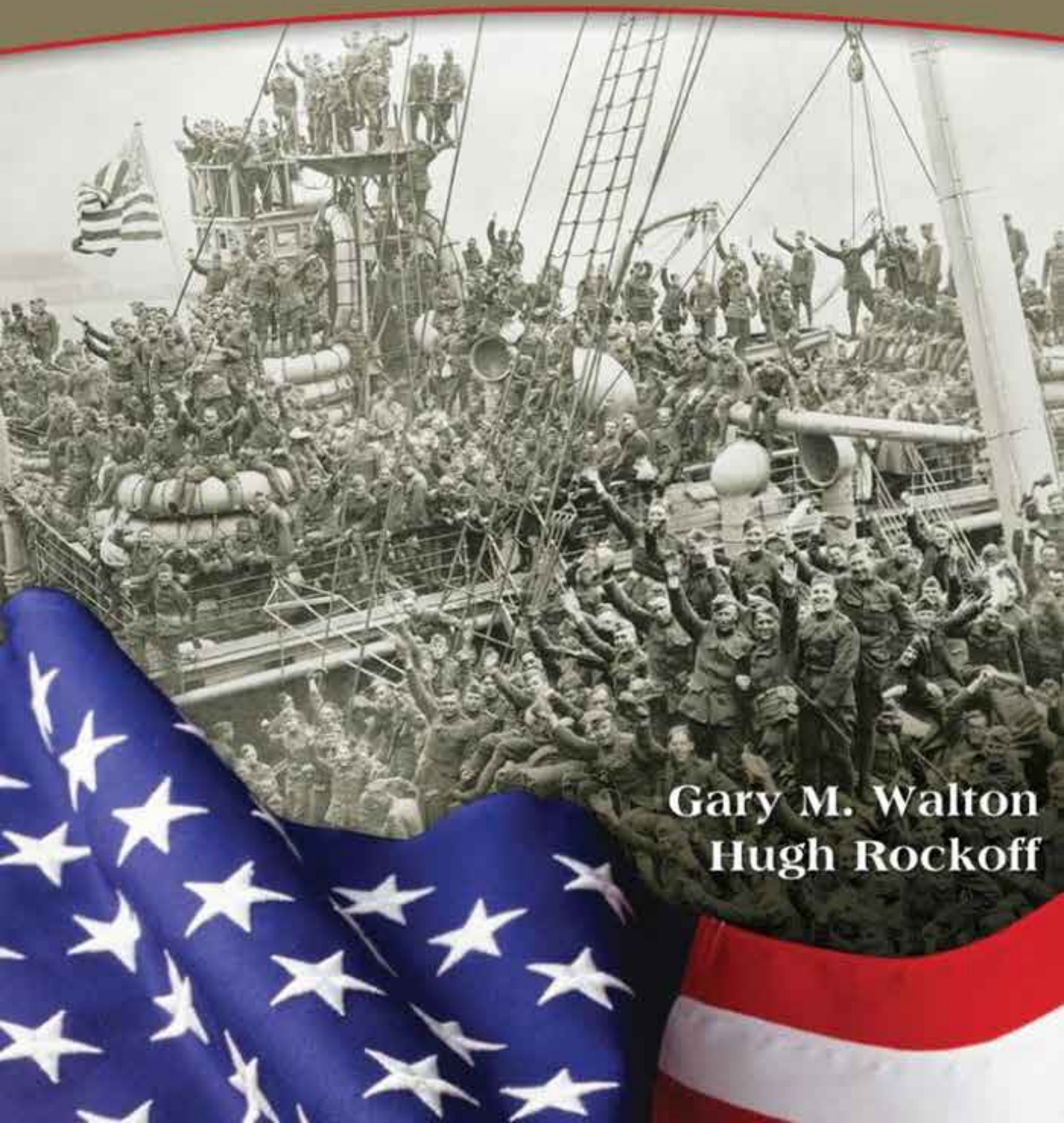


*History of the*  
**AMERICAN ECONOMY**

Twelfth Edition



**Gary M. Walton**  
**Hugh Rockoff**

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# History of the American Economy



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**TWELFTH EDITION**

**GARY M. WALTON**

*University of California, Davis*

**HUGH ROCKOFF**

*Rutgers University*



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**Gary M. Walton and Hugh Rockoff**

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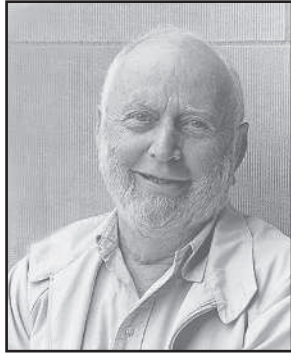
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Nobel Laureates in Economics, 1993







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# Preface

This new edition of *History of the American Economy* was deemed necessary because of the continued advance of research in economic history and the rapid changes unfolding in the United States and global economies. The struggle of many nations to convert from centrally controlled to market-led economies in recent decades, the rapid economic expansion of India and China, and the growing economic integration in Europe invite new perspectives on the historical record of the American economy. Moreover, the terrorist attacks of September 11, 2001, on the World Trade Center and the Pentagon and the subsequent wars in Afghanistan and Iraq, and the Great Recession of 2007 have spread a blanket of uncertainty on the future of the United States. The importance of understanding the sources of economic growth and change, the main subject of this book, is greater than ever.

