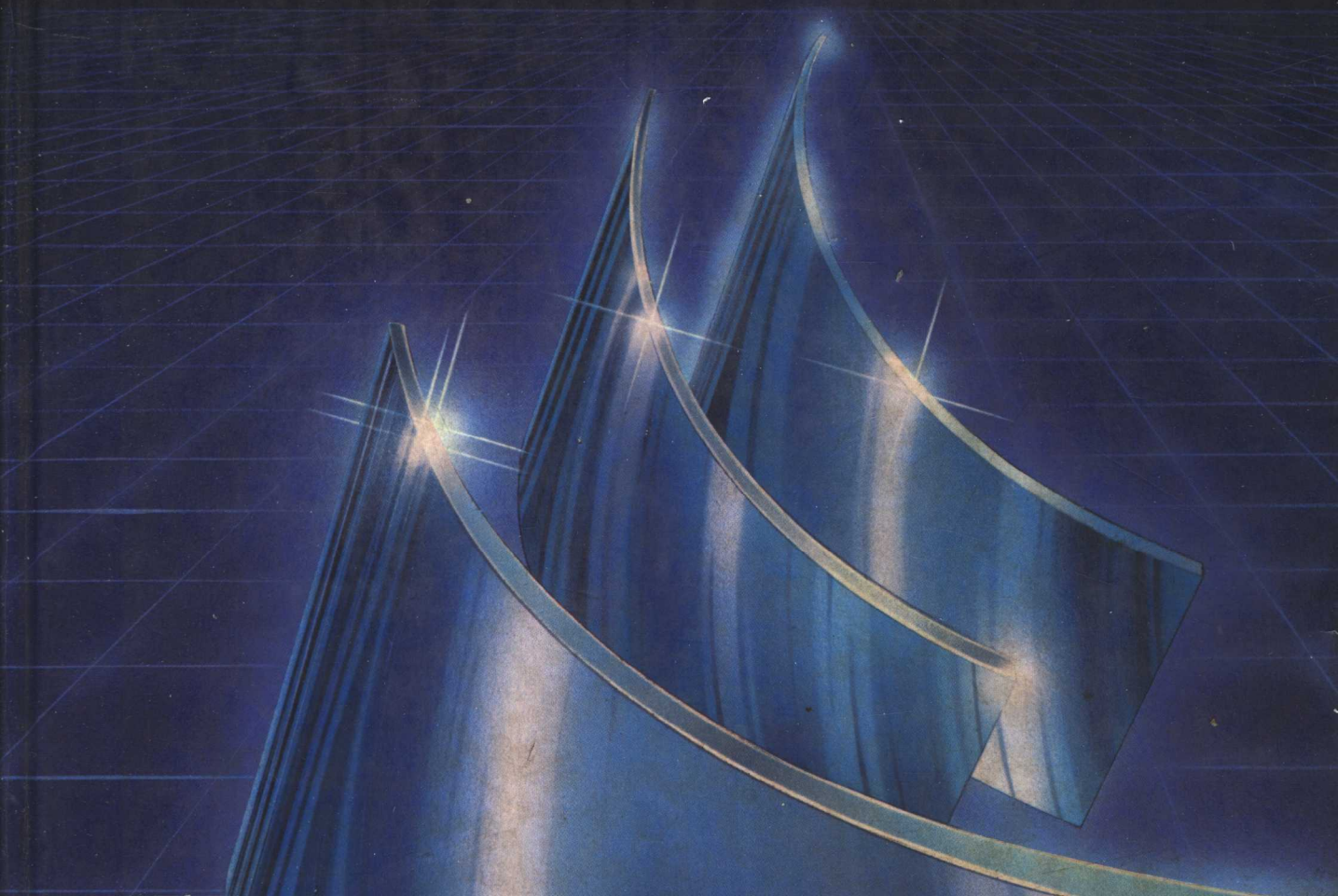
Lloyd C. Atkinson

ECONOMICS



ECONOMICS

the science of choice

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Preface

"The more things change, the more they remain the same."

Alphonse Karr
Les Guepes (1849)

The quotation succinctly captures the character of the present text. We have witnessed dramatic changes in the field of economics in the last decade or so. In macroeconomics, a veritable explosion of knowledge has altered substantively the profession's views regarding the appropriate conduct of monetary and fiscal policies. Monetarism, supply-side economics, and rational expectations, ideas that were largely ignored or unheard of in the late 1960s and early 1970s, have all assumed center stage in today's macroeconomic policy debates. Microeconomics has undergone major transformations as well, as has the economist's view of the role of government in promoting efficiency in the allocation of resources. Relatively obscure specialties, such as the economics of exhaustible resources, externalities, poverty and discrimination, and health and safety regulation, have all emerged as major branches of the science. Even the staples of microeconomic analysis—the economics of market structure, antitrust policy, and international trade, for example—have not been left untouched.

