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# Economics: Principles and Practice

Alex Kelly



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## Foreword

This book, as Professor Kelly writes in his Preface, is intended to be—indeed is in fact—a successor to a book of mine. It fills the place left empty for a while by the retirement of my old superannuated *Economics, Principles and Problems* from the Littlefield, Adams College Outline Series after five editions and several reprintings spanning a quarter century.

Dr. Kelly's new book and my old one have similar titles, are addressed to the same readership, deal with the same subject matter, and have the same purpose: to present a nontechnical introduction to economics. Beneath these similarities, however, there are substantial differences. The differences are in part accounted for by personal inclination: even when writing about the same subject, each author tends to give more attention to some facets of it which happen to interest him more than they do some other authors. Thus, for instance, Professor Kelly gives greater weight to various theories and to the histories of these theories, whereas my book, on a less sophisticated plane, aimed more to convey to the reader some idea of the nature and dimensions of the American economy.

Another difference is that Professor Kelly's treatment reflects the new fashion in economics, which is to express relationships mathematically, in equations and diagrams. There was little of this in my old-fashioned book. Lest the mention of mathematics frighten the nonmathematically oriented reader, I hasten to assure him that Dr. Kelly has used only the kind of mathematics familiar to any high school graduate. All his equations and diagrams are clearly explained and easily understood.

The most important differences between Dr. Kelly's book and

mine spring from the rapid changes that have taken place over the last twenty-five years in the economies of nations—in technology, in institutional arrangements, in international economic relations, giving rise to new problems, new questions, new answers and solutions. To cite but one conspicuous example: twenty-five years ago most economists took for granted that inflation and unemployment were mutually exclusive; a country could be beset, now by one, now by the other of these scourges, but not by both at the same time. Recent years have painfully demonstrated that in the capitalistic world inflation and unemployment, contrary to earlier belief, now do go together, calling for new explanations, for abandonment or revision of old theories.

Economic changes and corresponding changes in economics are of course not peculiar to our time, but are inevitable concomitants of the economic process itself. Each generation of economists, therefore, while attempting to formulate universally valid “laws” and theories, must confront the problems of its own time. In so doing it not only renders partly obsolete the work of its predecessors, but also ensures that its own work must, in turn and in time, be made partly obsolete by subsequent generations.

Professor Kelly's work reflects and embodies the ideas of the present generation of economists. Although presenting much of what is still considered valid in the theories of older economists, it centers on contemporary problems, contemporary theories, and contemporary methods of economic analysis. It should prove a useful guide to the student and to the general reader wishing to discover what present-day economics is about.

Anatol Murad

# *Preface and Acknowledgments*

This book is intended to be a successor to Anatol Murad's *Economics: Principles and Problems*. My first debt is to Professor Murad, who suggested that I write the text. My debt to him goes much farther, however; the great many hours of argument and discussion we have shared have been one of the major sources of my education in economics. I hope this book pleases him.

My second debt is to Mr. John Wieboldt of Littlefield, Adams & Company, who accepted Professor Murad's suggestion. Like me, he was concerned that a book intended for an audience of American students, teachers, and laymen might miss the mark if written by a Canadian. Being Canadian, however, has proved to be an advantage rather than a handicap.

We all of us have a tendency to be unaware of those things which make us different or unique. American textbooks and specialized studies too often, in my outsider's opinion, fail to perceive attributes of the U.S. economy which are unique and require recognition or even extended treatment. I have pointed out certain of these attributes explicitly; in many other cases they simply emerge from the ordering or emphasis placed on various topics. In my growing fascination with U.S. institutions and practices, I was forced to abandon an initial effort to "internationalize" the material, but I have included a few comparisons of American practices with those elsewhere.

This book is not merely a survey of material found in standard economics textbooks. To be sure, the stuff of which textbooks are made is included but, at the same time, material that has not yet found its way into elementary textbooks, but is now in more advanced texts, is also here. Wherever possible, I have

integrated the new and the old; the chapter on Keynesian economics (Chapter 14) is an example. I have given a short chapter to law and property rights (Chapter 3) because a body of theory is emerging in that area even though it is not yet highly developed. The chapter on Marx (Chapter 20) reflects the rapidly growing interest of traditional economists in Marxian analysis and the belief, held by some economists, that a "new" economics that blends Keynes, Marx, and the traditional theory of markets is about to appear. If this judgment is correct, as I believe it to be, economics will take on a new and, to many, unfamiliar appearance. This book, therefore, both shows the direction that economics has taken and, hopefully, points the way it is going.