To properly convey the speed of change of American lifestyles and economic well being, chapter 1 begins with a focus on twentieth-century American life, mostly but not entirely economic. The purpose is to show how dramatically different the way we live today is compared with the times of our grandparents and great-grandparents. The remarkable contrasts in living standards, length of life, and how we work and consume from 1900 to the present provide a “wake-up call” for the nation on the changes soon to unfold in our lives and in the lives of generations to come. This wake-up call serves a vital purpose: preparation for the future. As Professor Deirdre McCloskey admonishes us in her book *Second Thoughts*, in preparing for the future we best arm ourselves with a good understanding of the past.

Boxed discussions called “New Views” draw explicit analogies between current issues and past experiences—drug prohibition today and alcohol prohibition in the 1920s, and war finance today and war finance in the past, to name two. Economic historians, of course, have always made these connections for their students, but we believe that by drawing attention to them in the text, we reinforce the lesson that history has much to teach us about the present, and the perhaps equally important lesson that detailed study of the past is needed to determine both the relevance and the limitations of historical analogies.

We have retained the presentation of material in chronological order, albeit not rigidly. Part 1, “The Colonial Era: 1607–1776,” focuses on the legacies of that era and the institutions, policies, economic activities, and growth that brought the colonies to a point at which they could challenge the mother country for their independence. Part 2, “The Revolutionary, Early National, and Antebellum Eras: 1776–1860,” and Part 3, “The Reunification Era: 1860–1920,” each begin with a chapter on the impact of war and its aftermath. The other chapters in these parts follow a parallel sequence of discussion topics—land, agriculture, and natural resources; transportation; product markets and structural change; conditions of labor; and money, banking, and economic fluctuations. Each of these parts, as well as Part 4, “War, Depression, and War Again: 1914–1946,” closes with a chapter on an issue of special importance to the period: Part 1, the causes of the American Revolution; Part 2, slavery; and Part 3, domestic markets and foreign trade. Part 4 closes with a discussion of World War II. All the chapters have been rewritten to improve the exposition and to incorporate the latest findings. Part 5, “The Postwar Era: 1946 to the Present” moreover, has been extensively revised to

reflect the greater clarity with which we can now view the key developments that shaped postwar America.

Throughout the text, the primary subject is economic growth, with an emphasis on institutions and institutional changes, especially markets and the role of government, including monetary and fiscal policy. Three additional themes round out the foundation of the book: the quest for security, international exchange (in goods, services, and people), and demographic forces.

Finally, this edition further develops the pedagogical features used in earlier editions. We provide five basic rules of analysis called “economic reasoning propositions,” in chapter 1. We repeatedly draw attention in the text to these propositions with explicit text references and a marginal icon for easy reference. A list of historical and economic perspectives precedes each of the five parts of the book, providing a summary of the key characteristics and events that gave distinction to each era. Furthermore, each chapter retains a reference list of articles, books, and Web sites that form the basis of the scholarship underlying each chapter. Additional sources and suggested readings are available on the Web site. In addition to these pedagogical aids, each chapter begins with a “Chapter Theme” that provides a brief overview and summary of the key lesson objectives and issues. In addition to the “New Views” boxed feature described earlier, we have retained the “Economic Insights” boxes that utilize explicit economic analysis to reveal the power of economic analysis in explaining the past and to show economic forces at work on specific issues raised in the chapters. We have also retained the “Perspectives” boxes that discuss policies and events affecting disadvantaged groups.

We are pleased to introduce an improved technology supplement with this edition: *Economic Applications* (<http://www.cengage.com/sso>). This site offers dynamic Web features: EconNews Online, EconDebate Online, and EconData Online. Organized by pertinent economic topics, and searchable by topic or feature, these features are easy to integrate into the classroom. EconNews, EconDebate and EconData deepen a student’s understanding of theoretical concepts through hands-on exploration and analysis of the latest economic news stories, policy debates, and data. These features are updated on a regular basis. The *Economic Applications* Web site is complimentary via an access card included with each new edition of *History of the American Economy*. Used book buyers can purchase access to the site at <http://www.cengage.com/sso>.

A Test Bank and PowerPoint slides accompany the *History of the American Economy*, 12th edition, and are available to qualified instructors through the Web site (<http://www.cengage.com/econmics.walton>).



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# Growth, Welfare, and the American Economy

## AMERICANS 1900–2013

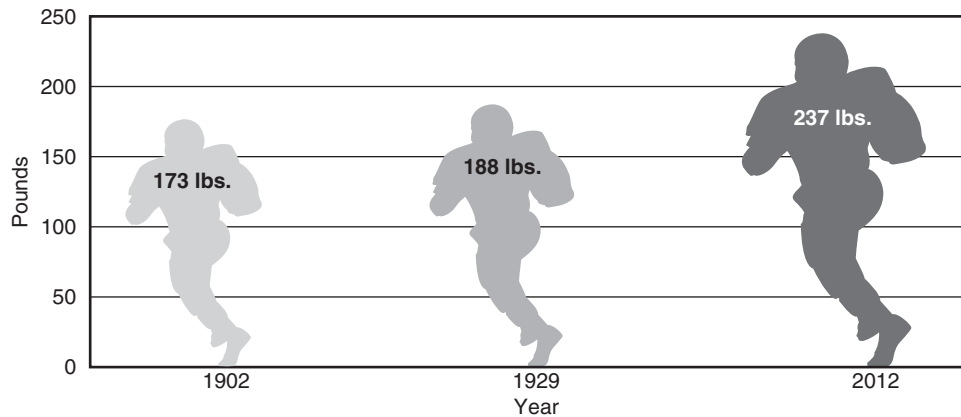
When Rutgers and Princeton played the first intercollegiate football game in 1869, it is doubtful any person alive could have foreseen the impact football would have on twenty-first-century American life. From the weekly money and passion fans pour into their favorite teams, to the media hype and parties linked to season-ending bowl games, football is truly big business, both in college and in the pros. And how the game has changed!

