

ELEMENTARY PRINCIPLES
OF
ECONOMICS

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New York
THE MACMILLAN COMPANY

1920

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Set up and electrotyped. Published July, 1912.

Norwood Press
J. S. Cushing Co. — Berwick & Smith Co.
Norwood, Mass., U.S.A.

To

THE MEMORY OF MY FRIEND

AND COLLEAGUE

PROFESSOR LESTER W. ZARTMAN

PREFACE

FOR TEACHERS

THE words "Elementary Principles" in the title of this book indicate the limits of its scope ; the book is intended to be *elementary*, not advanced, and concerns itself with economic *principles*, not their applications.

First, being elementary, it does not attempt to unravel the most difficult tangles of economic theory or to introduce controversial matter. For such studies it should be succeeded by more extensive treatises (*e.g.*, my own : *Nature of Capital and Income*, *Mathematical Investigations in the Theory of Value and Prices*, *Purchasing Power of Money*, and *Rate of Interest*, which follow out the same general system of thought and exposition as adopted in this book).

Secondly, being devoted to principles, the book is confined to that part or aspect of economics which is now coming to be recognized as capable of *scientific* treatment in the sense, for instance, in which that term may be applied to physics or biology. The fundamental distinction of a scientific principle is that it is always *conditional* ; its form of statement is : *If A is true, then B is true*. A *principle* differs in this respect from a *fact* which asserts unconditionally that *B is true*. Science is primarily concerned with the formulation of principles. The aim of this book is to formulate some of the fundamental principles relating to economics.

The method and order of treatment are not altogether traditional. The time-honored order of topics — production, exchange, distribution, consumption — has been found

impracticable. Such an order was probably originally intended to parallel the natural course of events from the production of an article to its consumption ; but to-day these four topics scarcely retain any traces of such a parallelism. "Distribution," for instance, has, in theoretical discussions, long ceased to be a description of the processes by which food, clothing, and other goods are distributed after being produced and prior to being consumed, and has become simply a study of the determination of rent, interest, and other market magnitudes. It is not, therefore, surprising that many other textbooks on economics have also broken away from this unfortunate order of topics.

Of the many possible methods of writing economic textbooks, there are three which follow well-defined, though widely different, orders of topics. These are the "historical," the "logical," and the "pedagogical." The historical method follows the order provided by economic history ; the logical begins with a classification of economics in relation to other studies, explains its methodology, and then proceeds by means of abstract examples from the simplest imaginary case of "Robinson Crusoe economics" to the more complex conditions of real life ; the pedagogical begins with the student's existing experience, theories, and prejudices as to economic topics, and proceeds to mold them into a correct and self-consistent whole. The order of the first method, therefore, is *from ancient to modern* ; that of the second, *from simple to complex* ; and that of the third, *from familiar to unfamiliar*. The third order is the one here adopted. That the proper method of studying geography is to begin with the locality where the pupil lives is now well recognized. Without such a beginning the effect on the student's mind may be like that betrayed by the schoolgirl, who, after a year's study of geography, was surprised to learn that her own playground was a part of the surface of the earth. In like manner we cannot

expect to teach economics successfully unless we begin with the material already existing in the student's mind. Those textbooks which open with a discussion of the relations of economics to anthropology, sociology, jurisprudence, natural science, and biology, overlook the fact that the beginner in economics is totally unprepared even to understand the meaning of these great subjects, much less their relations to one another. The same sort of error is made by those textbooks which begin with a comparative study of the logical machinery by which truth is ground out in economics and in other sciences. The student's logical faculty must be exercised before it can profitably be analyzed.

This book, therefore, aims to take due account of those ideas with which the student's mind is already furnished, and to build on and transform these ideas in a manner adapted to the mind containing them. This is especially needful where the ideas are apt to be fallacious. The economic ideas most familiar to those first approaching the study of economics concern money,—personal pocket money and bank accounts, household expenses and income, the fortunes of the rich. Moreover, these ideas are largely fallacious. Therefore, the subject of money is introduced early in the book and recurred to continually as each new branch of the study is unfolded. For the same reason considerable attention is given to cash accounting, and to those fundamental but neglected principles of economics which underlie accounting in general. Every student at first is a natural "mercantilist," and every teacher has to cope eventually with the prejudices and misconceptions which result from this fact. Yet no textbook has apparently attempted to meet these difficulties at the point where they are first encountered, which is at the beginning.

