THE ECONOMICS OF URBAN AREAS

Brian Goodall
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OF URBAN AREAS

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Preface

Students of urbanization and its consequences must assemble information and understand ideas from diverse fields—archaeology, building and civil engineering, demography, economics, geography, law, mathematics, politics and administration, psychology, regional science, sociology, traffic engineering, urban and regional planning, etc. This book attempts an introductory survey of one of these fields, namely economics, and emphasizes the importance of economic considerations in the functioning of urban systems. Such a general introduction demands selection and compression of material, but I hope I have at least illustrated the scope of urban economic interests. A work of this nature draws heavily on the work of others and, as an alternative to elaborate footnotes, the sources of important contributions are given in the text using the Harvard System format and are grouped together at the end of the text in alphabetical order.

An increasing general interest in the United Kingdom in urban areas and their problems has indicated the need to apply economic principles to this field. Urban growth has taken place and will continue to take place. It has been and will be accompanied by problems, many of an economic nature. Government action is necessary if urban organization is to make its fullest contribution to society’s well-being. A knowledge of the economic working of the urban system as a whole and of the individual urban area will lead to a better understanding of our urban way of life and ensure that government action is as effective as possible.

It is, therefore, hoped that this book will introduce students of economics to a particular field of application of economic principles but even more that it will prove useful to all students of urbanization wishing to learn something of the economic aspects of urbanization. In that respect a prior knowledge of economics is helpful but not essential. In addition, it should enable persons whose practical work brings them, everyday, into contact with the ideas and problems discussed to see
their work in a different light. Particular benefit should accrue to persons employed in or connected with the planning of urban areas and urban systems. The book will serve as a textbook in the case of students studying for certain degrees and diplomas and certain professional qualifications connected with urban studies. For example, it is suitable for students of estate management, urban and regional planning, applied economics, urban geography, land use studies, and urban studies in general as well as for students undergoing professional training in town planning, estate agency, etc., where a knowledge of urban economics and land economics is required.

Finally I wish to acknowledge colleagues who have assisted in various ways. It is, in fact, impossible to isolate specific contributions of individuals since advice and stimulus has been given over many years, most often by way of informal discussions. Thus I am alone responsible for any omissions or misinterpretations. I would, however, like to pay special thanks to the Geografisk Institut of the University of Aarhus, where I spent the academic session 1969/70, for Aarhus gave me that precious commodity time to undertake the research and begin writing. I am most grateful to Mrs Monika Wheeler for the speed and accuracy with which she has undertaken the required typing, and to Mrs Mary Petts for drawing the many diagrams. Throughout my wife has helped in numerous ways, and for her encouragement and patience I am especially thankful.

University of Reading

Brian Goodall
CHAPTER 1

Introduction

The Economic Dimension of Urbanization

To plan for the improvement of the urban scene whilst ignoring economic considerations would be to invite disaster. Economic resources are limited in quantity and differ in quality. Decisions to allocate these resources amongst competing uses must be taken so as to achieve the highest possible level of economic efficiency. Moreover, tomorrow must resemble today, for the cumulation of past investments far outweighs changes taking place at the present. This is not to suggest, however, that urbanization is an organic growth, determined by natural laws which cannot be controlled but only observed. Development of the urban system, that interdependent set of urban areas of varying sizes and functions, is the result of a series of decision processes. Some are formal decisions, others less so; some are conscious decisions, others not; many are private decisions, others are public ones. This complex, interdependent and never-ending stream of decisions, taken by private individuals, firms, and public organizations, has moulded and directed urban development, stimulating it at certain times and in particular places, retarding it or redirecting it at other times and other places. The state of knowledge concerning many of these processes is, however, still relatively undeveloped.

Increasingly private and public decisions turn on the spatial arrangements of the urban system. A dramatic illustration is the concentration of population and activities into metropolitan urban areas. This has intensified and brought into sharp focus previously existing problems involving resource use such as the congestion on urban roads and other local transport networks, of substandard and slum housing, the search for sources of additional water supply, the pollution of water and air,
the fragmentation and lack of co-ordination in local government, as well as other quantitative and qualitative dissatisfactions with urban environments. Welfare issues and concern for the quality of life present particularly pressing and intractable problems in urban areas. An understanding of the urban process is, therefore, critical to society's ability to manage and control urban development.

