

Principles of Microeconomics



Amacher • Ulbrich
Third Edition

Principles of Microeconomics 3/e

Ryan C. Amacher

Professor of Economics
Clemson University

Holley H. Ulbrich

Professor of Economics
Clemson University

H68



Published by

SOUTH-WESTERN PUBLISHING CO.

CINCINNATI WEST CHICAGO, IL DALLAS PELHAM MANOR, NY LIVERMORE, CA

Copyright © 1986
by South-Western Publishing Co.
Cincinnati, Ohio

All Rights Reserved

The text of this publication, or any part thereof, may not be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, storage in an information retrieval system, or otherwise, without the prior written permission of the publisher.

ISBN: 0-538-08681-5

Library of Congress Catalog Card Number: 85-50937

2 3 4 5 D 9 8 7 6

Printed in the United States of America

Preface

The third edition of a textbook is a learning experience for any author. We have been fortunate to have very helpful and concerned users of the first two editions on both the faculty and the student sides of the podium. We hope the improvements in *Principles of Microeconomics*, Third Edition, reflect their helpful comments.

A major change from the second edition is the addition of a new coauthor, Holley Ulbrich of Clemson University. She brings experience from 18 years of teaching and the authorship of two previous books to this collaboration. She assumed primary responsibility for the macroeconomics chapters as well as the chapters on government and on international trade and international finance. Coauthoring is a challenging and enriching experience for both writers and one that can be enriching for the book as well. Every page of every chapter reflects the work of both authors, regardless of who had primary responsibility for preparing the first draft.

Our goal is not to make professional economists out of students. A common complaint in economics is that instructors and textbook authors often approach the principles course as if it were the initial step in work for the Ph.D. This text is not intended to train professional economists but to show the rich analysis that economic theory offers the policy analyst or adviser. In that sense, this is both a theory book and a policy book. Policy cannot be understood without theory, and theory without policy isn't too useful.

CHANGES IN THE THIRD EDITION

This third edition keeps much of what our users liked about earlier editions, adds information on current developments and issues, and reflects some substantial changes in organization and presentation in a continuing effort to make the textbook interesting to read and easy to use for both student and instructor.

The chapter on government has been moved to Part I, incorporating a discussion of such current issues as the simplification tax and Social Security reform.

The chapters on elasticity, tools, utility analysis, and indifference curve analysis (optional) are essentially unchanged except for the addition of new, current examples. The long chapter on production and cost which

appeared in the second edition now has been separated into two chapters. The production chapter includes new material on the theory of the organization of production by households and firms and on team production and provides a detailed treatment of nonprofit firms.

The four chapters on the four market structures have been reduced to three by combining the discussions of oligopoly and monopolistic competition in one chapter. The chapter on pure competition now includes a discussion of the idea of a representative firm and a discussion of differential rent theory. The chapter on monopoly has been revised to include treatment of deadweight loss, x -inefficiency, monopoly rent seeking, and the theory of contestable markets. The industrial organization chapter has been updated to include a discussion of antitrust activity in the Reagan Administration and to show students how to construct Herfindahl indexes.

The sections on factor markets are not drastically altered. The theory has been expanded to include an analysis of human capital, a discussion of roundabout production, and an investigation of the influences on the elasticity of factor demand. The "real world" sections have been updated to incorporate developments including recent NLRB activity and the growing popularity of two-tier contracts.

Chapter 18 is substantially new. It adds to the previous discussion of externalities and public goods by introducing the interest group theory of government, public choice theory, and rent seeking.

Chapters 19 and 20 are also new. Chapter 19, Income Distribution, Poverty, and Discrimination, greatly expands the treatment of these same subjects given in the second edition. Chapter 20 presents a discussion of several important micro topics, including human capital formation, slavery, comparable worth, industrial policy, and law and economics.

Finally, the international chapter in the second edition has been significantly revised and separated into two chapters for those who wish a more thorough treatment of trade and finance. This division also will allow the instructor to focus on only one of these two areas if time is short.

Economic Development and Social Change (Chapter 23) and Comparative Economic Systems and Ideologies (Chapter 24) have been revised to include recent happenings. Significantly more space is given to a discussion of developments in the People's Republic of China.

Last, but not least, our final chapter on being an economist, on which we have received so many favorable comments, has been updated to include current data.

