



MICROECONOMICS

William Boyes & Michael Melvin • 10th Ed.

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(Chapter 7)

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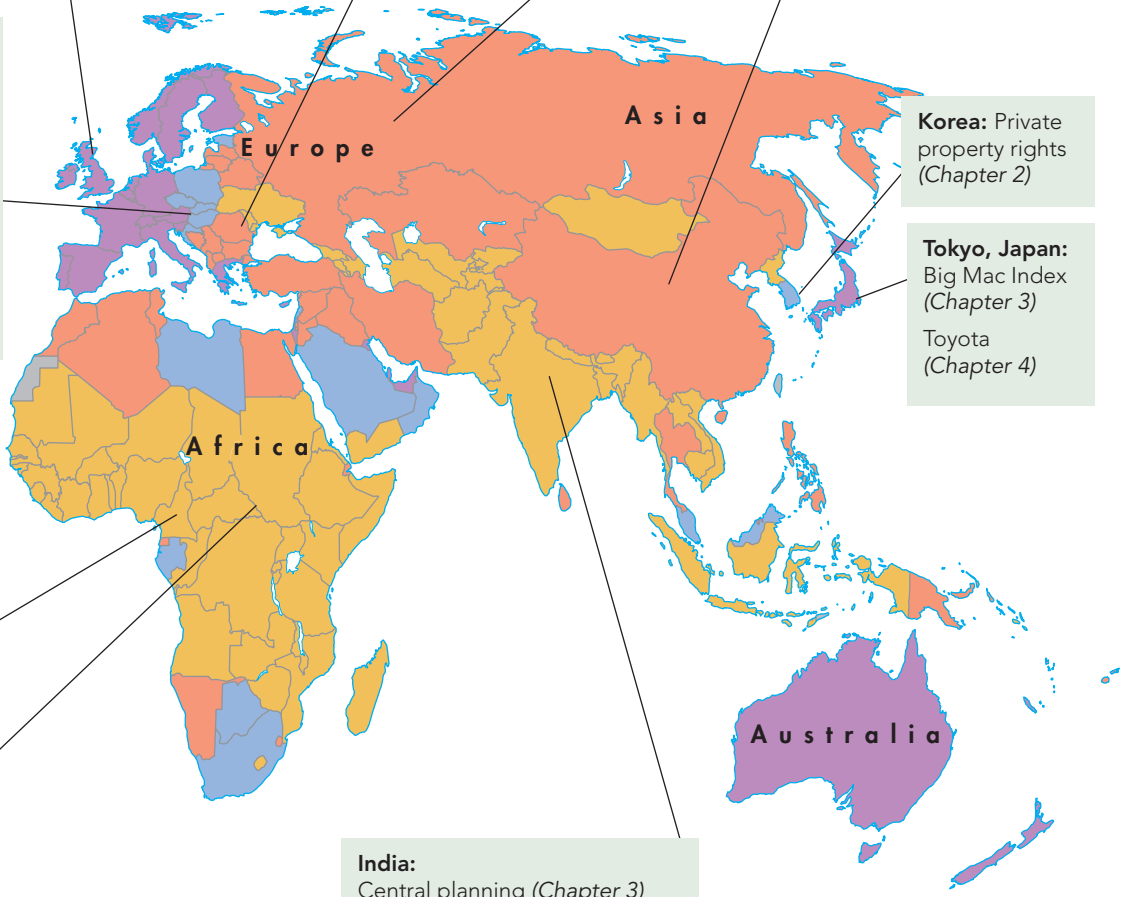
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MICROECONOMICS

TENTH EDITION



MICROECONOMICS

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To Melissa, Katie, and Lindsey –W. B.
To Bettina, Jason, Jeremy, Anna, and Sonia –M. M.

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2. Scarcity and Opportunity Costs	2. Scarcity and Opportunity Costs	2. Scarcity and Opportunity Costs
3. Markets and the Price System	3. Markets and the Price System	3. Markets and the Price System
4. The Aggregate Economy	20. Elasticity: Demand and Supply	4. The Aggregate Economy
5. National Income Accounting	21. Demand: Consumer Choice	5. National Income Accounting
6. An Introduction to the Foreign Exchange Market and the Balance of Payments	22. Supply: The Costs of Doing Business	6. An Introduction to the Foreign Exchange Market and the Balance of Payments
7. Unemployment and Inflation	23. Profit Maximization	7. Unemployment and Inflation
8. Macroeconomic Equilibrium: Aggregate Demand and Supply	24. Perfect Competition	8. Macroeconomic Equilibrium: Aggregate Demand and Supply
9. Aggregate Expenditures	25. Monopoly	11. Fiscal Policy
10. Income and Expenditures Equilibrium	26. Monopolistic Competition and Oligopoly	12. Money and Banking
11. Fiscal Policy	27. Markets and Government	13. Monetary Policy
12. Money and Banking	28. Antitrust and Regulation	19. Using Economics to Understand the World Around You
13. Monetary Policy	29. Resource Markets	20. Elasticity: Demand and Supply
14. Macroeconomic Policy: Tradeoffs, Expectations, Credibility, and Sources of Business Cycles	30. The Labor Market	21. Demand: Consumer Choice
15. Macroeconomic Viewpoints: New Keynesian, Monetarist, and New Classical	31. The Capital Market	22. Supply: The Costs of Doing Business
16. Economic Growth	32. The Land Market and Natural Resources	28. Profit Maximization
17. Development Economics	33. Current Issues: Income, Income Distribution, Poverty, and Government Policy	29. Resource Markets
18. Globalization	34. World Trade Equilibrium	33. Current Issues: Income, Income Distribution, Poverty, and Government Policy
34. World Trade Equilibrium	35. International Trade Restrictions	34. World Trade Equilibrium
35. International Trade Restrictions		
36. Exchange Rates and financial Links between Countries		

