in the Information Economy, 38
PART 3 HOW GOVERNMENTS INFLUENCE THE ECONOMY

CHAPTER 7 Government Actions in Markets 169

CHAPTER CHECKLIST 169

7.1 Price Ceilings 170
A Rent Ceiling, 170
Are Rent Ceilings Efficient? 173
Are Rent Ceilings Fair? 174
If Rent Ceilings Are So Bad, Why Do We Have Them? 174
CHECKPOINT 7.1 175

7.2 Price Floors 176
The Minimum Wage, 177
Is the Minimum Wage Efficient? 180
Is the Minimum Wage Fair? 181
If the Minimum Wage Is So Bad, Why Do We Have It? 181
CHECKPOINT 7.2 182

7.3 Price Supports in Agriculture 183
How Governments Intervene in Markets for Farm Products, 183
Price Support: An Illustration, 183
CHECKPOINT 7.3 186

CHAPTER SUMMARY 187

CHAPTER CHECKPOINT 188

- EYE on the U.S. ECONOMY
  The Federal Minimum Wage, 179
- EYE on PRICE REGULATION
  How Powerful Is the President’s Pen? 181
- EYE on YOUR LIFE
  Price Ceilings and Price Floors, 185

CHAPTER 8 Taxes 191

CHAPTER CHECKLIST 191

8.1 Taxes on Buyers and Sellers 192
Tax Incidence, 192
Taxes and Efficiency, 193
Incidence, Inefficiency, and Elasticity, 194
Incidence, Inefficiency, and the Elasticity of Demand, 195

Incidence, Inefficiency, and the Elasticity of Supply, 196
CHECKPOINT 8.1 197

8.2 Income Tax and Social Security Tax 198
The Personal Income Tax, 198
The Effects of the Income Tax, 200
The Social Security Tax, 204
CHECKPOINT 8.2 207

8.3 Fairness and the Big Tradeoff 208
The Benefits Principle, 208
The Ability-to-Pay Principle, 208
The Marriage Tax Problem, 209
The Big Tradeoff, 210
CHECKPOINT 8.3 210

CHAPTER SUMMARY 211

CHAPTER CHECKPOINT 212

- EYE on the U.S. ECONOMY
  Taxes in the United States Today, 198
- EYE on CONGRESS
  Who Pays the Taxes? 202
- EYE on the PAST
  The Origins and History of the U.S. Income Tax, 206
- EYE on YOUR LIFE
  Tax Freedom Day, 206

CHAPTER 9 Global Markets in Action 215

CHAPTER CHECKLIST 215

9.1 How Global Markets Work 216
International Trade Today, 216
What Drives International Trade? 216
Why the United States Imports T-Shirts, 218
Why the United States Exports Airplanes, 219
CHECKPOINT 9.1 220

9.2 Winners, Losers, and Net Gains from Trades 221
Gains and Losses from Imports, 222
Gains and Losses from Exports, 223
CHECKPOINT 9.2 224
9.3 International Trade Restrictions 225
   Tariffs, 225
   Import Quotas, 229
   Other Import Barriers, 231
   Export Subsidies, 231
   CHECKPOINT 9.3 232

9.4 The Case Against Protection 233
   Three Traditional Arguments for Protection, 233
   Four Newer Arguments for Protection, 235
   Why Is International Trade Restricted? 236
   CHECKPOINT 9.4 238

CHAPTER SUMMARY 239

CHAPTER CHECKPOINT 240

■ EYE on the U.S. ECONOMY
  U.S. Exports and Imports, 217

■ EYE on GLOBALIZATION
  Who Wins and Who Loses from Globalization? 221

■ EYE on the PAST
  The History of U.S. Tariffs, 225

■ EYE on YOUR LIFE
  International Trade, 237

CHAPTER 10
Public Goods and Public Choices 243

CHAPTER SUMMARY 259

CHAPTER CHECKPOINT 261

10.1 Classifying Goods and Resources 244
   Excludable, 244
   Rival, 244
   A Fourfold Classification, 244
   Mixed Goods, 246
   CHECKPOINT 10.1 248

10.2 Public Goods and the Free-Rider Problem 249
   The Free-Rider Problem, 249
   The Marginal Benefit of a Public Good, 250
   The Marginal Cost of a Public Good, 250
   The Efficient Quantity of a Public Good, 252
   Private Provision: Underproduction, 252
   Public Provision: Efficient Production, 253
   Public Provision: Overproduction, 254
   Why Government Is Large and Growing, 255
   CHECKPOINT 10.2 256

10.3 Education and Health-Care Services 257
   Private Benefit, External Benefit, and Social Benefit, 257
   Government Actions in the Face of External Benefits, 259
   Underprovision of Health Care, 262
   CHECKPOINT 10.3 264

CHAPTER SUMMARY 265

CHAPTER CHECKPOINT 266

■ EYE on HEALTH CARE
  Does Health Care Need Fixing? 262

■ EYE on YOUR LIFE
  A Student’s Free-Rider Problem, 263

CHAPTER 11
Externalities and the Environment 269

CHAPTER SUMMARY 278

CHAPTER CHECKPOINT 269

11.1 Negative Externalities: Pollution 270
   Private Costs and Social Costs, 270
   Production and Pollution: How Much? 272
   Property Rights, 273
   The Coase Theorem, 274
   Government Actions in the Face of External Costs, 275
   CHECKPOINT 11.1 279

11.2 Common Resources 280
   The Tragedy of the Commons, 280
   The Efficient Use of the Commons, 282
   Achieving an Efficient Outcome, 284
   CHECKPOINT 11.2 286

CHAPTER SUMMARY 287

CHAPTER CHECKPOINT 262

■ EYE on CLIMATE CHANGE
  How Can We Slow Global Warming? 277

■ EYE on the U.S. ECONOMY
  U.S. Air Pollution Trends, 278

■ EYE on YOUR LIFE
  Externalities in Your Life, 278

■ EYE on the PAST
  The Commons of England’s Middle Ages, 283
PART 4  A CLOSER LOOK AT DECISION MAKERS

CHAPTER 12  Consumer Choice and Demand  291
CHAPTER CHECKLIST  291

12.1 Consumption Possibilities  292
The Budget Line,  292
A Change in the Budget,  293
Changes in Prices,  294
Prices and the Slope of the Budget Line,  295
CHECKPOINT 12.1  297

12.2 Marginal Utility Theory  298
Total Utility,  298
Marginal Utility,  298
Graphing Tina’s Utility Schedules,  300
Maximizing Total Utility,  300
Finding an Individual Demand Curve,  302
CHECKPOINT 12.2  304

12.3 Efficiency, Price, and Value  305
Consumer Efficiency,  305
The Paradox of Value,  305
CHECKPOINT 12.3  308

CHAPTER SUMMARY  309
CHAPTER CHECKPOINT  310

Appendix: Indifference Curves  313
An Indifference Curve,  313
Marginal Rate of Substitution,  314
Consumer Equilibrium,  315
Deriving the Demand Curve,  316
APPENDIX CHECKPOINT  318

■ EYE on the U.S. ECONOMY
Relative Prices on the Move,  296

■ EYE on the PAST

■ EYE on SONG DOWNLOADS
How Much Would You Pay for a Song?  306

■ EYE on YOUR LIFE
Do You Maximize Your Utility?  308

CHAPTER 13  Production and Cost  319
CHAPTER CHECKLIST  319

13.1 Economic Cost and Profit  320
The Firm’s Goal,  320
Accounting Cost and Profit,  320
Opportunity Cost,  320
Economic Profit,  321
CHECKPOINT 13.1  323

Short Run and Long Run  324

13.2 Short-Run Production  325
Total Product,  325
Marginal Product,  326
Average Product,  328
CHECKPOINT 13.2  330

13.3 Short-Run Cost  331
Total Cost,  331
Marginal Cost,  332
Average Cost,  333
Why the Average Total Cost Curve Is U-Shaped,  335
Cost Curves and Product Curves,  336
Shifts in the Cost Curves,  336
CHECKPOINT 13.3  338

13.4 Long-Run Cost  339
Plant Size and Cost,  339
The Long-Run Average Cost Curve,  340
CHECKPOINT 13.4  342

CHAPTER SUMMARY  343
CHAPTER CHECKPOINT  344

■ EYE on YOUR LIFE
Your Average and Marginal Grades,  329

■ EYE on RETAILERS' COSTS
Which Store Has the Lower Costs: Wal-Mart or 7–11?  341
PART 5 PRICES, PROFITS, AND INDUSTRY PERFORMANCE

