George Leland Bach



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WITH THE ASSISTANCE OF David J. Teece

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We live in an economic world of constant change. In the 200 years since Adam Smith's Wealth of Nations founded modern economics in 1776, we have built up a great deal of understanding of how our economy works. But it is a rare generation that hasn't had to face new problems that call for rethinking what we thought we knew before.

The 1970s were such a period, and the economics of the 1980s will be significantly different from the ideas that have dominated our thinking since World War II. Government deficit spending that was supposed to cure unemployment seems instead to produce ever-worsening inflation. The "Great Society" programs of the 1960s generated more disappointment than joy in the perspective of the 1970s. A tax revolt has swept the nation, against an ever-bigger and more intrusive government. Many of the government regulations aimed to produce a better life instead have had perverse results, and demands for deregulation have swept the land.

Economics has been undergoing a basic reassessment, which has produced a "new look" on important points and issues. This new 1980 edition is written in this spirit of reassessment. It has much that is unchanged, but also much that marks the "new economics." For example:

- 1. There is a revolution going on in macro-economics. Inflation stubbornly escalates while unemployment persists or even grows. Neither the Keynesian unemployment economics of the 1930s nor the pre-depression classical-monetarist full-employment economics provides an acceptable explanation for this behavior. But a modern synthesis, clarifying the role of "rational expectations" and the "natural rate of unemployment," is developing. Supply-side adjustments are increasingly important for the inflation problem.
- 2. Slowing U.S. growth, the savings shortage, and the puzzle of poor productivity. The rate of U.S. growth in output per capita, and hence in the American standard of living, has slowed dramatically in recent years. Why? Is the problem permanent or transient? Again, a "new look" from the economics of supply comes to the fore in helping to provide answers.

- 3. The tax revolt—the role of government. The tax revolt is everywhere. Citizens and politicians are calling for constitutional amendments to require a balanced budget annually, or a tight ceiling on government spending. How to check big government is a pervasive question. Thus, in this edition, I have emphasized a thorough analytical comparison of markets versus the political process as mechanisms for allocating resources and incomes. Government income transfers are the core of the new public sector.
- 4. New developments in international monetary economics. The same synthesis of Keynesian income-flows and classical portfoliobalancing is occurring in international monetary theory as in domestic income-employment theory, which yields quite different policy prescriptions from those of last decade's theories.
- 5. A new overview of comparative economic systems and ideologies. This weaves together Marxist and "New Left" criticisms of the American economy with a comparison of the performance of market- and non-market-directed economies on the modern world scene.

Like its predecessors, this is a book focused on what the *student* does. The evidence is overwhelming that students retain little of what they learn in college economics courses unless they become interested enough to continue to use it as they read the newspaper and vote in elections, after they leave the classroom. If the text and the class do not kindle a real interest in economics and give students concepts and methods that they can use *for themselves* after the course is over, they will retain little. This is my educational philosophy. Thus the emphasis is on:

- A set of key concepts, principles, and models—the core, no more, of essential theory; and
- Helping students learn to apply these analytical tools themselves to big and little realworld problems.

Learning to apply theory in complex, realworld situations turns out to be more difficult for most students than learning the theory per se. Thus, to aid both students and instructors, I have added more new, real-world cases to the highly-successful ones included in the preceding edition; the user mail from both students and teachers has been most satisfying. This book now includes 20 such cases, each attached to a chapter where it shows the student how to apply the concepts and principles developed in that chapter. In addition, there are Suggestions for Analysis for most cases, segregated at the end of the book, so that students can check their own reasoning and understanding of the concepts and principles involved. Some of the cases are simple applications; others involve more complex decisions on public policy or managerial problems; still others raise broad issues for analysis and discussion, where answers hinge on value judgments and the weighting of goals as well as on economic analysis. They are real cases, not arithmetical problems. Some of the cases have no Suggestions for Analysis, so they can be used as examinations or homework by teachers who want students to deal with the cases entirely on their own.

