

GLOBAL  
EDITION 

# Economics

TWELFTH EDITION

Michael Parkin



ALWAYS LEARNING

PEARSON

# ECONOMICS

TWELFTH EDITION

GLOBAL EDITION

## MICHAEL PARKIN

University of Western Ontario

**PEARSON**

Boston Columbus Indianapolis New York San Francisco Hoboken  
Amsterdam Cape Town Dubai London Madrid Milan Munich Paris Montreal Toronto  
Delhi Mexico City Sao Paulo Sydney Hong Kong Seoul Singapore Taipei Tokyo

<b>Vice President, Business Publishing</b>	Donna Battista	<b>Digital Editor</b>	Denise Clinton
<b>Executive Acquisitions Editor</b>	Adrienne D'Ambrosio	<b>Director, Digital Studio</b>	Sacha Laustsen
<b>Editorial Assistant</b>	Courtney Turcotte	<b>Digital Studio Manager</b>	Diane Lombardo
<b>Project Manager</b>	Sarah Dumouchelle	<b>Digital Content Team Lead</b>	Noel Lotz
<b>Vice President, Product Marketing</b>	Maggie Moylan	<b>Digital Studio Project Manager</b>	Melissa Honig
<b>Director of Marketing,</b>		<b>Text Design, Project Management,</b>	
<b>Digital Services and Products</b>	Jeanette Koskinas	<b>and Page Make-up</b>	Integra Software Services, Inc.
<b>Senior Product Marketing Manager</b>	Alison Haskins	<b>Copyeditor</b>	Catherine Baum
<b>Executive Field Marketing Manager</b>	Lori DeShazo	<b>Technical Illustrator</b>	Richard Parkin
<b>Senior Strategic Marketing</b>		<b>Printer/Binder</b>	Lego
<b>Manager</b>	Erin Gardner	<b>Cover Printer</b>	Lego
<b>Team Lead, Program Management</b>	Ashley Santora	<b>Text Font</b>	Adobe Garamond Pro
<b>Team Lead, Project Management</b>	Jeff Holcomb	<b>Senior Manufacturing Controller,</b>	
<b>Program Manager</b>	Nancy Freihofner	<b>Global Edition:</b>	Kay Holman
<b>Supplements Project Manager</b>	Andra Skaalrud	<b>Manager, Media Production,</b>	
<b>Operations Specialist</b>	Carol Melville	<b>Global Edition:</b>	M. Vikram Kumar
<b>Cover Designer</b>	Lumina Datamatics, Inc.	<b>Assistant Acquisitions Editor,</b>	
<b>Cover Photo</b>	Lockenes/Shutterstock	<b>Global Edition:</b>	Ananya Srivastava
<b>Vice President, Director of Digital</b>		<b>Associate Project Editor,</b>	
<b>Strategy and Assessment</b>	Paul Gentile	<b>Global Edition:</b>	Priyanka Shivadas
<b>Manager of Learning Applications</b>	Paul DeLuca		

Acknowledgments of third-party content appear on the appropriate page within the text and on page C-1, which constitutes an extension of this copyright page.

PEARSON, ALWAYS LEARNING, and MYECONLAB® are exclusive trademarks owned by Pearson Education, Inc. or its affiliates in the U.S. and/or other countries.

Unless otherwise indicated herein, any third-party trademarks that may appear in this work are the property of their respective owners, and any references to third-party trademarks, logos, or other trade dress are for demonstrative or descriptive purposes only. Such references are not intended to imply any sponsorship, endorsement, authorization, or promotion of Pearson's products by the owners of such marks, or any relationship between the owner and Pearson Education, Inc. or its affiliates, authors, licensees, or distributors.

FRED® is a registered trademark and the FRED® logo and ST.LOUIS FED are trademarks of the Federal Reserve Bank of St. Louis, <http://researchstlouisfed.org/fred2/>

Pearson Education Limited  
Edinburgh Gate  
Harlow  
Essex CM20 2JE  
England

and Associated Companies throughout the world

Visit us on the World Wide Web at:  
[www.pearsonglobaleditions.com](http://www.pearsonglobaleditions.com)

© Pearson Education Limited 2016

The rights of *Michael Parkin* to be identified as the author of this work has been asserted by him in accordance with the Copyright, Designs and Patents Act 1988.

*Authorized adaptation from the United States edition, entitled Economics, 12/e, ISBN 978-0-13-387227-9, by Michael Parkin, published by Pearson Education © 2016.*

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without either the prior written permission of the publisher or a license permitting restricted copying in the United Kingdom issued by the Copyright Licensing Agency Ltd, Saffron House, 6–10 Kirby Street, London EC1N 8TS.

All trademarks used herein are the property of their respective owners. The use of any trademark in this text does not vest in the author or publisher any trademark ownership rights in such trademarks, nor does the use of such trademarks imply any affiliation with or endorsement of this book by such owners.

ISBN 10: 1-292-09450-8

ISBN 13: 9781-292-09450-2 (Print)

ISBN 13: 9781-292-09459-5 (PDF)

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library

14 13 12 11 10 9 8 7 6 5 4 3 2 1

Typeset by Integra Software Services, Inc.

Printed and Bound by Lego in Italy.

TO ROBIN

## ABOUT THE AUTHOR

**Michael Parkin** is Professor Emeritus in the Department of Economics at the University of Western Ontario, Canada. Professor Parkin has held faculty appointments at Brown University, the University of Manchester, the University of Essex, and Bond University. 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* and as managing editor of the *Canadian Journal of Economics*. Professor Parkin's research on macroeconomics, monetary economics, and international economics has resulted in over 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 became most visible to the public with his work on inflation that discredited the use of wage and price controls. Michael Parkin also spearheaded the movement toward European monetary union. Professor Parkin is an experienced and dedicated teacher of introductory economics.



**PART ONE****INTRODUCTION 39**

- CHAPTER 1 What Is Economics? 39  
 CHAPTER 2 The Economic Problem 69

**PART TWO****HOW MARKETS WORK 93**

- CHAPTER 3 Demand and Supply 93  
 CHAPTER 4 Elasticity 121  
 CHAPTER 5 Efficiency and Equity 143  
 CHAPTER 6 Government Actions in Markets 165  
 CHAPTER 7 Global Markets in Action 189

**PART THREE****HOUSEHOLDS' CHOICES 215**

- CHAPTER 8 Utility and Demand 215  
 CHAPTER 9 Possibilities, Preferences, and Choices 239

**PART FOUR****FIRMS AND MARKETS 261**

- CHAPTER 10 Organizing Production 261  
 CHAPTER 11 Output and Costs 285  
 CHAPTER 12 Perfect Competition 309  
 CHAPTER 13 Monopoly 335  
 CHAPTER 14 Monopolistic Competition 361  
 CHAPTER 15 Oligopoly 379

**PART FIVE****MARKET FAILURE AND GOVERNMENT 407**

- CHAPTER 16 Public Choices, Public Goods, and Healthcare 407  
 CHAPTER 17 Externalities 429

**PART SIX****FACTOR MARKETS, INEQUALITY, AND UNCERTAINTY 457**

- CHAPTER 18 Markets for Factors of Production 457  
 CHAPTER 19 Economic Inequality 483  
 CHAPTER 20 Uncertainty and Information 507

**PART SEVEN****MONITORING MACROECONOMIC PERFORMANCE 529**

- CHAPTER 21 Measuring GDP and Economic Growth 529  
 CHAPTER 22 Monitoring Jobs and Inflation 553

**PART EIGHT****MACROECONOMIC TRENDS 577**

- CHAPTER 23 Economic Growth 577  
 CHAPTER 24 Finance, Saving, and Investment 605  
 CHAPTER 25 Money, the Price Level, and Inflation 627  
 CHAPTER 26 The Exchange Rate and the Balance of Payments 657

