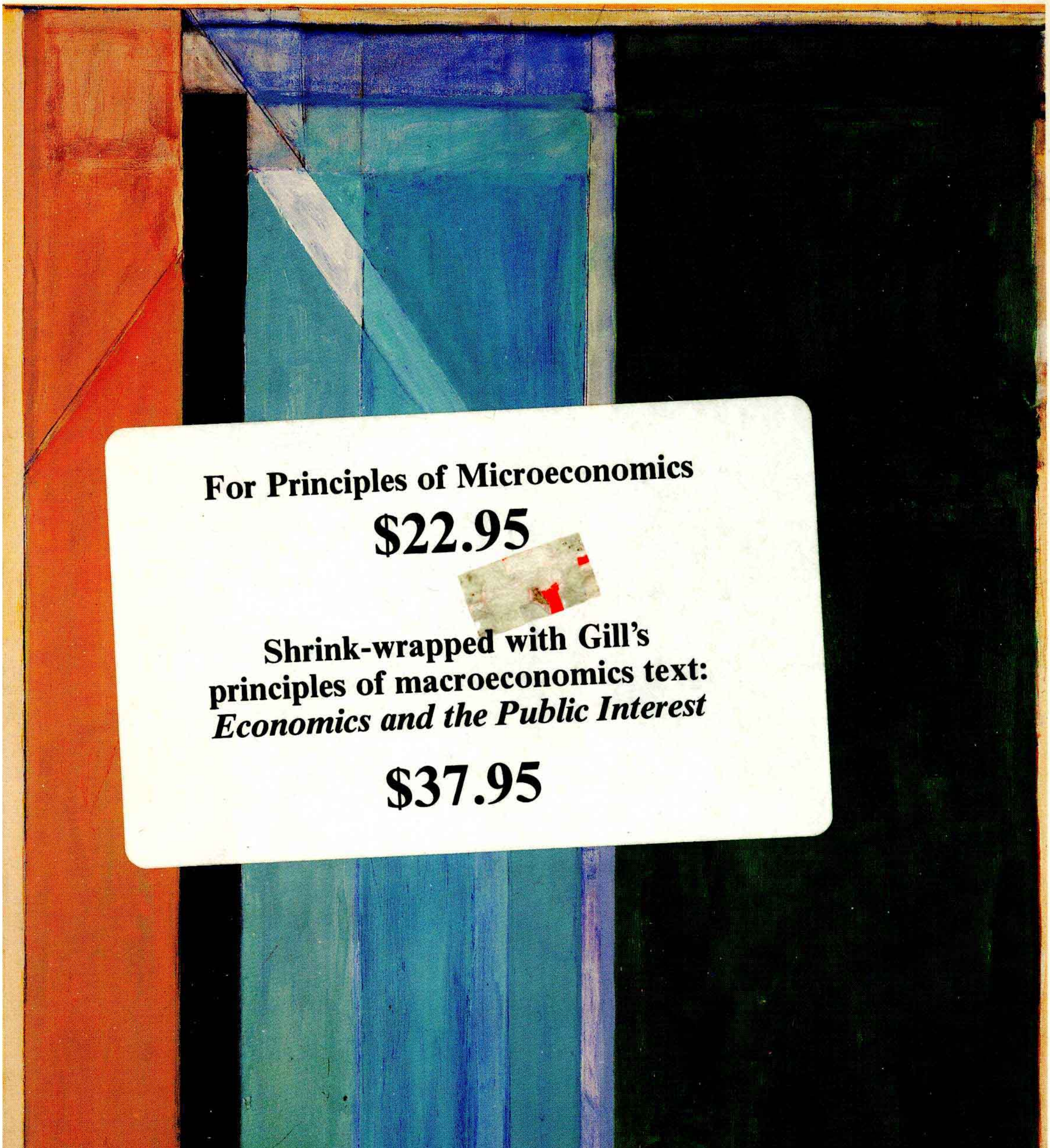

CONOMICS AND THE PRIVATE INTEREST

THIRD EDITION

RICHARD T. GILL

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PREFACE

This book is an introduction to microeconomics—that part of economics concerned with the interrelationship of the individual business firms, industries, consumers, laborers, and other factors of production that make up a modern economy. It is designed to serve as the core of a one-semester course on microeconomic theory and its applications.