* Chapter numbers represent *Economics, 10th ed.* For *Macroeconomics, 10th ed.*, and *Microeconomics, 10th ed.*, see the conversion chart in the Brief Contents section.

P R E F A C E

In the first edition of *Microeconomics*, we integrated a global perspective with traditional economic principles to give students a framework to understand the globally developing economic world. Events since then have made this approach even more imperative. In the 1990s, the Soviet Union disintegrated and newly independent nations emerged. Much of Latin America was turning toward free markets and away from government controls. But by 2005, several of these nations were turning back—away from free markets. Hugo Chavez and Evo Morales were guiding Venezuela and Bolivia away from free markets and toward government-run and controlled economies. Vladimir Putin was driving Russia toward more government control. Other events were making the world seem very small: North Korea was testing nuclear weapons, Somalia was embroiled in a civil war, terrorism was prevalent in nations around the world, and much of Africa remained mired in poverty. In 2007, the interconnectedness of nations was once again highlighted when the world fell into a deep recession created by the housing collapse in the United States. When economic growth returned in the summer of 2009, it was slow and unemployment remained high. In 2011 the European Union and the eurozone faced severe challenges as Greece, Portugal, Spain, Italy, and Ireland had debt burdens that were historically high. In 2014, Russia invaded Ukraine and civil war permeated Syria and much of the middle East, as well as several regions of Africa. The United States had applied tariffs to some Chinese goods and sanctions on Russia. They both retaliated with their own tariffs and embargos.

Students and instructors have embraced the idea that the economies of countries are interrelated and that this should be made clear in the study of economics. *Economics* gives students the tools they need to make connections between the economic principles they learn and the now-global world they live in.

In this edition, we continue to refine and improve the text as a teaching and learning instrument while expanding its international base by updating and adding examples related to global economics.

Changes in the Tenth Edition

The tenth edition of *Microeconomics* has been thoroughly updated and refined taking into account the events of 2008-2014.

Revised Introductory Chapters

The introductory chapters have been reduced from 5 to 4. An emphasis on what leads to the wealth of nations occurs in chapters 1 and 2. This places current events and economic developments in perspective. Is this economy or other economies carrying out the correct actions to enhance the wealth and well-being of its citizens?

Revised Microeconomic Coverage

The principal objective of the microeconomic material is to enable students to see the forest while wandering around in the trees; to learn the fundamentals while seeing their applicability to current events. The first micro chapter is now an introduction to economic issues and a discussion of economic thinking. Four major current issues are examined: minimum wages, health care, fracking, and pollution. This discussion lets students see early on how economics

affects them and enables them to understand important issues. Other changes in the tenth edition have been made to further that objective. The debate about whether governments should intervene in economies is further developed in Chapters 12 and 13. Additionally, in Chapter 12 a discussion of the Economic Freedom Index has been added. In Chapter 11, the discussion of kinked demand curve has been eliminated and additional game theory material has been included. Chapter 18 on aging and health care has been updated and a discussion of why health care costs continue rising is included. In addition, a market for human organs is discussed. In Chapter 19, a detailed examination of income distribution has been included. In every chapter examples have been updated and global applications provided.

Successful Features Retained from the Ninth Edition

In addition to the considerable updating and revising we've done for the tenth edition, there are several features preserved from the previous edition that instructors have found valuable.

Enhanced Student Relevance

With all of the demands on today's students, it's no wonder that they resist spending time on a subject unless they see how the material relates to them and how they will benefit from mastering it. We incorporate features throughout the text that show economics as the relevant and necessary subject we know it to be.

Real-World Examples Students are rarely intrigued by unknown manufacturers or service companies. Our text talks about people and firms that students recognize. We describe business decisions made by McDonald's and Wal-Mart, and by the local video store or cafe. We discuss standards of living around the world, comparing the poverty of sub-Saharan Africa to the wealth of the industrial nations. We discuss policies applied to real-world economic issues. We talk about political, environmental, and other social issues. These examples grab students' interest. Reviewers have repeatedly praised the use of novel examples to convey economic concepts.

Economic Insight Boxes These brief boxes use contemporary material from current periodicals and journals to illustrate or extend the discussion in the chapter. By reserving interesting but more technical sidelights for boxes, we lessen the likelihood that students will be confused or distracted by issues that are not critical to understanding the chapter. By including excerpts from articles, we help students move from theory to real-world examples. And by including plenty of contemporary issues, we guarantee that students will see how economics relates to their own lives.