**PART NINE****MACROECONOMIC FLUCTUATIONS 687**

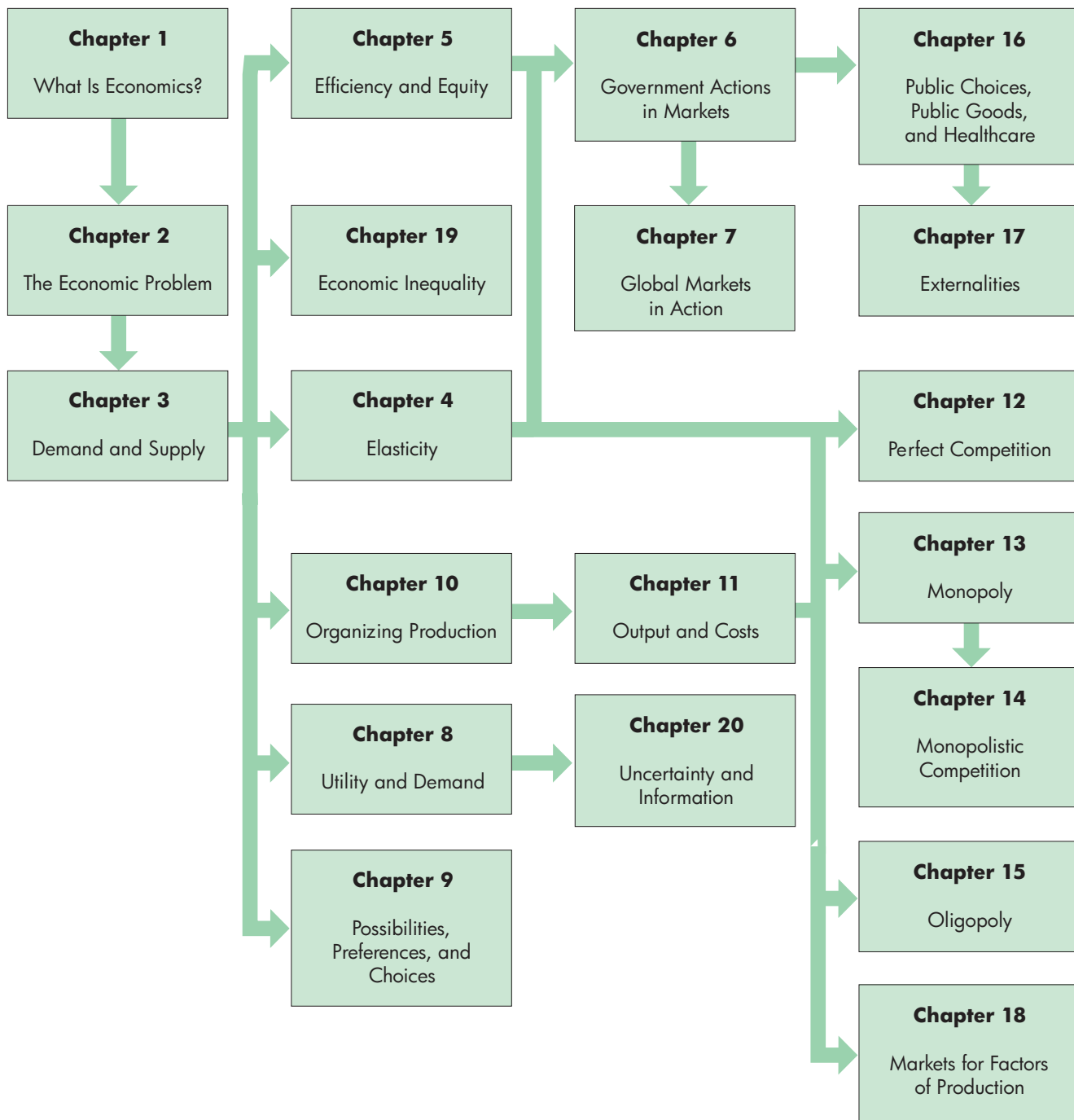
- CHAPTER 27 Aggregate Supply and Aggregate Demand 687  
 CHAPTER 28 Expenditure Multipliers 711  
 CHAPTER 29 The Business Cycle, Inflation, and Deflation 741

**PART TEN****MACROECONOMIC POLICY 767**

- CHAPTER 30 Fiscal Policy 767  
 CHAPTER 31 Monetary Policy 795

# ALTERNATIVE PATHWAYS THROUGH MICRO CHAPTERS

## Micro Flexibility



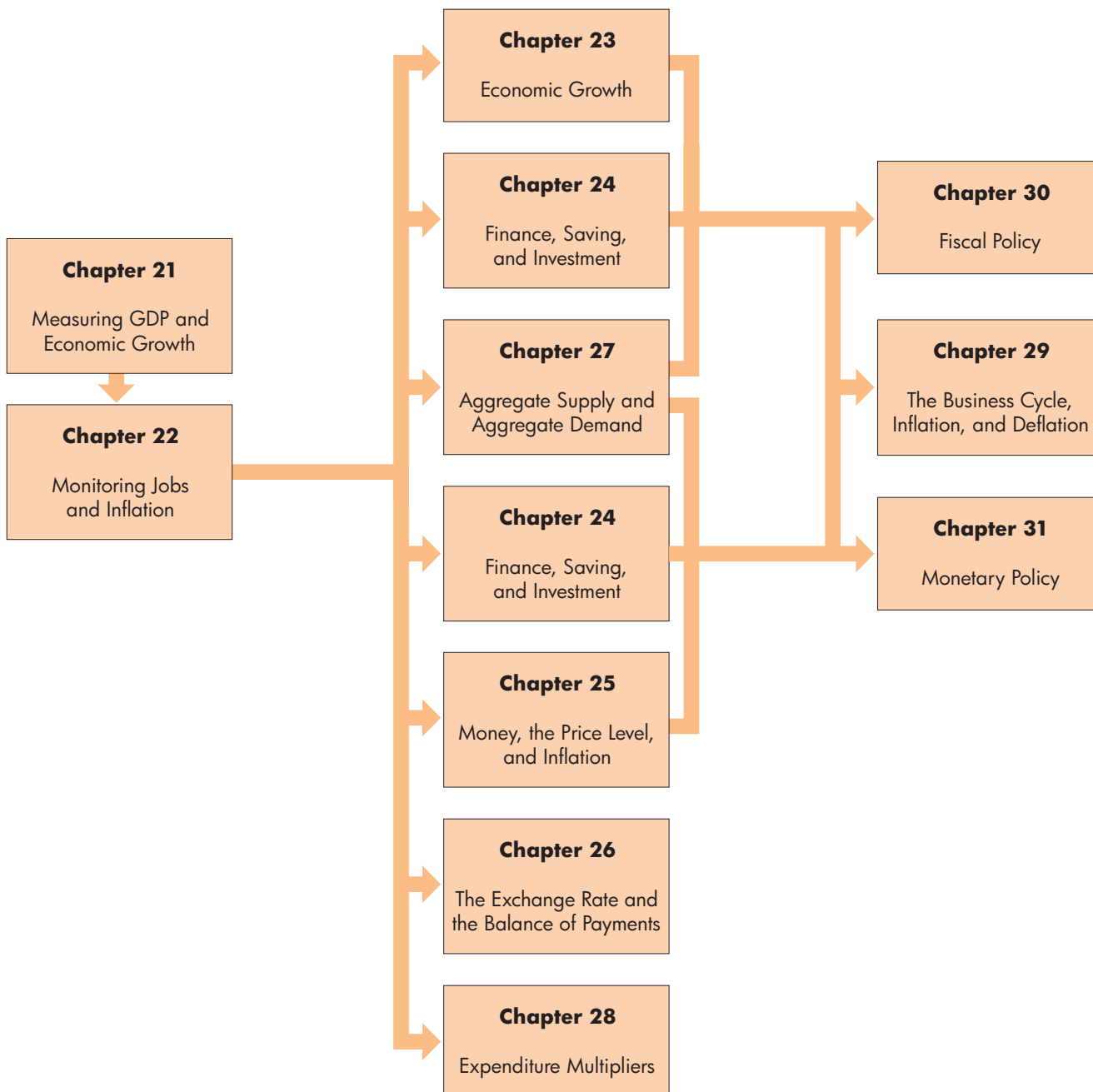
Start here ...

... then jump to any of these ...

... and jump to any of these after doing the pre-requisites indicated

# ALTERNATIVE PATHWAYS THROUGH MACRO CHAPTERS

## Macro Flexibility



Start here ...

... then jump to  
any of these ...

... and jump to any of these after  
doing the prerequisites indicated



# DETAILED CONTENTS



## PART ONE INTRODUCTION 39

### CHAPTER 1 ♦ WHAT IS ECONOMICS? 39

Definition of Economics 40

Two Big Economic Questions 41

What, How, and For Whom? 41

Do Choices Made in the Pursuit of Self-Interest  
also Promote the Social Interest? 43

The Economic Way of Thinking 47

A Choice Is a Tradeoff 47

Making a Rational Choice 47

Benefit: What You Gain 47

Cost: What You *Must* Give Up 47

How Much? Choosing at the Margin 48

Choices Respond to Incentives 48

Economics as Social Science and  
Policy Tool 49

Economist as Social Scientist 49

Economist as Policy Adviser 49

*Summary (Key Points and Key Terms), Worked  
Problem, Study Plan Problems and Applications,  
and Additional Problems and Applications appear  
at the end of each chapter.*