CHAPTER 14 Perfect Competition

Market Types
Perfect Competition, 348
Other Market Types, 348

14.1 A Firm’s Profit-Maximizing Choices
Price Taker, 349
Revenue Concepts, 349
Profit-Maximizing Output, 350
Marginal Analysis and the Supply Decision, 352
Temporary Shutdown Decision, 353
The Firm’s Short-Run Supply Curve, 354
CHECKPOINT 14.1 356

14.2 Output, Price, and Profit in the Short Run
Market Supply in the Short Run, 357
Short-Run Equilibrium in Normal Times, 358
Short-Run Equilibrium in Good Times, 359
Short-Run Equilibrium in Bad Times, 360
CHECKPOINT 14.2 361

14.3 Output, Price, and Profit in the Long Run
Entry and Exit, 363
Change in Demand, 365
Technological Change, 365
Is Perfect Competition Efficient? 368
Is Perfect Competition Fair? 369
CHECKPOINT 14.3 370

CHAPTER SUMMARY 371

CHAPTER CHECKPOINT 372

■ EYE on the AUTO INDUSTRY
Why Did GM Fail? 366

■ EYE on YOUR LIFE
The Perfect Competition that You Encounter, 369

CHAPTER 15 Monopoly

15.1 Monopoly and How it Arises
How Monopoly Arises, 376
Monopoly Price-Setting Strategies, 378
CHECKPOINT 15.1 379

15.2 Single-Price Monopoly
Price and Marginal Revenue, 380
Marginal Revenue and Elasticity, 381
Output and Price Decision, 382
CHECKPOINT 15.2 384

15.3 Monopoly and Competition Compared
Output and Price, 385
Is Monopoly Efficient? 386
Is Monopoly Fair? 387
Rent Seeking, 387
CHECKPOINT 15.3 389

15.4 Price Discrimination
Price Discrimination and Consumer Surplus, 390
Profiting by Price Discriminating, 391
Perfect Price Discrimination, 392
Price Discrimination and Efficiency, 394
CHECKPOINT 15.4 395

15.5 Monopoly Regulation
Efficient Regulation of a Natural Monopoly, 396
Second-Best Regulation of a Natural Monopoly, 397
CHECKPOINT 15.5 402

CHAPTER SUMMARY 403

CHAPTER CHECKPOINT 404

■ EYE on the U.S. ECONOMY
Airline Price Discrimination, 394

■ EYE on MICROSOFT
Are Microsoft’s Prices Too High? 399

■ EYE on YOUR LIFE
Monopoly in Your Everyday Life, 401
CHAPTER 16
Monopolistic Competition 407

CHAPTER CHECKLIST 407

16.1 What Is Monopolistic Competition? 408
Large Number of Firms, 408
Product Differentiation, 408
Competing on Quality, Price, and Marketing, 408
Entry and Exit, 409
Identifying Monopolistic Competition, 409
CHECKPOINT 16.1 413

16.2 Output and Price Decisions 414
The Firm’s Profit-Maximizing Decision, 414
Profit Maximizing Might Be Loss Minimizing, 415
Long Run: Zero Economic Profit, 416
Monopolistic Competition and Perfect Competition, 417
Is Monopolistic Competition Efficient? 418
CHECKPOINT 16.2 419

16.3 Product Development and Marketing 420
Innovation and Product Development, 420
Advertising, 421
Using Advertising to Signal Quality, 424
Brand Names, 425
Efficiency of Advertising and Brand Names, 425
CHECKPOINT 16.3 426

CHAPTER SUMMARY 427

CHAPTER CHECKPOINT 428

■ EYE on the U.S. ECONOMY
Examples of Monopolistic Competition, 412
■ EYE on CELL PHONES
Which Cell Phone? 421
■ EYE on YOUR LIFE
Some Selling Costs You Pay, 424

CHAPTER 17
Oligopoly 431

CHAPTER CHECKLIST 431

17.1 What Is Oligopoly? 432
Small Number of Firms, 432
Barriers to Entry, 432
Identifying Oligopoly, 434
CHECKPOINT 17.1 435

17.2 The Oligopolist’s Dilemma 436
Monopoly Outcome, 436
Perfect Competition Outcome, 437
Other Possible Cartel Breakdowns, 437
The Oligopoly Cartel Dilemma, 438
CHECKPOINT 17.2 440

17.3 Game Theory 441
What Is a Game? 441
The Prisoners’ Dilemma, 441
The Duopolist’s Dilemma, 443
Advertising and Research Games in Oligopoly, 444
Repeated Games, 446
Is Oligopoly Efficient? 447
CHECKPOINT 17.3 448

17.4 Antitrust Law 449
The Antitrust Laws, 449
Three Antitrust Policy Debates, 449
Recent Antitrust Showcase: The United States Versus Microsoft, 451
Merger Rules, 452
CHECKPOINT 17.4 454

CHAPTER SUMMARY 455

CHAPTER CHECKPOINT 456

■ EYE on the U.S. ECONOMY
Examples of Oligopoly, 434
■ EYE on the GLOBAL ECONOMY
The OPEC Global Oil Cartel, 439
■ EYE on YOUR LIFE
A Game You Might Play, 446
■ EYE on the CHIPS DUOPOLY
Is Two Too Few? 447
■ EYE on the U.S. ECONOMY
No Soda Merger, 453
PART 7  MONITORING THE MACROECONOMY

CHAPTER 20  GDP: A Measure of Total Production and Income

CHAPTER CHECKLIST  509

20.1 GDP, Income, and Expenditure  510
GDP Defined, 510
Circular Flows in the U.S. Economy, 511
Expenditure Equals Income, 512
CHECKPOINT 20.1  514

20.2 Measuring U.S. GDP  515
The Expenditure Approach, 515
The Income Approach, 517
GDP and Related Measures of Production and Income, 519
Real GDP and Nominal GDP, 520
Calculating Real GDP, 520
Using the Real GDP Numbers, 521
CHECKPOINT 20.2  522

20.3 The Uses and Limitations of Real GDP  523
The Standard of Living Over Time, 523
Tracking the Course of the Business Cycle, 524
The Standard of Living Among Countries, 526
Goods and Services Omitted from GDP, 527
Other Influences on the Standard of Living, 528
CHECKPOINT 20.3  530

CHAPTER SUMMARY  531

CHAPTER CHECKPOINT  532

Appendix: Measuring Real GDP  535
The Problem with Base-Year Prices, 535
Value Production in the Prices of Adjacent Years, 535
Find the Average of Two Percentage Changes, 536
Link (Chain) to the Base Year, 537
APPENDIX CHECKPOINT  538

■ EYE on the U.S. ECONOMY
Is a Computer Program an Intermediate Good or a Final Good?  516

■ EYE on the BUSINESS CYCLE
How Do We Track the Booms and Busts of the Business Cycle?  526

■ EYE on YOUR LIFE
Making GDP Personal, 528

■ EYE on the GLOBAL ECONOMY
Which Country Has the Highest Standard of Living?  529

CHAPTER 21  Jobs and Unemployment

CHAPTER CHECKLIST  539

21.1 Labor Market Indicators  540
Current Population Survey, 540
Population Survey Criteria, 540
Two Main Labor Market Indicators, 541
Alternative Measures of Unemployment, 542
CHECKPOINT 21.1  544

21.2 Labor Market Trends and Fluctuations  545
Unemployment Rate, 545
The Participation Rate, 546
Alternative Measures of Unemployment, 548
A Closer Look at Part-Time Employment, 549
CHECKPOINT 21.2  550

21.3 Unemployment and Full Employment  551
Sources of Unemployment, 551
Types of Unemployment, 552
Full Employment, 553
Unemployment and Real GDP, 556
CHECKPOINT 21.3  558

CHAPTER SUMMARY  559

CHAPTER CHECKPOINT  560

■ EYE on the U.S. ECONOMY
The Current Population Survey, 543

■ EYE on the GLOBAL ECONOMY
Unemployment Around the World, 546

■ EYE on the GLOBAL ECONOMY
Women in the Labor Force, 547

■ EYE on the UNEMPLOYED
How Long Does it Take to Find a New Job?  554

■ EYE on YOUR LIFE
Your Labor Market Status and Activity, 556
CHAPTER 22
The CPI and the Cost of Living 563

CHAPTER CHECKLIST  563

22.1 The Consumer Price Index  564
Reading the CPI Numbers,  564
Constructing the CPI,  564
The CPI Market Basket,  564
The Monthly Price Survey,  565
Calculating the CPI,  566
Measuring Inflation and Deflation,  567
CHECKPOINT 22.1  569

22.2 The CPI and Other Price Level Measures  570
Sources of Bias in the CPI,  570
The Magnitude of the Bias,  571
Two Consequences of the CPI Bias,  572
Alternative Measures of the Price Level and Inflation Rate,  573
CHECKPOINT 22.2  575