IMPORTANT FEATURES OF THE THIRD EDITION

The following features make this introductory text a useful and unique product:

Organization

This book allows the student to see the power of economic analysis very quickly. After elementary tools are discussed, they are applied to a wide range of social policy questions.

The overview and summary chapters at the beginning and end of the core chapters in microeconomics help the student to keep the various component pieces of theory and issues firmly located in a broader theoretical and institutional framework.

The final chapter looks at what economists do, how much they are paid, how they are educated, and why students might major in economics. This chapter answers a host of questions that potential majors might have about economics as a career option. No other book on the market includes such a feature.

Important Economists, Economic Institutions, and Issues

Each chapter includes boxed insets featuring important economists, economic institutions, and relevant contemporary issues. The insets are closely related to the material in the chapter and highlight the way a particular theory was developed or how it is being applied to important problems.

References, Questions, and Reading Suggestions

Since one of the major goals of this book is to demonstrate the relevance of the economic way of thinking, numerous references are included to direct interested students to more information on particular subjects. The carefully selected and annotated *Suggestions for Further Reading* at the end of each chapter serve this same purpose. A number of recent titles were added in the third edition. *Questions for Discussion* appear at the end of each chapter. These are intended to generate interest in the material that has been presented in the chapter. The questions can serve as a foundation for more in-depth understanding of economic policymaking. Suggested answers to all the questions appear in the instructor's manual.

Glossary

All items that appear in boldface type and in the margins of the book are defined in the *Glossary*.

TEACHING AND STUDY AIDS

This book contains teaching and study aids. In addition, a *Study Guide*, an *Instructor's Manual* (including transparency masters), and a *Test Bank* are available. The *Test Bank* and *Instructor's Manual* have been substantially revised and expanded and the *Study Guide* has been updated to correspond to this third edition of the text.

The Text

The appendix to Chapter 1 contains a review of the graphing techniques used in the text. Each text chapter begins with a set of *Learning Objectives*. Students can use these as a handy guide to areas which may require more

work or as an aid to reviewing the subject matter. At the end of each chapter, there is a *Summary* which provides a useful review. *New Terms* are listed at the end of the chapter in the order in which they appear in the chapter. All these new terms may be found in the *Glossary*. Each new term also is defined in the margin of the page on which it first appears. The *Questions for Discussion* at the end of each chapter provide a test of students' understanding of each chapter.

The Study Guide

The *Study Guide* has a chapter which corresponds to each chapter in the text (with the exception of the final chapter). Each *Study Guide* chapter includes:

1. Learning objectives for the chapter
2. A list of important terms and concepts
3. Completion questions based on the list of important terms and concepts
4. Problems requiring numerical and graphical solution
5. Multiple-choice questions
6. Short discussion questions
7. Complete answers to all questions in the Study Guide.

Extensive classroom testing of the *Study Guide* has shown it to be an effective way for students to improve their understanding and performance.

The Instructor's Manual

The *Instructor's Manual* contains a chapter corresponding to each chapter in the text. Each of these chapters includes:

1. A short discussion of the purposes of the chapter
2. An outline based on the headings within the text chapters
3. The *Learning Objectives* as found in the text and study guide
4. A *Summary* of the chapter
5. The *New Terms* (with definitions used in the text) that appear in that chapter
6. Selected lecture notes that expand on chapter themes
7. Answers to all end-of-chapter questions.

The *Instructor's Manual* also contains a set of transparency masters.

The Test Bank

A *Test Bank* is available to adopters. It consists of over 2,300 multiple-choice questions, none of which duplicate those in the *Study Guide*.

Old questions have been carefully reviewed and improved, updated, or replaced when necessary. This greatly expanded *Test Bank* should make preparing multiple-choice examinations much easier for instructors.

ACKNOWLEDGEMENTS

Any project as complex as this takes a number of dedicated and talented people to insure that it doesn't remain just another "book in progress." We are extremely grateful to those people. We especially wish to acknowledge the contributions of a coauthor of the first edition, Richard James Sweeney, whose other commitments prevented his participation in subsequent editions.