## APPENDIX Graphs in Economics 53

Graphing Data 53

Scatter Diagrams 54

Graphs Used in Economic Models 56

Variables That Move in the Same Direction 56

Variables That Move in Opposite Directions 57

Variables That Have a Maximum  
or a Minimum 58

Variables That Are Unrelated 59

The Slope of a Relationship 60

The Slope of a Straight Line 60

The Slope of a Curved Line 61

Graphing Relationships Among More Than  
Two Variables 62

*Ceteris Paribus* 62

When Other Things Change 63

## MATHEMATICAL NOTE

Equations of Straight Lines 64

■ AT ISSUE, 46

■ ECONOMICS IN THE NEWS, 44, 50

**CHAPTER 2 ♦ THE ECONOMIC PROBLEM 69**

Production Possibilities and Opportunity Cost 70

Production Possibilities Frontier 70

Production Efficiency 71

Tradeoff Along the *PPF* 71

Opportunity Cost 71

Using Resources Efficiently 73

The *PPF* and Marginal Cost 73

Preferences and Marginal Benefit 74

Allocative Efficiency 75

Economic Growth 76

The Cost of Economic Growth 76

A Nation's Economic Growth 77

Gains from Trade 78

Comparative Advantage and Absolute Advantage 78

Achieving the Gains from Trade 80

Economic Coordination 82

Firms 82

Markets 82

Property Rights 82

Money 82

Circular Flows Through Markets 82

Coordinating Decisions 83

■ ECONOMICS IN ACTION, 77

■ ECONOMICS IN THE NEWS, 72, 84

**PART ONE WRAP-UP ♦**

Understanding the Scope of Economics

Your Economic Revolution 91

Talking with

Esther Duflo 92


**PART TWO  
HOW MARKETS WORK 93**
**CHAPTER 3 ♦ DEMAND AND SUPPLY 93**

Markets and Prices 94

Demand 95

The Law of Demand 95

Demand Curve and Demand Schedule 95

A Change in Demand 96

A Change in the Quantity Demanded Versus a Change in Demand 98

Supply 100

The Law of Supply 100

Supply Curve and Supply Schedule 100

A Change in Supply 101

A Change in the Quantity Supplied Versus a Change in Supply 102

Market Equilibrium 104

Price as a Regulator 104

Price Adjustments 105

Predicting Changes in Price and Quantity 106

An Increase in Demand 106

A Decrease in Demand 106

An Increase in Supply 108

A Decrease in Supply 108

Changes in Both Demand and Supply 110

**MATHEMATICAL NOTE**

Demand, Supply, and Equilibrium 114

■ ECONOMICS IN THE NEWS, 107, 109, 112

**CHAPTER 4 ♦ ELASTICITY** 121

- Price Elasticity of Demand 122
  - Calculating Price Elasticity of Demand 122
  - Inelastic and Elastic Demand 123
  - The Factors that Influence the Elasticity of Demand 124
  - Elasticity Along a Linear Demand Curve 125
  - Total Revenue and Elasticity 126
  - Your Expenditure and Your Elasticity 128
- More Elasticities of Demand 129
  - Income Elasticity of Demand 129
  - Cross Elasticity of Demand 130
- Elasticity of Supply 132
  - Calculating the Elasticity of Supply 132
  - The Factors That Influence the Elasticity of Supply 133
- ECONOMICS IN ACTION, 127, 129, 130
- ECONOMICS IN THE NEWS, 128, 131, 136

**CHAPTER 5 ♦ EFFICIENCY AND EQUITY** 143

- Resource Allocation Methods 144
  - Market Price 144
  - Command 144
  - Majority Rule 144
  - Contest 144
  - First-Come, First-Served 144
  - Lottery 145
  - Personal Characteristics 145
  - Force 145
- Benefit, Cost, and Surplus 146
  - Demand, Willingness to Pay, and Value 146
  - Individual Demand and Market Demand 146
  - Consumer Surplus 147
  - Supply and Marginal Cost 147
  - Supply, Cost, and Minimum Supply-Price 148
  - Individual Supply and Market Supply 148
  - Producer Surplus 149
- Is the Competitive Market Efficient? 150
  - Efficiency of Competitive Equilibrium 150
  - Market Failure 152
  - Sources of Market Failure 152
  - Alternatives to the Market 153
- Is the Competitive Market Fair? 154
  - It's Not Fair if the *Result* Isn't Fair 154
  - It's Not Fair if the *Rules* Aren't Fair 156
  - Case Study: A Generator Shortage in a Natural Disaster 156
- ECONOMICS IN ACTION, 151
- AT ISSUE, 157
- ECONOMICS IN THE NEWS, 158

## CHAPTER 6 ♦ GOVERNMENT ACTIONS IN MARKETS 165

- A Housing Market with a Rent Ceiling 166
  - A Housing Shortage 166
  - Increased Search Activity 166
  - A Black Market 166
  - Inefficiency of a Rent Ceiling 167
  - Are Rent Ceilings Fair? 168
- A Labor Market with a Minimum Wage 169
  - Minimum Wage Brings Unemployment 169
  - Is the Minimum Wage Fair? 169
  - Inefficiency of a Minimum Wage 170
- Taxes 171
  - Tax Incidence 171
  - A Tax on Sellers 171
  - A Tax on Buyers 172
  - Equivalence of Tax on Buyers and Sellers 172
  - Tax Incidence and Elasticity of Demand 173
  - Tax Incidence and Elasticity of Supply 174
  - Taxes and Efficiency 175
  - Taxes and Fairness 176
- Production Quotas and Subsidies 177
  - Production Quotas 177
  - Subsidies 178
- Markets for Illegal Goods 180
  - A Free Market for a Drug 180
  - A Market for an Illegal Drug 180
  - Legalizing and Taxing Drugs 181
- ECONOMICS IN ACTION, 168, 176, 179
- AT ISSUE, 170
- ECONOMICS IN THE NEWS, 182

## CHAPTER 7 ♦ GLOBAL MARKETS IN ACTION 189

- How Global Markets Work 190
  - International Trade Today 190
  - What Drives International Trade? 190
  - Why the United States Imports T-Shirts 191
  - Why the United States Exports Airplanes 192
- Winners, Losers, and the Net Gain  
from Trade 193
  - Gains and Losses from Imports 193
  - Gains and Losses from Exports 194
  - Gains for All 194
- International Trade Restrictions 195
  - Tariffs 195
  - Import Quotas 198
  - Other Import Barriers 201
  - Export Subsidies 201
- The Case Against Protection 202
  - Helps an Infant Industry Grow 202
  - Counters Dumping 202
  - Saves Domestic Jobs 202
  - Allows Us to Compete with Cheap Foreign  
Labor 202
  - Penalizes Lax Environmental Standards 203
  - Prevents Rich Countries from Exploiting  
Developing Countries 203
  - Reduces Offshore Outsourcing that Sends Good  
U.S. Jobs to Other Countries 203
  - Avoiding Trade Wars 204
  - Why Is International Trade Restricted? 204
  - Compensating Losers 205
- ECONOMICS IN ACTION, 190, 196, 201
- AT ISSUE, 204
- ECONOMICS IN THE NEWS, 200, 206

## PART TWO WRAP-UP ♦

- Understanding How Markets Work
  - The Amazing Market 213
- Talking with
  - Susan Athey 214

**PART THREE**  
**HOUSEHOLDS' CHOICES 215**

**CHAPTER 8 ♦ UTILITY AND DEMAND 215**

- Consumption Choices 216
  - Consumption Possibilities 216
  - Preferences 217
- Utility-Maximizing Choice 219
  - A Spreadsheet Solution 219
  - Choosing at the Margin 220
  - The Power of Marginal Analysis 222
  - Revealing Preferences 222
- Predictions of Marginal Utility Theory 223
  - A Fall in the Price of a Movie 223
  - A Rise in the Price of Soda 225
  - A Rise in Income 226
  - The Paradox of Value 227
  - Temperature: An Analogy 228
- New Ways of Explaining Consumer Choices 230
  - Behavioral Economics 230
  - Neuroeconomics 231
  - Controversy 231
- ECONOMICS IN ACTION, 228
- ECONOMICS IN THE NEWS, 232

**CHAPTER 9 ♦ POSSIBILITIES, PREFERENCES, AND CHOICES 239**

- Consumption Possibilities 240
  - Budget Line 240
  - Budget Equation 241
- Preferences and Indifference Curves 243
  - Marginal Rate of Substitution 244
  - Degree of Substitutability 245
- Predicting Consumer Choices 246
  - Best Affordable Choice 246
  - A Change in Price 247
  - A Change in Income 249
  - Substitution Effect and Income Effect 250
- ECONOMICS IN ACTION, 248
- ECONOMICS IN THE NEWS, 252

**PART THREE WRAP-UP ♦**

- Understanding Households' Choices**
- Making the Most of Life 259
- Talking with**
- Steven D. Levitt 260


**PART FOUR**  
**FIRMS AND MARKETS 261**
**CHAPTER 10 ♦ ORGANIZING PRODUCTION 261**

- The Firm and Its Economic Problem 262
  - The Firm's Goal 262
  - Accounting Profit 262
  - Economic Accounting 262
  - A Firm's Opportunity Cost of Production 262
  - Economic Accounting: A Summary 263
  - The Firm's Decisions 263
  - The Firm's Constraints 264
- Technological and Economic Efficiency 265
  - Technological Efficiency 265
  - Economic Efficiency 265
- Information and Organization 267
  - Command Systems 267
  - Incentive Systems 267
  - The Principal–Agent Problem 267
  - Coping with the Principal–Agent Problem 267
  - Types of Business Organization 268
  - Pros and Cons of Different Types of Firms 269
- Markets and the Competitive Environment 271
  - Measures of Concentration 272
  - Limitations of a Concentration Measure 274
- Produce or Outsource? Firms and Markets 276
  - Firm Coordination 276
  - Market Coordination 276
  - Why Firms? 276
- ECONOMICS IN ACTION, 270, 273, 275, 277
- ECONOMICS IN THE NEWS, 268, 278

