

FUNDAMENTALS OF ECONOMICS

WILLIAM BOYES • MICHAEL MELVIN • 6E

This is an electronic version of the print textbook. Due to electronic rights restrictions, some third party content may be suppressed. Editorial review has deemed that any suppressed content does not materially affect the overall learning experience. The publisher reserves the right to remove content from this title at any time if subsequent rights restrictions require it. For valuable information on pricing, previous editions, changes to current editions, and alternate formats, please visit www.cengage.com/highered to search by ISBN#, author, title, or keyword for materials in your areas of interest.

SIXTH EDITION

FUNDAMENTALS OF ECONOMICS

WILLIAM BOYES

Arizona State University

MICHAEL MELVIN

Arizona State University and BlackRock



Fundamentals of Economics, Sixth Edition
William Boyes and Michael Melvin

Senior Vice President, LRS/Acquisitions & Solutions Planning: Jack W. Calhoun

Editorial Director, Business & Economics: Erin Joyner

Editor-in-Chief: Joe Sabatino

Senior Acquisition Editor: Steve Scoble

Developmental Editor: Elizabeth Lowry

Editorial Assistant: Elizabeth Beiting-Lipps

Senior Brand Manager: Robin LeFevre

Market Development Manager: John Carey

Marketing Coordinator: Ilyssa Harbatkin

Art and Cover Direction, Production Management, and Composition: PreMediaGlobal

Media Editor: Anita Verma

Rights Acquisition Director: Audrey Pettengill

Rights Acquisition Specialist, Text and Images: Deanna Ettinger

Manufacturing Planner: Kevin Kluck

Cover Image: ©iQoncept/Shutterstock

© 2014, 2012 South-Western, Cengage Learning

ALL RIGHTS RESERVED. No part of this work covered by the copyright herein may be reproduced, transmitted, stored, or used in any form or by any means graphic, electronic, or mechanical, including but not limited to photocopying, recording, scanning, digitizing, taping, web distribution, information networks, or information storage and retrieval systems, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without the prior written permission of the publisher.

For product information and technology assistance, contact us at
Cengage Learning Customer & Sales Support, 1-800-354-9706

For permission to use material from this text or product,
submit all requests online at **www.cengage.com/permissions**

Further permissions questions can be e-mailed to
permissionrequest@cengage.com

ExamView® is a registered trademark of eInstruction Corp. Windows is a registered trademark of the Microsoft Corporation used herein under license. Macintosh and Power Macintosh are registered trademarks of Apple Computer, Inc. used herein under license.

© 2008 Cengage Learning. All Rights Reserved.

Library of Congress Control Number: 2012952326

ISBN-13: 978-1-133-95610-5

ISBN-10: 1-133-95610-6

South-Western

5191 Natorp Boulevard

Mason, OH 45040

USA

Cengage Learning is a leading provider of customized learning solutions with office locations around the globe, including Singapore, the United Kingdom, Australia, Mexico, Brazil, and Japan. Locate your local office at:

www.cengage.com/global

Cengage Learning products are represented in Canada by Nelson Education, Ltd.

For your course and learning solutions, visit **www.cengage.com**

Purchase any of our products at your local college store or at our preferred online store **www.cengagebrain.com**

To Our Families

W.B. M.M.



BRIEF CONTENTS

PART 1 Markets 2

- 1 Economics and the World Around You 4
- 2 Markets and the Market Process 29
- 3 The Free Market 58

PART 2 Consumers, Firms, and Social Issues 78

- 4 The Firm and the Consumer 80
- 5 Costs and Profit Maximization 94
- 6 Competition 108
- 7 Business, Society, and the Government 130
- 8 Government Intervention 154

PART 3 The National and Global Economies 182

- 9 An Overview of the National and International Economies 184
- 10 Macroeconomic Measures 202
- 11 Unemployment, Inflation, and Business Cycles 226
- 12 Macroeconomic Equilibrium: Aggregate Demand and Supply 250
- 13 Fiscal Policy 275
- 14 Money and Banking 295

PART 4 Macroeconomic Policy 316

- 15 Monetary Policy 318
- 16 Macroeconomic Policy, Business Cycles, and Growth 347
- 17 Issues in International Trade and Finance 369
- 18 Globalization 392



CONTENTS

Preface xvii

PART 1 **MARKETS** **2**

Chapter 1 **Economics and the World Around You** **4**

- 1-1 Ownership 5
- 1-2 Economic Freedom 10
 - 1-2a Economic Freedom and Standards of Living 10
 - 1-2b Economic Freedom and Quality of Life 10
- 1-3 Scarcity and Opportunity Costs 12
 - Global Business Insight:** Opportunity Costs 12
 - 1-3a The Opportunity Cost of Going to School 13
 - 1-3b Resources and Income 13
- 1-4 Gains from Trade 15
 - 1-4a Benefits of Trade 15
 - 1-4b Specialization and Comparative Advantage 16
 - 1-4c Gains from Trade 16
- Summary 18
- Exercises 19
- Study Guide for Chapter 1 19

Appendix to Chapter 1 **Working with Graphs** **23**

- 1-1 Reading and Constructing Graphs 23
 - 1-1a Constructing a Graph from a Table 24
 - 1-1b Interpreting Points on a Graph 25
 - 1-1c Shifts of Curves 25
- Summary 27
- Exercises 27
- Global Business Insight:** "Free" Air? 27

Chapter 2	Markets and the Market Process	29
2-1	Allocation Mechanisms	32
	2-1a Efficiency	33
	2-1b Alternatives to Market Allocation	34
2-2	How Markets Function	35
2-3	Demand	36
	2-3a The Law of Demand	36
	2-3b The Demand Schedule	37
	2-3c The Demand Curve	37
	2-3d From Individual Demand Curves to a Market Curve	38
	2-3e Changes in Demand and Changes in Quantity Demanded	38
2-4	Supply	42
	2-4a The Law of Supply	43
	2-4b The Supply Schedule and Supply Curve	43
	2-4c From Individual Supply Curves to the Market Supply	43
	2-4d Changes in Supply and Changes in Quantity Supplied	44
2-5	Equilibrium: Putting Demand and Supply Together	48
	2-5a Determination of Equilibrium	48
	2-5b Changes in the Equilibrium Price: Demand Shifts	49
	2-5c Changes in the Equilibrium Price: Supply Shifts	50
	Summary	52
	Exercises	53
	Study Guide for Chapter 2	54

Chapter 3	The Free Market	58
3-1	The Unfettered Market	59
	3-1a The Market Process: Price and Quantity Adjustment	60
	3-1b The Unfettered Labor Market	62
	Global Economic Insight: Jobs Moving Offshore	63
3-2	Market Interventions	66
	3-2a Price Floor: Minimum Wage	68
	3-2b Price Ceilings: The Market for Rental Housing	70
	3-2c Quotas	71
	3-2d Bans: The Ban on Trans Fats	72
	Summary	74
	Exercises	74
	Study Guide for Chapter 3	75