The complete cases are listed in the Table of Contents. A sample:

- Campus parking
- How much for the auto safety?
- Who is responsible for inflation?
- Money and the great German hyperinflation
- Indexing—learning to live with inflation
- · The costs of inflation and unemployment
- The impact of inventories
- Federal Reserve independence
- The energy problem
- OPEC oil and the international monetary system

This book thus offers a variety of lively applications from which instructors can choose to fit the interests of their students. It is designed for a one-semester course.

I have also indicated a "Minimum Essentials Track" in the macro theory section (Part 2) for those instructors who want to develop only the bare-bones essentials of theory and to stress primarily the applications. (See the opening pages of Part 2.)

Because I think instructors and students have a right to know what educational theory a textbook author is using, I venture to repeat some simple notes on learning theory from the preface to the 9th edition; Clear focus on objectives what the student should learn and retain; see the Chapter Previews and new end-of-chapter summaries and lists of key concepts.

Student motivation cases and big and little applications throughout, to involve students and let them see how they can use what they are learning.

Learning retention through repeated explicit use of the concepts and principles.

Feedback suggestions for analysis of cases, at the end of the book, let students know how they are doing and provide help in applying the theory in the text to the cases.

Beyond these, the new edition again offers a package of up-to-the-minute teaching aides, for both students and teachers:

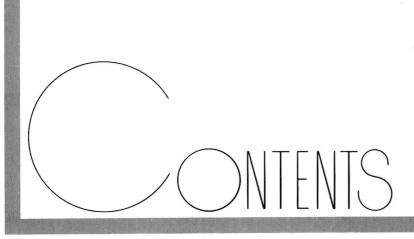
Instructors Manual and Test Bank about 2,000 easy-to-grade objective and discussion questions; plus possible examinations and suggestions on how to use the text and the new cases in and out of class. It includes special cases for homework and examination use, in addition to those in the text. Free to instructors on adoption.

A lively new improved and updated Student Workbook (by Michael Block and Henry Demmert), which includes a programmed review of every chapter, more objective questions, cases, and dozens of imaginative new problems and crossword puzzles, for all chapters. Answers are included for student self-grading and quick feedback.

Black and white transparency masters for all charts and major tables. Free to instructors on adoption.

My indebtedness to colleagues and friends for aid on succeeding editions is so great that it is

patently impossible to list all those who deserve credit. For this edition, however, my greatest debt is to Professor David Teece of Stanford for help and suggestions on a wide range of topics; I have acknowledged this help more formally on the title page. In addition, a number of economists at different institutions made especially helpful suggestions for improvements. I thank especially Kenneth Alexander (Michigan Technical University); Christopher Bach (U.S. Department of Commerce); Tom Bible (Oregon State); Michael Boskin (Stanford); Conrad Caligaris (Northeastern University); Richard Cooke (Cincinnati); Curtis Cramer (Wyoming); John Dahlquist (University of Alameda); Larry DeYoung (Cincinnati); Walter Falcon (Stanford); Deric Jennings (Tufts); Florence Jaffy (College of San Mateo); Allen Kelley (Duke); Bruce Kutnick (Northeastern University); Stewart Lee (Geneva College); Adolph Mark (DePaul); Gerald Meier (Stanford); William Moffat (Stanford); Phillip Saunders (Indiana); Gail and Michael Shields (Southern Illinois); Francis Shieh (Prince Georges Community College); Stanley Steinke (Community College of Philadelphia); Myra Strober (Stanford); and Arthur Welch (Joint Council on Economic Education). Professor Michael Lovell of Wesleyan University continues to share authorship of the mathematical appendixes. The usual warning that only I am responsible for the final outcome needs to be added, however, for I have accepted only some of the suggestions advanced. Lastly, my special thanks go to Colette Conboy of Prentice-Hall who has shepherded the book through the whole production process and helped in innumerable other ways; to David Hildebrand, Janet Schmid and Rita DeVries of Prentice-Hall for wise advice, design of the book, and editing the manuscript; to Deborah Nichols for infallibly good-natured secretarial help above and beyond the call of duty; and to Lynda Thoman for preparing the index and reviewing key chapters of the manuscript.