22.3 Nominal and Real Values  576
Dollars and Cents at Different Dates,  576
Nominal and Real Values in Macroeconomics,  577
Nominal GDP and Real GDP,  577
Nominal Wage Rate and Real Wage Rate,  578
Nominal Interest Rate and Real Interest Rate,  580
CHECKPOINT 22.3  582

CHAPTER SUMMARY  583
CHAPTER CHECKPOINT  584

■ EYE on the PAST
700 Years of Inflation and Deflation,  568
■ EYE on the U.S. ECONOMY
Deflating the GDP Balloon,  577
■ EYE on the PAST
The Nominal and Real Wage Rates of Presidents of the United States,  579
■ EYE on the VALUE OF MONEY
How Do We Measure the Changing Value of Money?  580
■ EYE on YOUR LIFE
A Student’s CPI  581

CHAPTER 23
Potential GDP and the Natural Unemployment Rate 587

CHAPTER CHECKLIST  587

Macroeconomic Approaches and Pathways  588
The Three Main Schools of Thought,  588
Today’s Consensus,  589
The Road Ahead,  590

23.1 Potential GDP  591
The Production Function,  592
The Labor Market,  593
CHECKPOINT 23.1  599

23.2 The Natural Unemployment Rate  600
Job Search,  601
Job Rationing,  602
CHECKPOINT 23.2  606

CHAPTER SUMMARY  607
CHAPTER CHECKPOINT  608

■ EYE on the U.S. ECONOMY
The Lucas Wedge and the Okun Gap,  590
■ EYE on the GLOBAL ECONOMY
Potential GDP in the United States and the European Union,  591
■ EYE on U.S. POTENTIAL GDP
Why Do Americans Earn More and Produce More than Europeans?  598
■ EYE on the PAST
Average Unemployment Rates over Six Decades,  600
■ EYE on the GLOBAL ECONOMY
Unemployment Benefits and the Natural Unemployment Rate,  602
■ EYE on the U.S. ECONOMY
The Federal Minimum Wage,  605
■ EYE on YOUR LIFE
Natural Unemployment,  605
CHAPTER 25
Finance, Saving, and Investment 637
CHAPTER CHECKLIST 637

25.1 Financial Institutions and Markets 638
Some Finance Definitions, 638
Markets for Financial Capital, 639
Financial Institutions, 641
Insolvency and Illiquidity, 642
Interest Rates and Asset Prices, 642
CHECKPOINT 25.1 643

25.2 The Market for Loanable Funds 644
Flows in the Market for Loanable Funds, 644
The Demand for Loanable Funds, 644
The Supply of Loanable Funds, 647
Equilibrium in the Market for Loanable Funds, 650
Changes in Demand and Supply, 651
CHECKPOINT 25.2 653

25.3 Government in Loanable Funds Market 654
A Government Budget Surplus, 654
A Government Budget Deficit, 655
CHECKPOINT 25.3 658

CHAPTER SUMMARY 659
CHAPTER CHECKPOINT 660

■ EYE on FINANCIAL CRISIS
What Created the Global Financial Crisis? 652
■ EYE on the U.S. ECONOMY
Did The Rescue Plan Crowd Out Investment? 656
■ EYE on YOUR LIFE
Your Participation in the Loanable Funds Market, 657
PART 9  THE MONEY ECONOMY

CHAPTER 26  The Monetary System  663
CHAPTER CHECKLIST  663

26.1 What Is Money?  664
Definition of Money,  664
The Functions of Money,  664
Money Today,  666
Official Measures of Money: M1 and M2,  666
Checks, Credit Cards, Debit Cards, and E-Checks,  667
An Embryonic New Money: E-Cash,  668
CHECKPOINT 26.1  669

26.2 The Banking System  670
Commercial Banks,  670
Thrift Institutions,  673
Money Market Funds,  673
CHECKPOINT 26.2  674

26.3 The Federal Reserve System  675
The Structure of the Federal Reserve,  675
The Fed’s Policy Tools,  676
How the Fed’s Policy Tools Work,  677
CHECKPOINT 26.3  678

26.4 Regulating the Quantity of Money  679
Creating Deposits by Making Loans,  679
How Open Market Operations Change the Monetary Base,  681
The Multiplier Effect of an Open Market Operation,  684
The Money Multiplier,  685
CHECKPOINT 26.4  688

CHAPTER SUMMARY  689
CHAPTER CHECKPOINT  690

- EYE on the PAST
  The “Invention” of Banking,  671
- EYE on the U.S. ECONOMY
  Commercial Banks Under Stress in the Financial Crisis,  673
- EYE on YOUR LIFE
  Money and Your Role in Its Creation,  679
- EYE on CREATING MONEY
  How Did the Fed Regulate the Quantity of Money in the 2008 Financial Crisis?  686

CHAPTER 27  Money, Interest, and Inflation  693
CHAPTER CHECKLIST  693

27.1 Money and the Interest Rate  695
The Demand for Money,  695
Changes in the Demand for Money,  697
The Supply of Money,  698
The Nominal Interest Rate,  698
Changing the Interest Rate,  700
CHECKPOINT 27.1  702

27.2 Money, the Price Level, and Inflation  703
The Money Market in the Long Run,  703
A Change in the Quantity of Money,  705
The Price Level in a Baby-Sitting Club,  706
The Quantity Theory of Money,  706
Inflation and the Quantity Theory of Money,  708
Hyperinflation,  710
CHECKPOINT 27.2  712

27.3 The Cost of Inflation  713
Tax Costs,  713
Shoe-Leather Costs,  714
Confusion Costs,  714
Uncertainty Costs,  715
How Big Is the Cost of Inflation?  715
CHECKPOINT 27.3  716

CHAPTER SUMMARY  717
CHAPTER CHECKPOINT  718

- EYE on the U.S. ECONOMY
  Credit Cards and Money,  700
- EYE on YOUR LIFE
  Money Holding and Fed Watching,  701
- EYE on the PAST
  Hyperinflation in Germany in the 1920s,  710
- EYE on the CAUSE OF INFLATION
  Does Inflation, Deflation, or a Stable Price Level Lie in Our Future?  711
CHAPTER 30
The Short-Run Policy Tradeoff 773
CHAPTER CHECKLIST 773

30.1 The Short-Run Phillips Curve 774
Aggregate Supply and the Short-Run Phillips Curve, 775
Why Bother with the Phillips Curve? 778
CHECKPOINT 30.1 779

30.2 Short-Run and Long-Run Phillips Curves 780
The Long-Run Phillips Curve, 780
Expected Inflation, 781
The Natural Rate Hypothesis, 782
Changes in the Natural Unemployment Rate, 783
Have Changes in the Natural Unemployment Rate Changed the Tradeoff? 784
CHECKPOINT 30.2 786

PART 11 MACROECONOMIC POLICY

CHAPTER 31
Fiscal Policy 795
CHAPTER CHECKLIST 795

31.1 The Federal Budget 796
The Institutions and Laws, 796
Budget Surplus, Deficit, 797
Surplus, Deficit, and Debt, 797
The Federal Budget in 2010, 798
CHECKPOINT 31.1 800

31.2 The Demand Side: Stabilizing Real GDP 801
Schools of Thought and Cracks in Today’s Consensus, 801
Fiscal Policy and Aggregate Demand, 802
A Successful Fiscal Stimulus, 803
A Successful Contractionary Fiscal Policy, 804
Automatic and Discretionary Fiscal Stimulus, 805
Automatic Fiscal Policy, 805
Discretionary Fiscal Policy, 806
CHECKPOINT 31.2 807

31.3 The Supply Side: Potential GDP and Growth 808
Full Employment and Potential GDP, 808
Fiscal Policy, Employment, and Potential GDP, 808

30.3 Expected Inflation 787
What Determines the Expected Inflation Rate? 787
What Can Policy Do to Lower Expected Inflation? 788
CHECKPOINT 30.3 790

CHAPTER SUMMARY 791
CHAPTER CHECKPOINT 792

■ EYE on the GLOBAL ECONOMY
Inflation and Unemployment, 777
■ EYE on the PAST
The U.S. Phillips Curve, 778
■ EYE on the PAST
A Live Test of the Natural Rate Hypothesis, 783
■ EYE on the TRADEOFF
Can We Have Low Unemployment and Low Inflation? 785
■ EYE on YOUR LIFE
The Short-Run Tradeoff in Your Life, 789

Fiscal Policy and Potential GDP: A Graphical Analysis, 810
Taxes, Deficits, and Economic Growth, 811
The Supply Side Debate, 812
Combined Demand-Side and Supply-Side Effects, 814
Long-Run Fiscal Policy Effects, 815
CHECKPOINT 31.3 816

