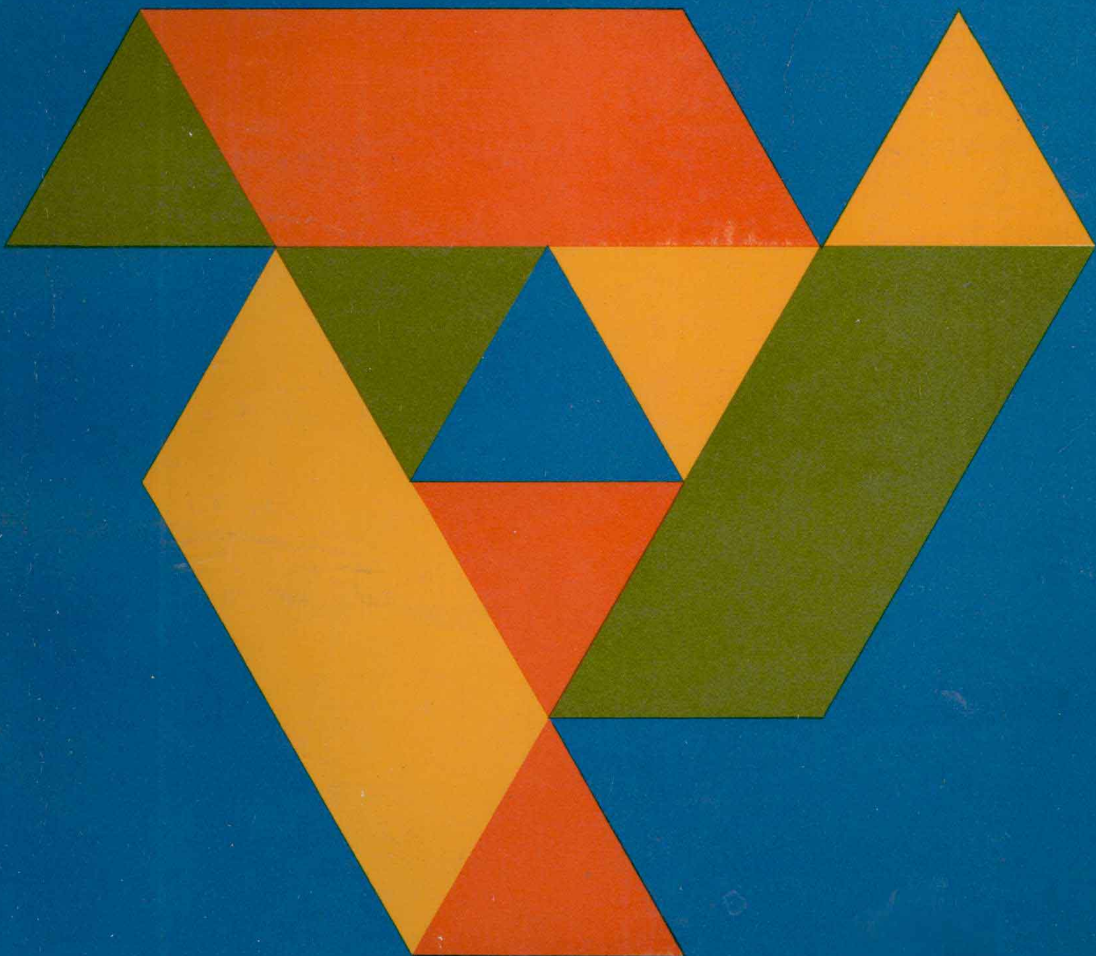
modern economics principles and policy

Kelvin Lancaster

microeconomics



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PREFACE

This book is designed as a first level introduction to microeconomic analysis and policy, with strong emphasis on the policy side. I have attempted to maintain policy as the primary theme so that, although there are some chapters specifically devoted to policy, those which are not are there to supply material necessary for policy considerations. The analysis of perfect competition is presented, for example, as a reference model for production and resource allocation policy, not as an exercise for its own sake.

The opening chapter is written as an introduction to the considerations and problems that underlie the formulation of economic policy, and to emphasize the crucial importance of the policy-maker's view as to how the good and bad things produced by the economy are to be distributed among its members. The emphasis on distribution is a consistent theme throughout the book, even before the reader reaches the formal analysis of distribution and distributional policy in the last four chapters.