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^{*}Chapter 16 is included here for those instructors who want some institutional background on the public sector before teaching fiscal policy. It can be omitted or postponed until later in the course by those who prefer to do the fiscal policy analysis directly following the macroeconomics analytical chapters.

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Some Foundations NOTE

Some instructors may prefer to change the order of Chapters 1, 2, and 3. They are written to be usable in any order.

Scarcity, Private Wants, and National Priorities

PREVIEW

What Is Economics? Scarcity and Affluence Problems of the 1980s What Are Our National Goals? Personal Wants, National Goals, and Priorities
How Shall We Set Our Priorities?
Objectives of the Book
Some Suggestions On How to Use the Book
Summary and Review
CASE 1: How Much for Auto Safety?

ow is it that we in America are, by and large well fed, well clothed, and well housed, while over two-thirds of the world's population is desperately poor—over 2 billion people living on per capita incomes of less than \$30 per month? What explains the incomes we receive—\$1 million for basketball star Bill Walton, \$75,000 for a typical physician-surgeon, \$30,000 for a master plumber, \$3,000 for an itinerant fruitpicker? Why are we plagued by repeated inflations and unemployment? Why do we have air and water pollution, when almost everyone agrees that we need a cleaner environment? How can we have a better life for all, in the United States and in the rest of the world?

These are questions of economics, these and many others like them. There are no simple answers to most of the questions. But even though economics can't give simple answers to such complex questions, it can go a long way in helping you understand the economic world in which you live and the issues on which you will have to take positions and vote.

WHAT IS ECONOMICS?

Economics is the study of how the goods and services we want get produced, and how they are distributed among us. This part we call economic analysis. Economics is also the study of how we can make the system of production and distribution work better. This part we call economic policy. Economic analysis is the necessary foundation for sound economic policy, and this book is about both economic analysis and policy.

Another, slightly different, definition of economics, favored by many economists, is this: Economics is the study of how our scarce productive resources are used to satisfy human wants. This definition emphasizes two central points. First, productive resources are scarce, in the sense that we are not able to produce all of everything that everyone wants free; thus, we must "economize" our resources, or use them as efficiently as possible. Second, human wants, if not infinite, go so far beyond the ability of our productive resources to satisfy them all that we face a major problem in "economizing" those productive resources so as to satisfy the largest

possible number of our wants. Indeed, most major economic problems arise from this fact of scarcity, and the need to make effective use of our resources to satisfy our wants. If there were plenty of everything for everyone to have without working or paying for it, there would be no economic problem. But, alas, this is not the state of the world, even in the affluent American society, and certainly not in the poorer nations that contain most of the world's people. Hence the title "Economics" for this field of study.

SCARCITY AND AFFLUENCE

The United States is an affluent society. We are rich by comparison with other nations. In 1978, the prodigiously productive American economy turned out over \$2 trillion of goods and services, about 25 percent of the total production in the entire world, even though less than 6 percent of the world's people live in the United States. Table 1-1 shows per capita output of goods and services in the United States as compared with a dozen other nations. With several of the Western European democracies, we lead most other nations by a wide margin. Our lead over the so-called developing countries is enormous. (Such international comparisons are very rough, and the ranking depends on the measurement method used, but they suffice to suggest orders of magnitude. We will examine them in detail later.)

TABLE 1–1 World Output Per Capita, 1976*						
United States	\$7,900	Italy	\$3,800			
Canada	7,200	Brazil	2,300			
Sweden	6,800	Mexico	2,000			
France	6,100	Egypt	800			
Germany	6,000	Kenya	500			
Israel	5,000	India	400			
Japan	4.900	Bangladesh	200			

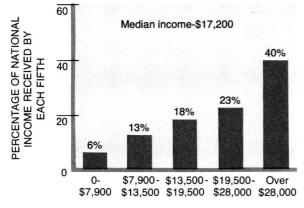
^{*} Rough estimates, in 1976 U.S. dollars, by author, based on U.N.-sponsored study by I. Kravis and others, *Economic Journal*, June 1978. For estimates for more countries, for 1977, based on official exchange rates among the various national currencies, see Table 26–1, and the notes there on the roughness of such comparative estimates. Estimates in either table should be considered only order-of-magnitude figures.

