

GLOBAL  
EDITION



# Essential Foundations of Economics

SEVENTH EDITION

Robin Bade • Michael Parkin



ALWAYS LEARNING

PEARSON

Essential Foundations of  
**ECONOMICS**

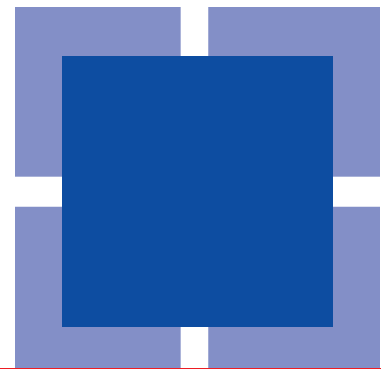


Essential Foundations of  
**ECONOMICS**

Robin Bade

Michael Parkin

*University of Western Ontario*



SEVENTH EDITION

Global Edition

**PEARSON**

Boston Columbus Indianapolis New York San Francisco Upper Saddle River  
Amsterdam Cape Town Dubai London Madrid Milan Munich Paris Montréal Toronto  
Delhi Mexico City São Paulo Sydney Hong Kong Seoul Singapore Taipei Tokyo

Editor in Chief: Donna Battista  
Executive Acquisitions Editor: Adrienne D'Ambrosio  
Editorial Project Manager: Sarah Dumouchelle  
Editorial Assistant: Elissa Senra-Sargent  
Executive Marketing Manager: Lori DeShazo  
Managing Editor: Jeff Holcomb  
Production Project Manager: Nancy Freihofer  
Head of Learning Asset Acquisition, Global Editions:  
Laura Dent  
Senior Acquisitions Editor, Global Editions:  
Steven Jackson  
Associate Acquisitions Editor, Global Editions:  
Toril Cooper

Project Editor, Global Editions: Arundati Dandapani  
Senior Manufacturing Controller, Global Editions:  
Trudy Kimber  
Media Publisher: Denise Clinton  
Content Product Manager: Noel Lotz  
Senior Media Producer: Melissa Honig  
Image Permission Manager: Rachel Youdelman  
Photo Researcher: Joseph Songco  
Text Designer: Jonathan Boylan  
Cover Design: Lumina Datamatics, Inc.  
Cover Image: © Ortodox/Shutterstock  
Copyeditor: Catherine Baum  
Technical Illustrator: Richard Parkin

Credits and acknowledgments borrowed from other sources and reproduced, with permission, in this textbook appear on the appropriate page within text and on pages C-1–C-2.

FRED<sup>®</sup> is a registered trademark and the FRED<sup>®</sup> 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 2015

The rights of Robin Bade and Michael Parkin to be identified as the authors of this work have been asserted by them in accordance with the Copyright, Designs and Patents Act 1988.

*Authorized adaptation from the United States edition, entitled Essential Foundations of Economics 7th edition, ISBN 978-0-13-346254-8, by Robin Bade and Michael Parkin, published by Pearson Education © 2015.*

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.

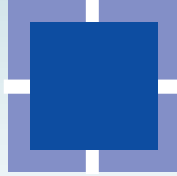
All trademarks used herein are the property of their respective owners. The use of any trademark in this text does not vest in the author or publisher any trademark ownership rights in such trademarks, nor does the use of such trademarks imply any affiliation with or endorsement of this book by such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

ISBN 10: 1-292-06044-1  
ISBN 13: 978-1-292-06044-6

British Library Cataloguing-in-Publication Data  
A catalogue record for this book is available from the British Library

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

Typeset in 10/12, Palatino-Roman by Integra Software Services  
Printed and bound in China at CTPSC/10



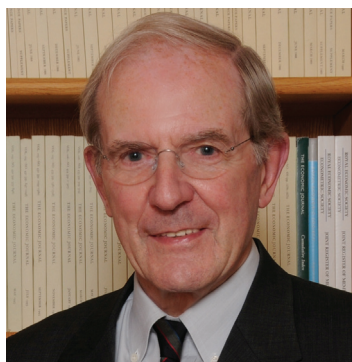
To Erin, Tessa, Jack, Abby, and Sophie

## 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 Eleventh Edition.

Robin and Michael are a wife-and-husband team. 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 a growing body of students.

Music, the theater, art, walking on the beach, and five grandchildren provides their relaxation and fun.

PART 1	INTRODUCTION
	1 Getting Started, 39
	2 The U.S. and Global Economies, 69
	3 The Economic Problem, 95
	4 Demand and Supply, 119
PART 2	A CLOSER LOOK AT MARKETS
	5 Elasticities of Demand and Supply, 149
	6 Efficiency and Fairness of Markets, 175
	7 Government Actions in Markets, 205
	8 Global Markets in Action, 233
	9 Externalities: Pollution, Education, and Health Care, 261
PART 3	PRICES, PROFITS, AND INDUSTRY PERFORMANCE
	10 Production and Cost, 289
	11 Perfect Competition, 317
	12 Monopoly, 345
	13 Monopolistic Competition and Oligopoly, 377
PART 4	MONITORING THE MACROECONOMY
	14 GDP: A Measure of Total Production and Income, 407
	15 Jobs and Unemployment, 437
	16 The CPI and the Cost of Living, 459
PART 5	UNDERSTANDING THE MACROECONOMY
	17 Potential GDP and Economic Growth, 483
	18 Money and the Monetary System, 517
	19 Aggregate Supply and Aggregate Demand, 547
	20 Fiscal Policy and Monetary Policy, 573
	Glossary G-1
	Index I-1
	Credits C-1





# Contents

## PART 1 INTRODUCTION

### CHAPTER 1 Getting Started 39

#### CHAPTER CHECKLIST 39

- 1.1 Definition and Questions** 40
  - Scarcity, 40
  - Economics Defined, 40
  - What, How, and For Whom? 41
  - Can the Pursuit of Self-Interest Be in the Social Interest? 42
  - CHECKPOINT 1.1** 45
- 1.2 The Economic Way of Thinking** 46
  - Economic Ideas, 46
  - A Choice Is a Tradeoff, 46
  - Cost: What You *Must* Give Up, 46
  - Benefit: What You Gain, 47
  - Rational Choice, 47
  - How Much? Choosing at the Margin, 48
  - Choices Respond to Incentives, 49
  - Economics as Social Science, 50
  - Economics as Policy Tool, 52
  - CHECKPOINT 1.2** 54
- CHAPTER SUMMARY** 55
- CHAPTER CHECKPOINT** 56