CHAPTER SUMMARY 817
CHAPTER CHECKPOINT 818

■ EYE on the PAST
Federal Revenues, Outlays, Deficit, and Debt, 799
■ EYE on the GLOBAL ECONOMY
The U.S. Budget in Global Perspective, 800
■ EYE on the GLOBAL ECONOMY
Some Real-World Tax Wedges, 809
■ EYE on FISCAL STIMULUS
Did Fiscal Stimulus End the Recession? 813
■ EYE on YOUR LIFE
Your Views on Fiscal Policy and How Fiscal Policy Affects You, 815
CHAPTER 32
Monetary Policy

CHAPTER CHECKLIST

32.1 How the Fed Conducts Monetary Policy
Monetary Policy Objectives, 822
Operational “Maximum Employment” Goal, 823
Operational “Stable Prices” Goal, 823
Responsibility for Monetary Policy, 824
Choosing a Policy Instrument, 824
The Federal Funds Rate, 824
The Fed’s Decision-Making Strategy, 825
Hitting the Federal Funds Rate Target, 826
Restoring Financial Stability in a Financial Crisis, 828
CHECKPOINT 32.1 829

32.2 Monetary Policy Transmission
Quick Overview, 830
Interest Rate Changes, 830
Exchange Rate Changes, 832
Money and Bank Loans, 832
The Long-Term Real Interest Rate, 833
Expenditure Plans, 833
The Fed Fights Recession, 834
The Fed Fights Inflation, 836
Loose Links and Long and Variable Lags, 838
A Final Reality Check, 838
CHECKPOINT 32.2 839

32.3 Alternative Monetary Policy Strategies
Why Rules? 840
Inflation Targeting Rule, 840
Money Targeting Rule, 841
Gold Price Targeting Rule, 843
CHECKPOINT 32.3 844

CHAPTER SUMMARY 845
CHAPTER CHECKPOINT 846

■ EYE on the U.S. ECONOMY
The Fed’s Interest Rate Decisions and the Taylor Rule, 827
■ EYE on the GLOBAL ECONOMY
Inflation Targeting Around the World, 841
■ EYE on THE FED IN A CRISIS
Did the Fed Save Us From Another Great Depression? 842
■ EYE on YOUR LIFE
Your Views on Monetary Policy and How Monetary Policy Affects You, 843

CHAPTER 33
International Finance

CHAPTER CHECKLIST

33.1 Financing International Trade
Balance of Payments Accounts, 850
Borrowers and Lenders, Debtors and Creditors, 852
Current Account Balance, 853
Net Exports, 853
CHECKPOINT 33.1 856

33.2 The Exchange Rate
Demand in the Foreign Exchange Market, 858
The Law of Demand for Foreign Exchange, 858
Changes in the Demand for Dollars, 859
Supply in the Foreign Exchange Market, 861
The Law of Supply of Foreign Exchange, 861
Changes in the Supply of Dollars, 862
Market Equilibrium, 864
Exchange Rate Expectations, 866
Monetary Policy and the Exchange Rate, 868
Pegging the Exchange Rate, 868
The People’s Bank of China in the Foreign Exchange Market, 869
CHECKPOINT 33.2 872

CHAPTER SUMMARY 873
CHAPTER CHECKPOINT 874

■ EYE on the PAST
The U.S. Balance of Payments, 851
■ EYE on the GLOBAL ECONOMY
Current Account Balances Around the World, 855
■ EYE on the PAST
The Dollar and the Euro Since 1999, 857
■ EYE on the DOLLAR
Why Has Our Dollar Been Sinking? 865
■ EYE on the GLOBAL ECONOMY
Purchasing Power Parity, 867
■ EYE on the GLOBAL ECONOMY
The Fixed Yuan, 871
■ EYE on YOUR LIFE
Your Foreign Exchange Transactions, 871

Glossary G-1
Index I-1
Credits C-1
Students know that throughout their lives they will make economic decisions and be influenced by economic forces. Students want to understand economic principles that help navigate these forces and guide their decisions. *Foundations of Economics, AP* Edition is our solution to satisfy this need.

To achieve its goals, the principles course must do the following four things well.

- Motivate with compelling issues and questions
- Focus on core ideas
- Steer a path between an overload of detail and too much left unsaid
- Encourage and aid learning by doing

The Foundations icon with its four blocks (on the cover and throughout the book) symbolizes this four-point approach that has guided all our choices in writing this text and creating of its comprehensive teaching and learning components.

Economics is a core competency for the responsible citizen and is a foundation for every type of career. *Foundations of Economics, AP* Edition, helps students understand the language of economics, integrate economic concepts into everyday life experiences, make more informed personal decisions, and better understand economic issues highlighted in the media.

**WHAT’S NEW IN THE FIFTH EDITION**

The evolving U.S. and global economies provide a rich display of economic forces in action through which students can be motivated to discover the economic way of thinking. The global financial crisis and slump, ongoing tensions that result from globalization and international outsourcing, the continued spectacular expansion of China and India in the information-age economy, enhanced concern about the depletion of the world’s rainforests and fish stocks, climate change, relentless pressure on the federal budget from the demands of an aging population and increased defense and homeland security expenditures, a falling dollar, and an ongoing U.S. international deficit and ever-growing national and international debt are just a few of these interest-arousing events. All of them feature at the appropriate points in our new edition, and the text and examples are all thoroughly updated to reflect the most recently available data and events.
Every chapter contains many small changes, all designed to enhance clarity and currency. We have also made some major changes that we now describe.

**FEATURE CHANGES**

Each chapter opens with a photograph and a question about an issue that the chapter addresses. An *Eye On* box answers the question and an end-of-chapter problem (also in the instructor-assignable section of MyEconLab) makes the issues available for homework or quiz assignment. This feature enables students to get the point of the chapter quickly; it ties the chapter together; and it enables the teacher to focus on a core issue in class and for practice.

Checkpoint Practice Problems and end-of-chapter problems now include mini case studies from recent news stories. These problems feature in MyEconLab: some for student practice and some reserved for teacher homework and test assignments.

**Major Content Changes in Introductory Chapters**

Questions about the economic way of thinking (Did greed cause the global economic slump?); offshoring and outsourcing (Who makes the iPhone?); opportunity cost (Is wind power free?), and demand and supply (Why did home prices boom and bust?) are the motivating questions and features of *Eye On* boxes and end-of-chapter problems in the four introductory chapters.

We reorganized Chapter 2, but did not change its overall content. Chapter 4 has two new demand and supply application boxes on the markets for automobiles and wheat.

**Major Content Changes in Micro Chapters**

The micro policy chapters open with questions about elasticity, the efficiency of markets and other allocation mechanisms, market intervention, the gains from trade, health-care reform, and global warming. The consumer and producer chapters open with questions that focus the student on the value and cost of items in their lives (“How much would you pay for a song?” and “Which store has the lower costs: Wal-Mart or a 7–11?”). Chapters on market structure ask why GM failed, whether Microsoft’s prices and profits are too high, and why there is so much variety in cell phones. And the factor markets chapter asks why a college football coach is worth 40 professors. These motivating questions that feature in the chapter opening photo and screamer are answered in *Eye On* boxes and tested in end-of-chapter problems.

The content of the fourth edition chapters, “Externalities”, and “Public Goods and Common Resources” have been reorganized and repackaged. The first of the reorganized chapters, “Public Goods and Public Choices,” covers the problems of underprovision of public goods (the free-rider problem) and underprovision of goods and services that have positive externalities. The principles are explained and illustrated in the markets for education and health care. In both cases, the focus is on the central resource allocation problem, not the minuia of the public political debate. The second of the reorganized chapters, “Externalities and the Environment,” examines the problems of overprovision in
the face of external costs and the tragedy of the commons. Here, the principles are explained and illustrated with the problems of pollution and overfishing.

This repackaging of material makes for a more issues-oriented approach and one that better motivates an analysis of the potential solutions to these problems.

The fourth edition chapter “Uncertainty and Information” has been omitted and is available by request online.

### Major Content Changes in Macro Chapters

The macroeconomic events and debates of 2008 and 2009 permeate the macro chapters, all of which have been radically updated and revised. Policy features at every possible opportunity throughout these chapters.

How do we track the booms and busts of the business cycle? How long does it take to find a job? How do we measure the changing value of money? Why do Americans earn and produce more than Europeans? Why are some nations rich and others poor? What created the global financial crisis? How does the Fed create money? What causes inflation? What causes the business cycle? Can we have low unemployment and low inflation? Did fiscal stimulus end the recession? Did the Fed save us from another Great Depression? Why is our dollar sinking? These are the motivating questions and features of *Eye On* boxes and end-of-chapter problems in the fourteen macro chapters.

The first macro chapter (20) now has a section that defines the business cycle and its phases and compares the NBER’s method of dating the turning points with the message that real GDP gives for the onset of the 2008–2009 recession.