In 1978, the median family income in the United States was about \$17,200, half of all families received more and half less than this amount. (This is considerably less than output per family, because a large amount of total production goes into building factories, replacing worn-out productive machinery and housing, and the like that are not directly income to families. It is more than the average income per worker because many families include more than one worker.) But not all Americans are affluent. Figure 1–1 shows the distribution of income in America in 1978. About 12 percent of all families were classified as "poor" by official government statistics; a typical four-person family living in a city was considered poor if its income was \$6,200 or less. By contrast, the average income of about half the world's population, about 2 billion people, was less than \$200.

What did our huge gross national product of \$2 trillion in 1978 include? We produced onehalf billion loaves of bread and 160 billion passenger-miles of air travel; about \$3 billion worth of books, \$6 billion worth of frozen fruits and vegetables, \$3 billion worth of toys and games, \$180 billion worth of health services

FIGURE 1-1 Family Incomes in 1978

The United States has a wide range of family incomes. Each bar represents one-fifth of all families. About twothirds of all families had incomes in 1978 between \$7,000 and \$28,000. Half got more than \$17,200, half less. (Source: U.S. Department of Commerce; preliminary estimates for 1978 by author.)



RANGE OF FAMILY INCOMES

(over \$3,000 per family), and about \$100 billion worth of educational services. The auto industry turned out about 11 million cars, bringing the total on the road to over 100 million. We built 2 million new housing units, and over 95 percent of all existing housing had inside plumbing, a rarity among the world's nations. The economy provided 96 million jobs, an increasing proportion of them in retail and wholesale trade, government, and other service occupations, in contrast to agriculture and manufacturing, which had earlier provided most of the nation's jobs. Figure 1-2 presents a summary picture of what has happened to the composition of jobs in the American economy over the past century; the total number of jobs over the same period has risen by over 500 percent, from about 18 million in 1869.

With all this productivity, the American economy has also produced some of the world's largest slums in our central cities, widespread air and water pollution that threatens our health and the natural beauty of the land, and wide discrepancies in the quality of education provided to students of different races and different locations. The average black family income was only 60 percent of that of whites, although blacks' incomes have risen more rapidly since World War II than those of whites, and young, well-adjusted blacks have almost caught up with comparable whites. Defense spending in 1978 totaled about \$115 billion, enough to eliminate poverty and provide drastically improved housing and education for the American people if those resources could have been allocated to peaceful purposes.

Looking at these shortcomings, many Americans call for a redirection of our national priorities. They say we are using our resources for the wrong purposes. They call for less emphasis on the "quantity" of GNP and more on the "quality" of life. Some radicals in the "New Left" argue that modern American society is a mess, characterized by inequality of income and opportunity, alienation, capitalist imperialism internationally, and a topsy-turvy set of values. Although most Americans find these criticisms grossly overdrawn, many feel that we do need to reassess our national priorities, without giving up the demonstrated virtues of the American mixed-capitalist type of economy.

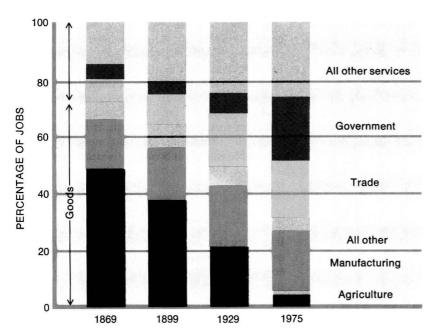


FIGURE 1–2
The Changing Pattern of Jobs

The past century has seen a dramatic change in the way Americans earn their livings. Less than 25 percent now work in manufacturing, nearly 70 percent in service industries. Note the decline in agriculture. (Sources: National Resources Committee and U.S. Department of Commerce.)