There are places in the book where I have had to argue a point of view rather than reflect and condense the ideas of others; Chapters 1 and 19 are cases in point. In Chapter 1, the discussion of the nature of science departs from the inadequate treatment the topic receives in textbooks because few economists ever consider the question, preferring to get by with concepts developed and discarded forty years ago by philosophers of science. Chapter 19, on income distribution, is an unsatisfactory attempt to go beyond the traditional approach. Income distribution is such a perplexing question that there is a tendency to avoid it if possible or else concede that economics has little to say about it.

Finally, I must express my thanks to friends and colleagues who, in one way or another, have aided this adventure: David Givner, Gordon Church, David Beattie, Tom Courchene, Bob DeMatteo (the chapter on Marx is a distant cousin of notes on which Professor DeMatteo and I collaborated some years ago), the late Cliff Lloyd, Marion Gosselin, and Joan Rossler.

Regina, Canada

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## CHAPTER 1

# *The Nature of Economics*

Economics is a particular science whose task it is to render intelligible, or make sense of, those aspects of individual and social behavior most directly concerned with the production and distribution of the material requirements of living. Nearly a century ago, the English economist Alfred Marshall described economics as “. . . a study of mankind in the ordinary business of life” (*Principles of Economics*, 1890).

## ECONOMICS AS A SCIENCE

As much as physics, economics is a science if by science we mean the accumulation, classification, and analysis of knowledge. It differs from the physical sciences in its subject matter, in its degree of precision, often in its methodology, and in the degree of objectivity it is able to achieve. Like every science, economics blends theoretical abstraction with empirical, or real-world, study in an effort to explain otherwise puzzling events.

By abstraction we mean seeking out the few common elements or characteristics inherent in a host of events or things. When, by this process, a certain uniformity or regularity among specific things is perceived, *scientific laws* are stated. Thus, the Law of Demand (see Chapter 8) is a statement of a regularity in the general relationship between price and the quantity of a commodity that people are willing to buy. Exceptions and contradictions to this law indeed exist but it holds for most commodities most of the time. Laws, or statements of observed regularity, usually are more precisely and rigidly stated in the physical sciences than in the social sciences. Whereas the Law

of Gravity states very precisely the relationship between bodies, economic laws are expressed in terms of tendencies.

## LAWS VERSUS THEORIES

*Laws* are not to be confused with *theories*. Laws are arrived at by a process of abstraction, and theories, too, are abstract in the sense that they omit a great many things while focusing on a few events or things. But, unlike scientific laws, which state *what* happens, theories go further and attempt to explain *why* things happen. Indeed, we might describe a theory as a *causal narrative* that relates two or more events, processes, or things by means of some general statement. In simpler terms, a theory is a statement saying that such and such happened because some other thing happened.

A good theory tells us what happens and why; it also should be capable of telling us why certain things do not happen. To do this, it must be understood at the outset just what set of events, processes, or things the theory is supposed to explain. A theory of unemployment cannot be criticized because it fails to explain the weather; if it fails to explain the existence of unemployment, however, it is clearly a failure.

For some economists, and other scientists, explanation is secondary to predictive power as a measure of the goodness of a theory. In a nutshell, some say, "Any theory that can predict future events is good; a theory that cannot is poor, regardless of how well the statements of the theory seem to explain why events occur."

Popular as it may be, this approach is encountering growing criticism from those who seek not merely predictions of as yet unobserved events but understanding as well. They point out that if predictive power is the standard by which a theory is measured, Darwin's theory of evolution by natural selection should be cast aside since it has no power to explain the future of various species. At the same time, however, we attempt to test our theoretical explanations by comparing what the theory says should happen under certain conditions with what actually happens. When an economic theory consistently fails to predict actual events, or, what amounts to the same thing, is consistently unable to explain actual events, it must be rejected. The failure

of economics to explain the massive unemployment of the Great Depression led to a far-ranging revision of economic theory.