PART 2 CONSUMERS, FIRMS, AND SOCIAL ISSUES 78

Chapter 4	The Firm and the Consumer	80
4-1	Revenue	81
	4-1a Total, Average, and Marginal Revenue	81
4-2	How Does a Firm Learn about Its Demand?	82
	4-2a Example: Demand for Auto Safety	83
	4-2b Example: Demand for Oranges	83
	4-2c Example: Location in Store Displays	83

- 4-3 Knowing the Customer 84
 - 4-3a The Price Elasticity of Demand 84
 - 4-3b Price Elasticity and Revenue 86
 - 4-3c Determinants of Price Elasticity 87
- Global Business Insight:** Price Adjusting Vending Machines 88
- 4-4 What's to Come? 89
 - Summary 89
 - Exercises 90
 - Study Guide for Chapter 4 90

Chapter 5 Costs and Profit Maximization 94

- 5-1 Costs 95
 - 5-1a Total, Average, and Marginal Costs 95
 - 5-1b The Long Run and the Short Run: Why Are the Short-Run Cost Curves U-Shaped? 96
- 5-2 Maximizing Profit 98
 - 5-2a Economic Profit 99
- 5-3 The Profit-Maximizing Rule: $MR = MC$ 100
 - 5-3a Graphical Derivation of the $MR = MC$ Rule 100
 - 5-3b What Have We Learned? 103
 - Summary 103
 - Exercises 104
 - Study Guide for Chapter 5 105

Chapter 6 Competition 108

- 6-1 Competition and Entry 109
 - 6-1a Commodities and Differentiation 110
 - Economic Insight:** The American Girls Phenomenon 111
 - 6-1b Monopoly 112
 - 6-1c Competition and the Shape of Demand Curves 112
- 6-2 Creating Barriers to Entry 115
 - 6-2a Brand Names 115
 - 6-2b Sunk Costs 115
 - 6-2c Unique Resources 116
 - 6-2d Firm Size and Economies of Scale 116
- 6-3 Number of Firms: Oligopoly 118
 - 6-3a Oligopoly and Competition 119
 - 6-3b The Dilemma: Game Theory 119
 - 6-3c Repeated Games 121
 - Economic Insight:** The Prisoners' Dilemma 121
 - 6-3d Cartel 122
 - 6-3e Facilitating Practices 123
 - Summary 124
 - Exercises 126
 - Study Guide for Chapter 6 127

Chapter 7 Business, Society, and the Government 130

- 7-1 The Benefits of Competition Reviewed 131
- 7-2 Government Involvement in the Market 133
 - 7-2a Disagreement with the Market Outcome 133
 - 7-2b Monopolization and Antitrust 134
- Economic Insight:** eBay and Online Markets 134
- Global Business Insight:** Dumping 135
 - 7-2c Economic Regulation 136
 - 7-2d Crises: Too Big To Fail 136
- 7-3 Market Failures 139
 - 7-3a Externalities 139
 - 7-3b Common Ownership 141
 - 7-3c Some Goods Don't Fit the Market: Public Goods 142
 - 7-3d What We Don't Know Can Hurt Us: Asymmetric Information 142
 - 7-3e Market Problems and the Government 144
- Summary 149
- Exercises 150
- Study Guide for Chapter 7 151

Chapter 8 Government Intervention 154

- 8-1 Arguments over the Beneficence of Markets 155
 - 8-1a What Is Wrong with Free Markets? 156
- 8-2 Health Economics 158
 - 8-2a Quality of Health Care 158
 - 8-2b The Right to Health Care 159
 - 8-2c Do the Laws of Economics Apply to Health Care? 160
 - 8-2d Health Insurance 162
 - 8-2e What Causes Health Care Costs to Rise? 163
 - 8-2f Reforming Health Care: Toward a Free Market or a Government System? 166
- 8-3 The Oil Spill 167
 - 8-3a The Market for Natural Resources 167
- 8-4 Illicit Drugs 170
 - 8-4a The Suppliers 170
 - 8-4b The War on Drugs 172
 - 8-4c The Free Market: Legalizing Drugs 174
- 8-5 Discrimination 175
 - 8-5a Can Discrimination Exist in a Free Market? 175
 - 8-5b Statistical Discrimination 175
- Economic Insight:** Discrimination and Poor Word-Processing Skills 176
- Summary 177
- Exercises 178
- Study Guide for Chapter 8 179

PART 3	THE NATIONAL AND GLOBAL ECONOMIES	182
Chapter 9	An Overview of the National and International Economies	184
9-1	Households	185
	9-1a Number of Households and Household Income	185
	9-1b Household Spending	185
9-2	Business Firms	186
	9-2a Forms of Business Organizations	186
	9-2b Business Statistics	187
	9-2c Firms Around the World	187
	9-2d Business Spending	187
9-3	The International Sector	188
	9-3a Types of Countries	188
	9-3b International Sector Spending	189
9-4	Overview of the U.S. Government	191
	9-4a Government Policy	191
	9-4b Government Spending	192
9-5	Linking the Sectors	195
	9-5a The Private Sector	195
	9-5b The Public Sector	195
	Summary	197
	Exercises	198
	Study Guide for Chapter 9	199
Chapter 10	Macroeconomic Measures	202
10-1	Measures of Output and Income	203
	10-1a Gross Domestic Product	203
	Economic Insight: The Value of Homemaker Services	203
	10-1b Other Measures of Output and Income	208
10-2	Nominal and Real Measures	210
	10-2a Nominal and Real GDP	210
	10-2b Price Indexes	212
10-3	Flows of Income and Expenditures	213
10-4	The Foreign Exchange Market	214
	10-4a Exchange Rates	214
	10-4b Exchange Rate Changes and International Trade	215
10-5	The Balance of Payments	216
	10-5a Balance of Payments Accounts	216
	10-5b The Current Account and the Financial Account	217
	Summary	219
	Exercises	220
	Study Guide for Chapter 10	221