### **Appendix: Making and Using Graphs** 59

- Basic Idea 59
- Interpreting Data Graphs, 60
- Interpreting Graphs Used in Economic Models, 62
- The Slope of a Relationship, 65
- Relationships Among More Than Two Variables, 66
- APPENDIX CHECKPOINT** 68

#### **EYE on the PAST**

Adam Smith and the Birth of Economics as a Social Science, 51

#### **EYE on the BENEFIT AND COST OF SCHOOL**

Did You Make the Right Decision? 53

### CHAPTER 2 The U.S. and Global Economies 69

#### CHAPTER CHECKLIST 69

- 2.1 What, How, and For Whom?** 70
  - What Do We Produce? 70
  - How Do We Produce? 72
  - For Whom Do We Produce? 75
  - CHECKPOINT 2.1** 76
- 2.2 The Global Economy** 77
  - The People, 77
  - The Economies, 77
  - What* in the Global Economy? 78
  - How* in the Global Economy? 80
  - For Whom* in the Global Economy? 80
  - CHECKPOINT 2.2** 83
- 2.3 The Circular Flows** 84
  - Households and Firms, 84
  - Markets, 84
  - Real Flows and Money Flows, 84
  - Governments, 86
  - Governments in the Circular Flow, 87
  - Circular Flows in the Global Economy, 88
  - CHECKPOINT 2.3** 90

#### CHAPTER SUMMARY 91

#### CHAPTER CHECKPOINT 92

#### **EYE on the U.S. ECONOMY**

What We Produce, 71

#### **EYE on the PAST**

Changes in What We Produce, 72

#### **EYE on the U.S. ECONOMY**

Changes in How We Produce in the Information Economy, 74

#### **EYE on the Dreamliner**

Who Makes the Dreamliner? 79

■ **EYE on the GLOBAL ECONOMY**

Differences in How We Produce, 81

■ **EYE on YOUR LIFE**

The U.S. and Global Economies in Your Life, 83

■ **EYE on the PAST**

Growing Government, 88

■ **EYE on the GLOBAL ECONOMY**

The Ups and Downs in International Trade, 90



**CHAPTER 3**  
**The Economic Problem 95**

**CHAPTER CHECKLIST** 95

**3.1 Production Possibilities 96**

Production Possibilities Frontier, 96

**CHECKPOINT 3.1** 101

**3.2 Opportunity Cost 102**

The Opportunity Cost of a Cell Phone, 102

Opportunity Cost and the Slope of the *PPF*, 103

Opportunity Cost Is a Ratio, 103

Increasing Opportunity Costs Are Everywhere, 104

Your Increasing Opportunity Cost, 104

**CHECKPOINT 3.2** 105

**3.3 Economic Growth 106**

**CHECKPOINT 3.3** 108

**3.4 Specialization and Trade 109**

Absolute Advantage and Comparative Advantage, 109

Comparative Advantage: An Example, 110

Achieving Gains from Trade, 112

**CHECKPOINT 3.4** 114

**CHAPTER SUMMARY** 115

**CHAPTER CHECKPOINT** 116

■ **EYE on YOUR LIFE**

Your Production Possibilities Frontier, 100

■ **EYE on the ENVIRONMENT**

Is Wind Power Free? 104

■ **EYE on the U.S. ECONOMY**

Expanding Our Production Possibilities, 107

■ **EYE on the GLOBAL ECONOMY**

Hong Kong's Rapid Economic Growth, 108

■ **EYE on the U.S. ECONOMY**

No One Knows How to Make a Pencil, 109

■ **EYE on YOUR LIFE**

Your Comparative Advantage, 112



**CHAPTER 4**  
**Demand and Supply 119**

**CHAPTER CHECKLIST** 119

**Competitive Markets** 120

**4.1 Demand** 121

The Law of Demand, 121

Demand Schedule and Demand Curve, 121

Individual Demand and Market Demand, 123

Changes in Demand, 124

Change in Quantity Demanded Versus Change in Demand, 126

**CHECKPOINT 4.1** 127

**4.2 Supply** 128

The Law of Supply, 128

Supply Schedule and Supply Curve, 128

Individual Supply and Market Supply, 130

Changes in Supply, 131

Change in Quantity Supplied Versus Change in Supply, 133

**CHECKPOINT 4.2** 135

**4.3 Market Equilibrium** 136

Price: A Market's Automatic Regulator, 136

Predicting Price Changes: Three Questions, 137

Effects of Changes in Demand, 138

Effects of Changes in Supply, 140

Effects of Changes in Both Demand and Supply, 142

**CHECKPOINT 4.3** 144

**CHAPTER SUMMARY** 145

**CHAPTER CHECKPOINT** 146

■ **EYE on YOUR LIFE**

Understanding and Using Demand and Supply, 134

■ **EYE on TUITION**

Why Does Tuition Keep Rising? 139

■ **EYE on the GLOBAL ECONOMY**

The Market for Solar Panels, 141

## PART 2 A CLOSER LOOK AT MARKETS

## CHAPTER 5 Elasticities of Demand and Supply 149

CHAPTER CHECKLIST 149

- 5.1 The Price Elasticity of Demand** 150  
 Percentage Change in Price, 150  
 Percentage Change in Quantity Demanded, 151  
 Comparing the Percentage Changes in Price  
 and Quantity, 151  
 Elastic and Inelastic Demand, 152  
 Influences on the Price Elasticity of Demand, 152  
 Computing the Price Elasticity of Demand, 154  
 Interpreting the Price Elasticity of Demand  
 Number, 155  
 Elasticity Along a Linear Demand  
 Curve, 156  
 Total Revenue and the Price Elasticity of  
 Demand, 158  
 Applications of the Price Elasticity of Demand, 160

CHECKPOINT 5.1 161

- 5.2 The Price Elasticity of Supply** 162  
 Elastic and Inelastic Supply, 162  
 Influences on the Price Elasticity of Supply, 162  
 Computing the Price Elasticity of Supply, 164