We reversed the order of the chapters on “Jobs and Unemployment” (21) and “The CPI and the Cost of Living” (22) to emphasize the importance of unemployment today. The unemployment chapter now explains the six alternative measures of unemployment and the idea of marginal labor force attachment. The chapter also has an improved explanation of the linkage between fluctuations in unemployment around the natural rate and the output gap. The CPI chapter now includes an explanation of the core inflation rate.

The chapter on “Finance, Saving, and Investment” (25) incorporates default risk as a factor influencing the supply of loanable funds and explains why lending dried up during the financial crisis. The chapter also examines the issue of crowding out in the face of a large fiscal deficit.

The two money chapters, “The Monetary System” (26) and “Money, Interest, and Inflation” (27), are revised to explain the extraordinary policy actions undertaken by the Fed following the collapse of Lehman Brothers. The chapters look at the enormous increase in the monetary base and corresponding increase in banks’ desired reserves as they coped with enhanced default risk.

We also revised the two policy chapters, “Fiscal Policy” (31) and “Monetary Policy” (32), to include the major actions of 2008 and 2009. The fiscal policy chapter is restructured to begin with an account of the cracks in the consensus and the public debate on the merits of fiscal stimulus in recession. The chapter then examines discretionary and automatic fiscal stimulus and the challenges facing the conduct of discretionary policies. In 2009, the effect of automatic stimulus was vastly greater than the discretionary stimulus initiated by Congress. The monetary policy chapter contrasts the orderly near rule-based policies before 2008 with the radical and aggressive countercyclical actions since 2008.
THE FOUNDATIONS VISION

■ Focus on Core Concepts

Each chapter of *Foundations of Economics, AP* Edition concentrates on a manageable number of main ideas (most commonly three or four) and reinforces each idea several times throughout the chapter. This patient, confidence-building approach guides students through unfamiliar terrain and helps them to focus their efforts on the most important tools and concepts of our discipline.

■ Many Learning Tools for Many Learning Styles

*Foundations of Economics, AP* Edition’s integrated print and electronic package builds on the basic fact that students have a variety of learning styles. In MyEconLab, students have a powerful tool at their fingertips: They can complete all Checkpoint problems online, work interactive graphs, assess their skills by taking Practice Tests, receive a personalized Study Plan, and step through Guided Solutions.

■ Diagrams That Tell the Whole Story

We developed the style of our diagrams with extensive feedback from faculty focus group participants and student reviewers. All of our figures make consistent use of color to show the direction of shifts and contain detailed, numbered captions designed to direct students’ attention step-by-step through the action. Because students of economics are often apprehensive about working with graphs, we have made a special effort to present material in as many as three ways—with graphs, words, and tables—in the same figure. In an innovation that seems necessary, but is to our knowledge unmatched, nearly all of the information supporting a figure appears on the same page as the figure itself. No more flipping pages back and forth!

■ Real-World Connections That Bring Theory to Life

Students learn best when they can see the purpose of what they are studying, apply it to illuminate the world around them, and use it in their lives. *Eye On* boxes, and *Eye On* features offer fresh new examples to help students see that economics is everywhere. Current and recent events appear in *Eye On the U.S. Economy* boxes; we place current U.S. economic events in global and historical perspectives in our *Eye on the Global Economy* and *Eye on the Past* boxes; and we show how students can use economics in day-to-day decisions in *Eye On Your Life* boxes.

The new *Eye On* boxes that build off of the chapter-opening question help students see the economics behind key issues facing our world and highlight a major aspect of the chapter’s story.
ORGANIZATION/FLEXIBILITY

We have organized the sequence of material and chapters in what we think is the most natural order in which to cover the content. But we recognize that there are alternative views on the best order. We have kept this fact and the need for flexibility firmly in mind throughout the text. Many alternative sequences work, and the Flexibility Chart on pp. xxxviii—xli explains the alternatives that work well.

MYECONLAB

MyEconLab is a powerful online assessment and tutorial system that works hand-in-hand with Foundations of Economics, AP* Edition. With comprehensive homework, quiz, test, and tutorial options, teachers can manage all assessment needs in one program.

- All of the Checkpoint and Chapter Checkpoint Problems and Applications are assignable and automatically graded in MyEconLab.
- Extra problems and applications, including algorithmic, draw-graph, and numerical exercises are available for student practice, or instructor assignment.
- Test Item File questions are available for assignment as homework.
- The Custom Exercise Builder allows instructors the flexibility of creating their own problems for assignment.
- The powerful Gradebook records each student’s performance and time spent on the Tests and Study Plan and generates reports by student or by chapter.
- Economics in the News is a turn-key solution to bringing daily news into the classroom. Updated daily during the academic year, the authors upload two relevant articles (one micro, one macro) and provide discussion questions.
- A comprehensive suite of ABC news videos, which address current topics such as education, energy, Federal Reserve policy, and business cycles, is available for classroom use. Video-specific exercises are available for instructor assignment.

A more detailed walk-through of the student benefits and features of MyEconLab can be found on pp. xxviii–xxix. For more information, visit the online demonstration at www.myeconlab.com.

Upon textbook purchase, students and teachers are granted access to MyEconLab.

High school teachers can obtain student and teacher preview or adoption access for MyEconLab in the following way:

Preview Access

Adoption Access
- Register online at www.PearsonSchool.com/Access_Request, using Option 3 OR
CHECKPOINT 4.2

Distinguish between quantity supplied and supply, and explain what determines supply.

Practice Problems
Lumber companies make timber beams from logs. In the process of making beams, the mill produces sawdust, which is made into pressed wood. In the market for timber beams, the following events occur one at a time:

• The wage rate of sawmill workers rises.
• The price of sawdust rises.
• The price of a timber beam rises.
• The price of a timber beam is expected to rise next year.
• Environmentalists convince Congress to introduce a new law that reduces the amount of forest that can be cut for timber products.
• A new technology lowers the cost of producing timber beams.

Use this information to work Problems 1 to 3.

Study Plan
A Study Plan, which includes Practice Problems taken directly from the Checkpoint pages of the textbook, is generated from each student's results on homework, quizzes, and tests.
Unlimited Practice

Many Study Plan and Instructor Assignable exercises contain algorithms to ensure that students get as much practice as they need. As students work Study Plan or Homework exercises, instant feedback guides them toward understanding. When students work a Quiz or Test, feedback is provided only when the teacher chooses to make it available.

Learning Resources

To further reinforce understanding, Study Plan and Homework problems link to four learning resources:

- A step-by-step Guided Solution [Helps students break down a problem much the same way as an instructor would do during office hours];
- The eText page on which the topic of the exercise is explained [Promotes reading the text when further explanation is needed];
- An animated graph with audio narration [Caters to a variety of learning styles];
- A graphing tool [Encourages students to draw and manipulate graphs and deepen their understanding by illustrating economic relationships and ideas].
SUPPORT MATERIALS FOR TEACHERS AND STUDENTS

*Foundations of Economics, AP* Edition is accompanied by the most comprehensive set of teaching and learning tools ever assembled. Each component of our package is organized by Checkpoint topic for a tight, seamless integration with both the textbook and the other components. In addition to authoring the MyEconLab and PowerPoint content, we have helped in the reviewing and revising of the Study Guide, Solutions Manual, Instructor’s Manual, and Test Item Files to ensure that every element of the package achieves the consistency that students and teachers need.

**FOR THE TEACHER**

Most of the teacher supplements and resources for this text are available electronically for download to qualified adopters on the Instructor Resource Center (IRC). Upon adoption or to preview, please go to www.PearsonSchool.com/Advanced and select “Online Teacher Supplements.” You will be required to complete a onetime registration subject to verification before being emailed access information to download materials.

- **Instructor’s Resource CD-ROM**
  This CD-ROM contains the Instructor’s Manual, Solutions Manual, and Test Item Files in Word and PDF formats. It also contains the Computerized Test Item Files (with a TestGen program installer) and PowerPoint® Resources. It is compatible with both Windows and Macintosh operating systems.

- **Instructor’s Manual**
  The Instructor’s Manual, written by Luke Armstrong and edited by Mark Rush, contains chapter outlines and road maps, additional exercises with solutions, and a virtual encyclopedia of suggestions on how to enrich class presentation and use class time efficiently. The fifth edition is enhanced with a Chapter Lecture which incorporates lively Lecture Launchers to enrich your presentation, Landmines that point out potential stumbling blocks, and additional teaching tips, creating one comprehensive lecture resource. Both the micro and macro portions have been updated to reflect changes in the main text as well as infused with a fresh and intuitive approach to teaching this course. It is available for download in Word and PDF formats.

- **Solutions Manual**
  The Solutions Manual, written by Mark Rush, contains the solutions to all the Checkpoint Practice Problems and Chapter Checkpoint Problems and Applications. It is available for download in Word and PDF formats.