The writing of *Economics and the Private Interest* was prompted by two main considerations. The first was that a number of instructors who had used my *Economics and the Public Interest* suggested the desirability of a companion volume with a microeconomic focus. In that earlier work, I placed particular emphasis on the *macro*economic aspects of the questions of national income, unemployment, inflation, growth, development, and international trade. This text treats precisely those areas that were underemphasized in the previous book. Together, the two books form a natural basis for a full-year course in the fundamental principles of economics.

The other reason for undertaking this study was that, in my own teaching experience at Harvard, I had not found a microeconomics text that was wholly satisfactory, either to me or to my students. I understand that instructors and students at other universities have encountered similar problems. One difficulty seems to be that when writers attempt to simplify microeconomic theory, they may fail to convey to the reader the underlying coherence of the field as a whole. It becomes a collection of particular pieces of apparatus, of unrelated graphs and diagrams—a "jumble of spare parts," as one colleague aptly wrote to me. The opposite danger is that the intellectual beauty of the theory may be stressed so heavily that there is no attempt whatever to relate it to the problems of the real world. The student often comes away from microeconomics feeling either that the field is confusing and incoherent or that it is wonderfully logical but irrelevant.

My own personal conviction is that both dangers can be avoided. The approach used in this book involves three main elements. First, the entire field of microeconomics is viewed in the context of that ancient but still pertinent question asked by Adam Smith: How are the private interests of the countless individuals who constitute a modern economy related to the economic interests of society as a whole? This question is suggested by the title of the book, and it runs as a uniting thread from the first page to the last.

Second, the theory of perfect competition has been presented explicitly from the point of view of its overall structure. This is achieved by building the entire discussion around the two questions of *interdependence* and *efficiency.*

Finally, the applicability of this theoretical structure to modern industrial realities is shown in the only possibly convincing way: namely, by actually *applying* it. From the logical coherence of Part 2's discussion of market competition we move in Part 3 to comparative advantage in international trade (as an example of economic efficiency), monopoly and imperfect competition, antitrust laws, regulation versus deregulation, labor markets, income distribution, poverty, pollution, and conservation. In each case, the attempt is made to relate these controversial issues of public policy to the very questions of interdependence and efficiency developed first in purely theoretical terms.

This third edition represents a major revision of this book with respect not to the objectives just cited, but to their implementation. Basically, the applications of microeconomic theory in Part 3 have had to be not only updated, but also extended to new and important topics not heretofore covered. At the same time, every effort has been made to keep the book relatively short. It is the author's feeling that a concise, uncluttered treatment of this subject matter has many advantages for students as compared to the virtually encyclopedic coverage provided in many of today's textbooks.

One's indebtedness in writing a book of this nature is always large. I wish to thank my invariably helpful publisher, Gary Burke, and product manager John Harpster, as well as Linda Toy, Jeanne Schreiber, and April Wells of the Mayfield production team. Additional thanks are due to Paul Barkley of Washington State University for his thoughtful review of the manuscript, and to Carol Adams of the University of California, Santa Cruz, for preparation of the Study Guide which accompanies this text. Finally, my thanks go to my wife for her continued patience with a husband whose commitment to his word processor has necessarily been intense these past many months.