CHECKPOINT 5.2 166

- 5.3 Cross Elasticity and Income Elasticity** 167  
 Cross Elasticity of Demand, 167  
 Income Elasticity of Demand, 168

CHECKPOINT 5.3 170

CHAPTER SUMMARY 171

CHAPTER CHECKPOINT 172

### EYE on the GLOBAL ECONOMY

Price Elasticities of Demand, 157

### EYE on the PRICE OF GASOLINE

What Do You Do When the Price of Gasoline  
 Rises? 159

### EYE on YOUR LIFE

Your Price Elasticities of Demand, 169

## CHAPTER 6 Efficiency and Fairness of Markets 175

CHAPTER CHECKLIST 175

- 6.1 Allocation Methods and efficiency** 176  
 Resource Allocation Methods, 176  
 Using Resources Efficiently, 179

CHECKPOINT 6.1 183

- 6.2 Value, Price, and Consumer Surplus** 184  
 Demand and Marginal Benefit, 184  
 Consumer Surplus, 185

CHECKPOINT 6.2 186

- 6.3 Cost, Price, and Producer Surplus** 187  
 Supply and Marginal Cost, 187  
 Producer Surplus, 188

CHECKPOINT 6.3 189

- 6.4 Are Markets Efficient?** 190  
 Marginal Benefit Equals Marginal Cost, 190  
 Total Surplus Is Maximized, 191  
 The Invisible Hand, 191  
 Market Failure, 193  
 Sources of Market Failure, 194  
 Alternatives to the Market, 195

CHECKPOINT 6.4 196

- 6.5 Are Markets Fair?** 197  
 It's Not Fair If the *Rules* Aren't Fair, 197  
 It's Not Fair If the *Result* Isn't Fair, 197  
 Compromise, 199

CHECKPOINT 6.5 200

CHAPTER SUMMARY 201

CHAPTER CHECKPOINT 202

### EYE on the U.S. ECONOMY

The Invisible Hand and e-Commerce, 192

### EYE on PRICE GOUGING

Should Price Gouging Be Illegal? 198

### EYE on YOUR LIFE

Allocation Methods, Efficiency, and Fairness, 199

## CHAPTER 7 Government Actions in Markets 205

### CHAPTER CHECKLIST 205

- 7.1 Taxes on Buyers and Sellers** 206  
 Tax Incidence, 206  
 Taxes and Efficiency, 207  
 Incidence, Inefficiency, and Elasticity, 208  
 Incidence, Inefficiency, and the Elasticity of Demand 209  
 Incidence, Inefficiency, and the Elasticity of Supply 210  
**CHECKPOINT 7.1** 211
- 7.2 Price Ceilings** 212  
 A Rent Ceiling, 212  
 Are Rent Ceilings Efficient? 215  
 Are Rent Ceilings Fair? 216  
 If Rent Ceilings Are So Bad, Why Do We Have Them? 216  
**CHECKPOINT 7.2** 217
- 7.3 Price Floors** 218  
 The Minimum Wage, 219  
 Is the Minimum Wage Efficient? 222  
 Is the Minimum Wage Fair? 223  
 If the Minimum Wage Is So Bad, Why Do We Have It? 223  
**CHECKPOINT 7.3** 224
- 7.4 Price Supports in Agriculture** 225  
 How Governments Intervene in Markets for Farm Products, 225  
 Price Support: An Illustration, 225  
**CHECKPOINT 7.4** 228
- CHAPTER SUMMARY** 229
- CHAPTER CHECKPOINT** 230
- **EYE on the U.S. ECONOMY**  
 The Federal Minimum Wage, 221
  - **EYE on PRICE REGULATION**  
 Can the President Repeal the Laws of Supply and Demand? 223
  - **EYE on YOUR LIFE**  
 Price Ceilings and Price Floors, 227

## CHAPTER 8 Global Markets in Action 233

### CHAPTER CHECKLIST 233

- 8.1 How Global Markets Work** 234  
 International Trade Today, 234  
 What Drives International Trade? 234  
 Why the United States Imports T-Shirts, 236  
 Why the United States Exports Airplanes, 237  
**CHECKPOINT 8.1** 238
- 8.2 Winners, Losers, and Net Gains From Trade** 239  
 Gains and Losses from Imports, 240  
 Gains and Losses from Exports, 241  
**CHECKPOINT 8.2** 242
- 8.3 International Trade Restrictions** 243  
 Tariffs, 243  
 Import Quotas, 247  
 Other Import Barriers, 249  
 Export Subsidies, 249  
**CHECKPOINT 8.3** 250
- 8.4 The Case Against Protection** 251  
 Three Traditional Arguments for Protection, 251  
 Four Newer Arguments for Protection, 253  
 Why Is International Trade Restricted? 254  
**CHECKPOINT 8.4** 256
- CHAPTER SUMMARY** 257
- CHAPTER CHECKPOINT** 258
- **EYE on the U.S. ECONOMY**  
 U.S. Exports and Imports, 235
  - **EYE on GLOBALIZATION**  
 Who Wins and Who Loses from Globalization? 239
  - **EYE on the PAST**  
 The History of U.S. Tariffs, 243
  - **EYE on YOUR LIFE**  
 International Trade, 255

## CHAPTER 9 Externalities: Pollution, Education, and Health Care 261

### CHAPTER CHECKLIST 261

#### Externalities in Our Daily Lives 262

Negative Production Externalities, 262  
Positive Production Externalities, 262  
Negative Consumption Externalities, 263  
Positive Consumption Externalities, 263

#### 9.1 Negative Externalities: Pollution 264

Private Costs and Social Costs, 264  
Production and Pollution: How Much? 266  
Establish Property Rights, 267  
Mandate Clean Technology, 269  
Tax or Cap and Price Pollution, 269

#### CHECKPOINT 9.1 273

#### 9.2 Positive Externalities: Education and Health Care 274

Private Benefits and Social Benefits, 274  
Government Actions in the Face of External  
Benefits, 276

Economic Problems in Health-Care Markets, 280  
Health-Care Systems in Other Countries, 283  
A Reform Idea, 283