## OBJECTIVITY IN SOCIAL SCIENCE

Economics is a social science, or a branch of social theory; it is an inquiry into human behavior, be it individual or collective. This alone creates a fundamental problem for economics and other social sciences, namely, that human beings cannot objectively study human behavior and, hence, there can be no such thing as an objective science of economics in the same way that physics can be objective.

A problem of objectivity arises because the social scientist is part of what he studies. As such, the values, mores, ways of thinking, and institutions of the society in which he lives impinge on him in ways that may even be unknown to him. Particularly when economic theory provides a basis for recommendations for changing such things as taxes, income distribution, tariffs, or subsidies, the economist as an individual cannot possibly separate his own values, ethics, or beliefs from his studies of the economy. Economic theory is always and everywhere the product of human beings existing in a particular world at a particular time; only a creature from another world could stand in the same relationship to human societies as the physicist stands in relation to inanimate molecules of matter.

## POSITIVE AND NORMATIVE ECONOMICS

In an effort to get around the problem of objectivity, or at least to appear to do so, some economists draw a sharp distinction between what they call positive and normative economics. By the former is meant theories or statements whose correctness can be settled by reference to "the facts," whereas normative statements are concerned with what ought to be. Put differently, normative statements are laden with ethical or political or value judgments and cannot, therefore, be refuted by evidence, whereas disagreements between positive statements can be settled by looking at the evidence.

If it were only as simple as it sounds! So many disagreements

between economists arise not because of a failure to express their theories in so-called positive terms but because of disagreements over what constitutes "the evidence." Indeed, there is frequent disagreement over the meaning of terms. For example, one economist might say: "Last year the quantity of money rose," while another says: "No, last year the quantity of money declined." Both are positive statements and their truth or falsity should be easy to establish. Unfortunately, economists do not agree on how money is to be defined, especially for purposes of collecting statistics on the quantity of money—the evidence—so that there is little likelihood that those two economists could settle their dispute by reference to the facts. Still, neither has used any normative terms like "ought" or "good" in his statements.

## ECONOMIC METHODOLOGY

The acquisition of economic knowledge proceeds by very much the same method employed by other sciences. Observation of events leads to theories that attempt to explain those events. Competing theories are tested by their conformity to evidence and experience and revised if need be. A specific theory consists of a set of assumptions about the real world followed by a logical or deductive line of reasoning that leads to a conclusion.

Assumptions, the starting point of theory, are abstractions from a host of actual events or, sometimes, generalizations that often are not themselves susceptible of verification. Crucial to economics is the assumption that mankind is motivated by a desire to enhance and increase its material well-being. So basic is this assumption that it may not even be stated in economic discourse. Less grandiose assumptions may be of the following sort: let us assume that business firms are motivated by a desire to earn maximum profits; or let us assume that people base their expectations of future prices solely on present-day prices; or let us assume that all individuals are equally wealthy. The first of these assumptions may not apply to all firms but probably does to a great many businesses. The second probably cannot be verified, and the third is clearly unrealistic. Yet all three have been used to construct theories, or explanations, of

economic events. Given a set of assumptions, deductive reasoning takes over, leading to a conclusion.

Disagreements among economists most often are about the assumptions which form the foundation of a theory; often, by changing an assumption, a new conclusion emerges so that an entirely different explanation of some event or events is produced. Very basic disagreements over assumptions often are what distinguish "schools of thought" from one another.

Another area of disagreement, less contentious today than in earlier decades, concerns the subject matter of economics. Indeed, at various times economists have fought bitterly over just what economics is about and how it should be studied. Should economics be purely a historical study, or should it confine its attention to contemporary market operations? Should the boundaries of the subject be widely drawn to include those cultural and social aspects of behavior today studied by anthropologists and sociologists, or drawn narrowly to exclude practically everything whose dimensions cannot be expressed in dollars, pesos, or whatever? Should economists strive for the precision of physics and shun any problem that cannot be expressed mathematically, or does such an effort merely trivialize economics and cut it off from a host of fruitful problems and studies?

Today, economists study a wide range of problems, as successive chapters will show. Mathematics and statistics are combined with historical research; abstract, symbolic logic is employed to investigate problems in the theory of consumer behavior. The economics of Karl Marx, long dismissed by most economists, now is seriously studied. Whole new areas such as crime, political behavior, and property law are being explored by economists.