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PART 1

INTRODUCTION

CHAPTER 1

MARKETS, COMPETITION, AND THE PRIVATE INTEREST

Modern economics can be said to have begun with the exploration of a rather striking hypothesis: that private self-interest, allowed relatively free play, would foster the economic welfare of society as a whole. Adam Smith expressed this idea in the late eighteenth century in his concept of an "invisible hand." Business firms, according to Smith, seldom sought to promote the public weal (Smith was very skeptical of high-sounding motives in the business world), but they were led to do so, invisibly, by the workings of markets, competition, and the price system. Private interest became not the opponent but the instrument of social betterment.

In the course of the twentieth century, this hypothesis has come under frequent assault. In the 1930s, there was the challenge of the Great Depression, which convinced many that an unregulated market economy faced a future of increasing economic stagnation. The 1940s brought a sharp rise in the role of government as the industrial economies mobilized for war. After World War II, the Cold War brought challenges from centrally planned economies which seemed, for a time, to be outperforming their Western competitors. Meanwhile, in the Western world, the next few decades suggested to many critics that the private interest of certain groups in society did not necessarily protect the private interest of others: ghetto-dwellers, the homeless, families below the poverty line. Nor did unrestricted private interests and the "invisible hand" necessarily protect our air, land, and water environment from pollution and toxic wastes.

Still, the market economies of the world have shown considerable resilience during this century (while most centrally planned economies have in fact been demonstrating fatal weaknesses), and Adam Smith's hypothesis continues to hold a certain fascination today. If it does nothing else, the hypothesis at least raises explicitly an important general question: How are the private interests and activities of individuals in our society related to the overall functioning of our economic system? Private individuals make purchases at stores, buy houses, hold jobs, teach schools, run businesses, collect dividends, borrow money from banks and relatives. How are all these myriad activities related to one another and to the economic mechanism generally?

The problem of relating private decisions and actions to the economy as a whole is central to the field of economics studied in this book: the field of *microeconomics*. Microeconomics is concerned with the way in which the individual decision-making units that make up the economy—private consumers, business firms, laborers, landowners, producers of particular commodities or services—act and react upon each other and, in their interaction, meet many of society's economic needs. This field is customarily contrasted with *macroeconomics*, which considers broad social aggregates like national income, total employment, inflation, and the growth of output over time.[1]

Another name sometimes given to the field of microeconomic analysis is *price theory*. This name is not quite accurate because microeconomics covers many topics besides the determination of particular prices and also because societies often solve many of their microeconomic problems outside the price system. The identification is by no means accidental, however, for in a private economy it is the special function of prices to bring together and correlate the decisions of millions of private individuals and to assure something like coherence in the economy as a whole. Indeed, even in the once highly planned economies of Eastern Europe, the attempt to introduce a Western-style price system is now virtually universal.

THE COMPETITIVE PRICE SYSTEM

How do prices serve this special function? How do they bring a meaningful order out of the apparent chaos of competing private decisions and interests?

Prices Influence Individual Behavior

The *first* major point to notice is that prices can influence the behavior of all the individuals who make up an economy. The price system as a whole is an

[1] Macroeconomics is the main subject of my *Economics and the Public Interest*, 5th ed., the companion book to this volume. Although the fields of macro- and microeconomics are ultimately related, it will be convenient in this volume to restrict our analysis to the microeconomic aspects of the problems under consideration. Where it is useful to indicate the relationship to aggregate analysis, specific references will be made to the companion book.

orderly way of informing members of society how they may act to improve their economic positions.

To see how this works, let us imagine an economy in which all decisions are made by individuals or by small business units in competition in the marketplace.[2] In this economy, we can discern three main roles:

1. *Consumers* who will ultimately buy all the goods that are being produced.
2. *Owners of the factors of production* (labor, land, capital goods) who will sell their services for wages or other payments.
3. *Business firms* which will organize production by hiring the services of labor, land, and machinery; combining them to produce commodities; and then selling these commodities to consumers.

