

EXPLORATIONS IN

MICROECONOMICS

Including Study Guide

WILLIS • PRIMACK • QUANSAH

Explorations In **Microeconomics**

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Acknowledgements

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To Marianna, Jim, and my Mother.
J.F.W.

In memory of Marlene Primack.
M.L.P.

Tomy beloved wife Tamara.
G.K.Q.

Preface

An educated person is one who has finally discovered that there are some questions to which nobody has the answers.

Anonymous

From our own observations as teachers and from recent developments in the field, two facts about the principles of economics course are apparent. First, enrollments are growing, and second, they are growing not just because students want to learn about economics, but also because they are *required* to take the course.

On the one hand, this boom gives those of us who teach economics a greater opportunity to expose students to our way of thinking, to economists' ideas on how to approach the understanding and solution of problems. On the other, it means that we have to provide students with some good reasons for learning about the subject, especially if we expect them to retain what they learn. It is our hope that this book will help students understand how economists think, and how applicable an economic perspective is to the problems of the real world. Furthermore, the basic questions facing our students, as political creatures in a democracy, are economic ones. This text should prepare them to understand policy debate in such areas as economic stabilization, the crisis of the cities; poverty, and agricultural policy. Obviously, an understanding of economics is also useful, if not necessary, for careers in such areas as business administration, sociology, psychology, history, and the administrative end of many types of engineering.

We have therefore tried to do two things. First, we have reduced the principles of economics in both volume and complexity to the point at which our students can grasp (and, we hope, *retain*) them. Second, we have applied the basic principles to problems that our students can recognize. We have tried to address particularly those students who are more concerned with a J.O.B. than a Ph.D. Many of the problems these students will face concern economics to some degree. And, although there are some questions in economics to which nobody knows the answers, there are even more for which there are *many* answers. Our students need to be able to analyze the alternatives, choose the most feasible one, and—perhaps most important—*know the basis on which the choice rests*.

Scope and Approach

In our experience, the greatest criticism of the principles of economics course is that we instructors try to do too much. Using the average textbook of 1,300-plus pages crammed with solid, valuable materials, the instructor naturally has to race in order to cover the ground. Furthermore, students tend to become swamped with the detail and diversity of the subject matter. They often become confused about what is most important. We have tried to avoid this situation.

Of necessity, we could not include in this text everything that our colleagues wanted us to—although we are grateful to them for their suggestions. We included those principles and problems that seemed most important *to us*, including what we did because both of us are teachers. In other words, we put in materials that work with our students. We have included the essential materials

dealing with income determination, banking and money, government stabilization policy, supply and demand, the theory of the firm, and pricing of factors of production. In addition to this basic core, we have added materials on economic development, international trade, and other economic systems. We realize, however, that different instructors may wish to delve more deeply into an issue or expand on a problem in a particular chapter. Therefore, we have listed, at the end of chapters, a number of additional sources.

We feel that this principles of economics text has several distinct advantages over many others in the field:

1. It is not an encyclopedia of economics but, rather, contains enough theory to equip the student with a permanent level of economic literacy.
2. Most theoretical chapters contain extended applications that use the economic principles just covered to analyze practical economic problems.
3. The use of mathematics has been limited to the practical minimum by avoiding complex algebraic manipulations and difficult derivations of relationships, and by using, instead, simple two-dimensional diagrams to illustrate principles.
4. Every attempt has been made to communicate in the everyday language of the student rather than in the technical language of the economic journal.
5. Special attention has been given to chapter summaries, end-of-chapter materials, and the glossary in order to help the student review and to reinforce the concepts presented in each chapter.

The Study Guide

To help students obtain some drill in economic problem solving and find out how well they are grasping the material, we have prepared a study guide. Each unit of this guide starts with a review of key terms and essay questions and problems that are designed to make students rethink the material just learned. It ends with a self-test consisting of true/false, multiple-choice, and matching questions. After the self-test are all self-test answers and occasional problem answers.

We regard the study guide as an important supplement to *Explorations in Macroeconomics*. Since economics requires a lot of concentration and going over material again and again, we strongly advise that students arm themselves with this learning aid.

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We have benefited from the advice and assistance of many people in preparing the four editions of *Explorations in Macroeconomics*. While our indebtedness extends to too many economists to acknowledge each one individually, we would especially like to thank those who have contributed formal reviews to the first four editions—James V. Koch of Illinois State University, R. D. Peterson of Colorado State University, Joseph M. Perry of the University of North Florida, Joseph Domitrz of Western Illinois University, Anthony L. Ostrosky of Illinois State University, and Kirk A. Blackerby of San Jose State University.

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The management and staff of CAT Publishing have been exceptionally accommodating and helpful in the lengthy process of preparing and polishing the new manuscript. While that has been true of all at CAT, we want to express our particular gratitude to our publisher, Leslie Winegar.