By the turn of the twentieth century, some of the land-grant colleges of the Midwest were also fielding teams, one of the earliest being the University of Wisconsin–Madison (UW). The Badgers, as they are popularly called today, enjoy a long-standing sports tradition, and thereby provide some historically interesting facts. As shown in Figure 1.1 on page 2, in 1902, UW’s football team was made up of players whose average size was 173 pounds. Most of the athletes played “both sides of the ball,” on offense as well as defense, and substitutions were infrequent. Economists today would say they were short on specialization. By 1929, the average size had increased modestly to 188 pounds, and players were increasingly, though not yet exclusively, specializing on offense or defense. By 2012, the average weight of Wisconsin football players was 237 pounds, and players routinely specialized not just on defense or offense, but by particular positions and by special teams, and sometimes by types of formations. Even more dramatic size changes are revealed by comparing the weight of the five largest players. UW’s five biggest players in 1902 averaged 184 pounds, hardly more than the average weight of the whole team. As shown in Figure 1.2 on page 2, in 1929 the five biggest players averaged 199 pounds. By 2012, the five largest offensive players averaged 333 pounds, more than a 60 percent jump over 1929.

UW alumni and students have also been big-time basketball enthusiasts, favoring players with speed, shooting and jumping skills, and height. In 1939, the Badgers’ starting five had a considerable range of heights by position just as they do today. Figure 1.3 on page 3 conveys not only the consistent differences among guards, forwards, and centers, but also the dramatic gains in height by players at every position taking the court today. The 2012 guards were taller than the 1939 forwards. Indeed, one of the 2012 guards was taller than the 1939 center. Such dramatic height gains are partly a result of the growing college entrance opportunities that exceptionally talented players enjoy today compared with young players long ago. But the height gains also reflect more general increases in average heights for the U.S. population overall, and these gains in turn indicate improvements in diet and health.

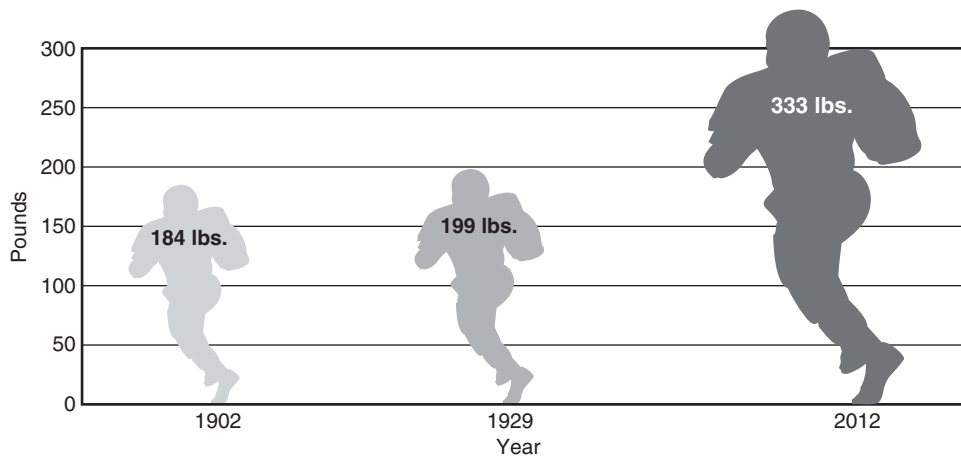
Changes in average height tell us quite a lot about a society; nations whose people are becoming taller—as they have in Japan over the last 50 years—are becoming richer and eating better. Because of genetic differences among individuals, an individual woman who is short cannot be considered to be poor. Such a conclusion would not be unreasonable, however, especially along with other evidence, for a society of short people. Adult

**FIGURE 1.1**  
University of Wisconsin  
Starting Football Players'  
Average Weight



Source: Sport Information Office, University of Wisconsin–Madison.