It should be clear that we are speaking here of *roles* or *functions* and not of separate individuals. Most individuals combine some or all of these roles. The average worker, for example, is both the owner of a factor of production (labor) and a consumer. A woman who runs, say, a small dress shop will combine all three functions: she is the head of a business firm; she usually works part time as a laborer in the store; and, like the rest of us, she is also a consumer of goods in the economy as a whole.

Now let us suppose that every product and service in this economy has a price attached to it, and let us divide all these thousands of prices into two broad groups:

1. *Prices of products,* such as shoes, potatoes, personal computers, and VCRs.
2. *Prices of the services of the factors of production,* such as the services of shoemakers, farm labor, and of different kinds of land, tools, and machinery.

In speaking of the most important factor of production, labor, we usually call its price its *wage;* or, if it is professional labor, its *salary.* When we hire the services of land or machinery, or borrow capital, we usually speak of the payments as *rent* or *interest.* These are simply different names for the prices of the services of the different factors of production.

Once these sets of prices have been established, we can readily see how they will influence the behavior of private individuals throughout the economy. Product prices will tell *consumers* how to direct their purchases of commodities.

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[2] We shall give a more technical definition of the term *competition* presently (see pp. 65–70). For the moment, we may think of a competitive economy as one in which all economic units are small and each unit responds to impersonally given market prices.

It will be in the private interest of consumers to buy products that are relatively cheap and to limit their purchases of products that are relatively expensive. This is really what we mean by *economizing*. If coffee is relatively high priced, they will try to substitute tea, which is cheaper. If the price of gasoline goes up, they may shift from larger to smaller cars. If steak becomes too expensive, they may have chicken more often. In other words, higher prices are a signal to consumers to hold back or look elsewhere; lower prices are an inducement to buy more. By reacting in this way, consumers maximize the economic satisfaction they can obtain from any given income.

While the consumer is being influenced by product prices, the *owners of the factors of production* will be reacting to factor prices.

It will be in the private interest of the owner of a factor of production, all other things equal, to sell his or her services to the highest bidder. If laborers can earn three times as much in the factory as on the farm, they are very likely to migrate to the city. If salaries of physicians are twice as high as those of lawyers, more young men and women may begin training themselves for medicine and fewer for law. Naturally, people have differing talents, and occupations have varying appeals; but once these differences have been properly weighed, the individual is likely to express his or her economic self-interest by seeking jobs that offer high wages and salaries.

Thus, we see consumers reacting to product prices, and the owners of factors of production reacting to factor prices. The case of *business firms* is somewhat more complex. They are the sellers of products when they face the consumer, and, at the same time, they are the buyers of services when they face the owners of the factors of production. Their actions will be influenced both by product prices *and* by factor prices.

Product prices will influence the business firm's behavior, as they did the consumer's, but usually in the opposite direction. That is to say, higher prices for coffee, big automobiles, and steak will encourage the business firm to produce *more* of these commodities. Higher product prices are a signal to the business firm to expand production; lower product prices are a signal to contract production and perhaps shift to some different line of product altogether.

Factors prices will also influence the business firm's behavior because they affect *costs*. If certain types of labor, say, construction workers, get a large increase in wages, then the business firm may be forced out of the construction industry. Another response to such higher wages might be to substitute machinery for labor wherever it is technically feasible. The business firm will try to substitute the lower-priced factor of production for the higher-priced factor. Like the consumer who starts buying tea in place of coffee, the firm will be *economizing* by substituting cheaper machinery for more expensive labor. This substitution process will be affected by the relative factor prices. In a poor, underdeveloped country where machinery is scarce and expensive and labor is abundant and cheap, the wise business firm will undoubtedly try to find ways to substitute low-priced labor for high-priced machinery. In the United States, by contrast, the business firm will often be seeking the most "automated" method of production.

We have seen, then, how consumers, owners of factors of production, and business firms in our competitive economy will all be influenced by the *prices established in the marketplace.*

Individual Behavior Determines Prices

And now we come to the *second* major point, which is that the actions of all these individuals in the economy will, collectively, determine the levels of all the different prices. Prices influence individual behavior; but then this individual behavior, in the aggregate, influences and determines prices.