**CHAPTER 11 ♦ OUTPUT AND COSTS 285**

- Decision Time Frames 286
  - The Short Run 286
  - The Long Run 286
- Short-Run Technology Constraint 287
  - Product Schedules 287
  - Product Curves 287
  - Total Product Curve 288
  - Marginal Product Curve 288
  - Average Product Curve 290
- Short-Run Cost 291
  - Total Cost 291
  - Marginal Cost 292
  - Average Cost 292
  - Marginal Cost and Average Cost 292
  - Why the Average Total Cost Curve Is U-Shaped 292
  - Cost Curves and Product Curves 294
  - Shifts in the Cost Curves 296
- Long-Run Cost 298
  - The Production Function 298
  - Short-Run Cost and Long-Run Cost 298
  - The Long-Run Average Cost Curve 300
  - Economies and Diseconomies of Scale 300
- ECONOMICS IN ACTION, 290, 301
- ECONOMICS IN THE NEWS, 294, 302

**CHAPTER 12** ♦ **PERFECT COMPETITION** 309

- What Is Perfect Competition? 310
  - How Perfect Competition Arises 310
  - Price Takers 310
  - Economic Profit and Revenue 310
  - The Firm's Decisions 311
- The Firm's Output Decision 312
  - Marginal Analysis and the Supply Decision 313
  - Temporary Shutdown Decision 314
  - The Firm's Supply Curve 315
- Output, Price, and Profit in the Short Run 316
  - Market Supply in the Short Run 316
  - Short-Run Equilibrium 317
  - A Change in Demand 317
  - Profits and Losses in the Short Run 317
  - Three Possible Short-Run Outcomes 318
- Output, Price, and Profit in the Long Run 319
  - Entry and Exit 319
  - A Closer Look at Entry 320
  - A Closer Look at Exit 320
  - Long-Run Equilibrium 321
- Changes in Demand and Supply as Technology Advances 322
  - An Increase in Demand 322
  - A Decrease in Demand 323
  - Technological Advances Change Supply 324
- Competition and Efficiency 326
  - Efficient Use of Resources 326
  - Choices, Equilibrium, and Efficiency 326
- ECONOMICS IN ACTION, 319, 321
- ECONOMICS IN THE NEWS, 323, 325, 328

**CHAPTER 13** ♦ **MONOPOLY** 335

- Monopoly and How It Arises 336
  - How Monopoly Arises 336
  - Monopoly Price-Setting Strategies 337
- A Single-Price Monopoly's Output and Price Decision 338
  - Price and Marginal Revenue 338
  - Marginal Revenue and Elasticity 339
  - Price and Output Decision 340
- Single-Price Monopoly and Competition Compared 342
  - Comparing Price and Output 342
  - Efficiency Comparison 343
  - Redistribution of Surpluses 344
  - Rent Seeking 344
  - Rent-Seeking Equilibrium 344
- Price Discrimination 345
  - Two Ways of Price Discriminating 345
  - Increasing Profit and Producer Surplus 346
  - A Price-Discriminating Airline 346
  - Efficiency and Rent Seeking with Price Discrimination 349
- Monopoly Regulation 351
  - Efficient Regulation of a Natural Monopoly 351
  - Second-Best Regulation of a Natural Monopoly 352
- ECONOMICS IN ACTION, 337, 349
- ECONOMICS IN THE NEWS, 350, 354

## CHAPTER 14 ♦ MONOPOLISTIC COMPETITION 361

### What Is Monopolistic Competition? 362

Large Number of Firms 362

Product Differentiation 362

Competing on Quality, Price, and Marketing 362

Entry and Exit 363

Examples of Monopolistic Competition 363

### Price and Output in Monopolistic Competition 364

The Firm's Short-Run Output and Price Decision 364

Profit Maximizing Might Be Loss Minimizing 364

Long Run: Zero Economic Profit 365

Monopolistic Competition and Perfect Competition 366

Is Monopolistic Competition Efficient? 367

### Product Development and Marketing 368

Product Development 368

Advertising 368

Using Advertising to Signal Quality 370

Brand Names 371

Efficiency of Advertising and Brand Names 371

■ ECONOMICS IN ACTION, 363, 369

■ ECONOMICS IN THE NEWS, 372

## CHAPTER 15 ♦ OLIGOPOLY 379

### What Is Oligopoly? 380

Barriers to Entry 380

Small Number of Firms 381

Examples of Oligopoly 381

### Oligopoly Games 382

What Is a Game? 382

The Prisoners' Dilemma 382

An Oligopoly Price-Fixing Game 384

A Game of Chicken 389

### Repeated Games and Sequential Games 390

A Repeated Duopoly Game 390

A Sequential Entry Game in a Contestable Market 392

### Antitrust Law 394

The Antitrust Laws 394

Price Fixing Always Illegal 395

Three Antitrust Policy Debates 395

Mergers and Acquisitions 397

■ ECONOMICS IN ACTION, 381, 388, 396, 397

■ ECONOMICS IN THE NEWS, 391, 398

## PART FOUR WRAP-UP ♦

### Understanding Firms and Markets

Managing Change and Limiting Market Power 405

### Talking with

Thomas Hubbard 406



## PART FIVE MARKET FAILURE AND GOVERNMENT 407

### CHAPTER 16 ♦ PUBLIC CHOICES, PUBLIC GOODS, AND HEALTHCARE 407

- Public Choices 408
  - Why Governments? 408
  - Public Choice and the Political Marketplace 408
  - Political Equilibrium 409
  - What Is a Public Good? 410
  - A Fourfold Classification 410
  - The Things Our Governments Buy 410
- Providing Public Goods 412
  - The Free-Rider Problem 412
  - Marginal Social Benefit from a Public Good 412
  - Marginal Social Cost of a Public Good 413
  - Efficient Quantity of a Public Good 413
  - Inefficient Private Provision 413
  - Efficient Public Provision 413
  - Inefficient Public Overprovision 415
- The Economics of Healthcare 416
  - Healthcare Market Failure 416
  - Alternative Public Choice Solutions 417
  - Vouchers a Better Solution? 421
- ECONOMICS IN ACTION, 408, 411, 414, 417, 419
- AT ISSUE, 420
- ECONOMICS IN THE NEWS, 422

### CHAPTER 17 ♦ EXTERNALITIES 429

- Externalities In Our Lives 430
  - Negative Production Externalities 430
  - Positive Production Externalities 430
  - Negative Consumption Externalities 430
  - Positive Consumption Externalities 430
- Negative Externality: Pollution 432
  - Private, External, and Social Cost 432
  - Establish Property Rights 433
  - Mandate Clean Technology 434
  - Tax or Cap and Price Pollution 435
  - Coping with Global Externalities 438
- Negative Externality: The Tragedy of the Commons 439
  - Unsustainable Use of a Common Resource 439
  - Inefficient Use of a Common Resource 440
  - Achieving an Efficient Outcome 442
- Positive Externality: Knowledge 444
  - Private Benefits and Social Benefits 444
  - Government Actions in the Market with External Benefits 445
  - Illustrating an Efficient Outcome 445
  - Bureaucratic Inefficiency and Government Failure 446
- ECONOMICS IN ACTION, 431, 436, 438, 441, 443, 447
- AT ISSUE, 437
- ECONOMICS IN THE NEWS, 448

### PART FIVE WRAP-UP ♦

#### Understanding Market Failure and Government

We, the People, ... 455

#### Talking with

Caroline M. Hoxby 456



**PART SIX**  
**FACTOR MARKETS, INEQUALITY,  
 AND UNCERTAINTY 457**

**CHAPTER 18** ♦ **MARKETS FOR FACTORS  
 OF PRODUCTION 457**

- The Anatomy of Factor Markets 458
  - Markets for Labor Services 458
  - Markets for Capital Services 458
  - Markets for Land Services and Natural Resources 458
  - Entrepreneurship 458
- The Demand for a Factor of Production 459
  - Value of Marginal Product 459
  - A Firm's Demand for Labor 459
  - A Firm's Demand for Labor Curve 460
  - Changes in a Firm's Demand for Labor 461
- Labor Markets 462
  - A Competitive Labor Market 462
  - Differences and Trends in Wage Rates 464
  - A Labor Market with a Union 466
- Capital and Natural Resource Markets 470
  - Capital Rental Markets 470
  - Land Rental Markets 470
  - Nonrenewable Natural Resource Markets 471

**MATHEMATICAL NOTE**

Present Value and Discounting 476

- ECONOMICS IN ACTION, 464, 473
- AT ISSUE, 468
- ECONOMICS IN THE NEWS, 465, 474

**CHAPTER 19** ♦ **ECONOMIC INEQUALITY 483**

- Economic Inequality in the United States 484
  - The Distribution of Income 484
  - The Income Lorenz Curve 485
  - The Distribution of Wealth 486
  - Wealth or Income? 486
  - Annual or Lifetime Income and Wealth? 487
  - Trends in Inequality 487
  - Poverty 489
- Inequality in the World Economy 491
  - Income Distributions in Selected Countries 491
  - Global Inequality and Its Trends 492
- The Sources of Economic Inequality 493
  - Human Capital 493
  - Discrimination 494
  - Contests Among Superstars 495
  - Unequal Wealth 496
- Income Redistribution 497
  - Income Taxes 497
  - Income Maintenance Programs 497
  - Subsidized Services 497
  - The Big Tradeoff 498
- ECONOMICS IN ACTION, 488, 490, 498
- ECONOMICS IN THE NEWS, 500