#### CHECKPOINT 9.2 284

#### CHAPTER SUMMARY 285

#### CHAPTER CHECKPOINT 286

#### ■ EYE on the U.S. ECONOMY

U.S. Air Pollution Trends, 271

#### ■ EYE on CLIMATE CHANGE

How Can We Limit Climate Change? 272

#### ■ EYE on the U.S. ECONOMY

Education Quality: Charter Schools and Vouchers, 279

#### ■ EYE on YOUR LIFE

Externalities in Your Life, 279

#### ■ EYE on the U.S. ECONOMY

Health Care in the United States: A Snapshot, 282

## PART 3 PRICES, PROFITS, AND INDUSTRY PERFORMANCE

## CHAPTER 10 Production and Cost 289

### CHAPTER CHECKLIST 289

#### 10.1 Economic Cost and Profit 290

The Firm's Goal, 290  
Accounting Cost and Profit, 290  
Opportunity Cost, 290  
Economic Profit, 291

#### CHECKPOINT 10.1 293

#### Short Run and Long Run 294

#### 10.2 Short-Run Production 295

Total Product, 295  
Marginal Product, 296  
Average Product, 298

#### CHECKPOINT 10.2 300

#### 10.3 Short-Run Cost 301

Total Cost, 301  
Marginal Cost, 302  
Average Cost, 303

Why the Average Total Cost Curve Is  
U-Shaped, 305

Cost Curves and Product Curves, 306

Shifts in the Cost Curves, 306

#### CHECKPOINT 10.3 308

#### 10.4 Long-Run Cost 309

Plant Size and Cost, 309

The Long-Run Average Cost Curve, 310

#### CHECKPOINT 10.4 312

#### CHAPTER SUMMARY 313

#### CHAPTER CHECKPOINT 314

#### ■ EYE on YOUR LIFE

Your Average and Marginal Grades, 299

#### ■ EYE on RETAILERS' COSTS

Which Store Has the Lower Costs: Wal-Mart  
or 7-Eleven? 311

## CHAPTER 11 Perfect Competition 317

### CHAPTER CHECKLIST 317

#### Market Types 318

Perfect Competition, 318

Other Market Types, 318

### 11.1 A Firm's Profit-Maximizing Choices 319

Price Taker, 319

Revenue Concepts, 319

Profit-Maximizing Output, 320

Marginal Analysis and the Supply Decision, 322

Temporary Shutdown Decision, 323

The Firm's Short-Run Supply Curve, 324

#### CHECKPOINT 11.1 326

### 11.2 Output, Price, and Profit in the Short Run 327

Market Supply in the Short Run, 327

Short-Run Equilibrium in Normal Times, 328

Short-Run Equilibrium in Good Times, 329

Short-Run Equilibrium in Bad Times, 330

#### CHECKPOINT 11.2 331

### 11.3 Output, Price, and Profit in the Long Run 332

Entry and Exit, 333

The Effects of Exit, 334

Change in Demand, 335

Technological Change, 335

Is Perfect Competition Efficient? 338

Is Perfect Competition Fair? 339

#### CHECKPOINT 11.3 340

### CHAPTER SUMMARY 341

### CHAPTER CHECKPOINT 342

#### ■ EYE on RECORD STORES

Where Have All the Record Stores Gone? 336

#### ■ EYE on YOUR LIFE

The Perfect Competition that You Encounter, 339

## CHAPTER 12 Monopoly 345

### CHAPTER CHECKLIST 345

### 12.1 Monopoly and How it Arises 346

How Monopoly Arises, 346

Monopoly Price-Setting Strategies, 348

#### CHECKPOINT 12.1 349

### 12.2 Single-Price Monopoly 350

Price and Marginal Revenue, 350

Marginal Revenue and Elasticity, 351

Output and Price Decision, 352

#### CHECKPOINT 12.2 354

### 12.3 Monopoly and Competition Compared 355

Output and Price, 355

Is Monopoly Efficient? 356

Is Monopoly Fair? 357

Rent Seeking, 357

#### CHECKPOINT 12.3 359

### 12.4 Price Discrimination 360

Price Discrimination and Consumer Surplus, 360

Profiting by Price Discriminating, 361

Perfect Price Discrimination, 362

Price Discrimination and Efficiency, 364

#### CHECKPOINT 12.4 365

### 12.5 Monopoly Regulation 366

Efficient Regulation of a Natural Monopoly, 366

Second-Best Regulation of a Natural Monopoly, 367

#### CHECKPOINT 12.5 372

### CHAPTER SUMMARY 373

### CHAPTER CHECKPOINT 374

#### ■ EYE on the U.S. ECONOMY

Airline Price Discrimination, 364

#### ■ EYE on MICROSOFT

Are Microsoft's Prices Too High? 369

#### ■ EYE on YOUR LIFE

Monopoly in Your Everyday Life, 370

## CHAPTER 13 Monopolistic Competition and Oligopoly 377

CHAPTER CHECKLIST 377

- 13.1 What is Monopolistic Competition?** 378  
 Large Number of Firms, 378  
 Product Differentiation, 378  
 Competing on Quality, Price, and Marketing, 378  
 Entry and Exit, 379  
 Identifying Monopolistic Competition, 379  
 Output and Price in Monopolistic Competition, 381  
 The Firm's Profit-Maximizing Decision, 381  
 Long Run: Zero Economic Profit, 382  
 Monopolistic Competition and Perfect Competition, 383  
**CHECKPOINT 13.1** 384
- 13.2 Product Development and Marketing** 385  
 Innovation and Product Development, 385  
 Marketing, 386  
**CHECKPOINT 13.2** 389
- 13.3 Oligopoly** 390  
 Collusion, 390  
 Duopoly in Airplanes, 391

The Duopolists' Dilemma, 392

**CHECKPOINT 13.3** 394

- 13.4 Game Theory** 395  
 What Is a Game? 395  
 The Prisoners' Dilemma, 395  
 The Duopolists' Dilemma, 397  
 Advertising and Research Games in Oligopoly, 398  
 Repeated Games, 400  
 Is Oligopoly Efficient? 401  
**CHECKPOINT 13.4** 402