The analysis of how this works—of how individual behavior determines prices throughout the economy—is very nearly the whole subject of Part 2 of this book. Basically, we are dealing with the well-known *supply-and-demand* mechanism. If the price of a commodity or service is too high, then there will be more suppliers than demanders. Excess supply will tend to drive the price down. On the other hand, if the price is too low, there will be excess demand. Buyers of the commodity or service will bid the price up.

This basic mechanism applies both to product prices and to factor prices, although the buyers and sellers are different in the two cases. In the product market, the buyers (or demanders) are consumers, and the sellers (or suppliers) are the business firms. If the price of, say, transistor radios is relatively high, then business firms will be encouraged to supply transistor radios to the market in large quantity. By contrast, the consumer faced with this relatively high price will be inclined to substitute other commodities for transistor radios—nontransistor radios or record players or television sets or attendance at movies—and his demand will be relatively low. Inventories of transistor radios will build up on store shelves. Special sales may be held. The price, under the influence of excess supply, will begin to fall.

In the factor market, business firms are now buyers, and the sellers are the owners of the factors of production. Suppose the price of a particular kind of labor—clerical workers—is very high. This will mean that a great many workers will seek clerical jobs, and the supply of clerical applicants will be high. On the other hand, demand will be low. Business firms will attempt to economize on their clerical staff by reducing the amount of clerical work or computerizing as much of it as possible. The high price (wage) of clerical services that has attracted applicants to the field of clerical work has caused business firms to find ways of lowering their demand for such services. The result will be many more applicants than there are jobs, and, consequently, pressure on the price of clerical services to fall.

The net effect of the workings of this supply-and-demand mechanism in a well-behaved competitive economy is to determine all prices in the economy in such a way that supply equals demand in each and every case. When this has been accomplished, we say that the economy is in overall or *general equilibrium*. There is no way in which any individual in the economy can improve his position by changing his pattern of behavior. Consequently, there is no reason for prices to change any further—no reason, that is to say, in the absence of some new development, like the development of a new product or a new method of production or an increase in the labor force. Until these new developments occur, the system is, for the moment, at rest.

This equilibrium situation, moreover, means that the society at large has "solved" certain fundamental economic problems. Without any central guidance, working solely through private interest and individual decisions under the aegis of the "invisible hand" of the market, the society will have given determinate answers to a number of very basic questions. In particular:

1. *Relative values of commodities*. With the determination of the prices of all products, the society can answer the fundamental question of which products are more or less valuable (economically) than others. Does coffee have a higher or lower value (price) than tea? What does a vacuum cleaner cost relative to a dishwasher or a clothes dryer? When prices have been established throughout the economy, we have definite answers to all such questions.
2. *Quantities of commodities produced*. How many tons of coffee are produced annually in the economy? How many tons of tea? How many vacuum cleaners? Dishwashers? Clothes dryers? When the supply-and-demand mechanism has completed its work, we will know the equilibrium quantities of all the thousands of different commodities produced in our economy. In each case, the quantity produced will be that at which supply equals demand.
3. *Distribution of income*. By determining the prices of the factors of production in our economy, we are also determining the distribution of income in our economy. A high price of clerical workers' services means a high *wage* for clerical workers; a low price, a low wage. Who gets more of the income of the society: the owner of land, the owner of capital, or the laborer? When supply and demand in the factor market has determined factor prices, all these questions about the distribution of income in the society can be answered.
4. *Methods of production*. Should the business firm economize on the use of labor or machinery or land? Will it choose, say, a labor-intensive method of producing wheat or will it choose a highly mechanized method of farming? Once the prices of the factors of production have been determined, the business firm will know what method of production is most economical. In some economies, a given commodity will be produced with vast quantities of labor using the simplest tools; in