Following the three opening chapters, which introduce the reader to economic reasoning, the physical constraints on economic possibilities, and the American economy, respectively, there are five chapters which provide the basic analytical structure for examining the market economy. Chapters 9 through 14 then deal with applied and policy problems, both of a general kind and with specific reference to special policy areas. Two such policy areas, the cities and agriculture, receive a chapter each. The final chapters are devoted to distribution and associated policy problems.

The content is as up-to-date as possible, incorporating such recent ideas as the characteristics approach to consumer theory, modern theories of corporate behavior, and the concept of human capital. The overall approach is that of general equilibrium, with emphasis on the interconnectedness of the economy and, as already mentioned, on distributional considerations.

I have taken great care to make the book as interesting and as usable as possible while maintaining it at the level of a true introduction, and not a mere preface, to the subject. To this end, I have made extensive use of "Capsule Supplements." These are short essays on a variety of topics—historical background, institutional arrangements, factual material, brief biographies of important figures in economics, thought-provoking ideas, among others—which are related to, but separate from the main text and which leave the latter clear and uncluttered. I have also provided lead-in statements and Recap summaries for every section of every chapter (not merely short summaries of whole chapters), so that the basic content of any section is directly accessible even if that part of the book is not read in detail. Although I hope my readers will read every word I have written, I have tried to make it possible to obtain a great deal from the book even without doing this. Because of this, I hope readers will read at least the Recaps and Capsule Supplements of every chapter.

Suggested Course Syllabuses (one semester)

For a full-scale course, it is suggested that the whole book be used.

For a less intensive course, it is suggested that Chapters 1, 3, 4, 6–9, 11–12, 15, 18 be used. The Recaps and Capsule Supplements of Chapters 2, 5, 10, 16, 17 should also be read.

New York City
November, 1972

Kelvin Lancaster

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PART I INTRODUCTION

The three chapters in this Part are designed to set the stage for the remainder of the book, and should be perused no matter whether the reader intends to start his formal study of economics with microeconomics (starting in Chapter 4) or macroeconomics (starting in Chapter 19). Chapter 1 introduces the reader to typical economic questions and methods of reasoning by considering prosperity and pollution. Chapter 2 gives a more extended analysis of what constitutes the economic possibilities open to society. Chapter 3 is designed as an introduction to the leading features of the American economy.

CHAPTER 1 PROSPERITY and POLLUTION

1.1 PROSPERITY and WELFARE

Notes on the nature of economics.

The book that established economics as a full subject of study in its own right was called *An Inquiry into the Nature and Causes of the Wealth of Nations,* and economics both before and after Adam Smith wrote that classic has been primarily concerned with material prosperity—how it is attained and sustained and how it is distributed over the society. This does not mean that economists regard material wealth as an end in itself, or that they have no interest (as economists) in nonmaterial things. On the contrary, the tradition in economics is that material wealth is only one of the things that contribute to "happiness," "satisfaction," "welfare," or whatever it is that we choose to call the index that sums up people's positive attainments from living.

Economists also do not neglect nonmaterial things in their analysis *provided these are related in some way to material things*—leisure, for example, figures heavily in economic thinking, even though it is not material, because an increase in leisure will typically result in a reduction in the output of material goods. Sometimes the economist may seem to be casting a cold eye on some artistic or spiritual aspect of life by noting that it is often produced at the expense of material things. But this does not mean he is a

Philistine, only that he is a realist whose professional duty it is to let society know that more of some things usually implies less of others.

The economist does not assume that material prosperity is the *only* thing contributing to social welfare, but he does presume it is *one* of the things. Any reader who is a total ascetic and believes material goods are irrelevant or even harmful to either personal or social welfare will find nothing to his taste in the study of economics, and can lay the book aside at this point.

Economics can be treated as a descriptive and predictive science, the only object of which is to codify the ways in which the various parts of the economy behave in response to the circumstances they face, and thus to be able to predict how they will behave when circumstances change, without asking whether this behavior is, in some sense, "good" for the economy or "bad" for the economy. Some economists would consider that their role ends there, leaving it up to others to choose between different policies. In a policy-oriented study, like this book, we cannot avoid making the best attempts we can to state what the effects of a policy on some generally accepted criterion for social welfare might be, in addition to the simple factual statement of how the policy will affect certain measures of material output.

1.1 RECAP

Economics is concerned largely with material things, but with these viewed as one of the contributors to the nonmaterial objective of "welfare."

1.2 The FEASIBILITY of PROSPERITY

An introduction to society's economic possibilities.