The traditional tools of analysis have proved equal to the task of accommodating these rapid advances in economic knowledge. To put it differently, those tools of long standing in the economics profession, such as the demand and supply model, the production possibilities apparatus, and the aggregate demand–aggregate supply framework, have all proved to be sufficiently expansive and versatile to admit both a growing knowledge base and diverse points of view. "The more things change, the more they remain the same."

The focus in *Economics: The Science of Choice* is on the tools of economic analysis, with special emphasis on their varied and versatile uses. In my view, a thorough grounding in those tools is essential to an understanding of the major economic problems of our times—inflation, unemployment, the energy crisis, inequities in the distribution of income and wealth, poverty, discrimination, pollution, an eroding natural resource base worldwide. Many introductory economics textbooks are written with a similar point of view. However, the study of the tools of analysis is pushed further in *Economics: The*

Science of Choice. In my estimation, this does not make the study of economics more difficult for the student. On the contrary, in fourteen years of teaching the introductory course I have found that familiarizing the student with the rich and varied features of the traditional tools of analysis makes the nature of our economic problems and of the policy options more understandable than otherwise. Going the extra distance enables the student to acquire a more thorough understanding of the implications of the diverse points of view found within the economics profession. This enhanced understanding is not accomplished by introducing the student to new and more sophisticated tools, but by extending and then exploiting the student's understanding of a few traditional tools.

Some highlights of *Economics: The Science of Choice*

The Table of Contents provides an overview of the coverage of topics in *Economics: The Science of Choice.* Upon reading it, you will be struck by three things. First, this text is not an encyclopedia of issues in economics. To keep the length of the text moderate and to provide depth of coverage, I had to pick and choose from among the many and varied interests of economics. I limited my selection to what I believe are the major issues in macroeconomics and microeconomics.

Second, you will note the general absence of chapters specifically devoted to "policy applications." The policy issues are fully integrated with the theoretical discussions; in many instances, the policy issue itself provides the frame of reference for the study of the tools of the economic analysis.

Third, certain features of this text can be identified that set it apart from the competition.

General equilibrium analysis is introduced early in the text, at the end of Chapter 3. In my view, students have enough tools to readily handle the discussion there. They have been introduced to the production possibilities curve and to the demand and supply model. The point of the exercise is to show the interdependencies between product markets and resource markets.

The broad outlines of President Reagan's *Economic Recovery Tax Act of 1981,* perhaps the most dramatic fiscal policy initiative undertaken in U.S. history, are set forth in Chapter 4. The theoretical underpinnings of that tax proposal are explored in Chapter 14.

The concept of the natural rate of unemployment is introduced in Chapter 5. The familiar demand and supply model is all that is required to illustrate this important idea. The discussion makes clear that the natural rate of unemployment is not some immutable constant, but depends on the distribution of excess demand and excess supply markets and the speeds of adjustment of wages in both.

The Keynesian and classical models of income determination are compared in Chapter 7. This discussion is an important prelude to the study of rational expectations in Chapters 13 and 14.

An unusually lengthy discussion is accorded to hotly debated issues surrounding budget deficits and the national debt in Chapters 8 and 11.

The Depository Institutions and Monetary Control Act of 1980, the most significant piece of legislation affecting U.S. financial institutions since the mid-1930s, is examined in Chapters 9 and 10.

Chapters 12, 13, and 14 constitute the heart of the macroeconomics portion of the text. The student is taken step by step from the comparative statics aggregate demand–aggregate supply framework (where the focus is on the theoretical determinants of the price level and real output) to a fully dynamic aggregate demand–aggregate supply model (where the focus is on inflation, unemployment, and growth). The model in Chapter 13 is then applied in Chapter 14 to the study of the major macroeconomics policy issues of our time.

In view of the importance of international monetary relations to the conduct of macroeconomic policy, the macroeconomics portion of the text closes with a discussion of the U.S. balance of payments and the international monetary system.

The focus of the discussion in Chapters 19 through 21 is efficiency in the allocation of resources under alternative market structures.

Chapter 25 focuses on the economics of exhaustible resources. There it is demonstrated that the usual marginal cost pricing criterion for efficiency would often result in resource misallocation.

Chapters 27 and 28 bring together a wide variety of issues dealing with the role of government in our economic system. The point of the entire discussion is simple: In the face of monopoly power and externalities, government intervention is often required in the interests of efficiency. How well government performs its role is touched on peripherally.

Chapters 29 and 30 present an in-depth examination of the costs and benefits of free trade and trade restrictions.