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PART I

Introduction to a Market Economy

The vast majority of today's economic societies are market economies, ones in which private buyers and sellers interact to make choices about what to produce, and to create the prices at which voluntary exchanges between the two groups will occur. The study of how this individual disaggregated (exchange) economy works is called *microeconomics*. It is based on assumptions about human behavior as well as on assumptions about the constraints humans face in seeking to solve economic problems. It is with that background to the "economic way of thinking" that we begin this text and the course in macroeconomics in which you are enrolled.

Why, you may well ask, should we begin with some microeconomic fundamentals rather than plunging straight into macroeconomics or the "big picture" of a market economy in its aggregated form? Put simply, it is for two reasons: (1) We cannot understand the macroeconomy fully without first understanding its underlying microeconomic processes—inflation or significant increases in overall prices, for example, cannot be understood or the problems of inflation dealt with unless we understand how the individual prices that add up to inflation are determined, and (2) the models of the macroeconomy that are developed in this book and course are only as valid as the microeconomics on which they are built.

This microeconomic introduction to the macroeconomy is developed in four chapters. In Chapter 1, you are introduced to the most fundamental of economic problems, scarcity, or the inability of societies to satisfy all material wants. In Chapter 2, we see how attempts to solve the problem of scarcity have resulted in widely varying levels of economic development among nations. In Chapter 3, you will see how markets, the institutional arrangements through which buyers and sellers make exchanges, allocate a society's scarce resources through the guidance of prices. Finally, in Chapter 4 you will see who are the players in both the microeconomy and the macroeconomy. The economic roles of households, business firms, and governments are examined. The role of international trade, or that of exports and imports, is briefly introduced as well.

Chapter 1: *Nature of Economics*

Solving Specific Economic Problems

Though most economists agree about the nature of economic behavior by individuals, there is room for disagreement about specific measures to solve particular economic problems. Should government intervene to prevent mergers and takeovers of firms? Will the United States fall into a recession next year and, if so, should interest rates be raised now to fight inflation? Are foreign manufacturers increasing their share of key U.S. markets and, if so, should the American government intervene? These are but a few of the many economic policy questions that arise constantly and about which economists may have different opinions. In short, when you complete your course in economics you will not have a set of policy conclusions to carry with you but a way of examining the alternatives and formulating your own views about policy questions as they arise. Nonetheless, certain tools and methodology, such as quantitative methods and model building, are accepted by nearly all economists. Most economists accept a basic procedure for looking at aggregate economic problems, like unemployment, and at nonaggregate market problems as well.

The fact that today's economists, in the mainstream, are optimistic about the future, should not seem strange. Most of the increase in goods and services, the real income that improves the material well being of people, has occurred in the last century and a half. While economic problems remain for all nations, we now know that improvement in economic organization and institutions combined with the enormous potential of further technological change make possible continued advance in standards of living. This is true not only for the relatively wealthy industrial nations but for the newly industrializing nations and less developed nations as well. Can economic problems, then, be eliminated? Few economists would go so far as to say yes. However, the most famous economist of this

century, John Maynard Keynes (rhymes with *gains*), writing in 1930 and looking ahead to the next hundred years, put his view this way:

I draw the conclusion that, assuming no important wars and no important increase in population, the *economic problem* may be solved, or at least be within sight of solution, within a hundred years. This means that the economic problem is not—if we look into the future—the *permanent problem of the human race*.

Keynes expressed this very optimistic view in the early years of the Great Depression of the 1930s. He was wrong, of course, in assuming that there would be no major wars after 1930, but his assumption about no major increase in population may turn out to be correct, at least for the more developed industrial countries. Keynes's statement illustrates two things: (1) economists of the twentieth century are no longer dismal about the future, and (2) economists develop economic principles not for the sake of abstract exercise, but to be able to analyze and propose solutions to problems constantly confronted by the human race. Economists are, in short, deeply concerned with *people* and their material well-being.

What Is Economics?

Economics

The social science that deals with the analysis of material problems, how societies allocate scarce resources to satisfy human wants.

Now let's define economics in terms of the "economic problem" to which Keynes referred.

Economics is the social science that deals with the analysis of material problems. It identifies the various means by which people can satisfy their desires for goods and services by using the limited resources available to produce those goods and services. This is a very general definition, but a useful one, because it points out certain basic features of economics.

1. *Economics is a social science.* It deals with the actions of groups of people in relation to society. Economics differs from physical science, which has laws established in the laboratory where conditions can be controlled. The laboratory of economists is the world, in which nothing is certain and nothing can be controlled with surety. Economists base their principles on what they observe about people—their willingness to spend money or to save it, for example—and on what they observe about the economic institutions that people have created, such as private property rights, government planning, and economic institutions such as banks that bring savers and investors together.

2. *Economics is analytical.* Economists use the principles of economics to diagnose various problems, such as unemployment and poverty, and propose solutions to them. Instead of choosing one solution and saying, "Here's what to do," economists set forth the