We also owe a significant debt of gratitude to the users of the first two editions. It goes without saying that without them there would be no third edition. But even more, many of these users and other reviewers provided encouragement and suggestions. In particular, we would like to thank the following individuals for their helpful comments to us and to South-Western representatives regarding the first and second editions of this book:

- | | |
|--|--|
| Ogden Allsbrook, University of Georgia | Brother Edward Grinder, St. Vincent College |
| Lari Arjomand, Clayton Junior College | Amyra Grossbard-Shechtman, San Diego State University |
| Mohsen Bahmani, University of Wisconsin, Milwaukee | William Gunther, University of Alabama |
| Ted Ball, Consumnes River College | W.W. Hall, University of North Carolina, Wilmington |
| Allen Bergland, Northern Arizona University | Stephen Happel, Arizona State University |
| Jack Blinksilver, Georgia State University | Bruce Harger, Lake Superior State College |
| James Boughton, Indiana University | Pershing Hill, University of Alaska |
| Robert Bray, California State Polytechnic University | Richard Hill, Central Michigan University |
| Paul Burgess, Arizona State University | Ken Howard, East Texas Baptist University |
| Doris Cash, Clayton Junior College | Jo Ann Jones, Georgia College |
| Akram Chowdry, San Jose State University | David Klingaman, Ohio University |
| David Crary, Eastern Michigan University | Michael Lawson, Advisory Commission on Intergovernmental Relations |
| Larry Davis, East Texas State University | Dale Lehman, California State Polytechnic University |
| Paul DePippo, Glendale Community College | C. Mather Lindsay, Clemson University |
| Larry Ellis, Appalachian State University | Albert Link, Auburn University |
| Keith Evans, California State University, Northridge | Adolph Mark, DePaul University |
| Mark Evans, California State College | Nolin Masih, St. Cloud State University |
| Gregory Falls, Central Michigan University | Paul McGouldrick, SUNY Binghamton |
| Bernard Feigenbaum, Washington University | Pat McMurry, Missouri Western College |
| Lois Fenske, Olympia Tech Community College | Michael Melvin, Arizona State University |
| Rudy Fichtenbaum, Wright State University | Norman Miller, York College |
| Gordon Galbraith, Portland Community College | Clark Nardinelli, Clemson University |

Narayan Nargund, Allegheny College
Gerald Nickelsburg, University of
Southern California
Rose Pfefferbaum, Mesa Community
College
Abu Selimuddin, Berkshire Commu-
nity College
Teresa Sherrouse, Augusta College
Edwin Stecher, University of San
Diego
Shirley Stone, San Jose State Univer-
sity
Donald Swanson, Indiana University
Southeast
Suzanne Thomas, Fordham University
Dana Thompson, Loma Linda Univer-
sity

Robert Tollison, George Mason Uni-
versity
Lloyd Valentine, University of Cincin-
nati
Myles Wallace, Clemson University
Norman Walzer, Western Illinois Uni-
versity
Frank Wert, Central State University
Larry Wilson, Sandhills Community
College
Charles Wishart, Indiana State Uni-
versity
N. Keith Womer, Clemson University
Joseph Zoric, University of Steuben-
ville

As with the first two editions, Jon Ozmun and James Pinto prepared the companion *Study Guide*. Patricia Pando of Houston Baptist University has made a substantial contribution to this textbook by providing a much improved, expanded, updated and thoroughly rewritten *Instructor's Manual* and *Test Bank*. These three partners have played an important role in making the book and its companion materials a complete teaching package for principles instructors and students.

Finally, we would like to thank our spouses: Susan, who wore the hats of secretary, editorial assistant, and quarterback for the second and third editions; and Carl, who developed the microcomputer simulation to accompany the text and offered support and encouragement along the way.

Ryan C. Amacher
Holley H. Ulbrich

ACKNOWLEDGEMENTS

For permission to reproduce the photographs on the pages indicated, acknowledgement is made to the following:

PART 1

p. 7: Historical Pictures Service, Inc., Chicago. p. 8, left: Public Information/University of Chicago. p. 8, right: Massachusetts Institute of Technology. p. 29: The Bettmann Archive, Inc. p. 40: The Bettmann Archive, Inc. p. 54: Rolls-Royce Motors. p. 66: Historical Pictures Service, Inc., Chicago. p. 78: Figgie International, Inc. p. 82: Soloran Corporation.

