



TIMOTHY TREGARTHEN

Economics



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Timothy Tregarthen

University of Colorado, Colorado Springs

WORTH PUBLISHERS

For Suzanne, Doran, and Brittany, with love

Economics

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About the Author



Timothy Tregarthen is Professor of Economics at the University of Colorado at Colorado Springs (UCCS). He has taught at the University since 1971, and has served as Chairman of the Department of Economics from 1974 to 1985. He has received two outstanding teaching awards at the university and in 1987 he received the Chancellor's Award as the university's outstanding professor.

Dr. Tregarthen completed his graduate work in economics at the University of California at Davis, where he was a Woodrow Wilson National Fellow and a Regents Fellow. He received his M.A. in economics in 1970 and his Ph.D. in 1972. He was student body president at California State University at Chico and received his B.A. in economics *magna cum laude* from that institution in 1967.

He was Executive Editor of *The Margin* magazine from 1985 to 1994. He founded the freshman seminar program at UCCS in 1991 and served as director of the program until 1995. He has been a visiting professor at The Colorado College and for the Semester at Sea program.

He is the author of hundreds of articles on a wide range of economic issues. He has written two books and a nationally syndicated humor column on economics from 1980 to 1985.

Dr. Tregarthen has long been active in community affairs in Colorado Springs. He was Chairman of the El Paso County Planning Commission. He also chaired the board of the National Multiple Sclerosis Society, Southeast Colorado Chapter. He is currently a Stephen Minister at Calvary United Methodist Church, a peer counselor for the Colorado Springs Multiple Sclerosis Society, and a member of Centennial Sertoma Club.

Preface

Three developments in this decade will shape all our lives in the next century:

- New trade agreements have brought international trade to the forefront of daily life to a greater degree than ever before.
- The shift to market-based economic systems all over the world has transformed the challenges of economic development and of international relations.
- Communications technology, which has advanced dramatically over the past 150 years, has taken even more rapid leaps in the last five. It will change the way we live, the way we play, and the way we learn.

As if all these changes were not enough, developments in the works over the last two decades provide a backdrop of change that renders these current developments all the more breathtaking. The integration of computer technology into virtually all aspects of production has revolutionized the workplace and the demands it places on all of us. The slowing pace of economic growth has made choices in economic policy even more difficult. The emergence of a persistent federal budget deficit, and the struggle to bring it down, have helped set the stage for a fundamental debate over the appropriate role of government in a market economy.

The changes that are sweeping our world have important implications for introductory courses in economics—and the texts designed for them. They do not, of course, change the essential content of the course. Much of the power of economics lies in the fact that its basic principles help us to understand our world—regardless of how much that world might have changed. Indeed, the dizzying pace of change that we see all about us makes the mastery of these basic principles all the more important. I believe that a textbook that will help usher in the next century must

- make clear to students just what the essential principles of economics are,
- establish strong links between theoretical principles and real-world experience,
- incorporate a clear and consistent international focus from beginning to end, and
- give students a sense of the intellectual excitement of the field and an appreciation for the gains it has achieved and the challenges that lie ahead.

I have written *Economics* because I believe that these goals are important and that they are achievable. *Economics* achieves them by offering students a book that is relevant, organized in a way that stresses basic concepts, and offers a clear framework for understanding essential ideas.

Relevance

Economics as a field has enjoyed enormous success because of its relevance to the issues, big and small, that we all face. I've tried very hard to bring that sense of relevance to my writing of *Economics*. Each chapter begins with a *What's Ahead* essay that presents some issue relevant to the chapter. As analytical tools and concepts are introduced, they're applied in a series of lively, provocative *Case in Point* essays.

In these essays, readers will see how economic forces have influenced real issues and real people. Many of the *What's Ahead* and *Case in Point* essays are based on stories of people who are grappling with the forces examined in the text. When students read about the impact of exchange rates, they'll meet a business executive whose firm was clobbered by the fall of the peso in 1994 and 1995. When they read about the effects of inflation, they'll find out how Ferdinand Porsche, the automobile engineer, ended up selling one of the grandest cars in the world for enough money for a half-dozen rides on the local street-car system. When they read about shutdown points for a firm, they'll meet a vintner who shut down a vineyard in the face of falling prices for red grapes.