It may be worth while to distinguish the pedagogical procedure here proposed from that recently advocated

under the somewhat infelicitous title of the "Inductive Method." I refer to the method by which the student is at first to be taught economic facts without any formulation of principles. This proposal seems to assume that the student's mind is quite a blank to start with, and that it is possible on this *tabula rasa* to inscribe facts without at the same time intimating how they are related. The truth is, however, that the student's mind is already familiar with a great mass of economic facts acquired at home, on the street, and from the newspapers. He knows something, not only of money and accounts, but of banks, railways, retail trade, labor unions, trusts, the stock market, speculation, the tariff, poverty, wealth, and innumerable other topics. It is equally true that his head is full of theories as to the relations of these facts, — the working of supply and demand, the nature of money, the operation of a protective tariff, etc. The difficulty is that most of his theories and many of his supposed facts are false ; and before we add to his ill-assorted collection of mental furniture we must arrange in orderly fashion that which he already possesses. Moreover, it is almost impossible to impart successfully any considerable mass of disconnected facts. If the teacher does not indicate the true connections, the student will almost inevitably supply false ones ; or else the facts without connections will be also without interest.

These objections to the so-called "inductive method" are not, however, intended as militating against the object which its advocates strive to attain, viz., to make the student think for himself, nor against the chief means by which they actually attain this object, viz., the use of original problems. Every teacher can and should illustrate, emphasize, and elaborate every step in the study of principles by propounding problems. Sumner's collection of problems, or the more recent collections of Taylor or of the University of Chicago, may profitably be used to sup-

plement those which every good teacher will readily invent for himself from the suggestions of the text, of current newspapers, or of students' questions. These should vary from year to year according to current events and the exigencies of the case as understood by the teacher.

A pamphlet of suggestions as to problems to be used in connection with this book has been prepared for teachers and may be obtained of the publishers. It is submitted that the present treatment of the subject lends itself peculiarly to the use of definite soluble problems in place of the vague "problems" which are usually employed in economics and which call for little more than an expression of opinion. Incidentally, the teacher will find that these definite arithmetical problems are not only much more useful to the student, but are much less trouble for the instructor to correct and grade.

Problems should, I believe, supplement and not supplant a textbook. The effort to substitute problems for textbooks has always failed even in those subjects which, like algebra and geometry, may be said to consist naturally of a series of problems. A preliminary framework of general principles is needed in order to formulate special problems of real value. Problems which are really soluble by the beginner can be little more than applications of general principles to special cases.

What has been said will help explain why greater attention than usual is here paid to certain themes, such as money, bank deposits, accounting, the rate of interest, and the personal distribution of wealth; as well as why less attention than usual is paid to certain other themes, such as methodology and those obsolete theories like the "wage fund" theory which (unlike some other obsolete theories) has probably never formed any part of the student's mental stock in trade.

To some critics the abundant use of curves may seem too advanced for an elementary work. But their use is

now so common in the advanced treatises to which the student is, if possible, to be led, that their introduction here is but a necessary part of his preparation. The very fact that there is at present no elementary book in which the nature and use of the graphic method has been made clear for the elementary student is a strong argument for its adoption. Moreover, I am persuaded that the "difficulties" in the elementary use of curves are largely imaginary. Every beginner in economics may be assumed to be familiar with latitude and longitude on a map, and perhaps also with the temperature charts in the daily paper. It is a very easy step from these to curves of supply and demand, provided they be used with sufficient frequency and with sufficient system to take lodgment in the student's memory. The student who sees but one diagram in a book will find the initial effort of understanding that diagram scarcely worth while, — not much more worth while than to be taught the use of logarithms without applying them to more than one or two practical examples. As a matter of fact, there are few things which so facilitate the understanding of economic relations at every stage of economic study as the use of diagrams; and it is believed that, with them, the elementary student can proceed both faster and further in economic analysis than without them.

Some friends are inclined to criticize the book as being too cold an analysis. They point out that the student's main interest in the subject is a "human interest" and concerned primarily with the practical and immediate solution of great public problems. No one acquainted with my interest in some of these problems can accuse me of lack of appreciation of the "human" element in them all. But the more one studies these problems and the attempts at their solution, the more evident it becomes that most students approach them with an insufficient grounding in fundamental principles. In social as in medical therapeutics a lack of knowledge of anatomy and physiology results in

quackery — in remedies worse than the disease which it is proposed to treat. I believe that one of the greatest needs to-day in the teaching of elementary economics is to curb this popular tendency to run after remedies before formulating principles. In the present book, therefore, while most of the great practical problems of economics are outlined in connection with the principles which must be employed in their solution, the solutions themselves are not discussed. Full discussion of all these problems is impossible in any textbook, and I earnestly deprecate a general *ex cathedra* pronouncement of personal opinion by an author on moot questions, especially in a book for immature students. The only proper course, in my opinion, is for the student first to master the fundamental economic principles on which all or most competent economists can agree, and then, as suggested on the closing page of this book, to take up *some one* moot question — some burning issue of the day — and, so far as possible, master that also. In the meantime he should, so far as possible, keep an open mind on other problems until, in course of time, they may also be taken up intensively, one by one. A textbook which attempts to supply the student with ready-made opinions on all practical problems “while he waits,” may be supplying a real demand, but is not performing a high service.