Economically Speaking Boxes The objective of the principles course is to teach students how to translate to the real world the predictions that come out of economic models, and to translate real-world events into an economic model in order to analyze and understand what lies behind the events. The Economically Speaking boxes present students with examples of this kind of analysis. Students read an article at the end of each chapter. The commentary that follows shows how the facts and events in the article translate into a specific economic model or idea, thereby demonstrating the relevance of the theory. Nearly two-thirds of the articles and commentaries are new to the tenth edition, and cover such current events as U.S. trade with China, measures of consumer confidence and what information they convey, the Federal Reserve Chair's testimony before Congress, illegal immigration, redistribution of wealth, high gasoline prices, the impact of the government's bailout of large companies, the true effects of "fair trade" coffee, dramatic improvement in the lives of hundreds of millions of people over the past twenty years.

Global Business Insight Boxes These boxes link business events and developments around the world to the economic concepts discussed in the main text of the chapters. Topics include such basic micro- and macroeconomic issues as global competition, resource pricing, and foreign exchange.

An Effective and Proven System of Teaching and Learning Aids

This text is designed to make teaching easier by enhancing student learning. Tested pedagogy motivates students, emphasizes clarity, reinforces relationships, simplifies review, and fosters critical thinking. And, as we have discovered from reviewer and user feedback, this pedagogy works.

In-Text Referencing System Sections are numbered for easy reference and to reinforce hierarchies of ideas. Numbered section heads serve as an outline of the chapter, allowing instructors flexibility in assigning reading and making it easy for students to find topics to review. Each item in the key terms list and summary at the end of the chapter refers students back to the appropriate section number.

Fundamental Questions These questions help to organize the chapter and highlight those issues that are critical to understanding. Each fundamental question also appears in the margin next to the related text discussion and, with brief answers, in the chapter summaries. A fuller discussion of and answer to each of these questions may be found in the *Study Guides* that are available as supplements to this text. The fundamental questions also serve as one of several criteria used to categorize questions in the *Test Banks*.

Preview This motivating lead-in sets the stage for the chapter. Much more so than a road map, it helps students identify real-world issues that relate to the concepts that will be presented.

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

Summary The summary at the end of each chapter is organized along two dimensions. The primary organizational device is the list of fundamental questions. A brief synopsis of the discussion that helps students to answer those questions is arranged by section below each of the questions. Students are encouraged to create their own links among topics as they keep in mind the connections between the big picture and the details that make it up.

Comments Found in the text margins, these comments highlight especially important concepts, point out common mistakes, and warn students of common pitfalls. They alert students to parts of the discussion that they should read with particular care.

Key Terms Key terms appear in bold type in the text. They also appear with their definition in the margin and are listed at the end of the chapter for easy review. All key terms are included in the Glossary at the end of the text.

Friendly Appearance

Economics can be intimidating; this is why we've tried to keep *Microeconomics 10th edition* looking friendly and inviting. The one-column design and ample white space in this text provide an accessible backdrop. More than 300 figures rely on well-developed pedagogy and consistent use of color to reinforce understanding. Striking colors were chosen to enhance readability and provide visual interest. Specific curves were assigned specific colors, and families of curves were assigned related colors.

Annotations on the art point out areas of particular concern or importance. Students can see exactly which part of a graph illustrates a shortage or a surplus, a change in consumption, or a consumer surplus. Tables that provide data from which graphs are plotted are paired with their graphs. Where appropriate, color is used to show correlations between the art and the table, and captions clearly explain what is shown in the figures and link them to the text discussion.

The color photographs not only provide visual images, but make the text appealing. These vibrant photos tell stories as well as illustrate concepts, and lengthy captions explain what is in the photos, again drawing connections between the images and the text discussion.

Thoroughly International Coverage

Students understand that they live in a global economy; they can hardly shop, watch the news, or read a newspaper without stumbling upon this basic fact. International examples are presented in every chapter but are not merely added on, as is the case with many other texts. By introducing international effects on demand and supply in Chapter 3 and then describing in a nontechnical manner the basics of the foreign exchange market and the balance of payments in Chapter 6, we are able to incorporate the international sector into the economic models and applications wherever appropriate thereafter. Because the international content is incorporated from the beginning, students develop a far more realistic picture of the national economy; as a result, they don't have to alter their thinking to allow for international factors later on. The three chapters that focus on international topics at the end of the text allow those instructors who desire to delve much more deeply into international issues to do so.

The global applicability of economics is emphasized by *using traditional economic concepts to explain international economic events and using international events to illustrate economic concepts that have traditionally been illustrated with domestic examples*. Instructors need not know the international institutions in order to introduce international examples, since the topics through which they are addressed are familiar; for example, price ceilings, price discrimination, expenditures on resources, marginal productivity theory, and others.