The sense of relevance brought by the *What's Ahead* and *Case in Point* essays is reinforced in the discussion questions at the end of the chapter. These questions include not only general review questions to test basic understanding but examples drawn from the news and, again, from interviews with people in the marketplace. These questions not only suggest the relevance of economic analysis but they strengthen students' critical thinking skills as they apply economics to real situations.

Students will get a big dose of relevance in the first chapter of *Economics*. As I was getting the manuscript ready to go to press in 1995, I picked a single day in February and selected events from that day, drawn from newspapers all over the country. The chapter presents those events with a discussion of how economics applies to them. Students will see how stories ranging from the finding of a red wolf cub in Bull's Island in North Carolina to a move by the Fed to raise interest rates relate to economics and to the material they'll be studying in the course.

Textbooks have a three-year life span, and over that period new events will unfold and new issues will emerge. I will be writing new *Case in Point* essays throughout the next three years and making those essays available to readers over the Internet and through distribution to instructors.

Organization

Economics breaks new ground in its organization. The basic set of topics presented in all introductory courses in economics has evolved because it works; *Economics* doesn't tamper with that. But it does present those topics in a way that I think represents an important step forward in teaching the principles of economics.

The first organizational choice in writing an introductory text is whether to present microeconomics or macroeconomics first. I've chosen to begin with microeconomics. In my view, this has always been the right choice; students learn tools in microeconomics that they can apply in macroeconomics. Recent developments in the profession have made that ordering even more appropriate; much of the most exciting work in macroeconomics has come as economists have built the theory on a more solid microeconomic foundation.

I recognize, however, that there are legitimate arguments for a macro-first approach. Where the macroeconomics portion of *Economics* relies on microeconomic principles, they are developed in sufficient detail for a student starting with that portion of the book to be able to master the analysis.

Microeconomics

Within the microeconomics portion of the text, three organizational innovations stand out. To my knowledge, they are not available in other texts.

First, the theories of consumer behavior (Chapter 6) and of production and cost (Chapter 7) are preceded by a chapter that develops a general rule for maximizing behavior. The marginal decision rule is developed in an intuitive manner and then is applied as an integrating device *throughout* the book's discussion of microeconomics. Instead of a hodgepodge of rules applied under different market conditions, students learn a single rule they can apply within any market setting. The chapter also investigates conditions under which maximizing choices will—and will not—lead to desirable outcomes. This chapter provides a solid perspective on the strengths and the limitations of markets, as well as the role of government in the economy.

Second, the text is organized in a way that emphasizes the difference between the price-taking behavior of models of perfect competition and the price-setting behavior found in models of imperfect competition. Part Three introduces the price-taking choices of the model of perfect competition. Price-taking choices in product markets are introduced first (Chapter 8), followed by price taking in labor markets (Chapter 9), in capital and natural resource markets (Chapter 10), and in international markets (Chapter 11).

Part Four introduces market settings in which firms are not price takers but are price setters. The marginal decision rule continues to apply, but the fact that buyers or sellers can choose their price changes the outcome of maximizing choices.

A student's ability to use the marginal decision rule in the context of price-setting choices is reinforced through applications to monopoly choices (Chapter 12), monopolistic and oligopolistic market choices (Chapter 13), and choices in imperfectly competitive factor markets (Chapter 14).

A third organizational innovation appears in the treatment of the microeconomic aspects of international trade. The concept of comparative advantage emerges in Chapter 2 with an innovative approach to the derivation of the production possibilities curve. An entire chapter in the section of the book devoted to perfect competition develops basic trade theory within the context of the model of perfectly competitive markets. The new theory of international trade, with its implications for strategic trade policy, is presented within the context of Chapter 13's discussion of monopolistic competition and oligopoly. This important development in economic thought is an outgrowth of theories of imperfect competition. *Economics* is the first text to achieve that integration of new developments of trade theory with theories of imperfect competition.

Part Five, Microeconomic Applications, offers instructors a potpourri of applications of microeconomic theory to domestic policy issues. Professors may choose among chapters on agriculture (Chapter 16), antitrust policy and regulation (Chapter 17), pollution (Chapter 18), poverty and discrimination (Chapter 19), and health care (Chapter 20). From the Justice Department's investigations of Microsoft to the Supreme Court's 1995 ruling limiting affirmative action programs, students will appreciate the chance to see microeconomic principles applied in greater depth to specific problems. Instructors may also wish to incorporate Part Ten, which examines the economic systems of different countries and which explores the problems facing former Soviet-bloc nations undergoing the transition to market systems.

