



# PRINCIPLES OF ECONOMICS

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## PREFACE

The authors of this text believe that a thorough grasp of the principles of economics precedes an understanding of economic life. This holds both for the student of social problems and for the business man. The emphasis of this book is therefore on the fundamentals of production, price, and distribution.

But in presenting these principles to the university or college student the instructor is confronted by a twofold difficulty. A rigidly formal exposition of the theories and laws of economics, though it probably approaches most nearly the scientific ideal, is likely to leave the student with the feeling that the subject is highly abstract and that it has little relation to concrete facts as he encounters them in his limited contacts with economic life. On the other hand, a course that plunges the student into masses of statistical and descriptive data without sufficient explanation of the relations existing between these facts, and without providing him with a method for analyzing them, is equally unsatisfactory. The authors of this text have attempted to avoid these extremes. The principles have been kept constantly in the foreground, but throughout the book these principles have been applied to the interpretation of the problems of contemporary economic life.

Because of this method of continuous application of principles to problems, we believe that instructors who use this book will find an abundance of materials for classroom discussion, and will be able to elicit the interest of the student in the application of economic analysis to current economic problems. Satisfactory results have been obtained by the method here employed in the "Principles of Economics" course at the University of Minnesota, where a preliminary edition of this text has been in use for two years.

The amount of space allotted in this book to the analysis of cost and price is somewhat greater than is ordinarily assigned to this subject. It is our belief that this subject is fundamental to a beginning course which is intended, in part at least, as a foundation for more detailed studies in various fields of economics and business administration. But in the chapters on this subject the actualities of economic life are constantly held in mind; and in turn the principles of overhead cost, joint demand, opportunity cost, increasing and decreasing cost are used as tools of analysis in the more descriptive chapters of the book. These doctrines of cost have not been set up as rules of thumb, which the student is expected to believe are applicable to real life without taking into account conditions not provided for in the theories.

The effects of institutional influences and of dynamic changes upon the more rigid conclusions of economic theory have not been minimized. We have endeavored to emphasize the dynamic phases of economic life not merely in the chapters on money and prices, institutional aspects of distribution, and international economic relations, but throughout the book.

We have made extensive use of illustrative diagrams and statistical charts in the belief that charts are much more significant to the student than tables of figures both in the analysis of theoretical principles and in the interpretation of historical data.

It is perhaps unnecessary to say that we make no claim to having made contributions to economic theory in this book.

We wish to acknowledge our indebtedness to the instructors in the course in "Principles of Economics" at the University of Minnesota for many helpful suggestions. We are also under obligation to Professor John D. Black of Harvard University, and to our colleagues, Professors R. S. Vaile and B. D. Mudgett and Dr. A. G. Black, for reading and criticizing special chapters.

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## PRINCIPLES OF ECONOMICS



# BOOK I. PRODUCTION

## CHAPTER I

### INTRODUCTION

**The Subject Matter of Economics.** The study of economics is assuming a place of increasing importance. The disturbed conditions following the World War have enormously enhanced the interest of the general public in economic problems.

A similar situation existed a hundred years ago, after the Napoleonic wars; and the problems thrown up by that great struggle were in large part similar to those we face today. Sharp controversies arose over the causes of the conditions that prevailed and the proper remedies to be applied. British agriculture floundered in a tremendous depression, much like the one through which American agriculture has recently been passing. The landlord class demanded protection to shield it from the competition of the fertile land in the New World. British industry, on the other hand, wanted free trade, that it might buy raw materials in the cheapest markets. A struggle arose between these two contending groups. Each had its advocates; each sought to prove that Great Britain would benefit by its own special program. Two great economists in particular stand out in this controversy: Thomas Robert Malthus, who defended the position of the landlord class, and David Ricardo, who pointedly set forth arguments favorable to the position of the industrialists. The struggle became a leading political issue and finally ended in a victory for free trade and the manufacturing class.

Another controversy that emerged in the post-Napoleonic period was the currency question. England had temporarily

abandoned the gold standard, and her paper money had depreciated. As a result there had been an enormous rise in prices. After the war these prices fell rapidly. Certain classes benefited from this; others suffered severely. What was the cause of the fluctuating value of money, and what could be done to stabilize the currency? What banking reforms were needed in order to prevent these violent fluctuations in prices?

During the war England had borrowed huge sums of money, and the public debt had reached unheard-of proportions. How were the funds for meeting the interest charges to be raised? How rapidly might the debt be paid off? Who ought to bear the brunt of the taxes? These were typical economic questions dominant in British politics of the time.