Uniquely international elements of the microeconomic coverage in the text include:

- The treatment of the international sector as an economic participant and the inclusion of net exports as early as Chapter 4
- Extensive analyses of the effects of trade barriers, tariffs, and quotas
- An examination of strategic trade
- An examination of dumping as a special case of price discrimination
- The identification of problems faced by multinational firms
- A comparison of behavior, results, and institutions among nations with respect to consumption, production, firm size, government policies toward business, labor markets, health care, income distribution, environmental policy, and other issues
 - Economic freedom around the world
 - Freedom and human development, that is, the wealth of nations
 - Importance of private property rights and rule of law

Modern Microeconomic Organization and Content

Instructors often face a quandary when teaching microeconomic material. They want students to understand the basic theories of economics and the powerful intuition that thinking like an economist can provide, but they also want to enlist students' attention with real-life, current issues. In the tenth edition of *Microeconomics*, theory is never far away from applications. One of the primary lessons of microeconomics is captured in Bastiat's "Broken Window Fallacy".

While it seems that some policy or some action will solve a certain problem, what we often do is focus on that problem and fail to examine the unseen – what is the possible effect of the policy. Will the policy solve the problem but actually create greater problems. For instance, students may think that a ban of some behavior might be beneficial but they fail to see that the ban may harm others more than help those it is supposed to help. In this text we ensure that students can see why environmental issues such as pollution and the razing of rain forests occur but also learn about the costs and benefits of various proposed solutions to these problems. Students can see why incomes are unequal within a country and among countries and can learn about the costs and benefits of attempting to reduce inequality. Students can see why collusion occurs among competing firms and what the costs and benefits are of minimizing such behavior through antitrust action or regulation.

A Complete Teaching and Learning Package

In today's market no book is complete without a full complement of ancillaries. Those instructors who face huge lecture classes find good PowerPoint slides and a large variety of reliable test questions to be critical instructional tools. Those who teach online in distance or hybrid courses need reliable course management systems with built-in assignments and resource materials. Other instructors want plenty of options available to their students for review, application, and remediation. All of these needs are addressed in the Boyes and Melvin supplements package. And to foster the development of consistent teaching and study strategies, the ancillaries pick up pedagogical features of the text— such as the fundamental questions—wherever appropriate.

A Supplements Package Designed for Success

To access additional course material for *Boyes/Melvin 10e* visit www.cengagebrain.com. At the CengageBrain.com home page, search for the ISBN 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. For additional information, contact your Cengage sales representative.

Instructor Online Resources

The Boyes and Melvin tenth edition provides a rich store of teaching resources for instructors online at the Instructors Companion site. Instructors will need to sign up at the site for a username and password to get onto the password-protected parts of the site. This site includes a variety of support materials to help you organize, plan, and deliver your lectures; assign and grade homework; and stay up-to-date with current economics news. Here you'll find a thoroughly updated set of multimedia PowerPoint slides covering key points in each chapter, with graphs, charts, and photos. You will also find IM, Test bank in pdf and other downloadable teaching and learning resources.

Instructor's Manual (IM)

Patricia Diane Nipper has produced a manual that will streamline preparation for both new and experienced faculty. Preliminary sections cover class administration, alternative syllabi, and an introduction to the use of cooperative learning in teaching the principles of economics.

The *IM* also contains a detailed chapter-by-chapter review of all the changes made in the tenth edition. This Transition Guide should help instructors more easily move from the use of the ninth edition to this new edition.

Each chapter of the *IM* contains an overview that describes the content and unique features of the chapter and the objectives that students will need to master in order to succeed with later chapters; the chapter's fundamental questions and key terms; a lecture outline with teaching strategies—general techniques and guidelines, essay topics, and other hints to enliven classes; opportunities for discussion; answers to every end-of-chapter exercise.

Cognero:

Cengage Learning Testing Powered by Cognero is a flexible, online system that allows you to:

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Student Resources

MindTap

MindTap engages and empowers students to produce their best work – consistently. By seamlessly integrating course material with videos, activities, games, apps, and much more, MindTap creates a unique learning path that fosters increased comprehension and efficiency.

- MindTap delivers real-world relevance with activities and assignments that help students build critical thinking and analytic skills that will transfer to other courses and their professional lives.
- MindTap helps students stay organized and efficient with a single destination that reflects what's important to the instructor, along with the tools students need to master the content.
- MindTap empowers and motivates students with information that shows where they stand at all times – both individually and compared to the highest performers in class.
- Relevant readings, multimedia, and activities are designed to take students up the levels of learning, from basic knowledge to analysis and application.
- Personalized teaching becomes yours through a Learning Path built with key student objectives and your syllabus in mind. Control what students see and when they see it.
- Analytics and reports provide a snapshot of class progress, time in course, engagement and completion rates.

- BBC videos with assessment as the chapter activator;
- Media eReader rich in ConceptClips videos; Graphing-at-a-Glance Videos with assessment; Economically Speaking with assessment; Now you try it with assessment;
- Multiple games for student engagement;
- Global Economic Watch
- Aplia generic homework and math and graphing tutorials.
- End of chapter homework;

Aplia Online Learning Platform

- Founded in 2000 by economist and professor Paul Romer in an effort to improve his own economics courses at Stanford, Aplia is the leading online learning platform for economics.
- Aplia provides a rich online experience that gets students involved and gives instructors the tools and support they need.
- Aplia saves instructors valuable time they would otherwise spend on routine grading while giving students an easy way to stay on top of coursework with regularly scheduled assignments.
- Currently, Aplia supports college-level courses and has been used by more than 1,000,000 students at over 1,300 institutions.
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Instructors should consult their South-Western/Cengage Learning sales representative for more information on how to use Aplia with this text.