"Prosperity" is, of course, a relative term rather than an absolute one and is correlated with its inverse "poverty." There is a gap in any society between the level of material goods that constitute prosperity and the level that constitutes poverty, but let us suppose we agree on the "prosperity" level. This level will be defined by a list of the things that go to sustain it—a certain level and variety of food, of housing, clothing, medical care, leisure time, entertainment. (Note that we have included some nonmaterial things, but these require material inputs for their production.)

The Basic Questions

Whatever level we may have chosen, we can immediately ask the following questions, which delineate a great part of the subject matter of economics:

CAPSULE SUPPLEMENT 1.1

DOES MONEY MAKE PEOPLE HAPPY?

The old myths that the poor are really happier than the rich were probably invented by the rich to induce the poor to remain poor. There is no kind of objective data on people's "happiness," and there are many objections that can be raised to any kind of social survey data that is based on asking people whether they are happy or not. Nevertheless, such information that has been collected on the subject gives no backing whatever to the myth of happy poverty.

The American Institute of Public Opinion, one of the oldest and most respected institutions in its field, asked Americans (in December 1970) whether they regarded themselves as "very happy," "fairly happy," or "not very happy." The answers were correlated with the objective social and economic factors of the individual respondents. The percentage of each income group that regarded themselves as "very happy" shows a steady decline from 56 percent among those with incomes above $15,000 to only 29 percent among those with incomes under $3,000. The percentage of "not very happy" answers rose from 4 percent among the $15,000 income group to 13 percent among the under $3,000. Over a series of polls taken since 1946, the percentage regarding themselves as "not very happy" (a euphemism for "unhappy" in the poll classification) was always markedly higher among the lowest socioeconomic status groups than among the highest.

Thus there does seem to be a correlation between the proportion of people regarding themselves as relatively happy and the level of income. It might not be the income itself that induces happiness, of course—among the alternative explanations that would fit the same data is that the psychological and other characteristics that enable individuals to achieve economic success within the society are the very characteristics that make them regard themselves as happy. The old saying that "money isn't everything" is generally borne out by the detailed answers in the polls. More people quoted other factors, such as health or family relationships, as the main influence on their happiness rating. However, it is notable that financial matters ranked as one of the three main factors among the poor, but as only of minor concern among the rich—bearing out the maxim that you only think about money when you do not have enough of it.

There have even been international polls on the happiness question by several organizations. Everything suspect about such a poll within a single society becomes a thousandfold more suspect when we make international comparisons. In spite of all the doubts the results are still interesting. They reinforce the evidence of the happiness-income correlation, since the proportion regarding themselves as "not very happy" was noticeably higher among the poor than among the rich in every country polled. The collection of countries included, interestingly, Cuba in 1960 after the revolution and, yes, the poor still considered themselves less happy than the rich. The international results, for what they are worth, give no more backing to the myth of "happy peasants" than to that of the happy poor within a country. The ratings on personal happiness are much lower for countries like India and Nigeria than for the United States or the United Kingdom or Japan. (We might note for general interest that Egyptians and Israelis seem to rate themselves as almost equally happy.)

We would not want to lean very heavily on this kind of evidence, but it does suggest that material welfare —perhaps in the relative rather than the absolute sense—is regarded by people as one of the things contributing to their own feeling as to whether they are "happy" or not. This is some comfort to the economics profession, which would have a problem on its hands if people seemed to regard material welfare as irrelevant to their true "happiness."

(1) Is it *feasible* for an economy to provide everyone with our standard prosperity collection?
(2) If it is *not* feasible, why not? Does the economy need material resources it does not possess? Is there some reorganization of the economy that would make it feasible?
(3) If it *is* feasible, is it actually achieved? For everyone? If not, why not?
(4) If feasible for everyone, is the particular collection of things we have put into our standard collection the one that *everyone* would choose? Would some rather have more of one thing, even at the expense of giving up something else, than others?

The question of feasibility brings us immediately to investigate society's *economic possibilities*. The most obvious way to find out if society can provide our universal standard of living is to work out the *final demand* or *bill of goods*—the minimum annual quantity of each type of good needed to obtain the totals required for society. Note that we include leisure among the things our minimum living standard is to require. The total man-hours of leisure called for, subtracted from the total potential man-hours society can provide gives a maximum of *labor man-hours* which will be available.

We can compare our annual bill of goods, and our maximum labor availability, with the list of

CAPSULE SUPPLEMENT 1.2

ADAM SMITH, 1723–1790

Adam Smith may not have invented economics, but he established it as a field of inquiry and brought it to the attention of the public in a way that had immediate impact. His *Wealth of Nations* was one of the most influential books in the latter part of the eighteenth century, a period that could hardly be said to lack ideas or writers.