**FIGURE 1.2**  
University of Wisconsin  
Football: Average  
Weight of Five Largest  
Players

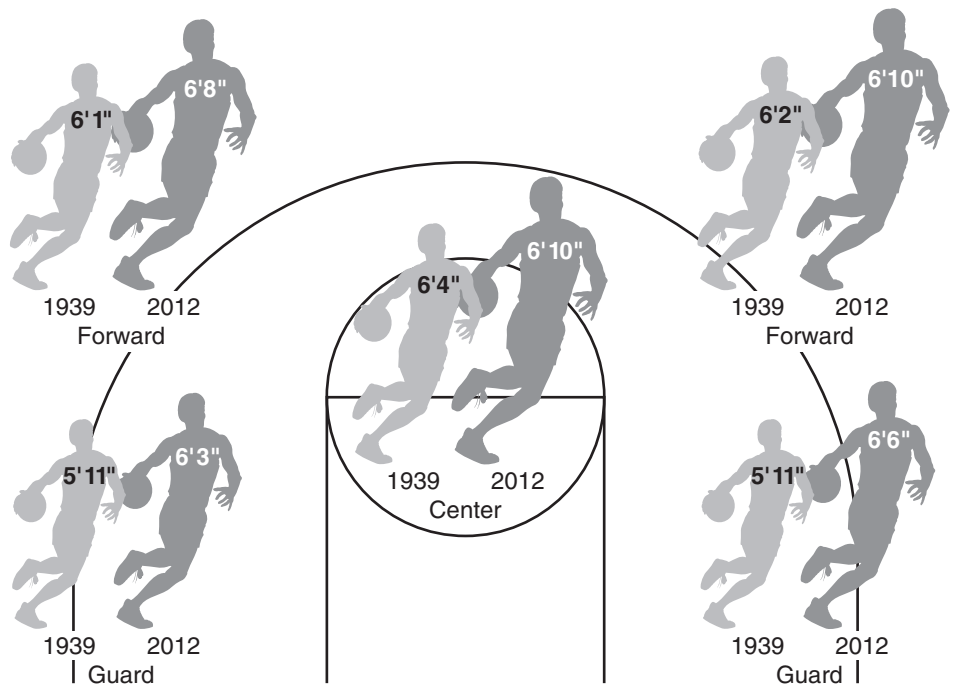


Source: Sport Information Office, University of Wisconsin–Madison.

heights reflect the accumulative past nutritional experience during the growing years, the disease environment, health care, as well as genetic factors (which change very slowly). Americans are the heaviest people in the world; the Germans are second. Dutchmen are the world's tallest, with male adults averaging 6 feet 1 inches. Americans today, with adult males averaging 5 feet 10 inches and 172 pounds, are nearly 2 inches taller than their grandparents. The average height gain of Americans during the twentieth century was a little more than 3 inches. We are richer and eat more and better than Americans did 100 years ago, sometimes to excess, with a third of the population currently measured as obese or overweight.

Another, and arguably even better measure of a society's vitality and well-being is the length of life of its citizens. Throughout most of history, individuals and societies have fought against early death. The gain in life expectancy at birth from the low 20s to nearly 30 by around 1750 took thousands of years. Since then, life expectancy in advanced countries has jumped to 75 years, or 150 percent, and in 2010 in the United States it was 79 years. This phenomenal change is not merely a reflection of decline in infant mortality; as Table 1.1 shows for the United States, the advances in length of life are spread across all age groups. As a consequence, in 2012, 314 million people were living in the United States, up from 76 million in 1900.

**FIGURE 1.3**  
University of Wisconsin  
Basketball Players'  
Heights



Source: Sport Information Office, University of Wisconsin–Madison.

**TABLE 1.1 LIFE EXPECTANCY BY AGE IN THE UNITED STATES**

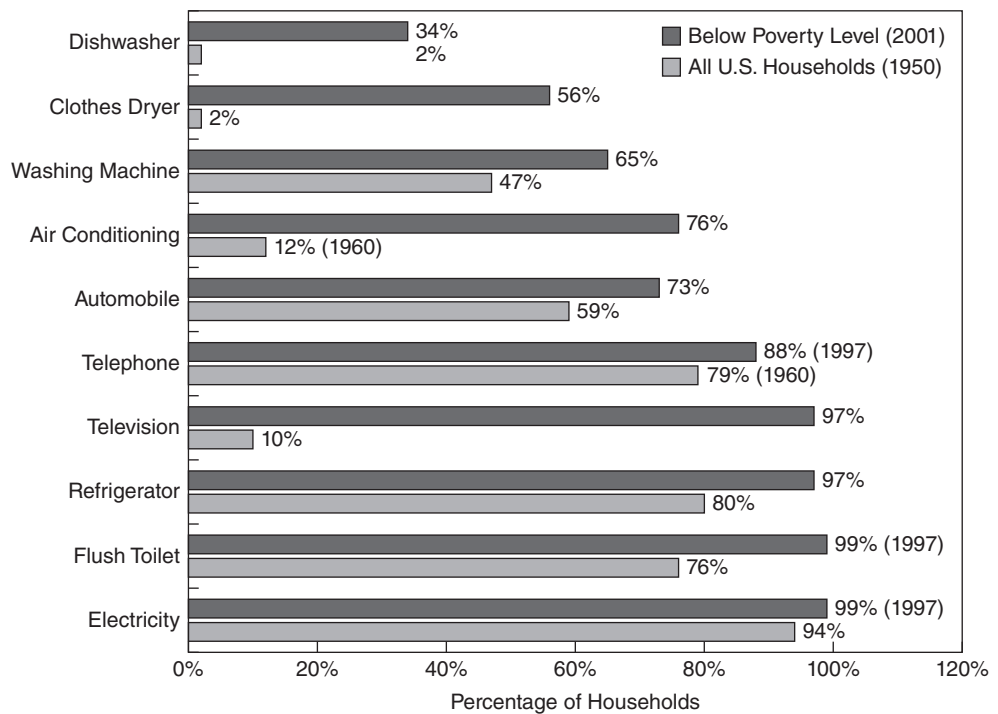
AGE	1901	1954	2000	2010
0	49	70	77	78.7
15	62	72	78	79.4
45	70	74	79	81.0
75	82	84	86	87.7

Sources: Data for 1901, U.S. Department of Commerce 1921, 52–53; and data for 1940–1996, National Center for Health Statistics, selected years, [www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60-04.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60-04.pdf) to see National Vital Statistics Reports, vol.60, no.4, Table 6, 2010.