- **Three Test Item Files and TestGen**
  More than 12,000 multiple-choice, numerical, fill-in-the-blank, short answer, essay, and integrative questions make up the three Test Item Files that support *Foundations of Economics, AP* Edition. While these questions continue to build on more than one Checkpoint or more than one chapter, this edition’s Test Item
Files now feature a linear progression through the text, which will enable instructors to easily view, pick and choose questions for homework and exams. Mark Rush reviewed and edited questions from five dedicated principles instructors to form one of the most comprehensive testing systems on the market. Our microeconomics authors are Karen Gebhardt (Colorado State University); Dennis Debrecht (Carroll University); and Edward Creppy (Northern Virginia Community College). Our macroeconomics questions were written by Carol Dole (Jacksonville University) and Buffie Schmidt (Augusta State University). The entire set of questions is available for download in Word, PDF, and TestGen formats.

All three Test Item Files are available in test generator software (TestGen with QuizMaster). TestGen’s graphical interface enables instructors to view, edit, and add questions; transfer questions to tests; and print different forms of tests. Instructors also have the option to reformat tests with varying fonts and styles, margins, and headers and footers, as in any word-processing document. Search and sort features let the instructor quickly locate questions and arrange them in a preferred order. QuizMaster, working with your school’s computer network, automatically grades the exams, stores the results on disk, and allows the teacher to view and print a variety of reports.

PowerPoint Resources

We have created the PowerPoint resources based on our 15 years of experience using this tool in our own classrooms. Three types of PowerPoint presentations are available:

- Lecture notes with full-color, animated figures and tables from the textbook
- Figures and tables from the textbook. All of the textbook figures are animated for step-by-step walk-through.
- Clicker-enabled slides for your Personal Response System. The slides consist of 10 multiple choice questions from the Study Guide for each chapter. You can use these in class to encourage active learning.

MyEconLab

MyEconLab is an online homework and tutorial system that offers a suite of study and practice tools. Students can test themselves and based on the results, MyEconLab generates a personalized study plan with additional exercises and tutorials. MyEconLab.

Teachers can build assessments using a mix of MyEconLab-specific problems, Test Bank questions, and questions written by the teacher using the Econ Exercise Builder. Teachers are able to track student performance from online homework, quizzes, and tests within the online gradebook.

FOR THE STUDENT

AP* Test Prep Workbook

Created specifically for Foundations of Economics, AP* Edition, this comprehensive guide is linked directly to the textbook to help students reinforce important connections between what they learn in class and the AP Exam. This workbook is available for purchase and includes:
• An overview of the AP program and the specific AP test covered by this
guide, test taking tips, and strategies to prepare students for peak perform-
ance on the AP Exam.
• Correlation between key AP exam topics and the corresponding chapter and
• Hundreds of practice study questions written by experienced AP educators.

MyEconLab

MyEconLab is an online homework and tutorial system that offers a suite of
study and practice tools. Students can complete all Checkpoint problems online,
work interactive graphs, assess their skills by taking Practice Tests, receive a
personalized Study Plan, step through Guided Solutions, and much more. See
page xxvii for complete description. Ask your teacher for access information
and instructions.

HOW TO SUCCEED IN YOUR AP ECONOMICS COURSE

Any AP course demands a significant commitment of time, and one of your
biggest challenges will be to allocate your time efficiently. By applying some
analysis to this challenge, you will already be thinking like an economist!

Here are some key strategies for success in this course.

Keep up with the course material on a weekly basis. Skim the appropriate chap-
ter in the textbook before it is covered in class to get a general understanding of
the basic concepts and issues. After class, work through the problems in the
appropriate chapter of The AP* Test Prep Workbook. The key to success is repeated
practice with your new economic tools.

Make the Checklist-Checkpoint structure work for you. To learn economics you
have to do economics. The Checklist-Checkpoint system provides you with a
structure for doing just that. To make it work for you, start by familiarizing your-
self with the Checklist at the opening to each chapter: it tells you where you’ll be
heading. As you progress through the chapter, you’ll see that each major section
corresponds to one of the Checklist items. After studying each section, be sure to
work the Checkpoint! That’s the time to reinforce what you’ve just read—while
it’s still fresh in your mind. Don’t jump to the next section until you feel you’ve
mastered the Checkpoint of the section at hand. Then, when you reach the end of
the chapter, review the Chapter Checklist. It corresponds seamlessly to the
Checkpoint and the key points in the sections. This system is the glue that holds it
all together. Used consistently and thoughtfully, it will help you attain success in
mastering economics.

Tailor your learning style to the many study tools available. Do you work best
interactively in an online environment? Are you a visual learner? Do you like to
break tasks down into smaller, bite-sized pieces? Whatever your learning style,
there is something for you in this fully integrated learning system. If you like to
be in charge of your own learning, you’ll find that MyEconLab is a powerful tool;
you’ll be able to complete Checkpoints and exercises online, work graphs, take
Practice Tests, receive a customized Study Plan, and step through guided solu-
tions—all at your own pace. If you’re a visual learner, the graphs will be key to your understanding—color is used consistently to convey specific actions, numbered captions walk you step by step through key figures, and accompanying data tables show you the main plotting points. If you like patient explanation of concepts, *The AP* Test Prep Workbook will amplify the material in the text for you and allow you to work additional problems.

*Look for economics in the world around you.* To give you some inspiration in this direction, read the “Eye On” features that will show you how the theory connects with the everyday world around you. Also, don’t miss the Reality Check at the end of each chapter, which asks you to ponder how the economic concepts in a particular chapter actually have a real impact on your own life. You will finally have an answer to the perennial question, “What use is all this theory, anyway?”

The AP course description outline that follows on the subsequent pages provides the major topics included on the AP exam. Look closely at these topics and note how the textbook follows the sequence of ideas to be mastered.

■ **Understanding the AP Economics Examinations**

The AP Economics Examinations make use of a variety of question types and graphical analysis to assess the skill level of AP students. The AP examinations reflect the types of assessment that occur at the college level.

The AP Economics Examinations take two hours and 10 minutes to complete. In both the multiple-choice and free-response sections of the exams, AP students can expect to work with graphs, charts, and tables. Each examination consists of a 70-minute, multiple-choice section and a 60-minute free-response section that may require graphical analysis. The free-response section begins with a mandatory 10-minute reading period that can be used to read each of the questions, sketch graphs, make notes, and plan answers in the green insert. AP students then have 50 minutes to write the answers in the booklet.

■ **Section I: Multiple-Choice Questions**

The multiple-choice section of each exam contains 60 questions, with 70 minutes allotted for Section I. The multiple-choice section accounts for 2/3 of the AP student’s examination grade. Each question has five choices and only one choice is judged correct. The questions are straightforward, and many require analysis and interpretation. Some will require analysis of a graph, chart, or table.

The AP Economics Examinations contain these distinct question types:

- Definition or identification questions
- Graph or table questions
- Analysis or cause and effect questions
- Multiple-choice questions

**Hints on Grading:** The multiple-choice section of each exam is worth 2/3 of the AP student’s score. The questions are machine scored and determined by crediting one point for a correct answer and by deducting 1/4 of a point for an incorrect answer. No points are gained or lost for unanswered questions. If you have no idea what the correct answer is, leave the answer blank. But, if you can eliminate two or more of the five choices, you should make an educated guess.
Section II Free-Response Questions

The free-response section begins with a mandatory 10-minute reading period, during which AP students are encouraged to read the questions, sketch graphs, make notes, and plan answers in the green insert. AP students then have 50 minutes to write their answers in the booklet.

The free-response questions in Section II of each exam will require AP students to analyze a given economic situation and use economic principles to explain answers. Using explanatory diagrams that clarify the analysis and clearly explain the reasoning results in the greatest number of points. Sometimes a graph is given as part of the question and the AP student’s task is to derive the answer from the graph data. Generally, the longer free-response questions require you to interrelate several content areas, while the two shorter free-response questions focus on a specific topic in a given content area.

Hints on Grading: This section of the exam is 1/3 of the score. The raw score for Section II is composed of the scores from the three questions and then apportioned according to value assigned to each (larger question—50% of score and two smaller questions each—25% of score).

AP ECONOMICS CORRELATION CHARTS

This chart correlates the Advanced Placement Microeconomics topics as outlined by the College Board with the corresponding chapters and section numbers in Foundations of Economics, AP* Edition.