Macroeconomics

Organizational innovations continue in the macroeconomics portion of *Economics*. International implications of macroeconomic policy are built into the discussion from the beginning. Just as the microeconomics half of the text is organized around the integrating principle of the marginal decision rule, the macroeconomics half is organized around the model of aggregate demand and aggregate supply (AD-AS).

Macroeconomic principles are introduced from the beginning, as the circular flow model is built step by step in introducing issues in measuring GDP (Chapter 21). Chapter 22 deals with problems of inflation, unemployment, and the business cycle and introduces the labor market.

Chapter 23 offers yet another innovative feature of *Economics*. The chapter explains how the model of demand and supply that was introduced in Chapter 3 is applied in the study of macroeconomics. Students are introduced to markets they will encounter again and again: the markets for bonds and foreign exchange. In addition, the chapter introduces the AD-AS model. In this chapter and in the next two, students have an opportunity to begin working with the model, which is developed more rigorously in Part Seven.

The student's introduction to macroeconomics is completed with chapters on money, banking, and the Federal Reserve (Chapter 24) and on money and the economy (Chapter 25). One payoff from the introduction of bond and foreign exchange markets in Chapter 23 comes here. The analysis of the impact of Federal Reserve actions includes bond market effects of monetary policy from the beginning.

The inclusion of chapters on money in the introductory portion of the macroeconomics section serves three purposes. First, it reinforces the discussion of bond and foreign exchange markets and the AD-AS model in Chapter 23. Second, it allows full treatment of the Keynes effect in the detailed derivation of the aggregate demand curve that will come in Chapter 26. The final advantage is one of relevance. Monetary policy is likely to be in the news as the course is taught; introducing the concepts and tools relevant to this policy allows major news events to be brought into the classroom early in the course.

Part Seven develops models central to economic analysis. First, the AD-AS model is developed in detail in Chapter 26. The short-run and long-run aggregate supply curves are derived from a production function for the economy and from a supply curve for labor. Flexible prices in the long run produce a vertical long-run aggregate supply curve; sticky prices in the short run produce an upward-sloping short-run aggregate supply curve. Instructors who do not wish to take time for this more rigorous presentation of the AD-AS model may choose to

skip this chapter; the development of the model in Chapter 23 will be sufficient to take students through the applications that follow.

Chapter 27 presents consumption theory and introduces the aggregate expenditures model. This model is used to develop the concept of multiplier effects; the AD-AS model remains the basic model used in the text.

The remaining chapters in Part Seven present an analysis of investment (Chapter 28) and of net exports (Chapter 29). The latter chapter provides an introduction to the theory of international finance and is integrated into the development of the AD-AS model.

Part Eight focuses on policy choices in the short run. It begins with monetary policy (Chapter 30) and then turns to fiscal policy (Chapter 31). By this time, students have worked through the complete AD-AS model several times, and will be quite familiar with it.

Chapter 32 again breaks new ground. *Economics* is the only introductory text on the market that explicitly applies the AD-AS model to the phases of inflation and unemployment we have observed in the United States since 1961. It is the only text that uses the AD-AS model to show how inflation and unemployment can both fall in the face of rising aggregate demand.

Chapter 33 serves as a capstone to the analysis of the macroeconomy in the short run. It applies the AD-AS model to actual data for the 1930s, 1960s, 1970s, 1980s, and 1990s. It shows how the curves have been shifted by events and by the monetary and fiscal policies applied during these periods. At the same time, a history of macroeconomic thought is woven into the discussion. Students will see Keynesian economics developing in the 1930s, then winning a central role in macroeconomic policy in the 1960s. They will see difficulties coming from the supply side in the 1970s and the role these developments played in the growing acceptance of monetarist and new classical schools. They'll also see how new Keynesian thought emerged in response to the challenges mounted by the monetarist and new classical schools. Finally, they will see how monetary policy took center stage in the 1980s and 1990s. The text is organized so that instructors who wish to do so can go directly from Chapters 26 and 27 to Chapters 32 and 33.