The gains in population size and in length of life stem primarily from economic growth, because such growth leads to better diets and cleaner water, to sewage disposal, and other health-enhancing changes. The broadest and most commonly used measures of overall economic performance are the levels and the rise in real gross domestic product (GDP). The U.S. real GDP increased from \$0.5 trillion in 1900 to more than \$13.3 trillion in 2011, measured in constant real purchasing power of 2005 dollars. When divided by the population, GDP per capita averaged \$5,557 (in 2005 constant dollars) in 1900. In 2011 it was \$42,671, almost eight times higher. Average yearly increases of 2 percent, which for any given year appear small, have compounded year after year to realize this advance.

These gains have not been exclusive to the few, the middle class, or the very rich. Individuals and households the government classifies “officially poor” have incomes surpassing those of average Americans in 1950 and all but the richest (top 5 percent) in 1900. The poverty income level in the United States, about one-fourth the U.S. average, is far higher than average per capita incomes in most of the rest of the world. To show how widespread the gains from economic growth have been, Figure 1.4 lists items owned or used by average households in the United States in 1950 compared to below

**FIGURE 1.4**  
Ownership by Poor Households (2001) vs. Ownership by All U.S. Households (1950)



Source: US Census Bureau.

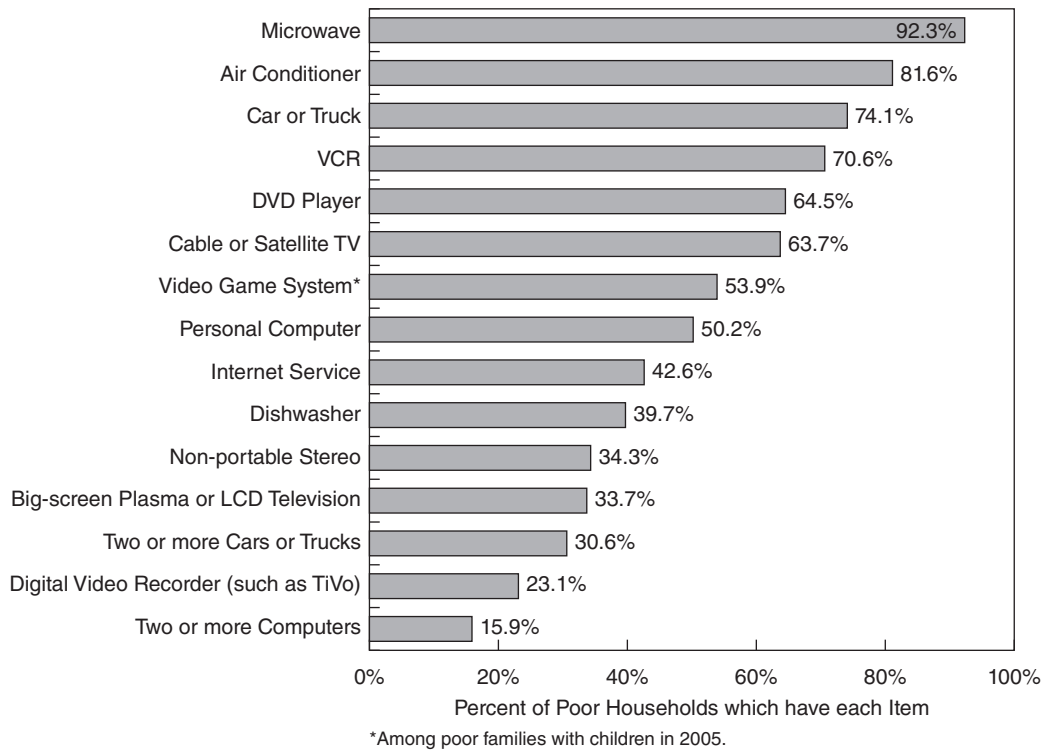
poverty-threshold Americans in the last decade. Figure 1.5 further reveals the many amenities used by households labeled poor. Air-conditioned homes with electricity, a refrigerator, a flush toilet, television, and telephones are common among Americans, rich and poor. Indeed, the substantial gap among income classes as measured by income or wealth becomes much narrower when measured by basic categories: food, housing, and items and services for comfort and entertainment. In the United States there are more radios owned than ears to listen to them.

Despite gains for people labeled “poor” in the United States, the gap between the rich and the poor remains wide. This gap is an important element in drawing conclusions about the success or failure of an economic system. It bears on the cohesion, welfare, and security of a society. A useful starting point from which to consider this issue is to view a snapshot of the division of income in the United States. Figure 1.6 shows this distribution in fifths for all U.S. households for 2010. As in other years, a large gap existed between the top fifth and the bottom fifth. In fact, the richest fifth of the population received half the income (50.2 percent), about the amount the remaining four-fifths received. The poorest fifth U.S. households received only 3.3 percent of total income in 2010 (not including food stamps, assisted housing, Medicaid, and other such assistance).

The household quintile shares (bottom to top) for 1947, were 5.0, 11.9, 17.0, 23.1, and 43.0; and for 1977: 4.1, 9.0, 14.7, 24.0, and 48.2. Such distribution changes, including the 2010 figures, appear rather modest, albeit rising in recent decades as many observers emphasize.