Acknowledgments

Writing a text of this scope is a challenge that requires the expertise and efforts of many. We are grateful to our friends and colleagues who have so generously given their time, creativity, and insight to help us create a text that best meets the needs of today's students.

We'd especially like to thank the many reviewers of *Microeconomics* listed on the following pages who weighed in on key issues throughout the development of each edition. Their comments have proved invaluable in revising this text. Unsolicited feedback from current users has also been greatly appreciated.

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Finally, we wish to thank our families and friends. The inspiration they provided through the conception and development of this book cannot be measured but certainly was essential.

Our students at Arizona State University continue to help us improve the text through each edition; their many questions have given us invaluable insight into how best to present this intriguing subject. It is our hope that this textbook will bring a clear understanding of economic thought to many other students as well. We welcome any feedback for improvements.

W. B. M. M.

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CHAPTER 1

The Wealth of Nations: Ownership and Economic Freedom



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FUNDAMENTAL QUESTIONS

1. *Why are some countries rich while others are dirt poor?*
2. *What are private property rights?*
3. *What is economic freedom?*

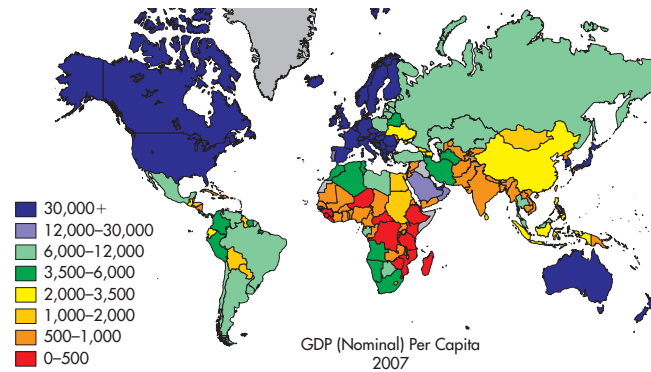
Preview

The differences in wealth from one nation to another are really staggering. A map showing each nation's income appears in Figure 1. The countries shaded in dark blue on the map are the richest, followed by lighter blue, turquoise, and so on to those shaded in red, the poorest nations. 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.

The income disparity has not always existed. 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.

top: © Carsten Reisinger/Shutterstock

FIGURE 1 Wealth of Nations



Wealth of nations: The countries shaded in dark blue on the map are the richest, with a per capita GDP exceeding \$30,000, followed by lighter blue, turquoise, and so on to those shaded in red, the poorest nations, with a per capita GDP ranging from zero to \$500.

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

According to the United Nations' Food and Agriculture Organization, there are over 800 million people in the world who do not get enough to eat. Thirty percent of children in Malawi are malnourished, and more than two of every 10 will die before their fifth birthday. At the same time, 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 have all nations not progressed like the United States has? Canada has; it is wealthy. Is it because Canada shares a 2,000-mile border with the United States? Sharing the border must not be the cause since Mexico also shares a 2,000-mile border with the United States, and its standard of living is less than half of that in the United States.



Design Pics / Carson Ganci/Getty Images

Which ones are owned and which are not? Perhaps hard to tell whether the shacks on the water are actually owned or not, but their quality and structure would suggest not. Conversely, the mansions behind the shacks are clearly taken care of and carefully constructed implying that people own them.

1-1 Ownership

Ownership is crucial for economic success. Think about how you treat a car you own compared to a car you rent. Think about buying and selling anything. Can you buy something no one owns? Can you sell something you do not own? Ownership allows trade to take place, and ownership creates an incentive to take care of what is owned.



1. Why are some countries rich while others are dirt poor?

1-1a Anecdotes about Ownership

During Mao Zedon's reign, starvation was rampant in China. When Mao died in 1976, Communist control of the country was in full force, and starvation continued. 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 across 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. Laborers got their rice share whether they 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 the arrangement secret out of fear of the Communist authorities. But as rice production in Xiaogang rose dramatically, neighboring villages noticed. As other villages copied Xiaogang, their rice production increased as well. It was not long before the Communist authorities found out what the farmers were doing. But, rather than clamping down and throwing the farmers in jail, the Communist Party expanded the idea of allowing farmers to keep some of their produce. This provided the incentive to work harder and produce more.

The first colonies 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 had been established by profit-seeking entities, and the settlers were indentured servants recruited on the streets of London. The indentured servants had no financial stake in the outcome of the colony. Working harder or longer was of no benefit to them. Everything produced by the settlers was sent to a company store and then back to England. The people doing the work got nothing. Obviously, getting no additional reward for working harder meant the indentured servants were not going to work harder.

When representatives of the government and investors arrived in the colonies to find out why there were problems, the basic issue quickly became evident. 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. As a result, settlers did not devote their efforts to planting and producing. Instead, they played games and loafed. Once the problem was identified, the solution was simple: Each settler was given title to a few acres of land, and only a small amount of their output was required to provide returns to investors. The colonies prospered from that point on.