Chapter 11	Unemployment, Inflation, and Business Cycles	226
11-1	Business Cycles	227
	11-1a Definitions	227
	11-1b Historical Record	228
	11-1c Indicators	229
11-2	Unemployment	231
	11-2a Definition and Measurement	231
	11-2b Interpreting the Unemployment Rate	231
	11-2c Types of Unemployment	232
	Economic Insight: The Underground Economy	232
	11-2d Costs of Unemployment	233
	11-2e The Record of Unemployment	235
11-3	Inflation	237
	11-3a Absolute Versus Relative Price Changes	238
	Global Business Insight: High Unemployment in Europe	238
	11-3b Effects of Inflation	239
11-4	Why Is Inflation a Problem?	239
	11-4a Types of Inflation	242
	11-4b The Inflationary Record	243
	Summary	245
	Exercises	246
	Study Guide for Chapter 11	246
Chapter 12	Macroeconomic Equilibrium: Aggregate Demand and Supply	250
12-1	Aggregate Demand, Aggregate Supply, and Business Cycles	251
	12-1a Aggregate Demand and Business Cycles	251
	12-1b Aggregate Supply and Business Cycles	252
	12-1c A Look Ahead	253
12-2	Factors that Influence Aggregate Demand	253
	12-2a Consumption	253
	12-2b Investment	254
	12-2c Government Spending	254
	12-2d Net Exports	254
	12-2e Aggregate Expenditures	255
12-3	The Aggregate Demand Curve	255
	12-3a Changes in Aggregate Quantity Demanded: Price-Level Effects	256
	12-3b Changes in Aggregate Demand: Nonprice Determinants	260
12-4	Aggregate Supply	262
	12-4a Changes in Aggregate Quantity Supplied: Price-Level Effects	262
	12-4b Short-Run Versus Long-Run Aggregate Supply	263
	12-4c Changes in Aggregate Supply: Nonprice Determinants	265
	Global Business Insight: OPEC and Aggregate Supply	267
12-5	Aggregate Demand and Supply Equilibrium	269
	12-5a Short-Run Equilibrium	269
	12-5b Long-Run Equilibrium	269
	Summary	270
	Exercises	271
	Study Guide for Chapter 12	272

Chapter 13 Fiscal Policy 275

- 13-1 Fiscal Policy and Aggregate Demand 276
 - 13-1a Shifting the Aggregate Demand Curve 276
 - 13-1b Multiplier Effects 276
 - 13-1c Government Spending Financed by Tax Increases 278
 - 13-1d Government Spending Financed by Borrowing 279
 - 13-1e Crowding Out 279
 - 13-2 Fiscal Policy in the United States 280
 - 13-2a The Budget Process 280
 - 13-2b The Historical Record 281

Economic Insight: The Taxpayer's Federal Government Credit Card Statement 283

 - 13-2c Deficits and the National Debt 284
 - 13-2d Automatic Stabilizers 287
 - 13-3 Fiscal Policy in Different Countries 288
 - 13-3a Government Spending 288

Global Business Insight: Value-Added Tax 289

 - 13-3b Taxation 290
- Summary 291
 Exercises 291
 Study Guide for Chapter 13 292

Chapter 14 Money and Banking 295

- 14-1 What Is Money? 296
 - 14-1a Functions of Money 296
 - 14-1b The U.S. Money Supply 298
 - 14-1c Global Money 300
 - 14-2 Banking 302
 - 14-2a Financial Intermediaries 302
 - 14-2b U.S. Banking 302

Global Business Insight: Islamic Banking 304

 - 14-2c International Banking 306
 - 14-2d Informal Financial Markets in Developing Countries 307
 - 14-3 Banks and the Money Supply 308
 - 14-3a Deposits and Loans 308
 - 14-3b Deposit Expansion Multiplier 310
- Summary 312
 Exercises 313
 Study Guide for Chapter 14 313

PART 4 MACROECONOMIC POLICY 316**Chapter 15 Monetary Policy 318**

- 15-1 The Federal Reserve System 319
 - 15-1a Structure of the Fed 319
 - 15-1b Functions of the Fed 320

Economic Insight: Women in Economics 321
- 15-2 Implementing Monetary Policy 322
 - 15-2a Policy Goals 322

	Economic Insight: What's on a 20-Dollar Bill?	323
	15-2b Operating Procedures	325
	15-2c Foreign Exchange Market Intervention	332
15-3	Monetary Policy and Equilibrium Income	334
	15-3a Money Demand	334
	15-3b Money and Equilibrium Income	338
15-4	The European Central Bank	340
	15-4a The Need for a European Central Bank	340
	15-4b The Structure of the ECB	341
	15-4c ECB Policy	341
	Summary	342
	Exercises	342
	Study Guide for Chapter 15	343
Chapter 16	Macroeconomic Policy, Business Cycles, and Growth	347
16-1	The Phillips Curve	348
	16-1a An Inflation–Unemployment Trade-off?	348
	16-1b Short-Run Versus Long-Run Trade-offs	349
16-2	The Role of Expectations	352
	16-2a Expected Versus Unexpected Inflation	352
	16-2b Forming Expectations	355
	Global Business Insight: Why Wages Don't Fall in Recessions	356
16-3	Sources of Business Cycles	357
	16-3a The Political Business Cycle	357
	16-3b Real Business Cycles	357
16-4	The Link Between Monetary and Fiscal Policies	359
16-5	Economic Growth	361
	16-5a The Determinants of Growth	361
	16-5b Productivity	363
	Summary	365
	Exercises	366
	Study Guide for Chapter 16	366
Chapter 17	Issues in International Trade and Finance	369
17-1	An Overview of World Trade	370
	17-1a Comparative Advantage	370
	17-1b Sources of Comparative Advantage	371
17-2	International Trade Restrictions	375
	17-2a Arguments for Protection	375
	17-2b Tools of Policy	378
	Economic Insight: Smoot-Hawley Tariff	379
17-3	Exchange Rate Systems and Practices	383
	Global Business Insight: The IMF and the World Bank	387
	Summary	388
	Exercises	388
	Study Guide for Chapter 17	389

Chapter 18 Globalization 392

- 18-1 The Meaning of Globalization 393
 - 18-1a Globalization Is Neither New nor Widespread 393
 - 18-1b The Role of Technological Change 394
 - 18-1c Measuring Globalization 394
 - 18-2 Globalization Controversy 397
 - 18-2a Arguments Against Globalization 397
 - 18-2b Arguments in Favor of Globalization 398

Global Business Insight: The World Trade Organization 398
 - 18-3 Globalization, Economic Growth, and Incomes 401
 - 18-4 Financial Crises and Globalization 403
 - 18-4a Crises of the 1990s 403
 - 18-4b Exchange Rates and Financial Crises 404
 - 18-4c What Caused the Crises? 406
- Summary 407
- Exercises 408
- Study Guide for Chapter 18 409
- Answers for Now You Try It 413**
- Answers for Study Guide Exercises 417**
- Glossary 429**
- Index 433**



PREFACE

As the title of the first chapter in this text makes clear, economics can be found all around you—in your everyday life, in the decisions you make, and in the news. We invite you to join us as we explore the economic landscape—the concepts and issues that confront us on a daily basis. We will consider important questions such as the following:

- Why are some nations rich while others are dirt poor? (Chapter 1)
- Is competition good for you or should you be protected from it?
- Is income inequality a serious issue? Why do people earn different incomes, and why do different jobs pay different wages? (Chapter 3)
- Should firms seek profits? (Chapter 4)
- What are the benefits of competition? Is a free market system beneficial or costly for society? (Chapter 6)
- Why does the government intervene in the affairs of business? Is such intervention necessary for an economy to function? (Chapter 7)
- Can a free market provide health care or must the government run the health care system? Should illicit drugs be legalized? How does a free market function in the face of discrimination? (Chapter 8)
- How is money traded internationally? (Chapter 10)
- What is a business cycle? (Chapter 11)
- How do banks create money? (Chapter 14)
- What is the Federal Reserve? (Chapter 15)
- Are business cycles related to political elections? (Chapter 16)
- Why do countries restrict international trade? (Chapter 17)
- What is globalization? (Chapter 18)

To help you understand these and other issues, we've tried to boil down economics to its fundamentals—the core concepts. Rather than focusing on formal economic theories, we have chosen to emphasize relevant applications and policy issues.

OUR GOALS IN WRITING THE TEXT

This book is intended for a one-term course in economics, a course that covers the fundamentals of micro- and macroeconomics. The text was written with several objectives in mind. First, one of our goals is to demonstrate the value of

economic analysis in explaining daily events. We also want to show how economic analysis can help us understand why individuals, business firms, and even governments behave as they do. To accomplish this, we relate each concept to the individual. For example, we show what *government intervention in free markets* means to you and how money supply affects your paycheck. We believe that the use of real-world examples as illustrations of economic concepts is a more effective approach to learning than the use of hypothetical products, firms, and people as examples.

Second, we want to present the world as a global economic environment and to present the tools you need in order to understand and live in this environment. Whereas other texts ignore or isolate international coverage, we fully integrate a global perspective within our discussion of the traditional fundamentals of economics. Topics such as rich and poor nations, the creation of the European Central Bank, the change in the value of the dollar, issues of the European Union, and the effect of an exchange rate on firms, prices, and employees are all discussed within the context of economic analysis.

A third, overarching goal is to engage students with concepts that are currently meaningful. We want our readers to learn the fundamentals and to develop an economic way of thinking about issues that confront them. We strive to present only the essential topics rather than force readers to delve into abstract topics and become lost in the forest and lose sight of the “trees.”

A Focus on Fundamental Questions

Earlier, we introduced some of the important questions considered in the text. These questions, referred to as fundamental questions, provide the organizing framework for the text and its accompanying ancillary package. *Fundamental Questions*, in fact, open and organize each chapter, highlighting the critical issues. Students should preview the chapters with these questions in mind, reading actively for understanding and retention. Each related fundamental question also appears in the margin next to the text discussion and, with brief answers, in the chapter summaries. Finally, fundamental questions are used as the integrating framework for the text and the entire ancillary package. For example, brief paragraph answers to each of the questions are found on the student website.

An Integration of International Issues

As previously noted, the text incorporates a global perspective. In addition to two international chapters—Chapter 17, “Issues in International Trade and Finance,” and Chapter 18, “Globalization”—every chapter incorporates global examples to provide a more realistic picture of the economy. Topics include the following:

- Gains from trade (Chapter 1)
- Quotas and bans (Chapter 3)
- Comparative analysis of fiscal policies in different countries (Chapter 13)
- “Global money” and international reserve currencies, including a section on informal financial markets and a *Global Business Insight* box on Islamic banking (Chapter 14)
- Foreign exchange market intervention as part of central bank policy (Chapter 15)
- Business cycles and economic growth issues as important macroeconomic policy issues (Chapter 16)

A Real-World Framework

We have developed a real-world framework that shows how markets work, focusing on competition and the behavior of firms. Instead of becoming bogged down in a theoretical discussion of each market structure model, students learn how businesses behave, compete, create profit, and attempt to sustain profits over time. They learn what business competition means and how it affects their daily lives.

To further connect the text to the real world, we incorporate *Economic Insight* and *Global Business Insight* boxes, which focus on the policies of today's leaders and the business decisions of real companies and governments from around the world. The goal is to help students think critically about news stories and to respond to them with greater insight. Some examples are as follows:

- *Economic Insight*: eBay and Online Markets (Chapter 7)
- *Economic Insight*: Discrimination and Poor Word-Processing Skills (Chapter 8)
- *Economic Insight*: Jobs Moving Offshore (Chapter 3)
- *Economic Insight*: The Value of Homemaker Services (Chapter 10)
- *Global Business Insight*: “Free” Air? (Chapter 1)
- *Global Business Insight*: Price Adjusting Vending Machines (Chapter 4)
- *Global Business Insight*: The IMF and the World Bank (Chapter 17)

CHANGES TO THE SIXTH EDITION

Our objective of making the subject of economics interesting and useful requires constant update of applications and consideration of relevant issues. All data and examples have been updated. Major content has not been changed although all applications and illustrations have been updated. The fifth edition involved major structural changes. In this, the sixth edition, changes deal more with updates and applications than with structural changes.

A COMPLETE TEACHING AND LEARNING SYSTEM

Proven Pedagogical Features

Reviewers and adopters of previous editions have commented very favorably on the learning aids within each chapter. All of these features aim to make learning easier by providing a consistent set of signposts to guide readers along the way.

In-text Referencing System Sections are numbered for easy reference and to reinforce hierarchies of ideas. The numbering system serves as an outline of the chapter, allowing instructors flexibility in assigning reading and making review easy for students.

Fundamental Questions As described earlier, the *Fundamental Questions* provide an organizing framework for the text and ancillary package. They have been carefully reviewed and, in some cases, revised for this edition in order to reflect the essential points for each chapter.

Recaps Briefly listing the main points covered, a *Recap* appears at the end of each major section. Students are able to quickly review what they have just read before going on to the next section.

Now You Try It First introduced in the second edition to help students master some of the analytical techniques introduced in the text, this feature was expanded in the third edition. Now even more of these checkpoint questions provide an opportunity for students to practice a technique when it is first introduced. Answers are provided at the end of the book so that students can immediately check their work and go back to the relevant text discussion if necessary.

Summary The summary at the end of each chapter is organized according to the list of *Fundamental Questions*. It includes a brief synopsis of the discussion, which helps students answer those questions.

End-of-Chapter Exercises A full set of exercises at the end of each chapter provides the student with many additional opportunities for practice—and homework. Answers to these exercises are provided in the *Instructor’s Resource Manual* on the instructor website.

Study Guide A study guide is also provided to help test students’ chapter knowledge. The answers to the study guide can be found at the back of the book.