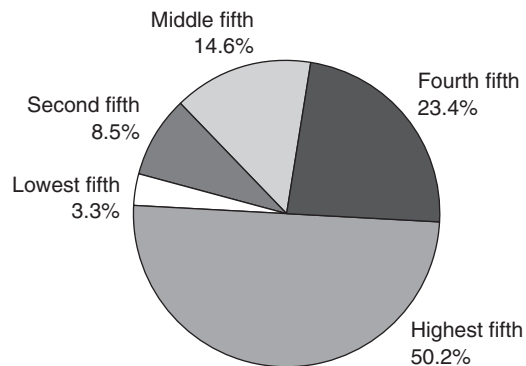
The important question, however, is whether the people in the bottom fifth in one period were also in that category decades later. If all of the people in the top category in 1975 had switched places by 2010 with all the people in the bottom category (the bottom fifth rising to the top fifth by 2010), no change would be observed in the data shown in these measures. But surely such a switch would be considered a huge change in the distribution of income among people.

**FIGURE 1.5**  
Amenities in Poor Households



Source: US Department of Energy.

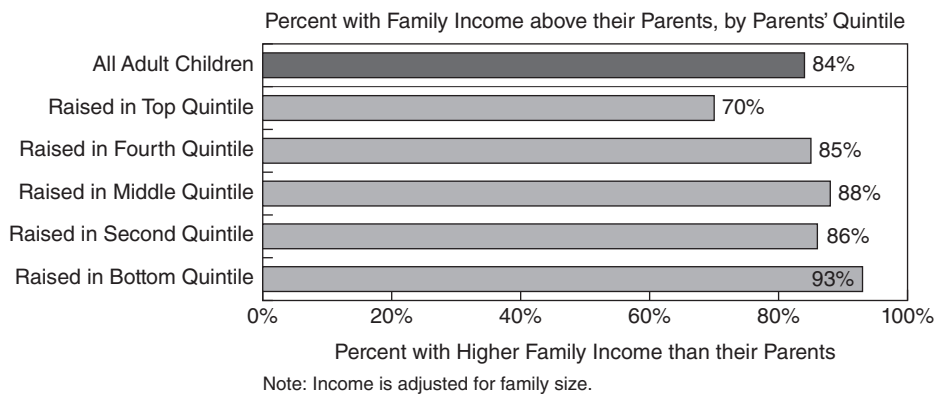
**FIGURE 1.6**  
The American Income Pie by Fifths, 2010



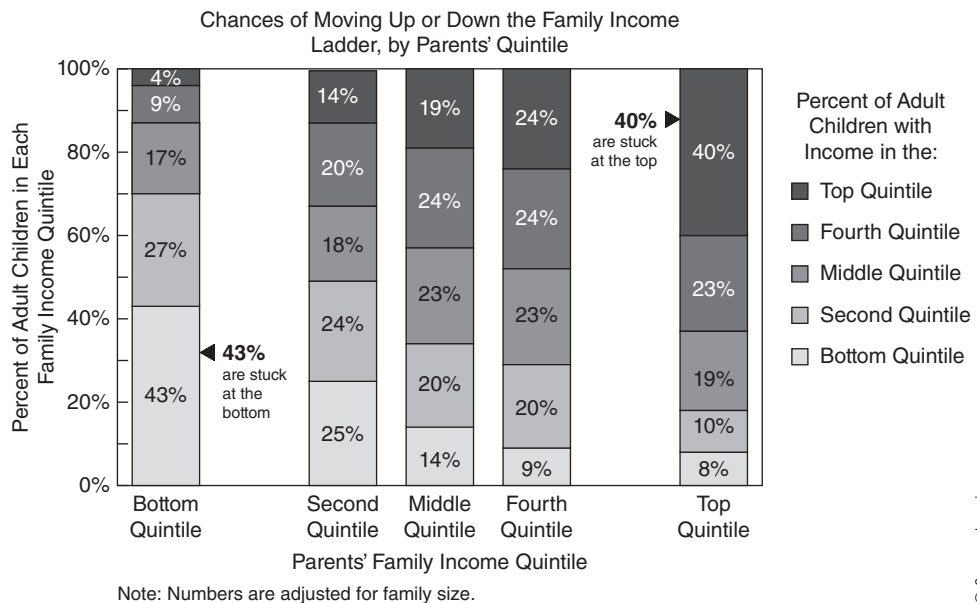
Source: U.S. Census Bureau. "Share of Aggregate Income Received by Each Fifth and Top 5 Percent of Households, All Races: 1967 to 2007" ([www.census.gov/hhes/www/income/histinc/h02AR.html](http://www.census.gov/hhes/www/income/histinc/h02AR.html)).

Thanks to the Pew Charitable Trusts' Economic Mobility Project (2012) data extending back in time from 2009 show the degrees of change in family income between generations. Figure 1.7 shows the percentage gains of current Americans over their parent's family income: 84 percent for all adult children; those raised in the top quintile gained 70 percent over their "rich" parents; those in the bottom gained 93 percent. Figure 1.8 shows the mobility into different quintiles. Forty-three percent in the bottom quintile stayed there, but 57 percent moved into higher quintiles, albeit only 4 percent into the top fifth of those raised in the top quintile, 40 percent stayed there, and 8 percent of this wealthy group fell to the bottom quintile by adulthood. Clearly, this is considerable mobility both ways.