CHAPTER SUMMARY 403

CHAPTER CHECKPOINT 404

### ■ EYE on the U.S. ECONOMY

Examples of Monopolistic Competition, 380

### ■ EYE on CELL PHONES

Which Cell Phone? 386

### ■ EYE on YOUR LIFE

Some Selling Costs You Pay, 388

### ■ EYE on YOUR LIFE

A Game You Might Play, 400

### ■ EYE on the CELL-PHONE OLIGOPOLY

Is Two Too Few? 401

## PART 4 MONITORING THE MACROECONOMY

## CHAPTER 14 GDP: A Measure of Total Production and Income 407

CHAPTER CHECKLIST 407

- 14.1 GDP, Income, and Expenditure** 408  
 GDP Defined, 408  
 Circular Flows in the U.S. Economy, 409  
 Expenditure Equals Income, 410  
**CHECKPOINT 14.1** 412
- 14.2 Measuring U.S. GDP** 413  
 The Expenditure Approach, 413  
 The Income Approach, 415  
 GDP and Related Measures of Production and Income, 417  
 Real GDP and Nominal GDP, 418  
 Calculating Real GDP, 418  
 Using the Real GDP Numbers, 419  
**CHECKPOINT 14.2** 420

- 14.3 The Uses and Limitations of Real GDP** 421

The Standard of Living Over Time, 421

Tracking the Course of the Business Cycle, 422

The Standard of Living Among Countries, 424

Goods and Services Omitted from GDP, 425

Other Influences on the Standard of Living, 426

**CHECKPOINT 14.3** 428

CHAPTER SUMMARY 429

CHAPTER CHECKPOINT 430

### Appendix: Measuring Real GDP 433

The Problem With Base-Year Prices, 433

Value Production in the Prices of Adjacent Years, 433

**APPENDIX CHECKPOINT** 436

### ■ EYE on the U.S. ECONOMY

Is a Computer Program an Intermediate Good or a Final Good? 414

### ■ EYE on the BOOMS AND BUSTS

How Do We Track the Booms and Busts of our Economy? 424



■ **EYE on YOUR LIFE**

Making GDP Personal, 426

■ **EYE on the GLOBAL ECONOMY**

Which Country Has the Highest Standard of Living? 427

## CHAPTER 15 Jobs and Unemployment 437

**CHAPTER CHECKLIST** 437

- 15.1 Labor Market Indicators** 438  
 Current Population Survey, 438  
 Population Survey Criteria, 438  
 Two Main Labor Market Indicators, 439  
 Alternative Measures of Unemployment, 440  
**CHECKPOINT 15.1** 442
- 15.2 Labor Market Trends and Fluctuations** 443  
 Unemployment Rate, 443  
 The Participation Rate, 444  
 Alternative Measures of Unemployment, 446  
 A Closer Look at Part-Time Employment, 447  
**CHECKPOINT 15.2** 448
- 15.3 Unemployment and Full Employment** 449  
 Frictional Unemployment, 449  
 Structural Unemployment, 449  
 Cyclical Unemployment, 450  
 “Natural” Unemployment, 450  
 Unemployment and Real GDP, 451  
**CHECKPOINT 15.3** 454

**CHAPTER SUMMARY** 455

**CHAPTER CHECKPOINT** 456

■ **EYE on the U.S. ECONOMY**

The Current Population Survey, 441

■ **EYE on the GLOBAL ECONOMY**

Unemployment Around the World, 444

■ **EYE on the GLOBAL ECONOMY**

Women in the Labor Force, 445

■ **EYE on the UNEMPLOYED**

How Long Does it Take to Find a Job? 450

■ **EYE on YOUR LIFE**

Your Labor Market Status and Activity, 452

## CHAPTER 16 The CPI and the Cost of Living 459

**CHAPTER CHECKLIST** 459

- 16.1 The Consumer Price Index** 460  
 Reading the CPI Numbers, 460  
 Constructing the CPI, 460  
 The CPI Market Basket, 460  
 The Monthly Price Survey, 461  
 Calculating the CPI, 462  
 Measuring Inflation and Deflation, 463  
**CHECKPOINT 16.1** 465
- 16.2 The CPI and Other Price Level  
Measures** 466  
 Sources of Bias in the CPI, 466  
 The Magnitude of the Bias, 467  
 Two Consequences of the CPI Bias, 468  
 Alternative Measures of the Price Level and Inflation  
 Rate, 469  
**CHECKPOINT 16.2** 471
- 16.3 Nominal and Real Values** 472  
 Dollars and Cents at Different Dates, 472  
 Nominal and Real Values in Macroeconomics, 473  
 Nominal GDP and Real GDP, 473  
 Nominal Wage Rate and Real Wage Rate, 474  
 Nominal Interest Rate and Real Interest Rate, 476  
**CHECKPOINT 16.3** 478

**CHAPTER SUMMARY** 479

**CHAPTER CHECKPOINT** 480

■ **EYE on the PAST**

700 Years of Inflation and Deflation, 464

■ **EYE on the U.S. ECONOMY**

Deflating the GDP Balloon, 473

■ **EYE on the PAST**

The Nominal and Real Wage Rates of Presidents of the United States, 475

■ **EYE on BOX OFFICE HITS**

Which Movie *Really* Was the Biggest Box Office Hit? 476

■ **EYE on YOUR LIFE**

A Student’s CPI, 477

## PART 5 UNDERSTANDING THE MACROECONOMY

## CHAPTER 17 Potential GDP and Economic Growth 483

**CHAPTER CHECKLIST** 483

### Macroeconomic Approaches and Pathways 484

The Three Main Schools of Thought, 484  
Today's Consensus, 485  
The Road Ahead, 486

### 17.1 Potential GDP 487

The Production Function, 488  
The Labor Market, 489

**CHECKPOINT 17.1** 493

### 17.2 The Basics of Economic Growth 494

Calculating Growth Rates, 494  
The Magic of Sustained Growth, 495

**CHECKPOINT 17.2** 497

### 17.3 Labor Productivity Growth 498

Labor Productivity, 498  
Saving and Investment in Physical Capital, 498  
Expansion of Human Capital and Discovery of New Technologies, 500  
Combined Influences Bring Labor Productivity Growth, 502  
What Keeps Labor Productivity Growing? 505