A Pedagogically Sound Art Program

Economics can be intimidating, which is why we’ve incorporated a number of pedagogical devices to help students read and interpret graphs. Annotations on figures point out areas of particular concern or importance. For example, students can see at a glance what parts of the graph illustrate a shortage or a surplus, a change in consumption, or consumer surplus.

A Well-Integrated Ancillary Package

One goal for this revision was to make it easier for students to practice and apply the new information they are learning. Thus, they can review as they read a chapter, review again at the end of a chapter, and go to the student website for additional practice and review questions. Our instructor’s materials support this student-centered approach. To foster the development of consistent teaching strategies well integrated with the text, the instructor supplements follow the same pedagogical format as the text, incorporating the *Fundamental Questions* throughout. The instructor supplements are available on instructor’s website, located at www.cengagebrain.com.

- **Instructor’s Resource Manual** follows the *Fundamental Questions* framework. Each chapter contains a Lecture Outline and Teaching Strategies, Opportunities for Discussion, Answers to End-of-Chapter Exercises, and Internet Exercises. Each chapter also includes an Active-Learning Exercise that instructors can assign as homework or conduct in class.
- **Test Bank**, available in Word format, allows instructors to generate and edit tests easily. The test bank includes over 1,800 questions with a mix of difficulty levels and types—multiple choice, true/false, and essay. All the questions are also referenced according to the in-text numbering system, so instructors can conveniently test down to the paragraph level.
- **PowerPoint Slides** are available in both Lecture and Exhibit formats. Lecture slides contain key lecture points and exhibits from the text. Exhibit slides contain just the exhibits from the text. Instructors can use these PPT offerings as is, or they can edit, delete, and add to them to suit specific class needs.
- **Student Companion Site** provides an extended learning environment for students where materials are carefully developed to complement and supplement each chapter. Students will find numerous opportunities to test their mastery of chapter content—including electronic flashcards, key term crossword puzzles, videos, practice quizzes, and Internet Exercises that are linked to the text. Many of these exercises link students to real data, examples, and resources such as the Federal Trade Commission (Chapter 7), CAFE regulations (Chapter 8), and the Consumer Price Index (Chapter 10).

To access additional course materials, including CourseMate, please visit www.cengagebrain.com. At the CengageBrain.com home page, search for the ISBN of your title (from the back cover of your book) using the search box at the top of the page. This will take you to the product page where these resources can be found.

ACKNOWLEDGMENTS

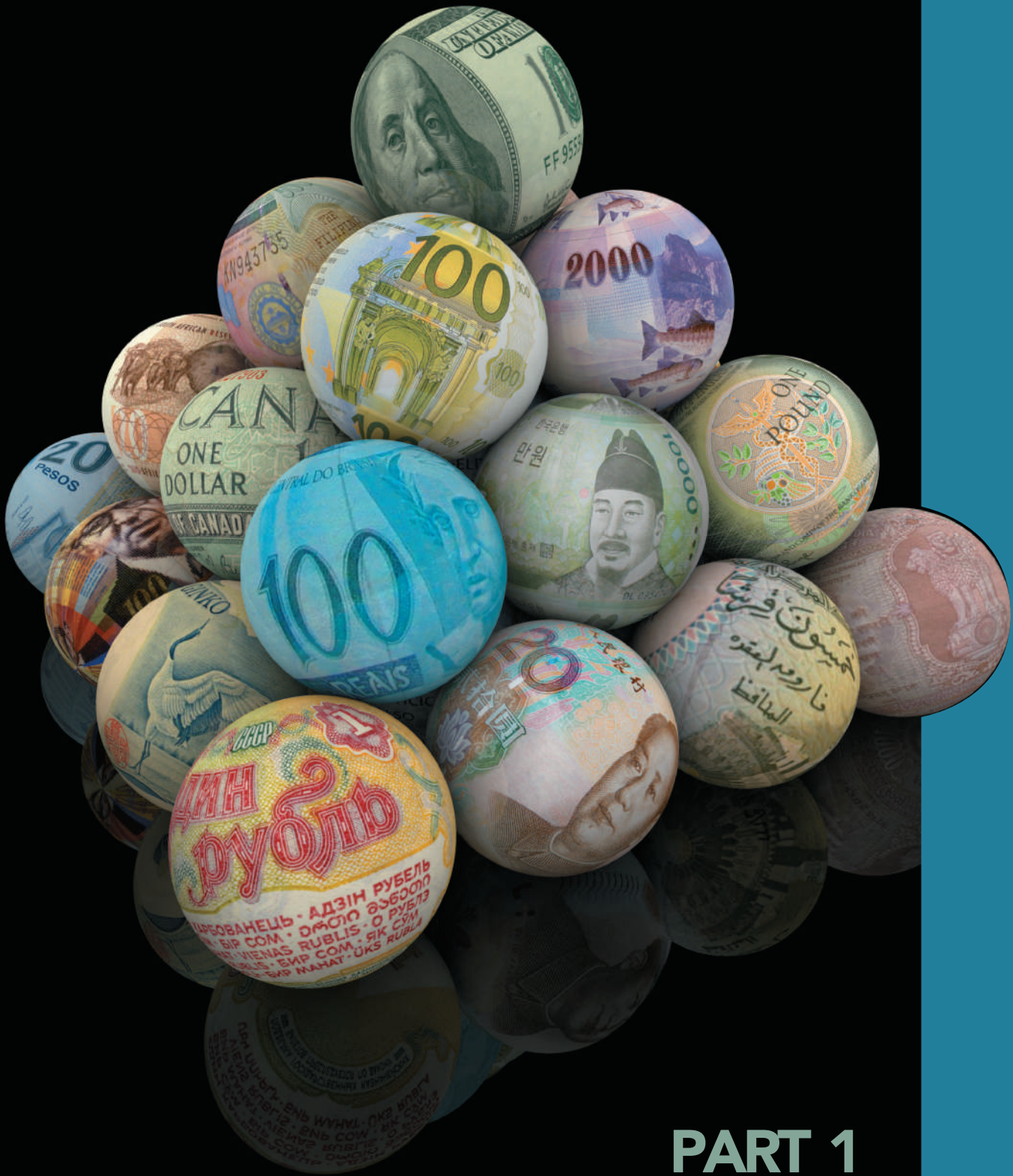
We are grateful to our friends and colleagues who have so generously given their time, creativity, and insight to help us create and revise this text. In particular, we would like to thank the following people:

Richard Agesa, Marshall University
 Philip Baca, New Mexico Military Institute
 Diana Bajrami, College of Alameda
 Erol Balkan, Hamilton College
 Lloyd Beckles, Seminole State College
 Charles A. Bennett, Gannon University
 R.A. Blewett, St. Lawrence University
 John Bockino, Suffolk County Community College
 Catherine Broussard, University of Louisiana at Lafayette
 Jeff W. Bruns, Bacone College
 Giuliana Campanelli Andreopoulos, William Paterson University
 Stephanie Campbell, Mineral Area College
 Catherine Carey, Western Kentucky University
 Carola Conces, University of California, Berkeley
 Cynthia Conrad, University of Hartford
 Simeon J. Crowther, California State University, Long Beach
 Eugene Elander, Plymouth State University
 Davis Folsom, University of South Carolina, Beaufort
 Paul R. Gowens, Texas State University
 Cole Gustafson, North Dakota State University
 Arthur J. Janssen, Emporia State University
 Vince Marra, University of Delaware
 Wade E. Martin, Colorado School of Mines
 Constantin Ogloblin, Georgia Southern University
 Roger Riefler, University of Nebraska
 Michael Rogers, Albany State University
 Barbara Ross, Kapi'olani Community College
 Lynda Rush, Cal Poly Pomona
 Denise L. Stanley, University of Tennessee
 Chin-Chyuan Tai, Averett University
 Eleanor von Ende, Texas Tech University

We would also like to thank Erik D. Craft from the University of Richmond for his critical eye and detailed feedback during the book's production and Andrea Worrell of ITT Education Services, Inc., for inspiring us to write the text with students like hers in mind.

Finally, we would like to thank Cengage for its excellent work on this edition—specifically, Elizabeth Lowry, Steve Scoble, and Divya Divakaran.

FUNDAMENTALS OF ECONOMICS



PART 1

Markets

CHAPTER 1

Economics and the World Around You

- 1-1 Why are some countries rich while others are dirt poor?
 - 1-2 What are private property rights?
 - 1-3 What is economic freedom?
 - 1-4 What are opportunity costs?
 - 1-5 What are the gains from trade?
- Appendix Working with Graphs

CHAPTER 2

Markets and the Market Process

- 2-1 How are goods and services allocated?
- 2-2 How does the market process work?
- 2-3 What is demand?
- 2-4 What is supply?

2-5 How is price determined by demand and supply?

2-6 What causes price to change?

CHAPTER 3

The Free Market

3-1 What is the outcome of free markets?

3-2 In a free market system, who determines what is produced?

3-3 Why do different people earn different incomes, and why do different jobs pay different wages?

3-4 When the government intervenes in the market by setting a price floor or price ceiling, what is the result?

3-5 When the government intervenes in the market with a quota, what is the result?



1

Economics and the World Around You

FUNDAMENTAL QUESTIONS

1

Why are some countries rich while others are dirt poor?

2

What are private property rights?

3

What is economic freedom?

4

What are opportunity costs?

5

What are the gains from trade?

1

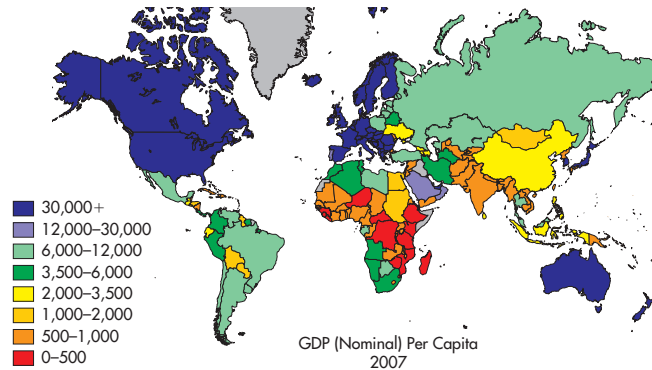
Why are some countries rich while others are dirt poor?

PREVIEW

One of the first questions ever considered in the study of economies was why the wealth of nations varies so much. Adam Smith, a Scottish moral philosopher, attempted to describe in his 1776 book *The Wealth of Nations* the conditions that enable a country to become wealthy. Since Smith's time, the topic has not diminished in importance. It is quite amazing to look around the world today and see the huge differences in wealth from one nation to another. A map showing gross domestic product per person (GDP; GDP is the total value of income created in a nation in a year's time) is presented in Figure 1.1. The dark blue countries are the richest, with a per capita GDP exceeding \$30,000, followed by lighter blue, turquoise, and so on up to red, the poorest nations, with a per capita GDP ranging from zero to \$500.

A person in Malawi may have less than \$1 a day to live on, while the average person in the United States has more than \$40,000 per year. In 1800 it would have been hard to know whether you were living in Latin America, North America, or Europe; standards of living were not very different. By 1900, a differential between wealthy and poor nations was being created and today the differences are huge. According to the United Nations' Food and Agriculture Organization, there are over 800 million people in the world who don't get enough to eat. Thirty percent of children in Malawi are malnourished, and more than two of every ten will die before their fifth birthday.

The United States is rich. Even those in poverty in the United States are in the top 7 percent of all people in the world in terms of wealth. Why haven't all nations progressed like the United States has? Canada is also wealthy, sharing a 2,000-mile border with the United States. Yet, Mexico also shares a 2,000-mile border with the United States, and its standard of living is less than half of the United States'. How can this be? Let's begin our study of economics discussing possible answers to these questions.

FIGURE 1.1 Wealth of Nations

Source: <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD/countries?display=map>; February 9, 2012.

1. OWNERSHIP

In 1981, about 1,800 families took over a piece of wasteland in San Francisco Solano in the Province of Buenos Aires, Argentina.¹ The occupants were landless citizens organized by a Catholic chapel. The Church and squatters believed the land belonged to the state, so they figured they could simply plop themselves down and enjoy the land. Once situated, the squatters had to resist several attempts of eviction; but eventually, the military government lost track of them.

When the military government was replaced by a democracy, the squatters brought the issue of ownership to the attention of the government, requesting that they be given the land. It was discovered that the land was not state property; the area was composed of different tracts of land, each with a different legal owner. So the Congress of the Province of Buenos Aires ordered the transfer of the land from the original owners to the state in exchange for a monetary compensation. About 60 percent of the land was sold to the government, and these parcels were deeded to the squatters; legal titles secured the property of the parcels. The other original owners refused to give up the land, arguing that the compensation was too low. They contested the government compensation in the Argentine courts, a contest that continued for more than 20 years.

As a result, there are two divisions of land in the occupied region, as illustrated in Figure 1.2: Some of the squatters obtained formal land rights, while others are living in the occupied parcels without paying rent but without legal titles. Although the groups shared the same household characteristics before the ownership and although they lived next to each other for 20 years, the outcome of their ownership arrangements has been dramatically different. Those with title invested in their properties, while those without title did not. The result is that there is a significant difference in the quality of housing on the untitled and titled properties. The titled properties have been upgraded, expanded, and improved. The untitled properties remain run down, deteriorated, crumbling shanties. Not only is the housing different, but those with title behaved differently than those without title: They had fewer children, and the children acquired more education and had better health.