**CHAPTER 20** ◆ **UNCERTAINTY AND INFORMATION** 507

## Decisions in the Face of Uncertainty 508

- Expected Wealth 508
- Risk Aversion 508
- Utility of Wealth 508
- Expected Utility 509
- Making a Choice with Uncertainty 510

## Buying and Selling Risk 511

- Insurance Markets 511
- A Graphical Analysis of Insurance 512
- Risk That Can't Be Insured 513

## Private Information 514

- Asymmetric Information: Examples and Problems 514
- The Market for Used Cars 514
- The Market for Loans 517
- The Market for Insurance 518

## Uncertainty, Information, and the Invisible Hand 519

- Information as a Good 519
- Monopoly in Markets that Cope with Uncertainty 519

## ■ ECONOMICS IN ACTION, 513, 518

## ■ ECONOMICS IN THE NEWS, 520

**PART SIX WRAP-UP** ◆

Understanding Factor Markets, Inequality, and Uncertainty  
For Whom? 527

Talking with  
Raj Chetty 528


**PART SEVEN**  
**MONITORING MACROECONOMIC**  
**PERFORMANCE 529**
**CHAPTER 21** ◆ **MEASURING GDP AND ECONOMIC GROWTH** 529

## Gross Domestic Product 530

- GDP Defined 530
- GDP and the Circular Flow of Expenditure and Income 530
- Why “Domestic” and Why “Gross”? 532

## Measuring U.S. GDP 533

- The Expenditure Approach 533
- The Income Approach 534
- Nominal GDP and Real GDP 535
- Calculating Real GDP 535

## The Uses and Limitations of Real GDP 536

- The Standard of Living Over Time 536
- The Standard of Living Across Countries 538
- Limitations of Real GDP 539

**APPENDIX** **Graphs in Macroeconomics** 544

## The Time-Series Graph 544

- Making a Time-Series Graph 544
- Reading a Time-Series Graph 544
- Ratio Scale Reveals Trend 545
- A Time-Series with a Trend 545
- Using a Ratio Scale 545

**MATHEMATICAL NOTE**

## Chained-Dollar Real GDP 546

## ■ ECONOMICS IN ACTION, 541

## ■ AT ISSUE, 540

## ■ ECONOMICS IN THE NEWS, 542

## CHAPTER 22 ♦ MONITORING JOBS AND INFLATION 553

- Employment and Unemployment 554
  - Why Unemployment Is a Problem 554
  - Current Population Survey 555
  - Three Labor Market Indicators 555
  - Other Definitions of Unemployment 557
  - Most Costly Unemployment 558
  - Alternative Measures of Unemployment 558
- Unemployment and Full Employment 559
  - Frictional Unemployment 559
  - Structural Unemployment 559
  - Cyclical Unemployment 559
  - “Natural” Unemployment 559
  - Real GDP and Unemployment Over the Cycle 560
- The Price Level, Inflation, and Deflation 562
  - Why Inflation and Deflation are Problems 562
  - The Consumer Price Index 563
  - Reading the CPI Numbers 563
  - Constructing the CPI 563
  - Measuring the Inflation Rate 564
  - Distinguishing High Inflation from a High Price Level 565
  - The Biased CPI 565
  - The Magnitude of the Bias 566
  - Some Consequences of the Bias 566
  - Alternative Price Indexes 566
  - Core Inflation 567
  - The Real Variables in Macroeconomics 567

■ ECONOMICS IN ACTION, 554, 560

■ ECONOMICS IN THE NEWS, 568

### PART SEVEN WRAP-UP ♦

#### Monitoring Macroeconomic Performance

The Big Picture 575

#### Talking with

Richard Clarida 576

## PART EIGHT MACROECONOMIC TRENDS 577

### CHAPTER 23 ♦ ECONOMIC GROWTH 577

- The Basics of Economic Growth 578
    - Calculating Growth Rates 578
    - Economic Growth Versus Business Cycle Expansion 578
    - The Magic of Sustained Growth 579
    - Applying the Rule of 70 580
  - Long-Term Growth Trends 581
    - Long-Term Growth in the U.S. Economy 581
    - Real GDP Growth in the World Economy 582
  - How Potential GDP Grows 584
    - What Determines Potential GDP? 584
    - What Makes Potential GDP Grow? 586
  - Why Labor Productivity Grows 589
    - Preconditions for Labor Productivity Growth 589
    - Physical Capital Growth 589
    - Human Capital Growth 590
    - Technological Advances 590
  - Is Economic Growth Sustainable? Theories, Evidence, and Policies 593
    - Classical Growth Theory 593
    - Neoclassical Growth Theory 593
    - New Growth Theory 594
    - New Growth Theory Versus Malthusian Theory 596
    - Sorting Out the Theories 596
    - The Empirical Evidence on the Causes of Economic Growth 596
    - Policies for Achieving Faster Growth 596
- ECONOMICS IN ACTION, 583, 590, 591
- ECONOMICS IN THE NEWS, 592, 598

**CHAPTER 24** ♦ **FINANCE, SAVING, AND INVESTMENT** 605

- Financial Institutions and Financial Markets 606
  - Finance and Money 606
  - Capital and Financial Capital 606
  - Capital and Investment 606
  - Wealth and Saving 606
  - Financial Capital Markets 607
  - Financial Institutions 608
  - Insolvency and Illiquidity 610
  - Interest Rates and Asset Prices 610
- The Loanable Funds Market 611
  - Funds that Finance Investment 611
  - The Real Interest Rate 612
  - The Demand for Loanable Funds 613
  - The Supply of Loanable Funds 614
  - Equilibrium in the Loanable Funds Market 615
  - Changes in Demand and Supply 615
- Government in the Loanable Funds Market 618
  - A Government Budget Surplus 618
  - A Government Budget Deficit 618
- ECONOMICS IN ACTION, 608, 612, 613, 616
- ECONOMICS IN THE NEWS, 620

**CHAPTER 25** ♦ **MONEY, THE PRICE LEVEL, AND INFLATION** 627

- What Is Money? 628
  - Medium of Exchange 628
  - Unit of Account 628
  - Store of Value 629
  - Money in the United States Today 629
- Depository Institutions 631
  - Types of Depository Institutions 631
  - What Depository Institutions Do 631
  - Economic Benefits Provided by Depository Institutions 632
  - How Depository Institutions Are Regulated 632
  - Financial Innovation 634
- The Federal Reserve System 635
  - The Structure of the Fed 635
  - The Fed's Balance Sheet 636
  - The Fed's Policy Tools 636
- How Banks Create Money 638
  - Creating Deposits by Making Loans 638
  - The Money Creation Process 639
  - The Money Multiplier 640
- The Money Market 642
  - The Influences on Money Holding 642
  - The Demand for Money 643
  - Shifts in the Demand for Money Curve 643
  - Money Market Equilibrium 644
- The Quantity Theory of Money 646

**MATHEMATICAL NOTE**  
 The Money Multiplier 650

- ECONOMICS IN ACTION, 629, 634, 637, 640, 646
- AT ISSUE, 633
- ECONOMICS IN THE NEWS, 641, 648

## CHAPTER 26 ♦ THE EXCHANGE RATE AND THE BALANCE OF PAYMENTS 657

- The Foreign Exchange Market 658
  - Trading Currencies 658
  - Exchange Rates 658
  - Questions About the U.S. Dollar Exchange Rate 658
  - An Exchange Rate Is a Price 658
  - The Demand for One Money Is the Supply of Another Money 659
  - Demand in the Foreign Exchange Market 659
  - Demand Curve for U.S. Dollars 660
  - Supply in the Foreign Exchange Market 661
  - Supply Curve for U.S. Dollars 661
  - Market Equilibrium 662
  - Changes in the Demand for U.S. Dollars 662
  - Changes in the Supply of U.S. Dollars 663
  - Changes in the Exchange Rate 664
- Arbitrage, Speculation, and Market Fundamentals 666
  - Arbitrage 666
  - Speculation 667
  - Market Fundamentals 668
- Exchange Rate Policy 669
  - Flexible Exchange Rate 669
  - Fixed Exchange Rate 669
  - Crawling Peg 670
- Financing International Trade 672
  - Balance of Payments Accounts 672
  - Borrowers and Lenders 674
  - The Global Loanable Funds Market 674
  - Debtors and Creditors 675
  - Is U.S. Borrowing for Consumption? 675
  - Current Account Balance 676
  - Net Exports 676
  - Where Is the Exchange Rate? 677
- ECONOMICS IN ACTION, 659, 665, 667, 670, 673, 677
- ECONOMICS IN THE NEWS, 678

## PART EIGHT WRAP-UP ♦

- Understanding Macroeconomic Trends
  - Expanding the Frontier 685
- Talking with
  - Xavier Sala-i-Martin 686