Possibly the slight emphasis here put on historical, descriptive, and practical economics may decide some teachers against the use of this book and lead them to choose a book in which “the whole subject of economics” is treated. I submit, however, that no such “complete” book exists, since no author exists capable of writing it, and that all which aim to be complete lack at least half of the subject matter here presented and which is taken for granted as if fully known by the student. In many books the terms “assets,” “liabilities,” “income,” “cost,” and “rapidity of circulation” are used without discussion or even definition.

It would be out of place here to criticize other textbooks, but it has been my hope that the present book may be found a useful introduction to other books, even those which attempt to cover the subject "completely." I would also point out that, by omitting the more "therapeutical" parts of the subject, I have escaped most of its controversies, for the controversies to-day are more as to the solution of practical problems than as to the validity of such elementary principles as are contained in this book. Freedom is thus allowed to each teacher who uses this textbook to follow it up by whichever among others contains the therapeutical treatment which he personally regards as correct. I have been struck by the fact that my critics seldom question the correctness of the propositions here laid down. If this book may afford a common starting point for economic instruction of different schools of thought and different attitudes toward public problems, it will have served one important purpose.

Especial care has been taken in formulating definitions so that the concepts described by these definitions may become firmly fixed in the students' minds. These definitions and concepts have been chosen in reference to their usefulness in economic analysis as well as their conformity to practical usage. I am one of those who believe that when the usage of academic economics conflicts with the ordinary usage of business, the latter is generally the better guide. This is not only because business usage has a thousand times the currency of academic usage, but also because in general it comes closer to the needs of economic analysis. Here is not the place to argue why this is true, or even to prove that it is true. I will, however, mention one consideration which appeals increasingly to practical teachers: An academic tradition which is unconvincing to the student is sure later, when he himself becomes a business man and perceives how badly academic traditions are out of tune with modern business usage, to breed a deep distrust,

if not contempt, for all academic economics. Thus, expediency, as well as sound theory, should urge teachers to respect the usage of business men.

I have taken so much space to justify those features of this book which will seem new, because several teachers to whom the experimental editions were submitted have condemned it at sight as unteachable. I am glad to report, however, that the teachers who have actually tested the book in classroom have usually become extremely enthusiastic over its "teachableness," although many of them had begun its use with grave misgivings.

The experimental editions, of which there were two, were made possible by special arrangement with the publishers. This gave opportunity for thorough trial for two years in classrooms at Yale, under nearly a dozen different instructors. As a result of this trial and the many valuable suggestions and criticisms which were obtained from teachers, students, and friends, the book has been virtually written three times. The present — the third and final — edition is the first to be offered to the general public.

I am under obligations to President Hadley of Yale for the fundamental idea employed in the discussion of those supply curves which illustrate the willingness to produce "a given amount *or more*" instead of, as ordinarily assumed, "a given amount *or less*"; also for helpful criticism on the presentation of that most difficult subject, the rate of interest. I am also indebted for helpful criticism to my colleagues, Professor Clive Day, Assistant Professors F. R. Fairchild, H. P. Fairchild, W. H. Price, and A. L. Bishop, Dr. H. G. Brown, Dr. E. J. Clapp, now in New York University, and Dr. J. L. Leonard; also to Professor Charles W. Mixer of the University of Vermont, Professor Harvey A. Wooster of De Pauw University, Professor Louis N. Robinson of Swarthmore College, Dean David Kinley of the University of Illinois, Professor E. W. Kemmerer of Cornell University, Professor H. J. Davenport of the University

of Missouri, Professors E. R. A. Seligman, H. R. Seager, and H. R. Mussey of Columbia University, R. T. Ely and W. A. Scott of Wisconsin University, and W. M. Adriance of Princeton University, Mr. W. F. Hickernell, now with the Brookmire Economic Chart Company of St. Louis, Mr. Morrell W. Gaines of the Statistical Department of Brown Brothers and Company of New York, Mr. Julius H. Parmelee, statistician of the Bureau of Railway Economics, Washington, D.C., Professor E. B. Wilson of the Massachusetts Institute of Technology, Dr. Leonard Bacon of New Haven, and to Mr. J. M. Shortliffe of the Graduate Department of Yale University.