Although the mechanism of urban society is largely economic, economists were amongst the last of the social scientists to recognize the urban system as a field demanding of their attention. Even so, economic efficiency is widely accepted as a socially desirable goal—materialistic as it may be people want the highest real value of output over costs from the resources available that will maximize their satisfaction. The urban system must be studied with regard to its efficiency of functioning in terms of resource use, especially as powerful forces constantly press on the urban system's ability to adapt to changing conditions. Given urbanization's economic base, the economist must be able to explain the existence, character, and function of the urban system as a whole and of the individual urban area. Such explanation and understanding should provide a basis and guide for certain policy decisions. Economic analysis will also contribute to a fuller understanding of other, less specifically economic, urban phenomena, since many of these work through the price mechanism. For example, the slum becomes more intelligible through the analysis of its economic aspects such as the labour market participation of its inhabitants, the economic motivations of slum landlords, and the returns to slum property.

Questions concerning efficiency in the use of resources abound within the urban system and the individual urban area. Certain general questions, intriguing for their intellectual character, seek to contribute an understanding of urbanization. What sizes and spatial arrangement of urban areas lead to the most efficient use of resources? What is the relationship between rapid industrialization and the expansion of the urban system? What economic principles underlie the service functions of the urban system? Is there any economic relationship between spatial patterns of invention and innovation and of urban areas? What contribution does urban growth make to national economic growth? At the level of the individual urban area there are further questions. What
is its growth potential? What are the economic factors contributing to growth? To decline? Why do some urban areas grow more rapidly and at the expense of other urban areas? What forces operate in shaping intra-urban activity location patterns? What physical layout of the urban area achieves the most efficient use of resources? Is there a maximum or optimum size for an urban area?

Interesting though these and many other like questions are, there is another set of, perhaps, more urgent questions relating to present-day urban problems. Once again, efficiency of resource use is involved, and an effective solution demands that economic analysis distinguishes cause, symptoms, and consequences. What economic factors contribute to urban blight? Does the solution lie in the amount and character of urban redevelopment? Or should rehabilitation be encouraged? What are the economic disadvantages of urban sprawl? What amount and quality of urban public services should be provided? And should they be charged for? What are the economic causes and effects of traffic congestion in urban areas? What are the economic consequences of differing numbers and sizes of local government units in urban areas? What is the nature and extent of the multiplier effect of new investment? What economic basis, if any, is there for aiding an urban area whose economic base is declining? What are the economic consequences of overcrowding, excessive noise, or air pollution? Given the present state of knowledge the answers to these and many other questions are certainly not all forthcoming, but possible lines of inquiry will be suggested in many cases during the subsequent course of this book. Attention is devoted first to the questions of general economic nature since an understanding of the basic principles is essential to the analysis of problems and especially for prescription.

**The Nature of Economic Analysis**

The essence of scientific investigation is to enable prediction or forecast: to be able to state definitively that under certain clearly specified conditions such and such will happen. Further, if conditions are altered in a particular way this will alter the result in a given way. To know how different results are brought about by changes in attendant conditions is the first step towards establishing control. This is a
The Economics of Urban Areas

basic objective of the application of economic analysis to urban areas.

Economics as a discipline seeks explanations in terms of the behaviour of actual decision-making units. The processes of decision making, operating through the market, determine the use and allocation of scarce resources. Prices established in these markets play a crucial role in allocating resources to different uses and in determining the resultant level and distribution of income.

Any social science can approach its subject-matter from inductive or deductive poles. Induction implies generalizations based on empirical observation whilst deduction proceeds from assumed conditions, via logical reasoning, to its generalizations. Problems in undertaking controlled experiments of persons going about their everyday business and, especially, in the availability of statistics, processing techniques, and equipment, led economists to favour the deductive approach. Improvements in the latter fields have stimulated an increasing number of inductive contributions. With either approach an attempt is made to establish a body of theory which, in addition to supplying an explanatory rationale, also frequently provides a rationale for prediction. The components and variables identified by a theory are functionally related, and an understanding of the form of this relationship is vital to an appreciation of the depth of explanation in any case. Functional relationships are of three basic forms. Firstly, a cause-and-effect situation where, given certain circumstances, there is one and only one result. Secondly, a situation where the operation of chance factors produces a variety of results all of which cluster around a theoretical end result. Thirdly, a situation in which variables show a tendency to move similarly. This, of course, involves correlation but not necessarily causality as in the two previous cases. The second situation, of probabilistic causality, is increasingly relied upon in explaining urban economic decisions and patterns. The purpose of theory building and analysis is, therefore, to clarify these relationships, and the need to define clearly the exact conditions under which the generalization operates should be obvious. Within the body of theory there is a distinction between explanatory theory and normative theory. Explanatory theory tells "what is and why" but normative theory states "what ought to be". The two need not coincide. Social sciences in general have shied away from the normative element, but if the efficiency of existing
situations is to be evaluated and assistance rendered in solving the problems facing society, then a positive attitude must be taken as to "what ought to be". Theoretical knowledge provides a key to understanding, indicates the type of factors to be looked for in any situation, and offers a guide to how conditions should be influenced to improve upon a situation.