¹The complete story and some empirical examinations are presented in Sebastian Galiani and Ernesto Scharfrodsky, "Property Rights for the Poor: Effects of Land Titling," Coase Institute Working Paper, August 9, 2005.

FIGURE 1.2 Illustration of the Squatter Results in Argentina

Those on the right were given title to the property. Those on the left had no title.



Glow Images, Inc./getty images



Florian Kopp/imagebroker/age fotostock

NOW YOU TRY IT

Explain why those families who acquired title to property behaved differently than those families who had no title.

Explain why the houses are of different quality. Explain why those with title had fewer children and more of those children acquired an education.

In 1978 in Xiaogang, Anhui province—the heart of China’s rice-growing region—20 families held a secret meeting to find ways to combat starvation. The system that the Communists had in place all over China was leading to a breakdown in food production. Everybody was collectively responsible for tilling the land, and everybody had a share in the land’s output. You got your rice share whether you worked hard or not and, as a result, people hardly worked.

The villagers of Xiaogang decided they would divide up the land and farm it individually with each person keeping the output of his own land. They had to keep this arrangement secret out of fear of the Communist authorities. But as rice production in Xiaogang continued to rise, the secret became known. Neighboring villages discovered the secret and implemented their own arrangements. It was not long until the Communist authorities found out. In 1982 the Communist Party decided to allow some individual farming.²

The colonies first established in North America—Jamestown and the Virginia colony in 1607 and 1609 respectively—failed miserably. In each case, within a year at least half of the settlers had starved to death. The colonies were established by profit-seeking entities, and the settlers were indentured servants recruited on the streets of London from the homeless and unemployed. The settlers had no financial stake in the outcome of the colony. Working harder or longer was of no benefit to them; having been given free passage to the new world, these settlers were supposed to compensate the Virginia Company through their labor. The investors wanted everything produced to go to a company store and then sent back to England.

When representatives of the government and investors arrived in the colonies to find out why there were problems, it quickly became evident what the basic issue was. People were not working. Why should they? The produce they raised would not keep them alive; instead it had to go to the company store and be shipped back to England. As a result, settlers did not devote their efforts to planting and producing. Once it was realized what the problem was, the solution seemed simple; each settler was given title to a few acres of land, and only a small payment was required from them to provide returns to investors. The colonies prospered from that point on.

These anecdotes suggest that a primary reason that some nations are rich and others poor is private ownership. It is pretty clear that systems without private ownership don’t fare as well as those with such ownership. Look at Figure 1.3 wherein several countries are listed along with their per capita incomes in 1850,

2

What are private property rights?

²William Easterly, *The White Man’s Burden*, p. 108. New York: Penguin Press, 2006.

1900, 1950, and 2000. You can see looking at the red bars, that the incomes do not differ all that much in 1850. But in 2000 (the cross-hatched bars), the differences are staggering. Countries such as India, China, Albania, Hungary, and Poland, where very little private ownership was allowed, did not fare as well as countries where private ownership was allowed. You might note that Hong Kong, which was nothing but a rock without natural resources other than a port, was able to make itself one of the wealthiest “countries” in the world because it was allowed private ownership. (If you have difficulty reading and interpreting charts, you might find the Appendix to Chapter 1 of value.)

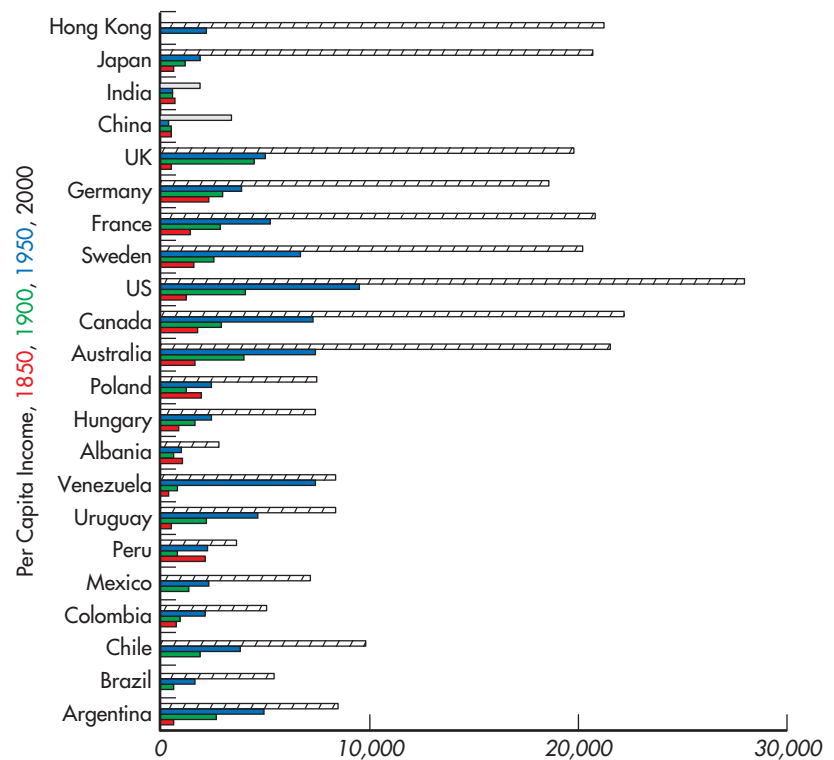
In the wealthy nations, when you own something, that something is yours to do with as you want—at least as long as you do not harm others. This seems like such a simple idea. Think about renting a house or renting a car. You don’t take care of it in the same way you do when you own the house or own the car. You have no incentive, other than avoiding a fee for damages, because if you spend the time, effort, and money to maintain the house or car or improve it, you get nothing in return. When you own it, you can expect to get something back on any improvements you make.

private property rights:

ownership; the right to do anything you want with what you own as long as it does not harm the property of others

This situation is known as **private property rights**. Private property rights mean that people can own things, and they can do what they want pretty much with what they own. Others can neither steal private property nor damage it. In the richest nations, private property rights exist and are enforced. People or governments cannot take your property without just compensation. In the poor nations, either there are no private property rights or what private property rights that do arise are not enforced by government. People can steal or take property and assault you without penalty. Corruption and bribes are necessary to carry out trades or to otherwise use so-called private property.