For the noneconomist, much of economics seems a mystery—there is a special technical language to decipher, mathematics and statistics abound, and books or articles appear filled with curious diagrams. One of the tasks of this book is to dispel the mystery of the language and technicalities of economics. The barest minimum of algebra and statistics is used in the belief that the ideas of economics can be clearly expressed with words. It will prove useful, however, to introduce at this point the basic elements of functional relations and graphs since they pop up throughout the remaining chapters.

## FUNCTIONS AND GRAPHS

Simply put, a function or functional relationship tells us that one thing is related to one or more other things. Sometimes it tells us only that a relationship exists; usually it tells us in just what way things are related. For example, we can say that the circumference of a circle depends upon its radius. That is, circumference is a function of radius. This last statement may then be written as

$$C = f(r)$$

where  $C$  means circumference,  $r$  means radius, and the  $=$  sign coupled with  $f( )$  means "is a function of." Fortunately, we know that the relationship between  $C$  and  $r$  can be given more precision than merely stating that a relationship exists. We know that

$$C = 2\pi r$$

Another example will serve to introduce the reader to the use of graphs. We know that, in general, the larger an automobile engine the more gasoline it uses per mile. Let us denote  $S$  for engine size (measured in cubic inches) and  $G$  for gasoline (measured in miles per gallon). We know, then, that

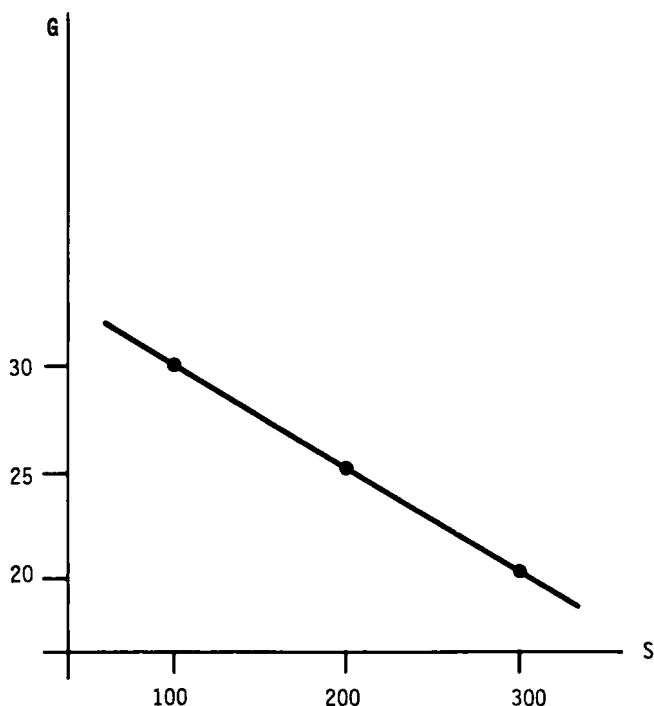
$$G = f(S)$$

Assume now that we collect information on  $G$  and  $S$  and compile Table 1.1. This tells us that, with an engine of 100 cubic inches, we will enjoy 30 miles per gallon of gasoline but only 20 mpg if we have a 300 cubic inch engine. This information can be transposed to a graph as in Chart 1.1. The relationship between  $G$  and  $S$  expressed in this graph is said to be inverse or negative since as  $G$  goes up,  $S$  goes down, or *vice versa*. An example of a positive relationship between two things (or *variables*) is the heights and weights of persons, as shown in Chart 1.2.

