

JACK HARVEY

URBAN LAND ECONOMICS

FOURTH EDITION

URBAN LAND ECONOMICS

Fourth Edition

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I am the basis of all wealth, the heritage of the wise, the thrifty and prudent.

I am the poor man's joy and comfort, the rich man's prize, the right hand of capital, the silent partner of many thousands of successful men.

I am the solace of the widow, the comfort of old age, the cornerstone of security against misfortune and want. I am handed down to children, through generations, as a thing of greatest worth.

I am the choicest fruit of toil. Credit respects me. Yet I am humble. I stand before every man, bidding him know me for what I am and possess me.

I grow and increase in value through countless days. Though I seem dormant, my worth increases, never failing, never ceasing, time is my aid and population heaps up my gain. Fire and the elements I defy, for they cannot destroy me.

My possessors learn to believe in me; invariably they become envied. While all things wither and decay, I survive. The centuries find me younger, increasing with strength.

The thriftless speak ill of me. The charlatans of finance attack me. I am trustworthy. I am sound. Unfailingly I triumph and detractors are disproved.

Minerals and oils come from me. I am producer of food, the basis for ships and factories, the foundation of banks.

Yet I am so common that thousands, unthinking and unknowingly, pass by me.

I am land.

Lou Scott, What is Real Estate?

While passing references are made to possible government adjustments to the market solution, the main discussion of government policy is reserved for the final chapter. This considers the impact on land resources of government macro policy and the strengths and weaknesses of influencing the allocation of resources through taxation and subsidies, planning controls and public ownership. It must be emphasised, however, that the economist can only define the economic issues involved. For instance, he is limited in what he can say about the redistributive, sociological, aesthetic and even the political effects. Different strategies have different economic results – and while the economist can indicate these, the final choice of policy must rest with the politician.

Although the emphasis is on theoretical economic analysis, the discussion is made as practical as possible by being conducted in the context of the real property market in Britain and by being supplemented by empirical studies and selected statistics.

The main aim of the book is to provide a text for the student following courses in estate management, surveying, valuation, town planning, housing administration, geography and environmental subjects. While it does assume some knowledge of basic economic theory, this is no more than is required for most first-year courses for professional examinations. But the book should be of interest to those already actively engaged in professions relating to the land, in that it demonstrates how economics can provide a useful tool in the solution of practical problems. More hopefully, where decisions are subject to or are influenced by politicians or public administrators, it is trusted that what economics reveals may cause them to reflect on the full implications of their selected policies.

Of the many people – fellow-lecturers and students – who have contributed to the ideas expressed in this book, the outstanding influence has been the late Professor F. G. Pennance, a pioneer in applying economic analysis in the field of land use. He is remembered as a true friend and a wise counsellor, always encouraging, suggesting improvements and offering penetrating criticism and alternatives, backed by a sound professional training and long experience in teaching. Many past students of the College of Estate Management, the University of Reading and the University of Aberdeen who had the privilege of attending his tutorials must, like me, now appreciate the contribution which sound economics can make to the principles which should guide the improvement of our environment.

J. H.

Preface to the Second Edition

The scope of the book, as reflected in its new title, has been extended to cover the syllabuses of the main professional bodies and degree courses in land and property economics. Eight new chapters deal with the economics of planning controls, land use and land values, the pattern of urban land use, the growth of urban areas, the quality of the environment, regional policy, the background to urban public finance and the incidence of taxation on land resources. In addition, facts and institutional changes have been brought up to date.

Ideas for improvement from many readers have been incorporated in this new edition, but I would like to acknowledge the particular debt I owe to Dr M. Oxley, Principal Lecturer, Leicester Polytechnic, for his careful reading of the proofs and his many helpful and constructive suggestions.

J. H.

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PART I

**WELFARE AND
ECONOMIC EFFICIENCY**

Economic Efficiency Through the Price System

1.1 Welfare and economic efficiency

Maximising welfare

We can start with the proposition that society's aim is to maximise its welfare. Two factors which will influence welfare are: (a) the way society uses its limited resources; and (b) the distribution of income between members of society.

The first is the subject-matter of positive economics; it is possible to analyse it scientifically. Economic efficiency is achieved when society has secured the best allocation of its limited resources, in the sense that the maximum possible satisfaction is obtained.

The second, the distribution of income, does not lend itself to scientific analysis. The reason is that satisfaction, like love and pain, is personal to the individual and cannot be measured on any objective scale. Taking a small amount of income from the rich man and giving it to a poor man may increase welfare, since the former's loss may be little compared with the latter's gain. But we can never be sure: since we cannot measure welfare cardinally, interpersonal comparisons are impossible. Thus, while distributional efficiency is necessary to maximise welfare, it cannot be dealt with scientifically, and decisions on income redistribution ultimately rest with the politician.