Smith was a Scot, educated in Glasgow and Oxford, who commenced his academic career as a philosopher, being appointed professor of moral philosophy at the University of Glasgow in 1752. His philosophical treatise, *The Theory of Moral Sentiments* (1759) would have been sufficient to establish his intellectual credentials for his own time, although it would not have brought him the immortality that economics ultimately did. It is interesting to note that his theory of morals was based on the idea of sympathy—meaning ability to identify with others (closer to what we would now call "empathy")—while his economics was devoted to showing how the economic system would work admirably *without* this sympathy, by each person considering only his own best interest without reference to others.

As already suggested, Smith did not invent economics; rather, he discovered it in Europe and in earlier writers and wove these discoveries together in a special way that came out as a complete system. The important event that turned him towards economics was the two years (1764–66) he spent as tutor to a young Scottish aristocrat (the Duke of Buccleuch). Although being tutor to a young man might now seem beneath the dignity of one who holds a chair at a major university, aristocrats were still VIP's at the time. Since the essential feature of a young aristocrat's education was the "grand tour" of Europe, Smith obtained the equivalent of a modern professor's foundation-supported foreign travel fellowship. While in France he met Voltaire, and also met members of the group known as the Physiocrats. These latter were centered around Quesnay, who was court physician to Louis XV and who had devised the *tableau économique*, a table showing the intersectoral flows in the economy. Smith was not attracted by the *tableau* (an idea whose time did not really come until the 1930's, with the development of national income accounting and input-output), but by the Physiocrats' idea that the economic system produced harmony even though each individual acted only in his own selfish interest.

goods actually produced during a typical year. If the actual production of every good on our list is at least equal to the computed requirement, without taking up more leisure than we specify, then feasibility is certainly assured.

However, the required final demand *may* be feasible even if actual production of all goods is not as great as our list requires. Suppose, to take a simple example, that the labor actually used just leaves room for our specified amount of leisure, that there are only two goods, food and clothing, and that our required final demand is 2 million tons of food and 100,000 bales of clothing. Obviously, if the economy produces 2.5 million tons of food and 120,000 bales of clothing, the desired bill of goods is certainly feasible.

Changing the Product Mix

But suppose the actual production of the economy is 1.5 million tons of food and 150,000 bales of clothing. To make clothing and food the economy uses *resources*—labor, land, machinery. To a considerable extent, the resources can be moved between food production and clothing production. The economy can almost certainly increase food production *at the expense of clothing production* by planting corn instead of cotton on some of the land, and moving

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Back in Glasgow, Smith spent ten years writing his great treatise. In it he mixed together the thoughts of his contemporaries, his own analysis, real-life examples, and some moralizing. He enlivened the mixture with a gift for turning a phrase, giving his work a quotability that is one of the best guarantees of both immediate impact and durability. His best known phrase was that of the "invisible hand" which, working through adjustments in supply and demand, guided production into channels that best met consumers' desires and prevented waste of resources in that production. Some of his phrases were too well turned, however, such as his advice to government: "What is prudence in the conduct of every private family can scarcely be folly in that of a great Kingdom"—advice quite counter to that of modern fiscal policy, but put so neatly as to require an elaborate counter argument.

The book appeared in 1776, its full title being *An Inquiry into the Nature and Causes of the Wealth of Nations*. The title showed it to be designed to answer the group known as the Mercantilists, who had emphasized the importance to a country of accumulating gold and silver (the only foreign exchange of the time). Smith established what has remained the foundation of economic thinking ever since, that the true "wealth" of a country is its output of real goods and services, not its stock of gold or silver, the role of money being to *facilitate* the production and exchange of goods.

Smith provided the basics of supply and demand analysis, showing how competition would drive out inefficiency in production and how the search for profits would lead firms to produce more of goods which consumers valued highly (in terms of what they were willing to pay) relative to costs of production, and less of those valued less highly relative to cost. This was the "invisible hand." Smith also discussed the technology of production, showing how the *division of labor* into specialized operations could increase productivity, using his famous description of the pin factory. He did not, however, perceive the possibilities of large scale economies, and took it that the greater the number of firms in any industry, the better.

Adam Smith regarded the role of government as confined to ensuring that the private sector was free to get on with business, and thus to be concerned with little more than defense, police, and minimal general government operation. He failed to see that the government might even have to step in to bring about the very conditions he believed to need no supervision, such as the prevention of monopoly.