Aims of decision-making units, such as profit-maximization for the individual firm and satisfaction-maximization for the individual consumer, are assumed, as well as the broader collective aims that should guide the behaviour of larger interest groups like an urban community. In order to decide whether, from an economic point, one situation or action is to be preferred to another, either a satisfaction or an efficiency criterion may be used. Both involve problems of measurement. How is satisfaction objectively measured? How do changes in the value of money affect the efficiency criterion? (Lean and Goodall, 1966, pp. 226–7; Lean, 1969, pp. 3–5). No situation should be judged allocationally superior without cognizance of its distributional effects. The most efficient use of resources is represented by the production of those goods and services that have the highest real value over costs.

**Economics in Urban Analysis**

**THE PRICE MECHANISM**

Basic to any economic approach is the mechanism of prices and markets which is relied upon to a considerable extent to order the economy, including the urban economy. Price and allocation theory must be called upon to explain the internal functioning of parts of the urban economy. Consider, for example, the application of elementary price theory to a simplified urban accommodation market. Assume there is, in a given urban area, a fixed number of identical units of accommodation which are only available for renting and a population with known income distribution. The price of a unit of accommodation will be determined by the interaction between the inelastic supply of accommodation and the demand for that accommodation. Price will tend to an equilibrium level at which quantity demanded is equal to
quantity supplied. In Fig. 1.1a this is where demand curve $D$ intersects
the supply curve $S$ establishing a price $OP$ at which quantity $OX$ is
both demanded and supplied. Now assume an increase in demand due,
say, to an increase in the urban area’s population. This is shown by a
new demand curve $D_1$, and price rises from $OP$ to $OP_1$. At a price of
$OP$ there would be an excess demand of $XY$, and competition between
the greater number of persons for the same amount of accommodation
drives price up to $OP_1$, at which quantity demanded (on $D_1$) equals

![Diagram](image.png)

**Fig. 1.1.** Application of demand–supply analysis to urban
accommodation.

quantity supplied. At this higher price landlords will be making extra
profits. This will be an incentive to existing landlords and new land­
lords to build and supply more units of accommodation. This repre­
sents an increase in supply, shown in Fig. 1.1b by the movement of the
supply curve from $S$ to $S_1$, and leads to a decrease in price. The adjust­
ment to supply, *ceteris paribus*, continues to take place until the profits
of landlords return to a normal level. That will be when quantity $OY$ is
both demanded and supplied at price $OP$.

Therefore changes in demand, working through the price mecha­
anism, bring about alterations in resource allocation. Resources will
automatically be used in the most efficient way because producers, in
striving to maximize profits, must respond to consumer demand as
well as producing any given output at the lowest possible cost. The price mechanism also ensures that consumer satisfaction is maximized since it is reasonable to assume that each consumer spends his income in such a way as to maximize his satisfaction, and the profit motive sees to it that the desired goods and services are forthcoming.

Within an urban area it is the price system which plays a leading part in allocating land to particular uses, uses to certain locations, labour between urban firms, retail goods to urban consumers, and so on. The adjustment of the individual urban area to growth and change would largely take place through the operation of the principles outlined. Indeed, some students have argued that many present-day urban problems arise out of the fact that behaviour in certain cases is not subject to the discipline of price as in the case of traffic congestion (Thompson, 1965a, Introduction). However the presentation of equilibrium conditions as in the above example may imply a tendency toward the attainment of equilibrium in the real world. Equilibrium can never be attained in real life. The value of such equilibrium analysis lies in the better grasp it enables one to obtain of the laws of change and the workings of a system. The study of the urban real property market as a whole, its sub-markets, the factors influencing the demand for and supply of urban land uses and of the extent to which the operation of the price mechanism in these spheres brings about an efficient allocation of resources in urban areas, is thus an integral part of micro-economic urban analysis.

IMPERFECTIONS IN THE PRICE MECHANISM

However, the price mechanism does not function as smoothly in practice as in the theoretical situation, nor are all goods and services subject to prices. These limitations and limits must be recognized and understood. Prices yield a utilization of resources which is socially efficient only if those prices reflect the social costs and benefits involved. Social costs and benefits are here taken to include private costs and benefits. For any given action social cost will be greater than private cost only if that action gives rise to negative externalities. Similarly, social benefit may be greater than private benefit where a given action results in positive externalities. Externalities are, therefore, costs and