PROBLEMS OF THE 1980s

Looking to the new decade, the pollsters have asked many Americans what they think will be the main national problems of the 1980s. Although the answers depend in part on how the question is asked, a sampling of the polls shows results something like this:

- 1. Inflation
- 2. Maintaining peace—avoiding war
- 3. Crime and lawlessness
- 4. The high cost of health care, especially for the aged
- 5. Unemployment, especially for young minority groups in the cities—stimulation of economic growth and progress
- 6. Big government
- 7. The quality of life-environmental pollution
- 8. The problems of the cities
- 9. The power of big business and big labor

- 10. Poverty and inequality
- 11. The energy crisis

From a personal point of view, you might add, "Will I be able to get a job?" Economics is about your personal problems, the allocation of your resources and rewards to your actions, as well as about national problems and the use of resources at the national level.

It is clear that these problems range beyond economics. Maintaining peace, for example, is a complex problem, in which economics plays a role, but only one role among many. This is true of most of the problems listed—they are partly economic and partly non-economic. So it is with the world. It is very difficult to separate the economic from other forces at work. Crime and lawlessness provide another example. Surely the forces at work are sociological, political, and legal, but they are also economic (crime rates are highest in the city slums and ghettos).

Thus, economics turns up in almost every aspect of modern life, and we shall look at the economics of the problems listed above. But to see only the economic aspects of such problems can be seriously misleading. This is a book about economics, but we shall try to keep the economics in perspective. It is very definitely a book about political economy-about economic policy, which usually involves the political process as well.

WHAT ARE OUR NATIONAL GOALS?

What are our national goals? Are we producing the right things with our productive resources? Do we have our priorities straight?

Unless we have at least a rough idea of what we want the economy to achieve for us, it is impossible to judge meaningfully whether or not it is doing a satisfactory job, and how we might improve it. Moreover, since different people have different goals for the economy, it is particularly difficult in our individual-oriented system to agree on how well the economy is performing. Economists, focusing on the economic aspects of the system, often list a set of goals like these:

- 1. Progress a rising average standard of living for the people
- 2. Production in accordance with individual (consumer) preferences
- 3. Equitable distribution of income and opportunities
- 4. Economic security-avoidance of economic fluctuations and inflation, and participation (a sense of belonging) in the system
- 5. Individual freedom

groups—for example, President Eisenhower's Commission on Goals for Americans, and the Department of Health, Education and Welfare's distinguished Task Force on Social Goals in the 1960s-have recommended quite different sets of national goals, putting more emphasis on non-economic factors. But in all, one central question is how much stress should be placed on improving the economic standard of living of the American people and how much on other priorities that are only partially economic-for example, social mobility, health, reducing alienation, and the like. Moreover, there may be conflicts between the goals listed-for example, between progress and security. In such cases, we can have more of one only by having less of the other. Further, words like "freedom" mean different things to different people. Setting out an agreed list of overriding national goals is a far more difficult task than it seems at first glance. Everyone is in favor of a better life. But just what that means is highly debatable when it hits our individual lives.

PERSONAL WANTS, NATIONAL GOALS, AND PRIORITIES

If nature somehow provided free everything each of us wants, there would be no need to economize-no need to choose among alternative uses of resources. But, alas, nature is niggardly. Affluent though we are by historical and comparative standards, our resources are far short of assuring that each of us can have all he wants without working for it. In this fundamental sense, our productive resources (often categorized as land, labor, and capital) are scarce-limited in relation to our wants. Given limited resources, we must choose what to have and what to forego, at both personal and national levels. We must establish priorities.

Consider housing, for example. Housing has become very expensive, and at the personal level, one of your biggest problems for the 1980s may be how to afford a house of your own. If you buy or rent a nice house, you may have painfully little income left for other purposes. At the national level, America still has vast slums. We might set as a national goal a modest \$50,000 house for each family in the United States, a small and certainly not luxurious home. But to achieve merely this one national goal would require over \$1 trillion worth of new housing the equivalent of over thirty years of our total housing production at peak construction rates. To achieve this goal in only one year or in a few years is obviously impossible, even if we cut back dramatically our other goals.

Consider another goal that seems less farfetched. One thing the typical American wants is lots of electricity. He has a passion for gadgets that freeze, defrost, mix, blend, toast, roast, iron, sew, wash, dry, open garage doors, trim hedges, entertain with sound and picture, heat his house