Teaching and learning aids

Great care has been exercised to make *Economics: The Science of Choice* and accompanying supplementary materials, including a Student Guide, Instructor's Manual, Newsletter, and Test Bank, a highly effective package of teaching and learning aids. Considerable attention was given to clarity of presentation at a level of difficulty corresponding to the reading abilities of today's introductory economics students. Particularly important arguments and notable points of view are screened in blue for emphasis.

Student guide. One of the exciting learning aids accompanying *Economics: The Science of Choice,* is *Concepts and Language of Economics: A Student Guide,* written by my good friend and highly respected colleague, Dennis Sullivan of Miami University in Oxford, Ohio. *Concepts and Language of Economics* is extremely closely coordinated with the text and pedogogically is an important complement to the text and to the study and teaching of economics. I strongly urge its use along with the text.

Instructor's Manual. The Instructor's Manual is designed to serve three purposes. First, it provides a detailed list of the learning objectives for each chapter of the text. Second, outline answers to the questions at the end of each chapter reduce the instructor's burdensome chore of preparing answers for distribution to students. Third, for each chapter in the text the Instructor's Manual provides Tips and Suggestions in the form of case studies, supplementary readings, and teaching ideas that I have found useful over the years. Transparency masters are available upon request.

Test Bank. A Test Bank, available on request to users of the text, has been prepared by myself and Dennis Sullivan. The Test Bank contains both multiple choice and true-false questions, each coded to one of three levels of difficulty. Recognizing the problems instructors encounter when they use text banks containing ambiguous items or incorrectly answered questions, we have drawn extensively from our own personal test banks to ensure, as far as possible, that each question has been classroom tested. The Test Bank is available in computerized format.

Newsletter. Twice yearly, a Newsletter will be prepared by the author and made available to all instructors adopting the text. The Newsletter will not have any preset format. Generally, it will be used as a vehicle for updating statistical charts and tables contained in the text, for discussing current policy issues, and for drawing attention to new theoretical and empirical discoveries.

Acknowledgments

In an undertaking as large as *Economics: The Science of Choice,* one incurs a large stack of debts. I seem to owe an unusually large number. Indeed, I am hard-pressed to find very much to offset the huge gifts of time and energy that have been given to me over the course of the past four years while this text was being written, rewritten, and rewritten again.

First, I want to express my deepest appreciation and thanks to my colleague and close friend, Edward F. McKelvey, chief of the Capital Markets Section of the Board of Governors of the Federal Reserve, who not only collaborated with me in writing Chapters 4, 5, and 9 of the book, but who also volunteered to serve as proofreader of the text when it was in pages. I doubt that I will ever be able to repay these debts. Of course, Ed's contributions to this text are his own and

do not necessarily represent the views of the Board of Governors of the Federal Reserve System or any of its other staff members.

An equally large debt is owed to Dennis Sullivan, author of *Concepts and Language of Economics: A Student Guide* that accompanies *Economics: The Science of Choice.* Not only did he leave his mark on this undertaking with the publication of his invaluable Student Guide, but he also served as my finest critic through each of the several drafts of the text. His detailed comments so heavily influenced the final product that I am tempted to shift some of the responsibility for any remaining errors onto his shoulders. But, alas, any remaining errors are mine and mine alone. However, if any credits are to be given, Dennis should share in them.

Next, I want to thank the many reviewers who offered valuable comments on the several drafts of the manuscript: Robert M. Aduddell, Loyola University; Richard K. Anderson, Texas A&M University; Orley Ashenfelter, Princeton University; Frank J. Bonello, University of Notre Dame; Martin S. Feldstein, Harvard University; Harold D. Flint, Montclair State College; J. Fred Giertz, University of Illinois; Robert J. Korbach, University of North Dakota; Peter H. Lindert, University of California-Davis; Roger Magyar, Sacramento City College; Virginia Owen, Illinois State University; Robert L. Pennington, George Mason University; Andrew J. Policano, University of Iowa; Richard Roehl, University of Michigan-Dearborn; John C. Soper, Northern Illinois University; Robert Strom, University of Missouri-Columbia; Craig West, Federal Reserve Bank of Kansas City; Donald Yankovic, University of Toledo.

A very special thanks goes to Linda Maisel, typist extraordinaire, who cheerfully accepted my completely unreasonable deadlines without complaint. My apologies at the time seemed inadequate, so let me emphasize again, "I'm sorry."

The tally of these debts, sizable though it is, is small by comparison with the debt I owe to my family—to my wife, Sherry, and to my two sons, Scott and Stefan. Sherry performed an unusual number of roles in the production of this text. As an economist in the Banking Section of the Board of Governors of the Federal Reserve System, she was extremely valuable as a critic and as a sounding board for my ideas. Her patience, understanding, and encouragement, and her willingness to take on much more than her fair share of household chores and family obligations, were critical ingredients to the successful completion of this work. I owe her a great deal, and I trust that she will now accept my profuse thanks as but a small down payment for a debt piled high. To my sons: I know I cannot turn the clock back to retrieve the hundreds of weekends when I was locked away in my study. But I *can* promise to share with you future weekends.