PART 2

p. 93: Historical Pictures Service, Inc., Chicago. p. 97: AMAX, Inc., Greenwich, CT. p. 109: The Bettmann Archive, Inc. p. 112: The Ohio State University. p. 129: Public Information/University of Chicago. p. 138: The Jewish Hospital of Cincinnati. p. 158: BBC Hulton Picture Library. p. 174: Wide World Photos, Inc. p. 180: © Peter Arnold, Inc.

PART 3

p. 207: California Angels. p. 230: Wide World Photos, Inc. p. 235: Delta Air Lines. p. 254: Brown Brothers, Sterling, PA. p. 265: Union Pacific Railroad. p. 280: Carnegie-Mellon University. p. 288, left: Peter Lofts Photography. p. 288, right: Victor Jorgensen-Scope for *Fortune* Magazine. p. 297, left: Public Information/University of Chicago. p. 297, right: Photo by Sam Sweezy. p. 326: Courtesy of the Harvard University News Office. p. 336: Reproduced with permission of AT&T Corporate Archive.

PART 4

p. 346: Brown Brothers, Sterling, PA. p. 366: Courtesy of Robert Schalkenbach Foundation. p. 385: The Archives of Labor and Urban Affairs, Wayne State University. p. 391: © Richard Howard.

PART 5

p. 400: United States Department of Agriculture. p. 430: Courtesy of Thomas Sowell. p. 451: Radio Shack, A Division of Tandy Corporation. p. 458: The Bettmann Archive, Inc.

PART 6

p. 472: The Goodyear Tire & Rubber Co. p. 480: NW Ayer ABH International. p. 498: Courtesy of Chase Manhattan Archives. p. 520: UNESCO/R. Lesage. p. 523: G. R. Thompson.

PART 7

p. 551: G. R. Thompson. p. 552: Wide World Photos, Inc. p. 560: Brown Brothers, Sterling, PA. p. 568, left: © Lois Wadler, NYC, 1985. p. 568, right: Wide World Photos, Inc. p. 569, left: The Archives of Labor and Urban Affairs, Wayne State University. p. 569, right: National Association of Manufacturers.

Contents

PART 1	INTRODUCTION TO ECONOMICS	1
1	Economics, Economic Issues, and Economic Methods	2
	Introduction / Why Study Economics? / What Is Economics? / Economics in Relation to Other Fields / Agreement among Economists / Theory / A Short Guide to the Economic Approach / Common Fallacies / Starting Points: Some Definitions / A Menu of Exciting Topics / Conflicts in Policies / Appendix: Economic Relationships and Graphs	
2	Scarcity, Choice, and Economic Problems	25
	Introduction / Scarcity and Opportunity Cost / Opportunity Cost and Choice / Factors of Production / Production Possibilities Curve / Fundamental Questions	
3	Supply and Demand: The Basics of Economic Analysis	46
	Introduction / Demand / Supply / Market Equilibrium / A Theory of Price Formation / An Evaluation of the Market Process	
4	The Economic Role of Government	71
	Introduction / How Much Government? / Paying for Government / The Functions of Government / Taxation / Nontax Revenue Sources / Tax Issues in the 1980s	
PART 2	HOUSEHOLDS AND FIRMS	89
5	Introduction to Microeconomics	90
	Introduction / The Circular Flow—Again / Elasticity / Issue Analysis / Production and Cost / The Theory of the Firm / Industrial Organization / Factor Markets / Market Imperfections and Public Choice / Unintended Effects / Microeconomics and Social Policy—The Economics of Natural Disasters / The Road Ahead	
6	Elasticity: Measure of Responsiveness	101
	Introduction / Supply and Demand, Again / Elasticity as a General Concept / Price Elasticity of Demand / Price Elasticity of Supply / Policy Applications / Other Elasticities	
7	The Basic Micro Tools: Some Applications and Policy Analysis	127
	Introduction / The Economics of Crime: Use of the Self-Interest Hypothesis / Who Pays What Tax: An Exercise in Supply and Demand / Price Ceilings and Price Floors / The Continuing Saga of Natural Gas Regulation / The Health Care Industry / The Farm Problem	