## PART 9 MACROECONOMIC FLUCTUATIONS 687

- ### CHAPTER 27 ♦ AGGREGATE SUPPLY AND AGGREGATE DEMAND 687
- Aggregate Supply 688
    - Quantity Supplied and Supply 688
    - Long-Run Aggregate Supply 688
    - Short-Run Aggregate Supply 689
    - Changes in Aggregate Supply 690
  - Aggregate Demand 692
    - The Aggregate Demand Curve 692
    - Changes in Aggregate Demand 693
  - Explaining Macroeconomic Trends and Fluctuations 696
    - Short-Run Macroeconomic Equilibrium 696
    - Long-Run Macroeconomic Equilibrium 696
    - Economic Growth and Inflation in the *AS-AD* Model 697
    - The Business Cycle in the *AS-AD* Model 698
    - Fluctuations in Aggregate Demand 700
    - Fluctuations in Aggregate Supply 701
  - Macroeconomic Schools of Thought 702
    - The Classical View 702
    - The Keynesian View 702
    - The Monetarist View 703
    - The Way Ahead 703
  - ECONOMICS IN ACTION, 694, 697, 698
  - ECONOMICS IN THE NEWS, 704

**CHAPTER 28** ◆ **EXPENDITURE MULTIPLIERS** 711

- Fixed Prices and Expenditure Plans 712
  - Expenditure Plans 712
  - Consumption and Saving Plans 712
  - Marginal Propensities to Consume and Save 714
  - Slopes and Marginal Propensities 714
  - Consumption as a Function of Real GDP 715
  - Import Function 715
- Real GDP with a Fixed Price Level 716
  - Aggregate Planned Expenditure 716
  - Actual Expenditure, Planned Expenditure, and Real GDP 717
  - Equilibrium Expenditure 718
  - Convergence to Equilibrium 719
- The Multiplier 720
  - The Basic Idea of the Multiplier 720
  - The Multiplier Effect 720
  - Why Is the Multiplier Greater Than 1? 721
  - The Size of the Multiplier 721
  - The Multiplier and the Slope of the *AE* Curve 722
  - Imports and Income Taxes 723
  - The Multiplier Process 723
  - Business Cycle Turning Points 724
- The Multiplier and the Price Level 725
  - Adjusting Quantities and Prices 725
  - Aggregate Expenditure and Aggregate Demand 725
  - Deriving the Aggregate Demand Curve 725
  - Changes in Aggregate Expenditure and Aggregate Demand 726
  - Equilibrium Real GDP and the Price Level 727

**MATHEMATICAL NOTE**

The Algebra of the Keynesian Model 732

- ECONOMICS IN ACTION, 715, 724
- ECONOMICS IN THE NEWS, 730

**CHAPTER 29** ◆ **THE BUSINESS CYCLE, INFLATION, AND DEFLATION** 741

- The Business Cycle 742
  - Mainstream Business Cycle Theory 742
  - Real Business Cycle Theory 743
- Inflation Cycles 747
  - Demand-Pull Inflation 747
  - Cost-Push Inflation 749
  - Expected Inflation 751
  - Forecasting Inflation 752
  - Inflation and the Business Cycle 752
- Deflation 753
  - What Causes Deflation? 753
  - What are the Consequences of Deflation? 755
  - How Can Deflation be Ended? 755
- The Phillips Curve 756
  - The Short-Run Phillips Curve 756
  - The Long-Run Phillips Curve 756

- ECONOMICS IN ACTION, 744, 754, 757
- ECONOMICS IN THE NEWS, 758

**PART NINE WRAP-UP** ◆

- Understanding Macroeconomic Fluctuations
  - Boom and Bust 765
- Talking with
  - Ricardo J. Caballero 766

## PART TEN MACROECONOMIC POLICY 767

### CHAPTER 30 ♦ FISCAL POLICY 767

#### The Federal Budget 768

- The Institutions and Laws 768
- Highlights of the 2015 Budget 769
- The Budget in Historical Perspective 770
- Budget Balance and Debt 772
- State and Local Budgets 774

#### Supply-Side Effects of Fiscal Policy 775

- Full Employment and Potential GDP 775
- The Effects of the Income Tax 775
- Taxes on Expenditure and the Tax Wedge 776
- Taxes and the Incentive to Save and Invest 777
- Tax Revenues and the Laffer Curve 779
- The Supply-Side Debate 779

#### Generational Effects of Fiscal Policy 780

- Generational Accounting and Present Value 780
- The Social Security Time Bomb 780
- Generational Imbalance 781
- International Debt 781

#### Fiscal Stimulus 782

- Automatic Fiscal Policy and Cyclical and Structural Budget Balances 782
- Discretionary Fiscal Stimulus 785

■ ECONOMICS IN ACTION, 774, 776, 784, 786

■ AT ISSUE, 773

■ ECONOMICS IN THE NEWS, 778, 788

### CHAPTER 31 ♦ MONETARY POLICY 795

#### Monetary Policy Objectives and Framework 796

- Monetary Policy Objectives 796
- Operational “Stable Prices” Goal 797
- Operational “Maximum Employment” Goal 797
- Responsibility for Monetary Policy 798

#### The Conduct of Monetary Policy 798

- The Monetary Policy Instrument 798
- The Fed’s Decision-Making Strategy 799

#### Monetary Policy Transmission 801

- Quick Overview 801
- Interest Rate Changes 801
- Exchange Rate Fluctuations 802
- Money and Bank Loans 803
- The Long-Term Real Interest Rate 803
- Expenditure Plans 803
- The Change in Aggregate Demand, Real GDP, and the Price Level 804
- The Fed Fights Recession 804
- The Fed Fights Inflation 806
- Loose Links and Long and Variable Lags 807

#### Extraordinary Monetary Stimulus 810

- The Key Elements of the Crisis 810
- The Policy Actions 811
- Persistently Slow Recovery 811
- Policy Strategies and Clarity 813

■ ECONOMICS IN ACTION, 800, 809, 813

■ AT ISSUE, 812

■ ECONOMICS IN THE NEWS, 808, 814

## PART TEN WRAP-UP ♦

### Understanding Macroeconomic Policy

Tradeoffs and Free Lunches 821

### Talking with

Stephanie Schmitt-Grohé 822

Glossary **G-1**

Index **I-1**

Credits **C-1**



*This page is intentionally left blank.*

**The future is always uncertain.** But at some times, and now is one such time, the range of possible near-future events is unusually large. Political tensions in the Middle East and Eastern Europe are one source of this uncertainty. But economic policy is another source. There is uncertainty about the way in which international trade policy will evolve as bilateral deals reshape the competitive landscape. There is uncertainty about exchange rate policy as currency fluctuations bring changes in international relative prices. There is extraordinary uncertainty about monetary policy with the Fed having quadrupled the quantity of bank reserves and continuing to delay the return of interest rates to levels considered normal. And there is uncertainty about fiscal policy as an ongoing federal budget deficit interacts with an aging population and rising healthcare costs to create a national debt time bomb.

In the years since the subprime mortgage crisis of August 2007 moved economics from the business report to the front page, a justified fall in confidence has gripped producers, consumers, financial institutions, and governments.

Even the idea that the market is an efficient allocation mechanism has come into question. Many thoughtful people worry about rising income inequality, and some political leaders called for the end of capitalism and the dawn of a new economic order in which tighter regulation reins in unfettered greed.

Rarely do teachers of economics have such a rich feast on which to draw. And rarely are the principles of economics more surely needed to provide the solid foundation on which to think about economic events and navigate the turbulence of economic life.

Although thinking like an economist can bring a clearer perspective to and deeper understanding of today's events, students don't find the economic way of thinking easy or natural. *Economics* seeks to put clarity and understanding in the grasp of the student with a careful and vivid exploration of the tension between self-interest and the social interest, the role and power of incentives—of opportunity cost and marginal benefit—and demonstrating the possibility that markets supplemented by other mechanisms might allocate resources efficiently.

Parkin students begin to think about issues the way real economists do and learn how to explore difficult policy problems and make more informed decisions in their own economic lives.

## The Twelfth Edition Revision

Thoroughly updated, intuitive rather than technical, grounded in data and empirical evidence, extensively illustrated with well-chosen examples and photographs, enlivened with applications that focus on issues at play in today's world, focused on learning-by-doing, and seamlessly integrated with MyEconLab: These are the hallmarks of this twelfth edition of *Economics*.

This revision builds on the foundation of the previous edition and retains a thorough and careful presentation of the principles of economics, an emphasis on real-world examples and applications, the development of critical thinking skills, diagrams renowned for pedagogy and clarity, and path-breaking technology.

### Highpoints of the Text Revision

This revision has many detailed changes and responses to reviewers, but its highpoints are a new feature and five content changes.

The new feature is a full-page end-of-chapter **worked problem**. As part of the chapter review, the student has an opportunity to work a multi-part problem that covers the core content of the chapter and consists of questions, solutions, and key figures. This new feature increases the incentive for the student to learn-by-doing and actively, rather than passively, review the chapter.

The five main content changes are in the coverage of

- Healthcare
- Externalities
- Financial markets
- The exchange rate
- Cycles, inflation, and deflation

**Healthcare** A reorganized and renamed Chapter 16, Public Choices, Public Goods, and Healthcare, opens with a new discussion of public choices and the political marketplace and the reasons why healthcare features so prominently in public choices. It presents a revealing pie chart of the allocation of government expenditures, one third of which is on healthcare programs. A new major section on the economics of healthcare describes the healthcare markets, the reasons why they fail, the alternative public choice solutions, the efficiency and equity issues they raise, and the U.S. and international experience. An *At Issue* box looks at Obamacare and one of its critics.