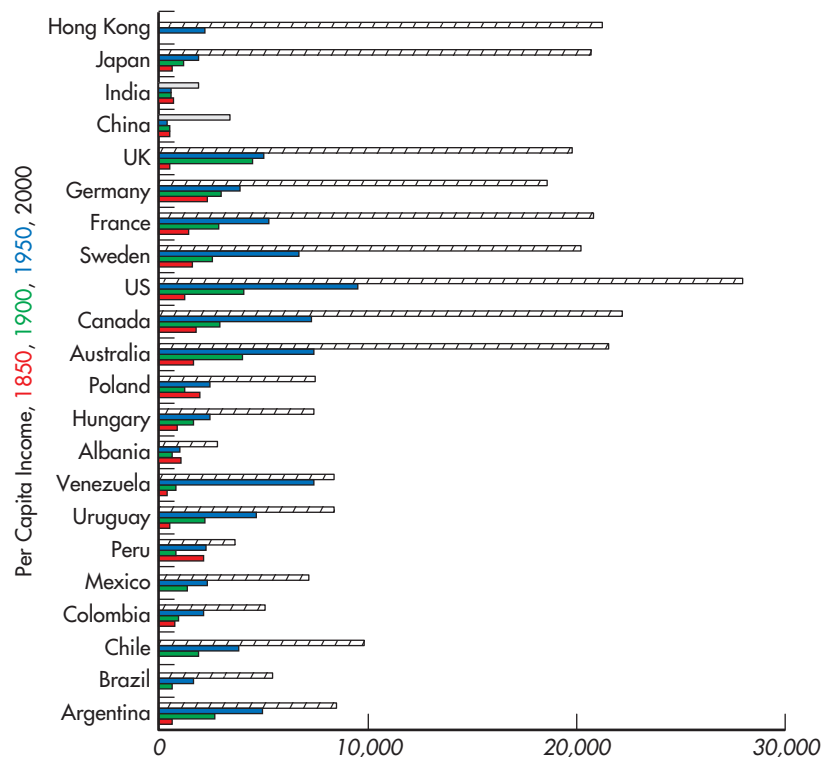
1-1b Private Property Rights

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 do not fare as well as those with such ownership. Figure 2 lists several countries and their per capita incomes in 1850, 1900, 1950, and 2000. Incomes do not differ all that much in 1850, as shown by the red bars. But for 2000 (the crosshatched 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



2. What are private property rights?

FIGURE 2 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.

allowed. It is interesting to note that Hong Kong, which was nothing but a rock with no natural resources other than a port, was able to make itself one of the wealthiest “countries” in the world because it allowed private ownership. (If you have difficulty reading and interpreting charts, you might find the Appendix to Chapter 1 of value.)

When you own something, that something is yours to do with as you want—at least as long as you do not harm others. That this leads to success and wealth seems like a simple idea, but it is a powerful one.

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.

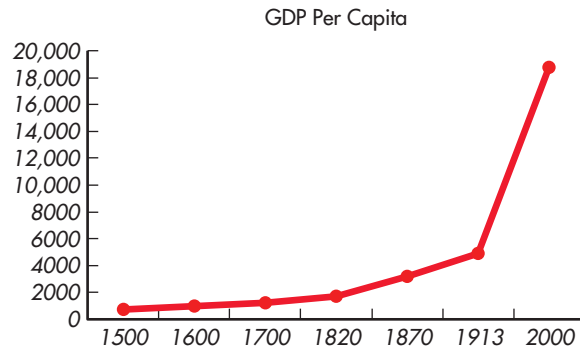
This situation is known as **private property rights**. Private property rights mean that people can own things, and they can pretty much do what they want with what they own as long as they do not infringe on the private property rights of others. Private property rights exist and are relatively secure in the richest nations. People or governments cannot take your property without just compensation. In poor nations, either there are no private property rights or what private property rights do exist are not secure. If private property rights are not secure, people may damage or steal property or assault others without penalty; corruption and bribes might be necessary to carry out trades or to otherwise use so-called private property.

When private property rights are not secure, people are unlikely to be able to sell the things they own, to use them for collateral on a loan, or to 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 everywhere was brutal and very short. The average life expectancy was only about 35 years in most nations. But something occurred around the turn of the nineteenth

century that led to a rapid rise in the standard of living among Western nations. Notice in Figure 3 how the standard of living (measured as GDP per capita)¹ in the United Kingdom, the world's richest nation at that time, begins to rise only around 1800. What occurred to create the rising standard of living? The answer has to do with private property rights and the Industrial Revolution. It is a long story, but the short version is that about 1688, new laws in England enabled entrepreneurs to know 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.