FIGURE 1.3 Per Capita Income in Several Nations

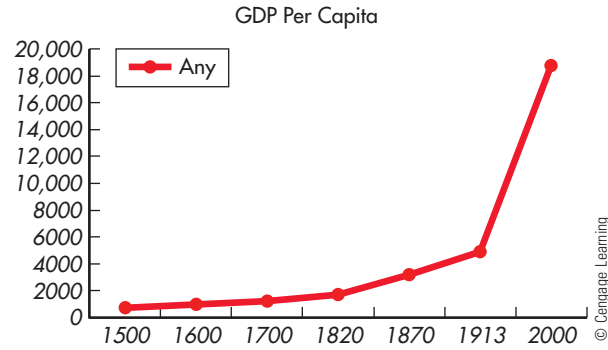


Note: Red is 1850, green 1900, blue 1950, and cross-hatched 2000.

Source: Data come from A. Maddison, *The World Economy: Historical Statistics*, OECD, 2003.

FIGURE 1.4 Per Capita GDP in the United Kingdom

From the beginning of humanity, living standards were barely subsistence at best. This did not improve until the tail end of the 18th century.



When private property rights are not secure, people are unlikely to be able to sell the things they own or to use them for collateral on a loan or pass them along to family. And they have much less incentive to improve the property because they are not assured of a return on any investments they make.

Until 1800, life was brutal and very short. Expected lifetime was only about 35 in most nations. But something occurred around the turn of the 19th century that led to rapid rises in standards of living in Western nations. Notice in Figure 1.4 how the GDP per capita in the United Kingdom, the world's richest nation at that time, does not begin rising until 1800. What occurred to create the rising standards of living? That is one of the most important questions we ask in economics. And the answer has to do with the private property rights. It was the Industrial Revolution. It is a long story, but the short version of it is that beginning in the 1700s, entrepreneurs finally were secure in knowing that what they invented or created would benefit them, and that they would be able to retain profits and property. This system of private property rights laid the foundation for the Industrial Revolution.

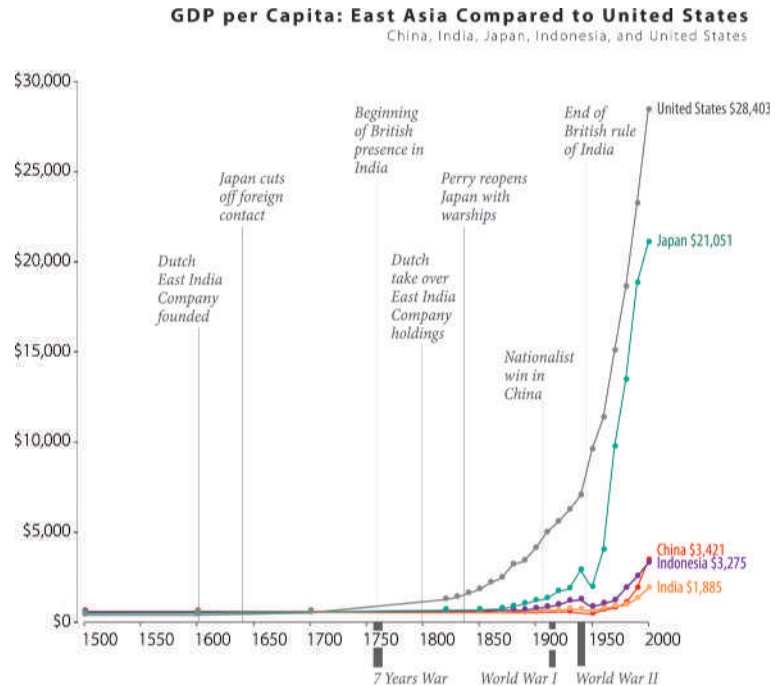
Until just recently in China, everything was owned by government; in Pakistan, no one could be sure that whatever they claimed as theirs would remain theirs; in much of Latin America, the security of private property has not been established over lengthy periods of time. Several times the Mexican government has confiscated private property. Similarly, in other Latin American nations, private property has not been allowed or enforced. For instance, currently the governments of Venezuela and Bolivia have been confiscating what was private property, and their economies are stumbling and heading for serious trouble.

When private property rights are not universal among citizens, or when enforcement is not constant and effective, a nation will not prosper. An abundance of a natural resource such as oil may distort this fact for a while, but the abundance cannot carry over to all citizens unless private property exists. In most oil-producing nations, the oil is owned by government and only a very few benefit from the resource. But when private property rights prevail, nations prosper even without abundant resources. Hong Kong had nothing, no natural resources except a harbor, and it emerged into one of the wealthiest countries in the world in just a few decades. (Hong Kong is not actually a country as it was never independent—part of the British Empire and then China.) The wealthiest nations have a system of private property rights where people can own property and be secure in their ownership. The poorest nations do not.

Look at Figure 1.5, where GDP per capita of the United States and a few Asian nations over time is presented. You can see that China and India did not begin to progress until they began allowing private ownership—about 1990 or so. While China still allows only limited private property, those parts of the economy that have been freed have done very well. In India, private ownership is not only

FIGURE 1.5 Per Capita GDP in the United States, China, India, Japan, and Indonesia

Japan began growing after the United States established a system of private property rights following World War II. China, Indonesia, and India had followed the Soviet Union in adopting communism and government-run economies. When the Soviet Union collapsed in 1989, these countries began moving toward free markets and private property rights.



Source: Catherine Mulbrandon, VisualizingEconomics.com.

allowed, but is encouraged. As a result of India's and China's progress, a billion people have risen from dire poverty where life expectancy was less than 35 years to where they are living a decent life, and life expectancy exceeds 72 years.

Private property may seem like something just for the rich, but it is crucial for the poor. If people have no title to property, they cannot rent it to others, subdivide it, sell it, use it for collateral, or pass it on to family. The farmers in Xiaogang who agreed to divide up the land for cultivation could not sell their land or even pass it along to family. Nevertheless, the amount of rice raised on the so-called private plots was significantly greater than when everything was communal, but it could have been so much more had the farmers owned the property.

Private property rights matter. They matter because they create incentives that enable people to improve their standards of living. When you own something, you have the incentive to take care of it, that is, you have the incentive to increase its value and to invest in it. If farmers can raise corn and that corn is theirs, they can take the corn to market and sell it. They will invest in ways to provide better quality and ensure that they have seeds remaining to grow more corn next year. Similarly, when we offer to work, we are taking our own labor, something we own, and exchanging it for pay. The higher the quality of our work, the more valuable we are to our employers and the more we will be paid.

When no one owns something, no one has an incentive to take care of it. Forced to work in shipbuilding factories in Gdansk, Poland, during the communist regime, workers would show up and then loaf. They had no incentives to be productive as they received the same pay no matter what they did. When you own your own labor or property, you have the incentive to make it as valuable as possible because then you can trade for other things you want. When no one owns something, problems arise; for instance, no one owns the fish in the oceans, so no one takes care of them. Overfishing, and in some cases, extinction of species result. The study of economics involves ownership and the problems that arise when there is no ownership or when ownership is common rather than private.