**Externalities** A reorganized Chapter 17 brings together all the material on externalities (both negative and positive). A major section on negative externalities describes and analyzes the problem of carbon emission and climate change and includes an account of the prisoners' dilemma that arises in coping with global externalities. The chapter includes an *Economics in the News* on the idea of lowering carbon emissions by generating more electricity from gas and less from coal and an *At Issue* on the carbon debate.

**Financial Markets** Chapter 24, Finance, Saving, and Investment, has an expanded section on the global financial crisis and its aftermath that describes the growth of household debt and house prices. The section on real and nominal interest rates is expanded and illustrated with data. The chapter now contains more on the magnitudes of the sources and uses of loanable funds. The section on loanable funds in the global economy is moved to the chapter on the exchange rate and balance of payments.

**The Exchange Rate** Chapter 26, The Exchange Rate and the Balance of Payments, contains a heavily revised section entitled Arbitrage, Speculation, and Market Fundamentals that explains the powerful forces that equilibrate the foreign exchange market in the short run and the long run. This section includes a discussion of the Big Mac index. An *Economics in the News* examines the forces at work leading to a strong dollar in the summer of 2014. The section on the global loanable funds market is now integrated into this chapter in the section on the balance of payments.

**Cycles, Inflation, and Deflation** Chapter 29, The Business Cycle, Inflation, and Deflation, is re-titled, reorganized, and amended. The business cycle material is moved to the beginning of the chapter and a new final section describes and explains the problem of deflation that has gripped Japan for most of the 1990s and the 2000s and is feared in Europe at the present time. Coverage of the Phillips curve is retained but condensed.

Many other chapters have been thoroughly reworked to achieve even greater clarity and to place greater emphasis on applications to current issues. And every chapter now contains a new opening vignette linked directly to an *Economics in the News*, an end-of-chapter problem, and online practice.

All the end-of-chapter *Economics in the News* articles have been updated, and the analysis of the news and the linked problems and applications have been appropriately revised.

## Pearson eText and New Interactive Features

MyEconLab with eText combines digital resources that illuminate content with accessible self-assessment tools to provide students with a comprehensive learning experience—all in one place.

This powerful digital resource enables students to actively use the concepts they're reading about and, through learning-by-doing, achieve deeper understanding of the key economic principles.

## Features to Enhance Teaching and Learning

The changes that I have described are adjustments to an already powerful teaching and learning package. Here, I briefly review the features retained from the previous edition.

### Economics in the News

This Parkin hallmark helps students think like economists by connecting chapter tools and concepts to the world around them. In this new edition, *Economics in the News* comes in two formats. One format, as in the previous edition, presents a brief newsclip supplemented by data where needed, and then poses some questions and walks through the answers.

The other format of *Economics in the News* is a rebranding of what I called *Reading Between the Lines* in all the earlier editions. This feature, which appears at the end of every chapter (except the first), shows students how to apply the tools they have learned by analyzing an article from a newspaper or news Web site. The news article connects with the questions first raised in the chapter opener, and the analysis is reinforced with a related end-of-chapter problem.

### Diagrams That Show the Action

Through the past eleven editions, this book has set the standard of clarity in its diagrams; the twelfth edition continues to uphold this tradition. My goal is to show “where the economic action is.” The diagrams in this book continue to generate an enormously positive response, which confirms my view that graphical

analysis is the most powerful tool available for teaching and learning economics at the principles level.

Because many students find graphs hard to work with, I have developed the entire art program with the study and review needs of the student in mind.

The diagrams feature

- Original curves consistently shown in blue
- Shifted curves, equilibrium points, and other important features highlighted in red
- Color-blended arrows to suggest movement
- Graphs paired with data tables
- Diagrams labeled with boxed notes
- Extended captions that make each diagram and its caption a self-contained object for study and review

### At Issue

Eleven *At Issue* boxes, three of which are new, engage the student in debate and controversy. An *At Issue* box introduces an issue and then presents two opposing views. It leaves the matter unsettled so that the student and instructor can continue the argument in class and reach their own conclusions.

### Economics in Action Boxes

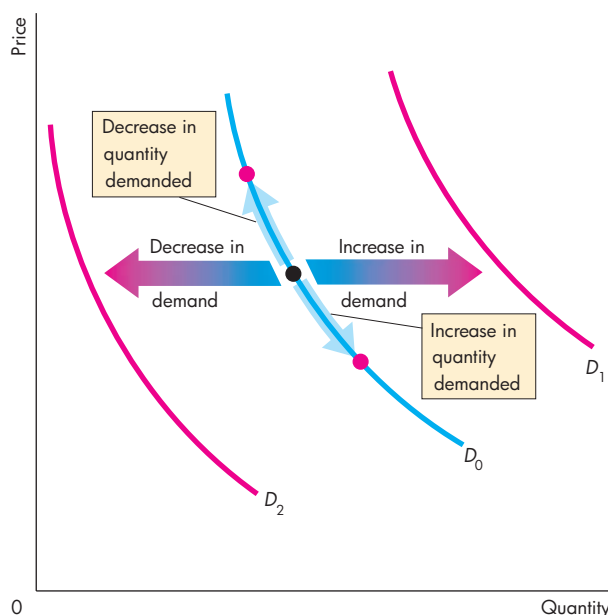
This feature uses boxes within the chapter to provide data and information that links models to real-world economic activity. Some of the issues covered in these boxes include the best affordable choice of recorded music, movies and DVDs; the cost of selling a pair of shoes; how Apple doesn't make the iPhone; opposing trends in air pollution and carbon concentration; structural unemployment in Michigan; how loanable funds fuel a home price bubble; and the size of the fiscal stimulus multipliers.

### Chapter Openers

Each chapter opens with a student-friendly vignette that raises questions to motivate the student and focus the chapter. This chapter-opening story is woven into the main body of the chapter and is explored in the *Economics in the News* feature that ends each chapter.

### Key Terms

Highlighted terms simplify the student's task of learning the vocabulary of economics. Each highlighted term appears in an end-of-chapter list with its page number, in an end-of-book glossary with its page number, boldfaced in the index, and in MyEconLab in the interactive glossary and the Flash Cards.



### In-Text Review Quizzes

A review quiz at the end of each major section enables students to determine whether a topic needs further study before moving on. This feature includes a reference to the appropriate MyEconLab study plan and a new **Key Terms Quiz** to help students further test their understanding.

### End-of-Chapter Study Material

Each chapter closes with a concise summary organized by major topics, a list of key terms with page references, a worked problem, and problems and applications. These learning tools provide students with a summary for review and exam preparation.

### Interviews with Economists

Each part closes with an overview of the chapters and a teaser of an interview with a leading economist whose work correlates to what the student is learning. These interviews explore the education and research of these prominent economists and their advice for those who want to continue the study of economics. This edition has new interviews with Esther Duflo (MIT) and Raj Chetty (Harvard). The 65 past and present interviews I have conducted are available in full in MyEconLab.

## For the Instructor

This book enables you to focus on the economic way of thinking and choose your own course structure in your principles course.

### Focus on the Economic Way of Thinking

As an instructor, you know how hard it is to encourage a student to think like an economist. But that is your goal. Consistent with this goal, the text focuses on and repeatedly uses the central ideas: choice; tradeoff; opportunity cost; the margin; incentives; the gains from voluntary exchange; the forces of demand, supply, and equilibrium; the pursuit of economic rent; the tension between self-interest and the social interest; and the scope and limitations of government actions.

### Flexible Structure

You have preferences for how you want to teach your course, and I've organized this book to enable you to choose your teaching path. The charts on pp. vi and vii illustrate the book's flexibility. By following the arrows through the charts you can select the path that best fits your preference for course structure. Whether you want to teach a traditional course that blends theory and policy, or one that takes a fast-track through either theory or policy issues, *Economics* gives you the choice.

### Instructor's Supplemental Resources

The supplements for instructors are

- Test Item Files
- PowerPoint Resources
- Instructor's Manuals
- Solutions Manuals

**Test Item Files** Six separate Test Item Files—three for *Microeconomics* and three for *Macroeconomics*—with nearly 13,000 questions, provide multiple-choice, true/false, numerical, fill-in-the-blank, short-answer, and essay questions. Mark Rush reviewed and edited all the questions to ensure their clarity and consistency.

New questions were written by Svitlana Maksymenko of the University of Pittsburgh, James K. Self of the University of Indiana, Bloomington, Alexandra Nica of the University of Iowa, and Luke Armstrong of Lee College.

Questions follow the style and format of the end-of-chapter text problems. End-of-part tests contain integrative questions that cover all the chapters in

the part. News-based application questions are available for each chapter of the text.

Fully networkable and available for Windows®, TestGen's graphical interface enables instructors to view the Test Item Files; edit and add questions; transfer questions to tests; and print different forms of tests. Tests can be formatted as in any word-processing document with varying fonts, styles, margins, headers, and footers. 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 exams, stores the results, and allows the instructor to view or print a variety of reports.

BlackBoard- and WebCT-ready conversions of the TestGen Test Item Files are available for download from [www.pearsonglobaleditions.com/Parkin](http://www.pearsonglobaleditions.com/Parkin).