**FIGURE 1.7**  
The percentage gains of current Americans over their parent's family income



**FIGURE 1.8**  
The mobility into different quintiles



Another perspective on the economic gains that Americans experienced during the twentieth century comes from looking at the availability, ownership, and use of new goods. Figure 1.9 shows a virtual explosion in the array of goods routinely owned and used in U.S. homes. Most of the items shown were not even available to the richest Americans alive in 1901.

## A STUDY WITH A PURPOSE

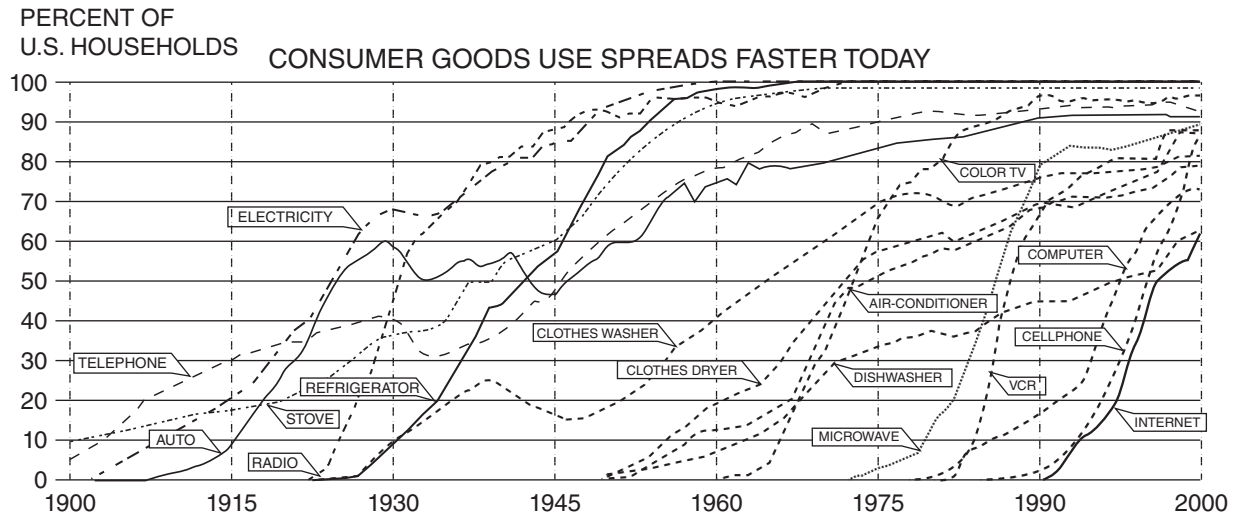
### Nation Building

Why should you study economic history? The best short answer is to better prepare you for the future. Economic history provides you with a clear perspective on the forces of change and a good understanding of the lessons of the past. The study of economic history also provides lessons on nation building and ways to analyze policies and institutions that affect the nation as well as you personally.



**FIGURE 1.9**  
Household Ownership and Use of Products

The past 100 years have brought a virtual explosion in the array of goods Americans routinely enjoy. At the turn of the century, nobody—not even society’s wealthiest—could travel by air, wear comfortable tennis shoes, or even take an aspirin, yet the majority of modern-day Americans regularly do so. From cars to computers to cell phones, our ancestors would gawk at the products almost all Americans take for granted.



Source: Cox and Alon 1997.

One hundred years ago, citizens of Great Britain enjoyed the highest standards of living in the world, and the British Empire was the leading world power. In 1892, the dominant European powers upgraded the ranks of their diplomats in Washington, D.C., from ministers to ambassadors, thereby elevating the United States to first-division status among nations. On economic grounds, this upgrading should have occurred much earlier, because in 1892, output per capita in the United States was much higher than in France and Germany and not far below that in Great Britain.

In 1950, the United States was the most powerful nation in the world, and Americans enjoyed standards of living higher, by far, than those of any other people. Another “super power,” however, was intensely challenging this supremacy. As the cold war unfolded and intensified after World War II, nations became divided into two clusters: communist nations emphasizing command, control, and central planning systems; and free nations emphasizing markets, trade, competition, and limited government. This division into clusters was especially apparent in Europe and Asia, and many other nations sat on the sidelines pondering their futures and which system to follow. By all appearances, the Soviet Union displayed levels of economic, technological, and military strength rivaling those of the United States. It launched its space satellite, called Sputnik, in 1957, placing the first vehicle constructed on Earth in space. The Cold War ended in 1989, and many satellite nations of the Soviet Union (e.g., Eastern Germany, the former Czechoslovakia, etc.) broke free. By the mid-1990s, the Russian Federation desperately needed aid just to feed its people. The life expectancy of men in Russia plummeted from the low 60s (mid-1980s) to 56 (mid-1990s). The economic and political collapse of the Soviet Union and the overwhelming relative success of market-driven systems provide another example of the importance of studying economic history.

Such swings in international power, status, and relative well-being are sobering reminders that the present is forever changing and slipping into the past. Are the changes that all of us will see and experience in our lifetimes inevitable, or can destinies be steered? How did we get where we are today?