8	Demand and Consumer Choice: The Utility Approach	154
	Introduction / Choice / Income and Substitution Effects / The History of Utility Theory: The Diamond-Water Paradox / Some Applications of Utility Theory / Problems with Utility Theory / Consumer Surplus / Advertising and Marketing	
9	An Alternative Approach to Consumer Choice: Indifference Analysis	173
	Introduction / Indifference or Preference / Diminishing Marginal Rates of Substitution / Budget Constraints / Changes in Income and Changes in Prices / Maximization of Satisfaction / Indifference Analysis and the Law of Demand / Indifference Curve Analysis: An Application	
PART 3	MARKETS	193
10	Firms and Production	194
	Introduction / The Firm in Theory / The Firm in Practice / The Nonprofit Firm / Economic Efficiency / Production Functions in the Short and Long Run / The Choice of Inputs / On to Costs	
11	The Costs of Production	211
	Introduction / Accounting Profit and Economic Profit / Economic Cost as a Part of Normal Profit / The Use of Accounting Profits in Economic Analysis / Cost in the Short Run / The Relationship between Productivity Curves and Cost Curves / Cost in the Long Run / Profit Maximization / Present Value / An Application of Present Value	
12	The Model of Pure Competition	233
	Introduction / Characteristics of Pure Competition / Competitive Adjustment in the Short Run / Competitive Adjustment in the Long Run / Competitive Equilibrium: So What? / Profits: The Driving Force / Examples of Pure Competition / The Representative Firm and Economic Profit in Pure Competition	
13	The Model of Monopoly	258
	Introduction / Demand and Marginal Revenue / Price and Output Decisions / Resource Allocation with Monopoly / The Monopolist's Supply Curve / Monopoly, Profits, and Price / Monopoly in the Long Run / Price Discrimination / Local Monopolies / The Costs of Monopoly / Who Runs the Firm? Alternatives to Profit Maximization / Fallacies and Facts about Monopoly / Contestable Markets: A New Theory	
14	The Models of Monopolistic Competition and Oligopoly	286
	Introduction / Characteristics of Monopolistic Competition / Short-Run Adjustment / Long-Run Adjustment / Monopoly and Competition / Excess Capacity / Product Differentiation and Advertising / Resource Allocation in Monopolistic Competition / Monopolistic Competition: Have We Learned Anything New? / Oligopoly / Types of Products Produced by Oligopolies / Oligopoly Collusiveness / Factors Facilitating and Limiting Coordination / Market Structures in Review	

15	Theory in the Real World: American Industry and U.S. Antitrust Policy	314
	Introduction / What Is an Industry? / Industry Structure / Concentration and Its Growth over Time / Concentration and Performance / Policies Aimed at Monopoly Power / Regulation of Monopoly—Theory / Regulation of Monopoly—Practice / U.S. Antitrust Laws / Two Systems of Belief about Monopoly / Regulation—The Alphabet Departments / Antitrust: Reagan Style / Alternatives for Controlling Industry	
PART 4	FACTOR MARKETS	343
16	Factor Markets and Marginal Productivity	344
	Introduction / The Demand for Factors / The Firm in Two Markets / The Demand for Labor / The Determinants of the Elasticity of Factor Demand / Changes in Factor Demand / Marginal Productivity and Income / Land and Rent / Capital and Interest / Entrepreneurship and Profits / The Distribution of Income	
17	The Labor Movement	374
	Introduction / The Economics of Union Goals / Types of Unions / A Short History of the Labor Movement / Forces That Strengthen Unions / Forces That Weaken Unions	
PART 5	GOVERNMENT INTERVENTION AND THE MARKET	397
18	Government Intervention and Public Choice Theory	398
	Introduction / Externalities / Public Goods / The Interest Group Theory of Government / Public Choice / Rent Seeking / The Growth of Government / Where Are We Left?	
19	Income Distribution, Poverty, and Discrimination	419
	Introduction / The Distribution of Income / Discrimination and the Distribution of Income / Income Distribution and the Market / Income Redistribution as a Public Good / Government Transfer Programs	
20	Some Microeconomic Policy Issues	445
	Introduction / Investment in Human Capital / Comparable Worth / Industrial Policy / Law and Economics	
PART 6	THE WORLD ECONOMY	461
21	International Trade	462
	Introduction / Why Nations Trade / Why and How We Protect Domestic Firms / U.S. Commercial Policy / The Politics of Protection / Movement of Resources / Cartels / Multinational Corporations	
22	International Finance	485
	Introduction / The Market for Foreign Exchange / Unique Features of the Foreign Exchange Market / The Balance of Payments / International Monetary Systems	