<table>
<thead>
<tr>
<th>AP Microeconomics Topics</th>
<th>Textbook Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Basic Economic Concepts</strong></td>
<td>Chapters 1, 2, 3, 9</td>
</tr>
<tr>
<td>A. Scarcity, choice, and opportunity cost</td>
<td>1.1, 1.2, 3.2</td>
</tr>
<tr>
<td>B. Production possibilities curve</td>
<td>3.1</td>
</tr>
<tr>
<td>C. Comparative advantage, absolute advantage, specialization, and trade</td>
<td>3.4, 9.1, 9.2</td>
</tr>
<tr>
<td>D. Economic systems</td>
<td>2.3</td>
</tr>
<tr>
<td>E. Property rights and the role of incentives</td>
<td>1.2</td>
</tr>
<tr>
<td>F. Marginal analysis</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>II. The Nature and Functions of Product Markets</strong></td>
<td>Chapters 4, 5, 6, 7, 8, 12, 13, 14, 15, 16, 17</td>
</tr>
<tr>
<td>A. Supply and demand</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>1. Market equilibrium</td>
<td>4.3</td>
</tr>
<tr>
<td>2. Determinants of supply and demand</td>
<td>4.1, 4.2</td>
</tr>
<tr>
<td>3. Price and quantity controls</td>
<td>Chapter 7</td>
</tr>
<tr>
<td>4. Elasticity</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>a. Price, income, and cross-price elasticities of demand</td>
<td>5.1, 5.3</td>
</tr>
<tr>
<td>b. Price elasticity of supply</td>
<td>5.2</td>
</tr>
<tr>
<td>5. Consumer surplus, producer surplus, and market efficiency</td>
<td>6.1, 6.2, 6.3, 6.4</td>
</tr>
<tr>
<td>6. Tax incidence and deadweight loss</td>
<td>8.1, 8.2</td>
</tr>
<tr>
<td>B. Theory of consumer choice</td>
<td>Chapter 12</td>
</tr>
<tr>
<td>1. Total utility and marginal utility</td>
<td>12.2</td>
</tr>
<tr>
<td>2. Utility maximization: equalizing marginal utility per dollar</td>
<td>12.2</td>
</tr>
</tbody>
</table>
3. Individual and market demand curves
4. Income and substitution effects
C. Production and costs
1. Production functions: short and long run
2. Marginal product and diminishing returns
3. Short-run costs
4. Long-run costs and economies of scale
5. Cost minimizing input combination
D. Firm behavior and market structure
1. Profit
   a. Accounting versus economic profits
   b. Normal profit
   c. Profit maximization: MR = MC rule
2. Perfect competition
   a. Profit maximization
   b. Short-run supply and shutdown decision
   c. Behavior of firms and markets in the short run and in the long run
   d. Efficiency and perfect competition
3. Monopoly
   a. Sources of market power
   b. Profit maximization
   c. Inefficiency of monopoly
   d. Price discrimination
   e. Natural monopoly
4. Oligopoly
   a. Interdependence, collusion, and cartels
   b. Game theory and strategic behavior
5. Monopolistic competition
   a. Product differentiation and role of advertising
   b. Profit maximization
   c. Short-run and long-run equilibrium
   d. Excess capacity and inefficiency

III. Factor Markets
A. Derived factor demand
B. Marginal revenue product
C. Labor market and firms’ hiring of labor
D. Market distribution of income

IV. Market Failure and the Role of Government
A. Externalities
   1. Marginal social benefit and marginal social cost
   2. Positive externalities
   3. Negative externalities
   4. Remedies
B. Public goods
   1. Public versus private goods
   2. Provision of public goods

Chapter 13
13.1
13.2
13.3
13.4

Chapter 14
14.1
14.2

Chapter 15
15.1
15.2
15.3
15.4
15.5

Chapter 17
17.1
17.2
17.3

Chapter 16
16.1
16.2
16.3

Chapter 18, 19
18.1
18.2
19.1
This chart correlates the Advanced Placement Macroeconomics topics as outlined by the College Board with the corresponding chapters and section numbers in *Foundations of Economics, AP* Edition.

### AP Macroeconomics Topics

#### I. Basic Economic Concepts

<table>
<thead>
<tr>
<th>Topic</th>
<th>Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Scarcity, choice, and opportunity costs</td>
<td>1.1, 1.2, 3.2</td>
</tr>
<tr>
<td>B. Production possibilities curve</td>
<td>3.1</td>
</tr>
<tr>
<td>C. Comparative advantage, absolute advantage, specialization, and exchange</td>
<td>3.4, 9.2</td>
</tr>
<tr>
<td>D. Demand, supply, and market equilibrium</td>
<td>4.1, 4.2, 4.3</td>
</tr>
<tr>
<td>E. Macroeconomic issues: business cycle, unemployment, inflation, growth</td>
<td>Chapters 20, 21, 22</td>
</tr>
</tbody>
</table>

#### II. Measurement of Economic Performance

<table>
<thead>
<tr>
<th>Topic</th>
<th>Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. National income accounts</td>
<td></td>
</tr>
<tr>
<td>1. Circular flow</td>
<td></td>
</tr>
<tr>
<td>2. Gross domestic product</td>
<td></td>
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<tr>
<td>3. Components of gross domestic product</td>
<td></td>
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<tr>
<td>4. Real versus nominal gross domestic product</td>
<td></td>
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<tr>
<td>B. Inflation measurement and adjustment</td>
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</tr>
<tr>
<td>1. Price indices</td>
<td></td>
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<tr>
<td>2. Nominal and real values</td>
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<tr>
<td>3. Costs of inflation</td>
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<tr>
<td>C. Unemployment</td>
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<tr>
<td>1. Definition and measurement</td>
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<tr>
<td>2. Types of unemployment</td>
<td></td>
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<tr>
<td>3. Natural rate of unemployment</td>
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<tr>
<td>Chapters 22, 28</td>
<td></td>
</tr>
<tr>
<td>22.1, 22.2</td>
<td></td>
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<tr>
<td>22.3</td>
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<tr>
<td>27.3</td>
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<tr>
<td>Chapter 21, 23</td>
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</tbody>
</table>

#### III. National Income and Price Determination

<table>
<thead>
<tr>
<th>Topic</th>
<th>Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Aggregate demand</td>
<td></td>
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<tr>
<td>1. Determinants of aggregate demand</td>
<td></td>
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<tr>
<td>2. Multiplier and crowding-out effects</td>
<td></td>
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<tr>
<td>B. Aggregate Supply</td>
<td></td>
</tr>
<tr>
<td>1. Short-run and long-run analyses</td>
<td></td>
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<tr>
<td>2. Sticky versus flexible wages and prices</td>
<td></td>
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<tr>
<td>3. Determinants of aggregate supply</td>
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<tr>
<td>Chapters 23, 28</td>
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<tr>
<td>23.1, 28.3</td>
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<tr>
<td>28.1</td>
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<td>28.1</td>
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<tr>
<td>C. Macroeconomic Equilibrium</td>
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<tr>
<td>1. Real output and price level</td>
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<tr>
<td>2. Short and long run</td>
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<tr>
<td>3. Actual versus full-employment output</td>
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<td>4. Economic fluctuations</td>
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<tr>
<td>Chapters 28, 29</td>
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<td>28.3</td>
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#### IV. Financial Sector

<table>
<thead>
<tr>
<th>Topic</th>
<th>Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Money, banking, and financial markets</td>
<td></td>
</tr>
<tr>
<td>1. Definition of financial assets: money, stocks, bonds</td>
<td></td>
</tr>
</tbody>
</table>

Chapters 25, 26, 27 | 25.1, 26.1 |
2. Time value of money (present and future value)
3. Measures of money supply
4. Banks and creation of money
5. Money demand
6. Money market
7. Loanable funds market
B. Central bank and control of the money supply
   1. Tools of central bank policy
   2. Quantity theory of money
   3. Real versus nominal interest rates
V. Inflation, Unemployment, and Stabilization Policies
A. Fiscal and monetary policies
   1. Demand-side effects
   2. Supply-side effects
   3. Policy mix
   4. Government deficits and debt
B. Inflation and unemployment
   1. Types of inflation
      a. Demand-pull inflation
      b. Cost-push inflation
   2. The Phillips curve: short run versus long run
   3. Role of expectations
VI. Economic Growth and Productivity
A. Investment in human capital
B. Investment in physical capital
C. Research and development, and technological progress
D. Growth policy
VII. Open Economy: International Trade and Finance
A. Balance of payments accounts
   1. Balance of trade
   2. Current account
   3. Capital account
B. Foreign exchange market
   1. Demand for and supply of foreign exchange
   2. Exchange rate determination
   3. Currency appreciation and depreciation
C. Net exports and capital flows
D. Links to financial and goods markets

Upon publication, this text was correlated to the College Board’s Macroeconomics and Microeconomics Course Description dated May 2009, May 2010. We continually monitor the College Board’s AP Course Description for updates to exam topics. For the most current AP Exam Topic correlation for this textbook, visit PearsonSchool.com/Advanced Correlations
## Foundations of Economics: Flexibility Chart

1. **Getting Started**  
The questions and way of thinking that define economics.