It is unfortunate that history is often presented in forms that seem irrelevant to our everyday lives. Merely memorizing and recalling dates and places, generals and wars, presidents and legislative acts misdirects our attention to what happened to whom (and when) rather than the more useful focus on how and why events happened. One of the special virtues of the study of economic history is its focus on how and why. It provides us a deeper understanding of how we developed as a nation, how different segments of the population have fared, and what principal policies or compelling forces brought about differential progress (or regress) among regions and people. In short, the study of economic history enriches our intellectual development and provides an essential perspective on contemporary affairs. It also offers practical analytical guidance on matters of policy. The study of economic history is best suited for those who care about the next 1 to 1,000 years and who want to make the future better than the past.

This is no empty claim. Surely one of the primary reasons students major in economics or American history is to ultimately enhance the operation and performance of the American economy and to gain personally. Certainly instructors hope their students will be better-informed citizens and more productive businesspeople, politicians, and professionals. “If this is so,” as Gavin Wright recently properly chastised his economic colleagues,

*if the whole operation has something to do with improving the performance of the U.S. economy, then it is perfectly scandalous that the majority of economics students complete their studies with no knowledge whatsoever about how the United States became the leading economy in the world, as of the first half of the twentieth century. What sort of doctor would diagnose and prescribe without taking a medical history? (1986, 81)*

Too often, students are victims of economics textbooks that convey no information on the rise and development of the U.S. economy. Rather, textbooks convey the status quo of American preeminence as if it just happened, as if there were no puzzle to it, as if growth were more or less an automatic, year-by-year, self-sustained process. Authors of such textbooks need an eye-opening sabbatical in Greece, Russia, or Zimbabwe.

Economic history is a longitudinal study but not so long and slow as, say, geology, in which only imperceptible changes occur in one’s lifetime. In contrast, the pace of modern economic change is fast and accelerating in many dimensions. Within living memory of most Americans, nations have risen from minor economic significance to world prominence (Hong Kong, China; Japan; the Republic of Korea), while others have fallen from first-position powers to stagnation (Russia in the 1990s and Argentina after 2002). Whole new systems of international economic trade and payments have been developed (the North American Free Trade Agreement, European Union). New institutions, regulations, and laws (Clean Air Act of 1990, Welfare Reform Act of 1996) have swiftly emerged; these sometimes expand and sometimes constrain our range of economic choices.

The role of government in the economy is vastly different from what it was only 60 or 70 years ago; undoubtedly, it will be strikingly different 50 years from now. The study of economic history stresses the role of institutional change, how certain groups brought about economic change, and why. The study of history, then, is more than an activity to amuse us or sharpen our wits. History is a vast body of information essential to making public policy decisions. Indeed, history is the testing grounds for the economic theory and principles taught in economics classes, as well as for the theories taught in other subjects.



## ECONOMIC INSIGHT 1.1

### FIVE PROPOSITIONS FOR ECONOMIC REASONING

As John M. Keynes has said,

*[E]conomics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking which helps its possessor to draw correct conclusions.*

This “apparatus of the mind,” or economic way of thinking, follows logically from *five basic propositions* of human nature and well-accepted truths.

1. *People choose, and individual choices are the source of social outcomes.* Scarcity compels us to compete in some form and it necessitates choice. People make choices based on their perceptions of the expected costs and benefits of alternatives. Choices involve risk; outcomes cannot be guaranteed because the consequences of choices lie in the future.
2. *Choices impose costs.* People incur costs when making decisions. Choices involve trade-offs among alternatives. People weigh marginal gains against marginal sacrifices. Ultimately, the cost of any decision is the next-best alternative that must be forgone. Reasoned decision making leads to an increase in any activity in which expected benefits exceed expected costs, and a decrease in any activity in which expected costs exceed expected benefits.
3. *Incentives matter.* Incentives are rewards that encourage people to act. Disincentives discourage actions. People respond to incentives in predictable ways; when incentives change, behavior changes in predictable ways.
4. *Institutions matter, and the “rules of the game” influence choices.* Laws, customs, moral principles, ideas, and cultural institutions influence individual choices and shape the economic system.
5. *Understanding based on knowledge and evidence imparts value to opinions.* The value of an opinion is determined by the knowledge and evidence on which it is based. Statements of opinion should initiate the quest for economic understanding, not end it.

To simplify the vast range of economic theory, we rely primarily on five Economic Reasoning Propositions, as given in Economic Insight 1.1. These Economic Reasoning Propositions can be summarized for referral purposes throughout the text, as follows:

1. Choices matter.
2. Costs matter.
3. Incentives matter.
4. Institutions matter.
5. Evidence matters.

Next time you are in a discussion or argument, recall Economic Reasoning Proposition 5. Evidence comes from history and tests the soundness of an opinion. An opinion is a good way to start a discussion, but it should not end one.

As Economic Reasoning Proposition 5 (evidence matters) emphasizes, not all opinions are equal, not when we want to understand how and why things happen. Two of the great advantages of economic history are its quantitative features and use of economic theory to give useful organization to historical facts. In combination, use of theory and evidence enhances our ability to test (refute or support) particular propositions and recommendations. This helps us choose among opinions that differ.

### Policy Analysis for Better Choices

Consider, for instance, the run-up of prices in early 2008, especially in gas and oil and food stuffs; additionally, prices on an average basket of goods purchased increased by nearly 4 percent in the United States and by 5.5 percent for the global economy. Such rates harken back to the 1970s. How could we assess a recommendation for mandatory