FIGURE 3 GDP Per Capita in the United Kingdom, 1500–2000



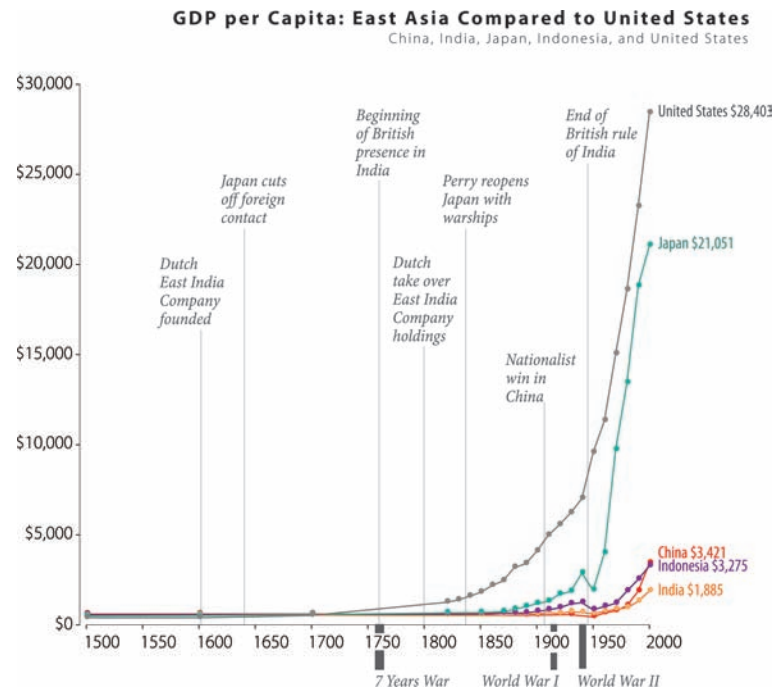
From the beginning of humanity, living standards were bare subsistence at best. This did not improve until the tail end of the eighteenth century.

Until just recently in China, everything was owned by government; in Pakistan, Afghanistan, Bolivia, Venezuela, and other countries, no one could be sure that whatever they claimed as theirs would remain theirs. In Zimbabwe, the government takes property whenever it wants. As president since Zimbabwe gained independence, Robert Mugabe has confiscated property and given it to those he favored.

When private property rights are not universal among citizens, or when property rights are not secure, 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 resource (oil) is owned by the government, and only a very few benefit from it. But when private property rights prevail, nations prosper even without abundant resources. As noted previously, Hong Kong had nothing, no natural resources except a harbor, and it emerged as one of the wealthiest countries in the world in a just a few decades (Hong Kong is not actually a country, as it was never independent—it was developed as part of the British Empire and then reverted to China). Similarly, Singapore is wealthy, and it, like Hong Kong, is a small island without natural resources. 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.

In Figure 4, the GDP per capita of the United States and a few Asian nations over time is presented. China and India did not begin to progress until they began allowing private ownership—about 1990 or so. Although 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 now encouraged, and India too has experienced rising standards of living. As a result of India's and China's progress in the past couple of decades, a billion people have

¹ GDP per capita is gross domestic product per person; GDP is the total value of output created in a country during one year.

FIGURE 4 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.

risen from dire poverty with a life expectancy of less than 35 years to comfortable prosperity with a life expectancy that exceeds 72 years.

Private property may seem like a right just for the rich, but it is crucial for the poor. If people do not own 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 more abundant corn, and they will ensure that they have seeds remaining to grow more corn next year. Similarly, when you offer to work, you are taking your own labor, something you own, and exchanging it for pay. The higher the quality of your work, the more valuable you are to your employers, the more you will be paid.

When no one owns something, no one has an incentive to take care of it. Workers who were forced to work in shipbuilding factories in Gdansk, Poland, during the communist regime would show up and then loaf. They had no incentive to be productive because 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.

1-1c Title to Property

In 1981, about 1,800 families took over a piece of wasteland in San Francisco Solano in the province of Buenos Aires, Argentina.² The occupants were landless citizens organized by a Catholic chapel. The Church and the squatters believed the land belonged to the state, so they assumed they could simply plop themselves down and enjoy the land. Once situated, the squatters had to resist several attempts at 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 then 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 rest of the property was not deeded to the squatters. Either original owners could not be identified or other original owners refused to give up the land, arguing that the compensation was too low. They contested the government's 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 is illustrated in Figure 5. Some of the squatters obtained formal land rights, titles to their properties, whereas others lived in the occupied parcels without paying rent but without legal titles. Although the groups shared the same household characteristics (size of family, education, skills, health, etc.) before the government transferred ownership to some of the residents,

NOW YOU TRY IT

In college today, when you want to take a class, you must register, and if there is room available and you have taken the prerequisites you can take the class. The college owns the access to classes. What would occur if no one owned the right to sign up for a class?

FIGURE 5 Illustration of the Squatter Results in Argentina



Glow Images, Inc./getty images



Florian Kopp/imagebroker/age fotostock

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

² The complete story and some empirical examinations are presented in Sebastian Galiani and Ernesto Schargrodsky, “Property Rights for the Poor: Effects of Land Titling” (Coase Institute Working Paper, August 9, 2005).

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.

and although they lived next to each other for 20 years, the outcome of their ownership arrangements was dramatically different. Owners with title invested in their properties, whereas residents without title did not. There is a significant difference in the quality of housing between the titled and untitled properties. The titled properties have been upgraded, expanded, and improved. The untitled properties remain shanties that are run down and crumbling. Not only is the housing different, but those with title have behaved differently than those without title: They had fewer children, and the children have experienced more education and better health.