TABLE 1.1

Engine Size (Cubic inches)	Miles per Gallon
100	30
200	25
300	20

CHART 1.1

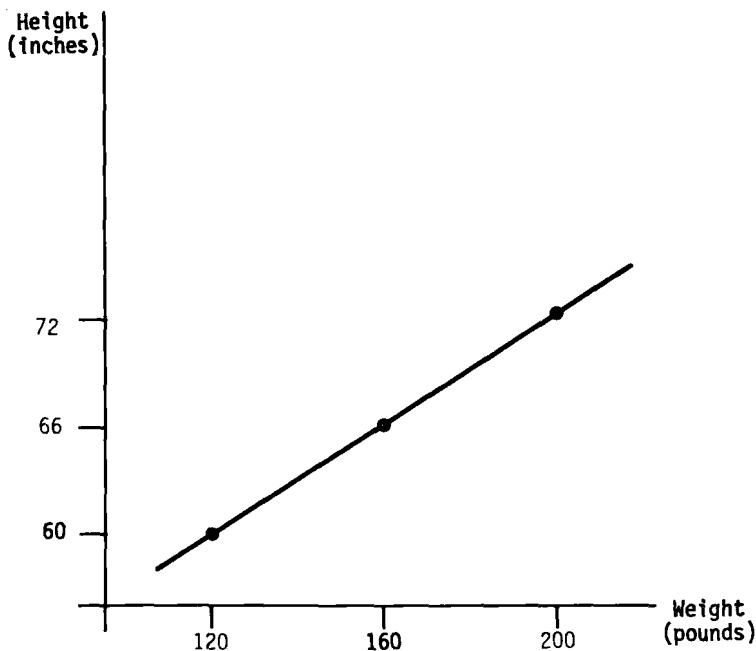


In some instances, a relationship will be more complex than those presented above. Returning to our earlier example of gasoline consumption, we might argue that automobile weight will also affect miles per gallon—the heavier the car, the lower will be mpg for a specific engine size. Thus, we would write:

$$G = f(S, W)$$

where  $W$  is the weight of an automobile. This could yield the graph shown in Chart 1.3. In the graph, we have a “family” of

CHART 1.2



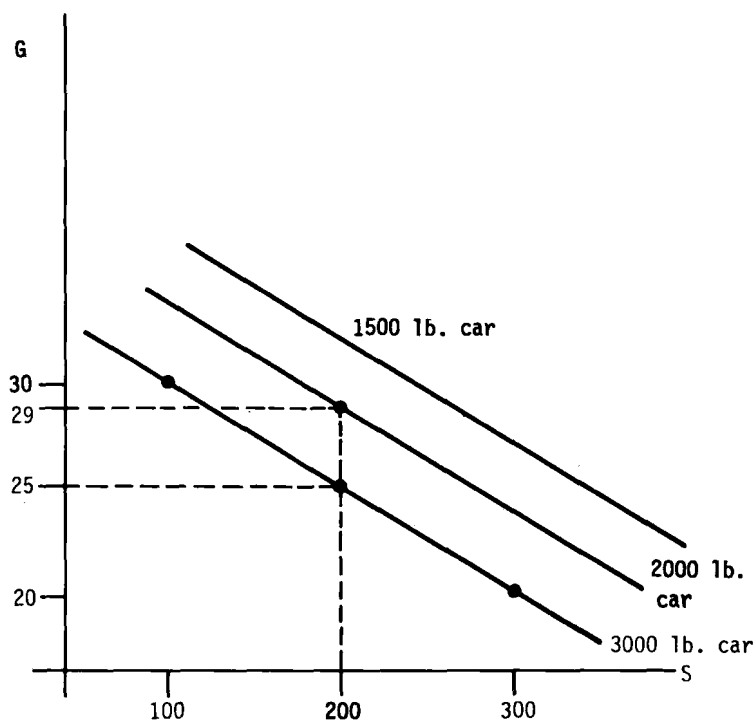
lines relating  $G$ ,  $S$ , and  $W$ . Thus, if you buy a car weighing 3000 pounds with a 200 cubic inch engine, you will get gasoline consumption of 25 miles per gallon. But if you buy a car weighing 2000 pounds with a 200 cubic inch engine, gasoline consumption will be 29 miles per gallon.

Sometimes a functional relationship like  $G = f(S)$  means only that the two, or more, things change together. Sometimes a stronger meaning is implied, namely, that changes in  $G$  are caused by changes in  $S$  or whatever variables appear in a theory.

When we use graphs, a characteristic of the lines we draw



CHART 1.3



that is particularly useful is the *slope* of the line. For a straight line, determining the slope is simple: it is the vertical distance per unit of horizontal distance. See Chart 1.4. For lines which are curved, we find the slope by drawing a tangent to the curve at the point whose slope we want to calculate. See Chart 1.5.

Skill at reading graphs is helpful but not essential in grasping the body of ideas that constitutes economics. In the next chapter, we trace the history of economics over the past two centuries and in successive chapters we examine in more detail those ideas about economics.