**PowerPoint Resources** A set of full-color Microsoft® PowerPoint Presentations, created by Robin Bade, are available. Each chapter contains

- Lecture notes with all the textbook figures animated, tables from the textbook, and speaking notes from the Instructor's Manuals
- Large-scale versions of all the figures and tables in the textbook, animated for instructors to incorporate into their own slide shows
- A student version of the lecture notes with animated textbook figures

The presentations can be used electronically in the classroom or printed to create transparency masters.

**Instructor's Manuals** Instructor's Manuals, one for *Microeconomics* and one for *Macroeconomics*, integrate the teaching and learning resources and serve as a guide to all the supplements. Written by Laura A. Wolff of Southern Illinois University Edwardsville (microeconomics) and Russ McCullough of Ottawa University (macroeconomics), the Instructor's Manuals are available electronically from MyEconLab or the Instructor's Resource Center.

Each chapter contains an overview, a list of what's new in the twelfth edition, and ready-to-use lecture notes, which enable a new user of Parkin to walk into a classroom and deliver a polished lecture.

**Solutions Manuals** Comprehensive Solutions Manuals, one for *Microeconomics* and one for *Macroeconomics*, provide instructors with solutions to the Review Quizzes and the end-of-chapter Problems and Applications as well as additional problems and the solutions to these problems. Written by Mark Rush of the University of Florida and reviewed for accuracy by Jeannie Gillmore

of the University of Western Ontario, the Solutions Manuals are available electronically from MyEconLab or the Instructor Resource Center.

## Getting Your Instructor's Resources

**Instructor's Resource Center** Instructors can download supplements from a secure, instructor-only source via the Pearson Higher Education Instructor Resource Center Web page, which is found at ([www.pearsonglobaleditions.com/Parkin](http://www.pearsonglobaleditions.com/Parkin)).

## MyEconLab

MyEconLab has been designed and refined with a single purpose in mind: to create those moments of understanding that transform the difficult into the clear and obvious. With comprehensive homework, quiz, test, activity, and tutorial options, instructors can manage all their assessment in one program.

- All of the Review Quiz questions and end-of-chapter Problems and Applications were recreated as assignable auto-graded exercises with targeted feedback and related “Help-me-solve-this” tools by Robin Bade, Jeannie Gillmore of the University of Western Ontario, and Sharmistha Nag of Fairleigh Dickinson University, and were reviewed for accuracy by Trevor Collier of the University of Dayton.
- All of the Review Quiz questions and end-of-chapter Problems and Applications are assignable and automatically graded in MyEconLab.
- All of the Review Quiz questions and end-of-chapter Study Plan Problems and Applications are available for students to work in the Adaptive Study Plan.
- All the end-of-chapter Additional Problems and Applications are not available to students in MyEconLab unless assigned by the instructor.
- Many of the problems and applications are algorithmic, draw-graph, and numerical exercises.
- Problems and applications that use real-time data continuously update.

- All *Economics in the News* and Test Item questions are available for instructors to assign as test, quiz, or homework.
- Custom Exercise Builder enables instructors to create their own problems for assignment.
- Gradebook records each student's performance and time spent on the Tests and Study Plan and generates reports by student or by chapter.

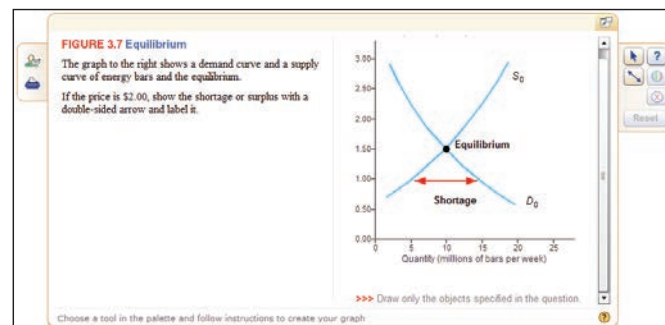
## Features of the eText

The features of the eText are

- More *Economics in the News*
- Worked problems
- Automatic real-time updating
- Key terms quizzes

**Figure Animations** Every textbook figure can be worked through using a step-by-step animation, with audio, to help students learn the intuition behind reading and interpreting graphs. These animations may be used for review, or as an instructional aid in the classroom.

**Interactive Draw Graph Exercises** For each major figure, a graph-drawing exercise accompanies the step-by-step animation. The student builds and interprets the key diagrams and develops understanding by working a multiple-choice question about the figure. Each Draw Graph exercise is auto-graded and feeds into MyEconLab's Adaptive Study Plan.



**More Economics in the News** Each in-text *Economics in the News* is reinforced through an extended application of the same analysis. More *Economics in the News* problems are auto-graded and feed into MyEconLab's Adaptive Study Plan.

**Worked Problem** Each chapter concludes with a Worked Problem that consists of questions, solutions, and a key figure. These problems can be worked in the eText directly from the Worked Problem page. As the student works through each problem, feedback and just-in-time learning aids help the student develop proficiency with the concept.

**Automatic Real-Time Updating** Figures labeled *MyEconLab Real-Time Data* update using the most recent data available from the FRED database maintained by the Federal Reserve Bank of St. Louis.

**Key Terms Quiz** Key Terms Quiz links provide opportunities for students to check their knowledge of the definitions and uses of the key terms.

## Other MyEconLab Features


**Adaptive Learning Study Plan** Adaptive Learning Study Plan is powered by a sophisticated learning engine that tailors assessment material to the unique needs of each student. The Adaptive Learning Study Plan monitors the student's performance on homework, quizzes, and tests and continuously makes recommendations based on that performance.


If a student is struggling with a concept such as supply and demand, or having trouble calculating a price elasticity of demand, the Adaptive Learning Study Plan provides customized remediation activities—a pathway based on personal proficiencies, the number of attempts, or the difficulty of the questions—to get the student back on track. Students will also receive recommendations for additional practice in the form of rich multimedia learning aids such as videos, an interactive eText, Help Me Solve This tutorials, and graphing tools.

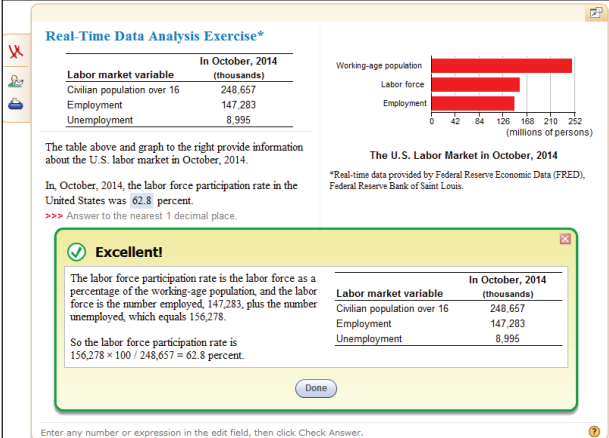
The Adaptive Learning Study Plan can extrapolate a student's future trouble spots and provide learning material and practice to avoid pitfalls. In addition, students who are showing a high degree of success with the assessment material are offered a chance to work on future topics based on the professor's course coverage preferences. This personalized and adaptive feedback and support ensures that your students are optimizing their current and future course work and mastering the concepts, rather than just memorizing and guessing answers.

**Dynamic Study Modules** The Dynamic Study Modules in MyEconLab engage the student in learning activities, continuously monitor and assess performance in real time, and by analyzing the data, personalize content to reinforce concepts that target each student's strengths and weaknesses. Instructors well-know that not every student learns the same way and at the same rate. And now, thanks to the advances in adaptive learning technology embedded in the Dynamic Study Modules, it is no longer necessary to teach as if they do.

Dynamic Study Modules can be set as homework and the results received right in the gradebook. And, because your students are always on the go, Dynamic Study Modules can be accessed from any computer, tablet, or smartphone.

**Real-Time Data Analysis Exercises**  Easy to assign and automatically graded, Real-Time Data Analysis exercises communicate directly with the Federal Reserve Bank of St. Louis's FRED site, so every time FRED posts new data, students can see the most recent data. As a result, Real-Time Data Analysis exercises offer a no-fuss solution for instructors who want to make the most recent data a central part of their macro course.

End-of-chapter exercises accompanied by the Real-Time Data Analysis icon  include Real-Time Data versions in MyEconLab. Select in-text figures, labeled Real-time data, update in the eText using FRED data.



**Real-Time Data Analysis Exercise\***

Labor market variable	In October, 2014 (thousands)
Civilian population over 16	248,657
Employment	147,283
Unemployment	8,995

The table above and graph to the right provide information about the U.S. labor market in October, 2014.

In October, 2014, the labor force participation rate in the United States was 62.8 percent.  
 >>> Answer to the nearest 1 decimal place.

**Excellent!**

The labor force participation rate is the labor force as a percentage of the working-age population, and the labor force is the number employed, 147,283, plus the number unemployed, which equals 156,278.

So the labor force participation rate is  $156,278 \times 100 / 248,657 = 62.8$  percent.

**Labor market variable** In October, 2014 (thousands)

Civilian population over 16	248,657
Employment	147,283
Unemployment	8,995

Enter any number or expression in the edit field, then click Check Answer.

**Economics in the News** *Economics in the News* is a turn-key solution to bringing daily news into the classroom. Updated daily during the academic year, we upload two relevant articles (one micro, one macro) and provide questions that may be assigned for homework or for classroom discussion.