**CHECKPOINT 17.3** 507

### 17.4 Achieving Faster Growth 508

Preconditions for Economic Growth, 508  
Policies to Achieve Faster Growth, 509  
How Much Difference Can Policy Make?, 510

**CHECKPOINT 17.4** 512

**CHAPTER SUMMARY** 513

**CHAPTER CHECKPOINT** 514

#### ■ EYE on the U.S. ECONOMY

The Lucas Wedge and the Okun Gap, 486

#### ■ EYE on the GLOBAL ECONOMY

Potential GDP in the United States and European Union, 487

#### ■ EYE on the U.S. ECONOMY

Why Do Americans Earn More and Produce More Than Europeans? 492

#### ■ EYE on the PAST

How Fast Has Real GDP per Person Grown? 496

#### ■ EYE on the U.S. ECONOMY

U.S. Labor Productivity Growth Since 1960, 504

#### ■ EYE on YOUR LIFE

How You Influence and Are Influenced by Economic Growth, 506

#### ■ EYE on RICH AND POOR NATIONS

Why Are Some Nations Rich and Others Poor?, 511

## CHAPTER 18 Money and the Monetary System 517

**CHAPTER CHECKLIST** 517

### 18.1 What is Money? 518

Definition of Money, 518  
The Functions of Money, 518  
Money Today, 520  
Official Measures of Money: M1 and M2, 520  
Checks, Credit Cards, Debit Cards, and E-Checks, 521  
An Embryonic New Money: E-Cash, 522

**CHECKPOINT 18.1** 523

### 18.2 The Banking System 524

Commercial Banks, 524  
Thrift Institutions, 527  
Money Market Funds, 527

**CHECKPOINT 18.2** 528

### 18.3 The Federal Reserve System 529

The Structure of the Federal Reserve, 529  
The Fed's Policy Tools, 530  
How the Fed's Policy Tools Work, 531

**CHECKPOINT 18.3** 532

### 18.4 Regulating the Quantity of Money 533

Creating Deposits by Making Loans, 533  
How Open Market Operations Change the Monetary Base, 535

The Multiplier Effect of an Open Market Operation, 538  
The Money Multiplier, 539

**CHECKPOINT 18.4** 542

**CHAPTER SUMMARY** 543

**CHAPTER CHECKPOINT** 544

■ **EYE on the PAST**

The “Invention” of Banking, 525

■ **EYE on the U.S. ECONOMY**

Commercial Banks Under Stress in the Financial Crisis, 527

■ **EYE on YOUR LIFE**

Money and Your Role in Its Creation, 533

■ **EYE on CREATING MONEY**

How Does the Fed Create Money and Regulate Its Quantity? 540

## CHAPTER 19 Aggregate Supply and Aggregate Demand 547

**CHAPTER CHECKLIST** 547

### 19.1 Aggregate Supply 548

Aggregate Supply Basics, 548

Changes in Aggregate Supply, 551

**CHECKPOINT 19.1** 553

### 19.2 Aggregate Demand 554

Aggregate Demand Basics, 554

Changes in Aggregate Demand, 556

The Aggregate Demand Multiplier, 558

**CHECKPOINT 19.2** 559

### 19.3 Explaining Economic Trends and Fluctuations 560

Macroeconomic Equilibrium, 560

Three Types of Macroeconomic Equilibrium, 561

Economic Growth and Inflation Trends, 562

The Business Cycle, 563

Inflation Cycles, 564

Deflation and the Great Depression, 566

**CHECKPOINT 19.3** 568

**CHAPTER SUMMARY** 569

**CHAPTER CHECKPOINT** 570

■ **EYE on the U.S. ECONOMY**

U.S. Economic Growth, Inflation, and the Business Cycle, 562

■ **EYE on YOUR LIFE**

Using the *AS-AD* Model, 566

■ **EYE on the BUSINESS CYCLE**

Why Did the U.S. Economy Go into Recession in 2008? 567

## CHAPTER 20 Fiscal Policy and Monetary Policy 573

**CHAPTER CHECKLIST** 573

### 20.1 The Federal Budget and Fiscal Policy 574

The Federal Budget, 574

Budget Balance and Debt, 574

Discretionary Fiscal Policy: Demand-Side Effects, 577  
A Successful Fiscal Stimulus, 578

Discretionary Fiscal Policy: Supply-Side Effects, 579

Limitations of Discretionary Fiscal Policy, 581

Automatic Fiscal Policy, 582

Cyclical and Structural Budget Balances, 582

Schools of Thought and Cracks in Today’s Consensus, 583

**CHECKPOINT 20.1** 585

### 20.2 The Federal Reserve and Monetary Policy 586

The Monetary Policy Process, 586

The Federal Funds Rate Target, 587

The Ripple Effects of the Fed’s Actions, 588

Monetary Stabilization in the *AS-AD* Model, 590

Limitations of Monetary Stabilization Policy, 593

**CHECKPOINT 20.2** 594

**CHAPTER SUMMARY** 595

**CHAPTER CHECKPOINT** 596

■ **EYE on the PAST**

Federal Tax Revenues, Outlays, Deficits, and Debt, 576

**■ EYE on the U.S. ECONOMY**

A Social Security and Medicare Time Bomb, 581

**■ EYE on the U.S. ECONOMY**

The U.S. Structural and Cyclical Budget Balances, 583

**■ EYE on FISCAL STIMULUS**

Can Fiscal Stimulus End a Recession? 584

**■ EYE on the FED IN A CRISIS**

Did the Fed Save Us From Another Great  
Depression? 592

**■ EYE on YOUR LIFE**

Fiscal and Monetary Policy and How They Affect  
You, 593

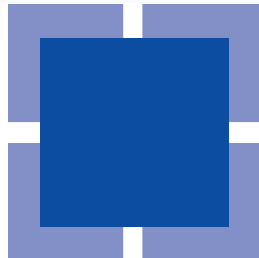
*Glossary* G-1

*Index* I-1

*Credits* C-1



# Preface



Students know that throughout their lives they will make economic decisions and be influenced by economic forces. They want to understand the economic principles that can help them navigate these forces and guide their decisions. *Essential Foundations of Economics* is our attempt to satisfy this want.