Lloyd C. Atkinson

Contents

The Alfred Nobel Memorial Prize in Economic Science was officially established in 1968 under a donation by the Central National Bank of Sweden to mark its 300th anniversary. Alfred Nobel, who died in 1896, was a millionaire best known for his invention of dynamite. His will established a fund for monetary awards to persons who have worked for peace as well as to persons who have benefited mankind through their contributions in the fields of literature, physics, chemistry, medicine, and psychology. The awards have been given annually since 1901. However they have occasionally been withheld in one or more categories, especially the peace prize.

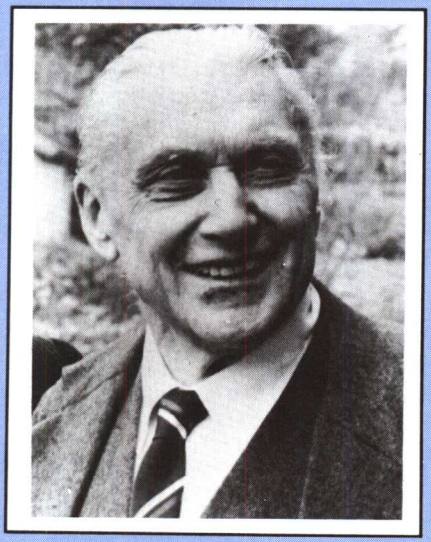
The award for Economic Science is the only addition to the five categories as set up by the Nobel Foundation. It is administered in the same way as the others and the cash value is identical—in 1981 the equivalent of $180,000. The Swedish Academy of Sciences is responsible for determining the recipients for all of the prizes. The criteria for selecting the winners in economics is based on "the achievements on their scientific merits," and the rules generally require a "discovery," though that may be broadly defined to include a different approach or use of previous works. Although the public is most eager to know what the "work" implies for public policy, invariably the technical or scientific contributions of its economic laureates are stressed in the citation.

Between 1969, when the first Economic Science award was made, and 1981, 19 persons have received or shared one of the 13 coveted awards—6 were joint awards. Several of the recipients have been politically active; however the citations have carefully avoided any commentary on their political or social orientations.

Ragnar Frisch and Jan Tinbergen were joint winners of the first Alfred Nobel Memorial Prize in Economic Science in 1969. Both were recognized by the Nobel committee for their pioneering work in the areas of econometrics and mathematical economics. Their work brought greater precision to economic policymaking.

Ragnar Frisch (1895–1972)

A pioneer in the development of mathematical methods for analyzing economic phenomena, Ragnar Frisch—a Norwegian—was noted for his contributions in mathematical economics and applied econometrics.



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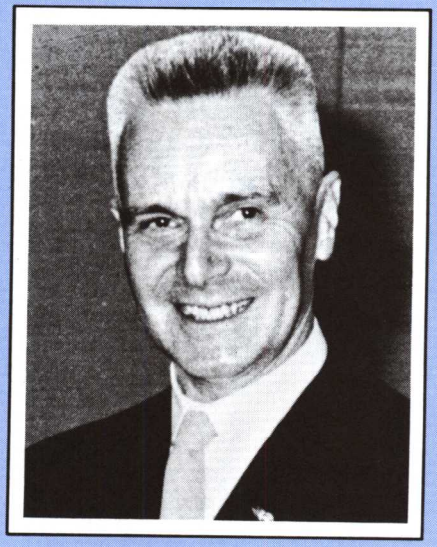
Frisch was one of the founders of the Econometrics Society in 1931 and was chief editor of its journal, *Econometrica,* until 1955. He is perhaps best known for his writings on the use of models as tools for the design of economic policies. Today, his ideas are widely accepted in all parts of the world. The Oslo model, a statistical-economic planning system is the product of his many years of research at the Oslo University.

Frisch was one of a group of university professors whom the Nazis imprisoned in a concentration camp during World War II. A huge, intense, strong-willed man, Frisch was also a beekeeper and an expert in the genetics of bees.

Jan Tinbergen (1903–)

Working principally in applied econometrics and occasionally in the field of mathematical economics, Jan Tinbergen is associated with the Netherlands School of Economics in Rotterdam. His work in the development of the first large-scale model of the U.S. economy during the Great Depression of the 1930s served as the main stimulus to the development of the modern techniques of economic forecasting.

Subsequent to World War II Tinbergen served as advisor to the governments of several developing and emerging nations in Africa, Asia, and Latin America, devoting most of his efforts to improving economic planning for long-term growth. More recently his chief activity has been to focus on problems of income distribution and a program for world economic development.



Wide World Photos

PART ONE

Basic concepts