We are today faced with similar problems and many more besides, some of which are an aftermath of the World War; others are not. What were the causes of the post-war agricultural depression? How is the situation to be remedied? How can business be stabilized so that we may in the future escape such a train of bankruptcies as we suffered during the years 1921-1922? How shall we prevent a recurrence of such a period of unemployment as we witnessed in 1921-1922, when five million wage-earners could not find jobs? Would it have been better if the war had been financed more largely from taxes and less from loans? Should the excess-profits taxes have been continued? What are the effects on business prosperity of the high tax rates on large incomes? Do all forms of taxes tend to raise prices? Are freight rates too high? Should coöperative movements among the farmers be encouraged? Are trade associations good for the country? Are trusts and monopolies acquiring a strangle hold on business, or is competition still dominant in most fields? Should the United States Steel Corporation be dissolved? What caused the great increase in strikes in 1919? What is the solution of the labor problem? Why are wages so much higher than before the war? Ought we to pass the child-labor amendment to the Constitution? Are minimum-wage laws a good thing? Should trade unions

be rooted out? Why are wages higher in the United States than in England? Should we restrict immigration into the United States? Should we be better off if we canceled the war debts? Why did the rates of foreign exchange fluctuate so violently in the post-war years? Is it desirable for a country to export more than it imports? Should people be urged to patronize home industry? Are the Federal Reserve banks a benefit to the country? Is our national income rising? Do retailers receive excessive profits? Should speculation in the stock market be prohibited? What determines the value of stocks and bonds? What determines prices, wage rates, interest rates, profits, and rents?

These and other questions are being discussed on all sides — in the newspapers and magazines, in hundreds and thousands of books, on the public platform, in legislative debates, and in private conversation. Every person in modern times is perforce more or less concerned with economics.

It must not be thought that any careful student of economics can give answers to all these questions. There is a consensus of opinion among economists on a great many questions, but many others are unsettled and there is no agreement concerning them. But even the unsettled problems will surely be approached more intelligently by those who have a firm grasp of economic principles. There are, moreover, many popular economic fallacies which can readily be exposed by any competent economist.

There are two methods of finding solutions for practical problems. Those who are impatient and "practical" will usually seek immediate results. They will study the most obvious phases of the problem and propose measures that may bring temporary relief. If their remedies do not work, they quickly turn to a different cure; and not infrequently the evils complained of are either forgotten or have disappeared before any settled conclusions emerge from such superficial experimentation. A scientific approach to economic problems demands that before any person proposes

remedies he shall have made a thorough study of the fundamentals of economics. He must know how prices are made — what forces control the demand for and the supply of goods and services, and how these forces act. He must understand the operation of the broad social forces that control the division of the nation's income among landlords, capitalists, entrepreneurs, and wage-earners. He must have in mind a general idea of the way the whole machine works before he begins to tamper with a particular part of it.

Economics deals, as may be inferred from the enumeration of problems listed above, with a certain set of related phenomena, a certain aspect of human behavior. It is concerned with problems relating to the value and price of goods and services; with economic institutions such as property and contract, trade unions and corporations; and with the social control of economic behavior. All these matters are closely interrelated. They are not separate divisions in economics. They will not be treated as such in this book. Each is affected by the others. Value and price cannot be discussed and explained without due weight being given to economic institutions. It does not require a technical study of economics to see that trusts, combinations, trade associations, coöperative societies, trade unions, the speculative exchanges, and so on affect prices, profits, interest rates, wages, and rents. Similarly prices are affected by governmental policies — tariffs, "trust-busting," taxation, and regulation. Some economists indeed contend that price is the central problem of economics, that all the subject matter of economics is finally focused on the price problem.

If, however, we turn our attention to economic institutions or social control, we find a similar interrelation. Economic institutions are, in large part, the result of the contest between groups over price: each group striving to get a larger share of the national income, each trying to get a more favorable price for its product. Moreover, no society can consciously guide its economic processes in a wise manner without a knowl-



edge of fundamental price and value principles. Finally, the various existing institutions that we have enumerated above affect directly or indirectly the problems of social control, and, on the other hand, social control eventually results in a modification of the prevailing economic institutions.

It is not necessary to trace these interrelations further. We have in a sense a price economics, an institutional economics, and an economics of social control. But there are no watertight compartments, nor can any one type of economic analysis claim primacy over the rest. All are tools to a common end: an understanding of economic life, of human behavior in its economic relations. And certainly the primary purpose of this knowledge is to point the way to the largest measure of economic welfare. All science is ultimately pragmatic. Economics is no exception. Adam Smith, the founder of modern political economy, whose great book was written in 1776, contended that "the object of the political economy of every nation is to increase the riches and power of that country." Dr. Pierson defines economics as "the science which teaches us what rules mankind should observe in order to advance in material prosperity." But knowledge must come first. Adam Smith emphasized this fact by the very title of his book, *An Inquiry into the Nature and Causes of the Wealth of Nations*. It is the function of any science to analyze, to find relationships, to explain; but the explanation is generally sought as a guide to action and in any event will often prove of unforeseen practical value.

So far as economic welfare is concerned, there are two primary problems confronting any society. The first has to do with the relative importance of different human wants; the second has to do with the most economical way of satisfying those wants. The first runs off into the field of ethics, of human values; the second is the primary concern of economics.

**Economics as a Science.** Economics assumes, as does all science, that nothing happens by chance, that any observed phenomenon of human life is contingent upon other phe-