While the squatters in Buenos Aires lived on their properties for several years, they could not consider themselves owners until they had titles to their property, that is, legal documents specifying all aspects of the ownership. The title to property is typically a registration with the government specifying the location of the property and who owns the property. The title allows the owner to sell the asset or to use it to obtain loans or mortgages. In the United States, when you sell or purchase property, a “title search” must be undertaken to be sure that the title is given to the correct owner.

Insecure property rights—property rights without ownership title or without security from confiscation—weaken the incentives for owners to make long-term investments and hinder the ability of owners to use their property as collateral to secure loans. Without access to credit, economic growth is hindered. In order to achieve secure property rights, a country must ensure that property rights are protected by law and that any informal, unarticulated rights are incorporated into a written, formal, legal property rights system.

Peruvian economist, Hernando de Soto has spent years examining insecure property rights systems.³ He notes that citizens of most poor countries do not lack entrepreneurial energy nor do they lack assets. But because they have no title over these assets, they cannot use them to improve their lives. From countryside to urban shantytown, ownership is informal. Mr. Jones knows that Mr. Assalt down the road owns the farm he works, but Mr. Assalt has no title to his property. Owners like Mr. Assalt are locked out of the formal, legal economy—they have houses, crops, and businesses but no titles of ownership. Citizens lacking formal legal title to their property are unable to use their assets as collateral. They cannot get bank loans to expand their businesses or improve their properties.

Private property rights are crucial for economic success. The property rights must be legally acknowledged and secure. People have to be able to buy and sell property and to use property for collateral on loans in order to feel secure in improving the property and making other investments.

RECAP

1. Much of the economic success of nations is dependent on ownership.
2. A system of private property rights enables people to do what they want with what they own as long as they do not harm the private property of others.
3. With ownership comes the incentive to invest in or take care of the asset that is owned. With ownership comes the incentive to improve the asset that is owned.
4. Legal recognition of ownership—titles—are necessary to ensure that owned property can be freely bought and sold and used as collateral for loans.

³ Hernando de Soto is the economist focusing most on titling. See his book *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* (2000), Basic Books, New York.

1-2 Economic Freedom

Economic freedom is important to the success of a nation. **Economic freedom** refers to the degree to which private individuals can carry out voluntary exchange. People can buy or sell things without government involvement or without getting the permission of some king or commission. People can work for whom they want at a wage the employer is willing and able to pay. A communist system is the opposite of economic freedom; it is one in which there is no economic freedom.

1-2a Index of Economic Freedom

Most countries are somewhere between 100 percent economic freedom and no economic freedom. In an economically free society, individuals are free to work, produce, consume, and invest in any way they please, with that freedom both protected by the state and unconstrained by the state. In economically free societies, governments allow labor, capital, and goods to move freely, and they refrain from coercion or constraint of liberty beyond the extent necessary to protect and maintain liberty itself. Higher taxes mean less economic freedom because, in general, people have to be coerced into paying taxes. Most would not pay taxes unless they were required to. Similarly, more rules and regulations mean less economic freedom. Regulations requiring that you obtain a license to be a beautician limit some people from being beauticians. Regulations on emissions from automobiles restrict what kinds of cars people can drive. Restrictions on travel mean less economic freedom. Having to obtain a passport limits some travel. Having to go through security at airports takes time and effort. Restrictions on international trade mean less economic freedom. Japan might not allow citizens to purchase meat from elsewhere, which limits the freedom of its citizens. Even the paperwork necessary to comply with government rules and regulations means less economic freedom.

The *Wall Street Journal* and the Heritage Foundation coauthor an annual measure of economic freedom called the Index of Economic Freedom (a similar measure is provided by the Fraser Institute). The authors of the Index attempt to measure how much free, voluntary trade is affected by government. In 2008, the United States was ranked 5, the fifth most economically free country. Today it is ranked 10th. According to the Index of Economic Freedom, the United States slipped in 2010 from the group of countries called “free” to the group of countries called “mostly free” because the role of the U.S. government in the economy expanded from 2009 on. The top 10 economically freest nations are listed in Table 1.

TABLE 1 The Ten Most Economically Free Countries in 2013

Each year, the Heritage Foundation and the *Wall Street Journal* calculate the list of the most and least economically free nations. Shown here are the 10 most economically free countries in 2013.

World Rank	Country	Overall Score	Change From Previous
1	Hong Kong	89.9	0.2
2	Singapore	87.5	0.3
3	Australia	83.1	0.6
4	New Zealand	82.1	-0.2
5	Switzerland	81.1	-0.8
6	Canada	79.9	-0.9
7	Chile	78.3	0.9
8	Mauritius	77.0	0.8
9	Ireland	76.9	-1.8
10	United States	76.3	-1.5

Note: Definition: Free, 80–100; Mostly free, 60–79.9.

Source: <http://www.heritage.org/Index/>



3. What is economic freedom?

economic freedom

The ability to engage in voluntary trade without interference or restrictions by government or outside parties.

NOW YOU TRY IT

What is the difference between economic freedom and voluntary trade?