The response to our earlier editions from hundreds of colleagues across the United States and throughout the world tells us that most of you agree with our view that the principles course must do four things well. It must

- 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 its comprehensive teaching and learning supplements.

## WHAT'S NEW IN THE SEVENTH EDITION

---

Two big stories dominate this Seventh Edition revision: A careful fine-tuning of the heavily revised and successful Sixth Edition content, and a massive investment in enhanced electronic features to bring the text to life and provide an exciting interactive experience for the student on all platforms and devices.

### ■ Fine-Tuning the Content

The content of this revision is driven by the drama of the extraordinary period of economic history in which we are living and its rich display of events and forces through which students can be motivated to discover the economic way of thinking. Persistent unemployment and slow growth; headwinds from Europe's unresolved debt crisis; ongoing tensions arising from offshore outsourcing; a slowing pace of China's expansion; enhanced concern about climate change; falling U.S. energy imports as fracking boosts domestic production; relentless pressure on the federal budget from the demands of an aging population and a sometimes dysfunctional Congress; the dilemma posed by slow recovery and rising government debt; the question of when and how fast to exit an era of extreme monetary stimulus; and a fluctuating dollar are just a few of these interest-arousing events. All of them feature at the appropriate points in our new edition.

Every chapter contains many small changes, all designed to enhance clarity and currency, and the text and examples are all thoroughly updated to reflect the most recently available data and events. We have also made a few carefully selected larger changes that we describe below.

### ■ Notable Content Changes

Because the previous edition revision was so extensive and well-received, we have limited our interventions and changes in this Seventh Edition to addressing the small number of issues raised by our reviewers and users, to ensuring that we are thoroughly up-to-date, and to focusing on the new electronic tools that we've just described. Nonetheless, some changes that we now summarize are worth noting.

We have reorganized the section in Chapter 1 on "The Economic Way of Thinking" to provide a clearer sequencing of the key ideas.

In Chapter 2, The U.S. and Global Economies, we use the new example of the complex production of the Dreamliner to motivate and illustrate what, how, and

for whom in the U.S. and global economies. A new *Eye on the Past* looks at the dramatic changes in manufacturing in the U.S. economy through the example of the domestic production of shoes. Also a new photo essay highlights global differences in how goods and services are produced and the section on government has been compressed and simplified.

In Chapter 3, The Economic Problem, we illustrate economic growth and the expansion of production possibilities with the dramatic example of hydraulic fracturing—fracking—in the United States and its effects on the production and opportunity cost of energy.

Chapter 4, Demand and Supply, has a new motivating issue: “Why does tuition keep rising?” Not only is the question a deeply personal one for students but it is also a good example of how the demand-supply model enables us to isolate increasing demand as the source of a rising price. Events in the increasingly important market for solar panels provide a contrasting example of the effects of an increase in supply. We have revised the section on changes in both demand and supply to better explain the unambiguous and ambiguous cases and leave the student to pull all possible cases together.

In Chapter 10, Externalities: Pollution, Education, and Health Care we have reorganized our discussion of ideas for achieving efficiency in the face of external costs. We now explain these ideas in four categories: establish property rights, mandate clean technology, tax pollution, and cap-and-trade pollution permits. The discussion of mandates is new.

In Chapter 13, Monopolistic Competition and Oligopoly, we have updated our description of how the HHI is used to evaluate the effects of proposed mergers.

In Chapter 17, Potential GDP and Economic Growth, we have simplified the explanation of the contributions of capital accumulation and technological change to the fluctuating pace of productivity growth.

Topical policy issues pervade the macro chapters. These include the persistence of high unemployment in the United States, Eurozone’s extreme unemployment problem, and the falling U.S. labor force participation rate in Chapter 15; the ever-widening Lucas wedge, now greater than \$400,000 per person, and the persistence of U.S./E.U. productivity differences in Chapter 17; QE3 and the explosion of monetary base, the rise in bank reserves, and the collapse of the money multiplier in Chapter 18; the persistent recessionary gap in Chapter 19; the persistent federal budget deficit and rising debt to GDP ratio, the ongoing structural deficit, the ongoing near-zero federal funds rate, and an update of the contrast between monetary policy today and during the Great Depression, in Chapter 20.



## THE FOUNDATIONS VISION

---

### ■ Focus on Core Concepts

Each chapter of *Foundations* 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'* integrated print and electronic package builds on the basic fact that students have a variety of learning styles. Students have powerful tools at their fingertips: With links from eText, they can get an immediate sense of the content of a chapter by playing the Big Picture video; learn the key ideas by playing the Snapshot videos, and get a quick walkthrough of the Checkpoint Practice Problems and In the News exercises with the Solutions videos.

### ■ 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 beginning 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 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 *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

---

We have organized the sequence of material and chapters in what we think is the most natural order in which to cover the material. 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 p. 31 explains the alternative pathways through the chapters. In using the flexibility information, keep in mind that the best sequence is the one in which we present the material. And even chapters that the flexibility chart identifies as strictly optional are better covered than omitted.

## SUPPORT MATERIALS FOR INSTRUCTORS AND STUDENTS

---

*Essential Foundations of Economics* 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 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.

### ■ PowerPoint Resources

We have created the PowerPoint resources based on our 20 years of experience using this tool in our own classrooms. We have created four sets of PowerPoint presentations for instructors.

They are:

- Lecture notes with full-color, animated figures, and tables from the textbook
- Figures and tables from the textbook, animated with step-by-step walk-through for instructors to use in their own personal slides
- *Eye On* features
- Checkpoint Practice Problems and solutions

### ■ Instructor's Manual

The Instructor's Manual, written by Luke Armstrong and reviewed by Mark Rush, contains chapter outlines and road maps, additional exercises with solutions, a comprehensive Chapter Lecture resource, and a virtual encyclopedia of suggestions on how to enrich class presentation and use class time efficiently. 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. The Instructor's Manual is available for download in Word and PDF formats.

## ■ Solutions Manual

The Solutions Manual, written by Mark Rush and checked for accuracy by Jeannie Gillmore, contains the solutions to all Checkpoint Practice Problems, In the News exercises, and Chapter Checkpoint Problems and Applications. The Solutions Manual is available for download in Word and PDF formats.