1. **Appendix: Making and Using Graphs**  
Good for students with a fear of graphs.

2. **The U.S. and Global Economies**  
Describes ‘what,’ ‘how,’ and ‘for whom’ in the U.S. and global economies and introduces the circular flows that arise from interactions.

3. **The Economic Problem**  
Carefully paced and complete first look at the fundamental economic problem. Includes the distinction between absolute advantage and an explanation of why comparative advantage is the source of the gains from trade.

4. **Demand and Supply**  
Carefully paced and complete explanation of this core topic with painstaking emphasis on the distinction between a change in demand (supply) and a change in the quantity demanded (supplied).

5. **Elasticities of Demand and Supply**  
A gentle explanation of elasticity with the emphasis on understanding and interpreting elasticity.

6. **Efficiency and Fairness of Markets**  
Describes the alternative methods of allocating resources and explains the efficiency and fairness of market outcomes. By introducing students to both efficiency and fairness (equity) issues early in the course we are able to engage in the discussion of topics such as price floors, price ceilings, production quotas, taxes, the benefits and costs of globalization of trade, externalities, public goods, and common resources, all of which we cover in Chapters 7 through 11.

7. **Government Actions in Markets**  
Explains the effects of price ceilings, price floors, and price supports and their efficiency and fairness. Chapters 4, 5, and 6 are prerequisites.

8. **Taxes**  
Explains the incidence of taxes and discusses efficiency and equity issues. Chapters 4, 5, and 6 are prerequisites.

9. **Global Markets in Action**  
Explains how markets work when an economy trades with the world. Explains the gains and losses from exports and imports, the effects of tariffs and import quotas, and assesses arguments for protection. Chapters 4 and 6 are prerequisites.

We cover all the standard topics of the principles curriculum and we do so in the order that has increasingly found favor among teachers.

A powerful case can be made for teaching the subject in the order in which we present it here, but we recognize that there is a range of opinion about sequencing, and we have structured our text so that it works well if other sequences are preferred. This table provides a guide to the flexibility that we’ve built into our text.

Deciding the order in which to teach the components of microeconomics involves a tradeoff between building foundations and getting to policy issues early in the course. There is little disagreement that the place to begin is with production possibilities and demand and supply. We provide a carefully paced and thoroughly modern treatment of these topics.

We introduce and explain the core ideas about efficiency and fairness early and then cover major policy issues in a series of chapters that use only the tools of demand and supply, marginal benefit and marginal cost, and consumer and producer surplus. More technical topics such as consumer choice and cost curves are covered later.

Teachers who prefer to cover policy issues later in the course can skip Chapters 6 through 11 and move straight from elasticity to consumer choice (Chapter 12) and then onto the economics of the firm. The policy-related chapters can be covered at any chosen point later in the course.
Describes and distinguishes among types of goods and sources of externalities. Explains the free-rider problem and the problem of underprovision of public goods and private goods with external benefits. Explains alternative solutions to these problems. Chapters 4 and 6 are prerequisites.

## 11. Externalities and the Environment
Explains why goods with negative externalities and common resources lead to overproduction. Explains the Coase theorem, and the use of taxes, subsidies, and market solutions to the problem of overproduction and the tragedy of the commons. Chapters 4 and 6 are prerequisites.

## 12. Consumer Choice and Demand
Explains both marginal utility theory and (in an appendix) indifference curve analysis.

## 13. Production and Cost
Explains a firm’s product curves and cost curves and the sources of initially increasing marginal product (increased specialization) and eventually diminishing marginal product.

## 14. Perfect Competition
Explains decisions of firms in competitive markets and derives the firm’s and market supply curves.

## 15. Monopoly
Explains how monopoly arises, how it maximizes profit, how price discrimination works, and why and how monopoly is regulated.

## 16. Monopolistic Competition
Explains product differentiation and its consequences of high advertising and marketing costs. Chapters 14 and 15 are prerequisites.

## 17. Oligopoly
Explains how oligopoly arises, the cartel dilemma, game theory, and antitrust regulation. Chapters 14 and 15 are prerequisites.

## 18. Markets for Factors of Production
Emphasis is on labor market but it covers all the factor markets and including nonrenewable factors. Chapters 4 and 13 are prerequisites.

## 19. Inequality and Poverty
Explains the sources of inequality and its trends, and evaluates alternative redistribution methods. Chapter 18 is a useful background for this chapter but not a prerequisite.

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This optional chapter may be covered at any point after Chapter 3.

Chapter 13, which may be covered at any point after Chapter 3, is prerequisite for Chapters 14 through 18.
20. GDP: A Measure of Total Production of Income
Explains expenditure and income approaches to measuring real GDP and the uses and limitations of real GDP. An appendix explains the chained-dollar measure of real GDP.

21. Jobs and Unemployment
Describes labor market measures and trends and the link between unemployment and real GDP.

22. The CPI and the Cost of Living
Emphasizes the interpretation and use of the CPI and the measurement of real variables.

23. Potential GDP and the Natural Unemployment Rate
Explains how potential GDP and the natural unemployment rate are determined.

24. Economic Growth
Explains the sources of economic growth and the policies that might speed it.

25. Finance, Saving, and Investment
Describes the financial markets and institutions and explains how saving, investment, and the real interest rate are determined and influenced by the government budget deficit (or surplus).

26. The Monetary System
Defines money and describes its functions. Describes the banking system and the Fed and explains how the Fed influences the quantity of money.

27. Money, Interest, and Inflation
Explains the demand for money and how the supply of and demand for money determine the nominal interest rate in the short run and the price level and inflation rate in the long run.

The macro course divides naturally into five parts: (1) measurement, (2) the real economy in the long run, (3) the money economy in the long run, (4) fluctuations, and (5) policy issues. These parts can be covered in sequence or in several alternative ways.

After Chapter 22, it is possible to jump either to Chapter 28 (Aggregate Supply and Aggregate Demand), or Chapter 29 (Aggregate Expenditure Multiplier), or Chapter 30 (The Short-Run Policy Tradeoff).

It is also possible to jump straight to the money chapters (Chapters 26 and 27).

Most of the content of Chapter 31 (Fiscal Policy) and Chapter 32 (Monetary Policy) can be covered after doing Chapters 26, 27, and 28.

These chapters explain the real economy in the long run—classical macro. They may be studied after Chapters 28–30, but we think they work better at this point in the course.

At full employment, the real economy is influenced by only real variables, and the price level is proportional to the quantity of money. This idea has been incredibly productive in advancing our understanding of both the full-employment economy and the business cycle. By having a firm understanding of the forces that determine potential GDP, the student better appreciates the more complex interactions of real and monetary factors that bring economic fluctuations. The student also sees that the long-term trends in our economy play a larger role in determining our standard of living and cost of living than do the fluctuations around those trends.

Even if you defer Chapters 24 and 25, it is a good plan to cover Chapter 23.1 “Potential GDP” at this point.

These chapters explain the money economy in the long run and the short run. They may be studied after Chapters 28 and 29.
28. **Aggregate Supply and Aggregate Demand**
   A carefully paced but comprehensive account of the AS–AD model and its use in understanding the business cycle. This chapter may be studied before Chapter 23.

29. **Aggregate Expenditure Multiplier**
   The Keynesian cross model. If you don’t want to explain in detail how unplanned inventory changes set off a multiplier process, you may omit this chapter.

30. **The Short-Run Policy Tradeoff**
   An explanation of the sources of the short-run tradeoff and the forces that keep shifting it.

31. **Fiscal Policy**
   Explains how fiscal policy is made, discusses the effectiveness of fiscal stabilization policy, and discusses the supply-side effects on potential GDP and economic growth. Chapter 28 is prerequisite for section 31.2 and Chapters 23 and 25 are prerequisites for section 32.2. Section 31.1 can be studied at any point.

32. **Monetary Policy**
   Explains how monetary policy is made and its effects on inflation and real GDP. Includes a discussion of alternative approaches to monetary policy. Chapters 26, 27, and 28 are prerequisites.

33. **International Finance**
   The balance of payments section can be studied anytime after Chapter 20 and the exchange rate section can be studied anytime after Chapter 4.

Chapters 28–30 explain economic fluctuations (interactions between the real and monetary sectors) using the ideas of aggregate supply and aggregate demand, and optionally the aggregate expenditure model and the Phillips curve.

Policy runs through all the macro chapters. Macro is policy. These three chapters pull together all the policy issues and explain the decision-making institutions, the policy choices, and the debates surrounding them. The final chapter extends the policy discussion to the open economy, the balance of payments, and the exchange rate. With a bit of care and imagination, parts of these chapters can be covered earlier in the course.