The discussion turns to the long run in Part Nine. This discussion begins with another innovative chapter on contemporary issues that are long run in nature (Chapter 34). These include the deficit, the issue of U.S. competitiveness, and growing concerns about fairness. The investment–saving identity is developed to show the potential relationships between the government and trade deficits. This analysis is then applied to the emergence of large and persistent trade deficits in the 1980s and the resultant concern about U.S. competitiveness.

The problem of economic growth is presented in Chapter 35. Because the AD-AS model has by now become so familiar to students, it's easy to show the significance, and the sources, of economic growth.

Chapter 36 addresses the challenge of economic development, incorporating the latest data available on the world's economies from the *World Development Report 1995*. The international focus is continued in Part Ten, which examines economic systems. Chapter 37 discusses market economies and Chapter 38 looks at socialist economies and the problems and successes that have been encountered by those nations undergoing the transition to a market economy.

The organization of *Economics* is different, and it is a difference with a purpose. It is a difference aimed at helping students to understand, integrate, and apply economic principles.

Clarity

Economics brings clarity in part through its writing style. But it also brings clarity through several pedagogical features that are integral components of the text.

The *What's Ahead* essay at the beginning of each chapter presents an issue or event that seeks to capture the reader's imagination and motivate his or her study of the material that follows. The short essay also provides an introduction to the material that will follow. That's accompanied by a list of *Chapter Objectives* that spell out for the student what mastery of the material in the chapter implies.

Definitions of key terms are highlighted in the margin as they're introduced, for easy review. A *Checklist* at the conclusion of each major section reviews the key points covered in that section. At the conclusion of each chapter, *A Look Back—And a Look Ahead* reviews the material covered in the chapter and gives the student a preview of what's coming in subsequent chapters.

Scattered throughout the text are *Reader's Advisories*. These flags warn students of common errors that can be made and show how to avoid them.

The *For Discussion* questions at the end of each chapter are intended for just that purpose: to promote discussion of the issues raised in the chapter and to engage students in critical thinking about the material. They also serve as tests of student understanding. The *Problems* provide numerical exercises as a further test of understanding.

Economics provides students with a resource that enhances their learning experience with its organization, relevance, and clarity. But it doesn't stop there. It's one part of a package that has been carefully designed to help students make the economic way of thinking their own.

Supplements for the Student

Study Guide

The *Study Guide*, by John Mogab and Bruce A. McClung of Southwest Texas State University, will help students at all levels of ability to review, learn, reinforce their understanding, and master the material in each chapter.

Each *Study Guide* chapter provides a key point review, which is a thorough overview of chapter content, and learning objectives, which are keyed to questions in the study guide chapter and to page numbers in the textbook. There is a matching exercise to help students verify and reinforce their understanding of the key terms used in the chapter, as well as a set of objective test questions, which are true-false and multiple-choice questions covering all important points in the chapter.

In addition, there are problems and applications designed to challenge students to apply quantitative and conceptual reasoning to their knowledge. This section contains tables to complete, graphs to draw and interpret, and exercises that help students consolidate their understanding of key ideas. There are also questions to think about, which encourage students to think critically about material they have learned.

Answers to key terms, questions, and problems and applications are provided.

Visual Microeconomics and Visual Macroeconomics

Visual Microeconomics and *Visual Macroeconomics*, by Richard Alston and Wan Fu Chi of Weber State University, are software packages consisting of fourteen programs designed to utilize and reinforce concepts that are presented in Tregarthen's *Economics* and further developed in the software. These programs are not "black box" simulations that do little more than encourage students to guess and play games. Rather, in the microeconomic simulation, strategic decisionmaking is rewarded and punished in accordance with economic theory. In the macroeconomic simulation, goals and outcomes are carefully explicated, eliminating the occurrence of unexplained "surprises." Emphasis is placed on the difficulty of designing credible fiscal and monetary policies in light of both short- and long-run market responses to government intervention in the economy. Each simulation builds upon the material contained in earlier programs. The programs take full advantage of the multiple-access capabilities provided by Microsoft Windows. On-screen multiple-choice and data entry quizzes reinforce basic economic concepts, test comprehension, and provide immediate feedback. In addition to these fourteen programs, *Visual Microeconomics* and *Visual Macroeconomics* contain an inclusive hypertextualized glossary of the key terms found in the textbook. A subset of this glossary, customized to include definitions for additional terms not found in the textbook, is incorporated into each of the programs. The fourteen programs include the following:

- Program 1 Working with Graphs and Algebra for Economic Analysis (Chapter 1)
- Program 2 Confronting Scarcity: Choices in Production (Chapter 2)
- Program 3 Demand and Supply (Chapter 3)
- Program 4 Elasticity: A Measure of Response (Chapter 4)
- Program 5 The Analysis of Consumer Choice (Chapter 6)
- Program 6 Behind the Supply Curve: Production and Cost (Chapter 7)
- Program 7 Competitive Markets for Goods and Services (Chapter 8)
- Program 8 International Trade and Finance (Chapters 11 and 29)
- Program 9 Monopoly and the World of Imperfect Competition (Chapters 12 and 13)
- Program 10 Measuring the Economy's Output (Chapter 21)
- Program 11 Demand and Supply in the Macroeconomy (Chapter 23)
- Program 12 Money and the Economy (Chapters 10, 24, and 25)
- Program 13 Aggregate Demand and Aggregate Supply (Chapter 26)
- Program 14 Consumption, Investment, New Exports (Chapters 27, 28, and 29)

Supplements for the Instructor

The Instructor's Resource Manual

Authors Virginia Lee Owen of Illinois State University and Sarah Tinkler of Weber State University have prepared a comprehensive set of teaching resources, containing chapter summaries, chapter outlines, and suggested answers

to questions and problems in the textbook. These include learning objectives aimed at students in survey courses as well as those specializing in economics.

The *Instructor's Resource Manual* includes suggestions for active learning, such as topics for microessays (very short writing assignments) and for group activities (simulations, role playing, mock trials, discussions, and debates).

Another complement to the manual are the lecture supplements. These contain *Economics in the News* (summaries of current news events with commentaries on their economic implications), *Lecture Extensions* (suggested topics illustrating or extending the concepts), and *Theory in Focus* (full reproductions of relevant news articles).

There is a section on common student difficulties, in which concepts difficult for students to comprehend are identified, common student mistakes are explained, and suggestions for overcoming these problems are provided.

Additional materials include a bibliography of readings, audiovisual materials, and computer software. Also included in each chapter is a reprint of a relevant article from *The Margin*.

Test Bank

The *Test Bank* to accompany Tregarthen's *Economics* by Orley Amos of Oklahoma State University is divided into two separate volumes, one for microeconomic topics and the other for macroeconomic topics. In total, there are approximately 4000 multiple-choice and true-false questions. The questions range in difficulty to test comprehension, interpretation, analysis, and synthesis. All major topics are covered. The *Test Bank* questions are also available in test-generation systems for the Windows, Macintosh, and PC operating environments.

Transparencies

Full color acetate transparency sets for macroeconomics and microeconomics include key graphs, charts, and diagrams, enlarged for effective projection.

Acknowledgments

I have, over the years, read many text prefaces and their offers of heartfelt thanks to large numbers of people who participated in some fashion in the production of the book. I never realized, though, the degree to which a text is truly the joint product of the efforts of literally hundreds of people. I have been humbled and gratified by the enormous contributions of my colleagues and of the staffers at Worth Publishers that have made this book possible. I am the author, but I am delighted to acknowledge my enormous debt to their efforts.

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Shirley Cassing

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Steven L. Cobb

University of North Texas

Mary Cookingham

Michigan State University

Lawrence A. Daellenbach

University of Wisconsin at La Crosse

John P. Dahlquist

College of Alameda

Smile Dube

California State University, Sacramento

Donald H. Dutkowsky

Syracuse University

Kathie S. Gilbert

Western New Mexico University

Lynn G. Gillette

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Otis W. Gilley

Louisiana Tech University

Robert Harris

University of Indianapolis

Daniel Himarios

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Jim Holcomb

University of Texas at El Paso

Solomon Honig

Montclair State University

Nancy A. Jianakoplos

Colorado State University

Walter Johnson

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Bill Kerby

California State University, Sacramento

Walter Kemmsies

Memphis State University

Michael Kupilik

University of Montana

Patrick Lenihan

Eastern Illinois State University

Jane Lillydahl

University of Colorado at Boulder

Roger Mack

DeAnza College

Michael Magura

University of Toledo

Henry N. McCarl

University of Alabama at Birmingham

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David Molina

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W. Douglas Morgan

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Richard Moss

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James Nordyke

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Edward Price

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Colorado Springs, Colorado

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E-mail: tregarthen @ aol • com

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