## ■ Three Test Item Files and TestGen

More than 6,000 multiple-choice, numerical, fill-in-the-blank, short answer, essay, and integrative questions make up the three Test Item Files that support *Essential Foundations of Economics*. Mark Rush reviewed and edited questions from six dedicated principles instructors to form one of the most comprehensive testing systems on the market. Our microeconomics authors are Gregory E. Givens (University of Alabama); Lee Hoke (University of Tampa); Homer Guevara, Jr. (Northwest Vista College); and Carol Dole (Jacksonville University). Our macroeconomics questions were written by Gregory Givens, Buffie Schmidt (Augusta State University), and Rolando Sanchez (Northwest Vista College). 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 instructor to view and print a variety of reports.

## ■ Study Guide for Students

Mark Rush of the University of Florida has prepared the Study Guide. It provides an expanded Chapter Checklist that enables the student to break the learning tasks down into smaller, bite-sized pieces; self-test materials; and additional practice problems. The Study Guide has been carefully coordinated with the text and the Test Item Files.

## ACKNOWLEDGMENTS

---

Working on a project such as this one generates many debts that can never be repaid. But they can be acknowledged, and it is a special pleasure to be able to do so here and to express our heartfelt thanks to each and every one of the following long list, without whose contributions we could not have produced *Foundations*.

Mark Rush again coordinated, managed, and contributed to our Study Guide, Solutions Manual, Instructor's Manual, and Test Item Files. He assembled, polished, wrote, and rewrote these materials to ensure their close consistency with the text. He and we were in constant contact as all the elements of our text and package came together. Mark also made many valuable suggestions for improving the text and the Checkpoint Problems. His contribution went well beyond that of a reviewer, and his effervescent sense of humor kept us all in good spirits along the way.

Working closely with Mark, Luke Armstrong wrote content for the Instructor's Manual. Carol Dole, Buffie Schmidt, Lee Hoke, Greg Givens, Rolando Sanchez, and Homer Guevara, Jr. authored new questions for the Test Item Files.

Michelle Sheran (University of North Carolina, Greensboro) and Carol Dole recorded the narrations that accompany the Big Picture, Snapshot, and Solutions videos in the eText. The engaging style and clarity of these outstanding teachers makes these videos a powerful learning tool. Fred Bounds (Georgia Perimeter College), Carol Dole, Trevor Collier (University of Dayton), and Paul Lande (Loyola University Maryland) provided outstanding reviews of the Study Plan and Assessment problems and helped us to make these exercises and their feedback messages as effective as possible.

The ideas from which *Foundations* grew began to form over dinner at the Andover Inn in Andover, Massachusetts, with Denise Clinton and Sylvia Mallory. We gratefully acknowledge Sylvia's role not only at the birth of this project but also in managing its initial development team. Denise has been an ongoing inspiration for 15 years, and we are privileged to have the benefit of her enormous experience.

The success of *Foundations* owes much to its outstanding Executive Acquisitions Editor, Adrienne D'Ambrosio. Adrienne's acute intelligence and sensitive understanding of the market have helped sharpen our vision of this text and package. Her value-added on this project is huge. It has been, and we hope it will for many future editions remain, a joy to work with her.

Sarah Dumouchelle, Editorial Project Manager, ensured that we were provided with outstanding and timely reviews and managed the photo research and our supplements. Elissa Senra-Sargent, Editorial Assistant, helped us in many ways, particularly in envisioning the new cover design.

Jonathan Boylan created the new impressive cover design and converted the raw ideas of our brainstorming into an outstandingly designed text.

Susan Schoenberg, Media Director, Denise Clinton, Media Publisher, Melissa Honig, Senior Media Producer, and Noel Lotz, Content Product Manager have set a new standard for online learning and teaching resources. Building on the pioneering work of Michelle Neil, Susan worked creatively to improve our technology systems. Noel managed reviews of the content. They have all been sources of high energy, good sense, and level-headed advice and quickly found creative solutions to all our technology problems.

Nancy Freihofer, our outstanding, ever calm, Senior Production Project Manager, worked with a talented team at Integra, Project Editor, Heather Johnson, and designer, art coordinator, and typesetter. Our copy editor, Catherine Baum, gave our work a thorough review and helpful polish, and our proofreader ensured the most error-free text we have yet produced.

Our Executive Marketing Manager, Lori DeShazo, has been a constant source of good judgment and sound advice on content and design issues, ranging over the entire package from text to print and electronic supplements.

Richard Parkin, our technical illustrator, created the figures in the text, the dynamic figures in the eText, the animated figures in the PowerPoint presentations, created the animations for and assembled the enhanced eText videos, and contributed many ideas to improving the clarity of our illustrations in all media.

Jeannie Gillmore, our long-standing personal assistant, worked closely with us to create exercises and guided solutions.

Don Davison of Galvaston College found an embarrassing error that has been present in the previous editions and that we are pleased to have been able to correct.

Sharmistha Nag, our new personal assistant, worked with us to create the Key Terms Quizzes for easy assignment.

Finally, our reviewers, whose names appear on the following pages, have made an enormous contribution to this text and its resources. Once again we find ourselves using superlatives, but they are called for. In the many texts that we've written, we've not seen reviewing of the quality that we enjoyed on this revision. It has been a pleasure (if at times a challenge) to respond constructively to their many excellent suggestions.

Robin Bade  
 Michael Parkin  
 London, Ontario, Canada  
 robin@econ100.com  
 michael.parkin@uwo.ca

Pearson gratefully acknowledges and thanks the following people for their work on the Global Edition:

#### *Contributors*

Charles Kwong Che Leung, The Open University of Hong Kong  
 Tajul Ariffin Masron, Universiti Sains Malaysia  
 Yuka Chan Ka Yu, The Open University of Hong Kong

#### *Reviewers*

Eddie Cheung Chi Leung, The Open University of Hong Kong  
 Erkan Ilgün, International Burch University, Sarajevo  
 Michael Cope, London School of Business & Finance  
 Sami Hartikainen, HAAGA-HELIA University of Applied Sciences