I endeavored to obtain a clear idea of the undergraduates' viewpoint by offering prizes for the best criticisms from students using the book as a textbook, the prizes being awarded by a committee of instructors other than myself. In the college year 1910-1911, the students who won the prizes were R. H. Gabriel, 1913, E. J. Webster, 1913, and G. G. Chandler, 1912, and in the year 1911-1912, Edward Glick, 1914, W. Van B. Hart, 1914, and M. W. Brush, 1913. The criticisms of others besides the prize winners were found helpful. To H. Briar Scott, 1913, I am also indebted for suggesting the insertion of Figure 2. My greatest obligations for criticism, especially as to the mode of presentation, are due to my brother, Herbert W. Fisher, who has kindly read and criticized all of the original manuscript and both preliminary editions.

IRVING FISHER.

MAY, 1912.

ELEMENTARY PRINCIPLES OF ECONOMICS

CONTENTS BY SECTIONS

CHAPTER I

WEALTH

SECTION	PAGE
1. Definition of Economics and of Wealth	I
2. Distinction between Money and Wealth	5
3. Classification of Wealth	9
4. Measurement of Wealth	11
5. Price	13
6. Value	17
7. Limit of Accuracy in Economic Measurements	20

CHAPTER II

PROPERTY

1. The Benefits of Wealth	23
2. The Costs of Wealth	25
3. Property, the Right to Benefits	26
4. The Relation between Wealth and Property	30
5. Table of Typical Property Rights	33
6. Practical Problems of Property	34

CHAPTER III

CAPITAL

1. Capital and Income	37
2. Capital-goods, Capital-value, Capital-balance	39
3. Book and Market Values	44
4. Case of decreasing Capital-balance	45
5. Insolvency	48
6. Real and Fictitious Persons	50
7. Two Methods of Combining Capital Accounts	51
8. Ultimate Result of Method of Couples	54
9. Confusions to be Avoided	57

CHAPTER IV

INCOME

SECTION	PAGE
1. Concepts of Income and Outgo	60
2. Income Accounts	64
3. Devices for Making Net Income Regular	68
4. How to Credit and Debit	69
5. Omissions and Errors in Practice	72

CHAPTER V

COMBINING INCOME ACCOUNTS

1. Methods of "Balances" and "Couples." "Interactions" .	75
2. Production: Interactions which change the Form of Wealth	77
3. Transportation: Interactions which change the Position of Wealth	80
4. Exchange: Interactions which change the Ownership of Wealth	81
5. Accounts Illustrative of Interactions in Production . .	85
6. Preliminary Results of Combining these Income Accounts .	88
7. Analogies with Capital Accounting	90
8. Double Entry in Accounts of Fictitious Persons	92
9. Double Entry in Accounts of Real Persons	95
10. Ultimate Costs and Income	98

CHAPTER VI

CAPITALIZING INCOME

1. The Link between Capital and Income	102
2. Capital as Discounted Income	107
3. The Discount Curve	108
4. Application to Valuing Instruments and Property . . .	112
5. Effect of Changing the Rate of Interest	125

CHAPTER VII

VARIATIONS OF INCOME IN RELATION TO CAPITAL

1. Interest Accrued and Income Taken Out	127
2. Illustrations	129

CONTENTS BY SECTIONS

xxiii

SECTION	PAGE
3. Confusions to be Avoided	132
4. Standardizing Income	136
5. The Risk Element	138
6. Review	140

CHAPTER VIII

PRINCIPLES GOVERNING THE PURCHASING POWER OF MONEY

1. Introductory	144
2. The Nature of Money	147
3. The Equation of Exchange Arithmetically Expressed	151
4. The Equation of Exchange Mechanically Expressed	156
5. The Equation of Exchange Algebraically Expressed	159
6. The "Quantity Theory of Money"	160

CHAPTER IX

INFLUENCE OF DEPOSIT CURRENCY

1. The Mystery of Circulating Credit	165
2. The Basis of Circulating Credit	171
3. Banking Limitations	174
4. The Total Currency and its Circulation	178
5. Deposit Currency Normally Proportional to Money	180
6. Summary	183

CHAPTER X

CAUSES AND EFFECTS OF PURCHASING POWER DURING TRANSITION PERIODS

1. Transition Periods	184
2. How a Rise of Prices Generates a Further Rise	186
3. How a Rise of Prices Culminates in a Crisis	187
4. Completion of the Credit Cycle	189

CHAPTER XI

REMOTE INFLUENCES ON PRICES

1. Influences which Conditions of Production and Consumption Exert on Trade, and therefore on Prices	192
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