23	Economic Development and Social Change.....	505
	Introduction / Common Characteristics of Less-Developed Countries / Theories and Models of Development / Time Bombs in the Development Path / The New International Economic Order / Is Economic Development Good or Bad?	
24	Comparative Economic Systems and Ideologies.....	530
	Introduction / Ideologies / Marx, Marxists, and Marxism / Leader-isms / Organization and Decision-Making Approach to the Study of Systems / Planning / Reforms / Japan	
PART 7	BEING AN ECONOMIST	557
25	A Cheerful Look at a Dismal Science	558
	Introduction / Why Major in Economics? / Why Students Choose Economics—Why Students Avoid Economics / Career Opportunities for Economists / Graduate School in Economics / Economics as an Avocation	
	GLOSSARY	581
	INDEX	597

Part 1

Introduction to Economics

1. Economics, Economic Issues, and Economic Methods
 2. Scarcity, Choice, and Economic Problems
 3. Supply and Demand: The Basics of Economic Analysis
 4. The Economic Role of Government
-

Chapter 1

Economics, Economic Issues, and Economic Methods

Chapter Objectives

After studying the materials found in this chapter, you should be able to do the following:

1. Understand why you should study economics.
 2. Define economics and be able to make basic distinctions between microeconomics and macroeconomics.
 3. Discuss the relationship between economics and other social science and decision science disciplines.
 4. Evaluate the basic steps necessary for the development of an economic theory and the means for judging the validity of the theory.
 5. Discuss the self-interest hypothesis and its importance to the study of economics.
 6. Discuss the economic approach to problem solving.
 7. Explain and give examples of:
 - a. the association-causality fallacy.
 - b. the fallacy of composition.
 - c. the *ceteris paribus* fallacy.
 8. Define:
 - a. marginal effects.
 - b. comparative statics.
 - c. endogenous and exogenous variables.
 - d. stocks and flows.
 - e. equilibrium.
 - f. primary and secondary effects.
-

INTRODUCTION

In this introductory chapter we present a wide-ranging discussion of what economics is, the main problems in economics, the scientific method in economics, and some basic elements of the economic view of the world. Most importantly, we stress the economic way of thinking. The chapter ends with an introduction to some typical issues studied by economists.

WHY STUDY ECONOMICS?

Before we proceed, it is appropriate to address the question of why you should study economics. Many, perhaps most, of you are in an economics course and therefore reading this book because you are required to do so. Most probably, economics is a requirement in your curriculum, whether you are a liberal arts, business, or engineering major. So our first response to the question, “Why study economics?” could be that professors believe that training in economics is a good foundation for almost all students. But this really doesn’t answer the question; it simply avoids it. Therefore, we will offer you some better answers.

The fact that so many professors from so many different disciplines think it is important to study economics offers a clue to why you should study economics. Economics interacts with almost all other academic disciplines. It is intimately intertwined with current events, and it has a significant effect on political events, both domestically and internationally. The answer, then, is quite straightforward: You should study economics to better understand the profound effect that economic issues have on the world.

A second reason for studying economics is based on the effect that economic ideas and theories have on world leaders. Much of what political decision makers do is based on economic theory. As John Maynard Keynes, one of the most influential economists of all time, wrote:

... the ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back.¹

Keynes was saying that if we want to understand what politicians are advocating, be they great or be they mad, we must understand the economic theory upon which they are acting.

A third, and perhaps most important, reason for studying economics is that it provides us with a better understanding of how the world and its people function. Economic theory is very useful in understanding behavior because it allows the person who understands it to develop models with predictive power. As Alfred Marshall (see Chapter 3 for a biographical sketch) wrote, “Economics is the study of mankind in the ordinary business of life.”² Studying economics, then, can give powerful insights into human behavior.

Finally, economics is fun and people who are trained in economics find rewarding jobs and careers.³ If you like to think in a logical fashion, you

¹ J.M. Keynes, *The General Theory of Employment, Interest, and Money* (London: Macmillan, 1936), p. 383.

² Alfred Marshall, *Principles of Economics* (8th ed.; Don Mills, Ontario: The Macmillan Co. of Canada, Ltd., 1920), p. 323.

³ The last chapter in this book describes the many career paths open to those with economic training.