This book is concerned with economic efficiency, with particular reference to the allocation of land resources which are more generally referred to as *real property*. This does not mean that we shall ignore the redistribution of income. Politicians carry out such redistribution in the field of real property, both

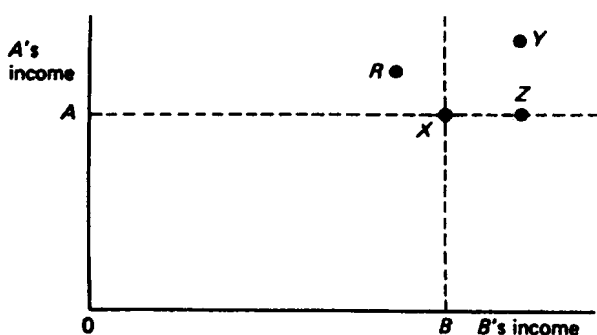


Figure 1.1 *Pareto and non-Pareto improvements*

directly through taxation, for example, income tax and inheritance tax, and indirectly by intervening in the free operation of the price system, for example, by rent control and subsidies to social housing. What the economist has to point out is how such redistributive measures may affect economic efficiency. The politician can then weigh the balance of advantage.

Pareto optimality

In discussing economic efficiency, therefore, the economist side-steps the distributional problem which may result from a reallocation of resources (see pp. 135–6). He does this by adopting the narrow Pareto-optimality condition: welfare is maximised when no one can be made better off without somebody else being made worse off. Thus any improvement in economic efficiency which involves nobody losing will represent an increase in welfare.

For instance, in Figure 1.1 we start from the initial income position X , with A 's income equal to OA and B 's equal to OB . A movement to Y would represent an increase in welfare for both A and B ; a movement to Z would increase B 's welfare without reducing A 's. Both Y and Z therefore represent Pareto improvements. It is impossible, however, to say whether position R represents an overall gain or loss, since A 's income has increased but B 's has fallen.

1.2 Conditions necessary for Pareto optimality

The weakness of the Pareto-optimality condition is that its application is limited to cases where only gainers and no losers result from a reallocation of

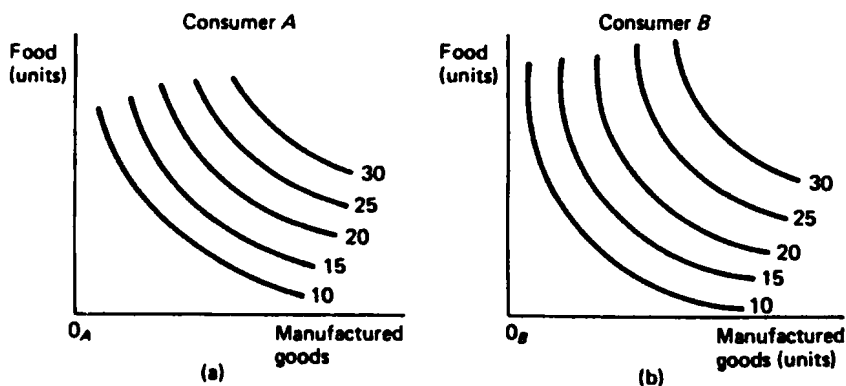


Figure 1.2 Indifference maps of consumers A and B

resources. Even so, it does enable us to specify three conditions which must be fulfilled for economic efficiency. First, no improvement can be achieved by an exchange of goods between persons. Second, no increase in output can be obtained by producers substituting one factor for another. Third, from the maximum overall output of goods which can be obtained when society's limited resources are combined efficiently, that assortment is produced which gives society the greatest possible satisfaction. We shall examine each in turn.

We simplify the exposition by assuming: (a) resources consist of a limited quantity of land and capital; (b) two goods are produced, food and manufactured goods.

(1) Exchange efficiency

Figures 1.2(a) and 1.2(b) represent the 'indifference maps' of consumers A and B respectively. Each indifference curve shows combinations of food and manufactured goods which yield equivalent satisfaction, and the further the indifference curve is from the origin, the greater the satisfaction obtained, as shown by the unspecified units, 10, 15, and so on. Note that the indifference curve is convex to the origin. This denotes a diminishing marginal rate of substitution, an increasing amount of one good having to be given up in order to obtain an additional unit of another. It assumes that there is no 'conspicuous consumption' when people buy goods simply to impress others.

We can depict the preferences of A and B in an 'Edgeworth box' (see Figure 1.3). B's indifference map is rotated 180°, so that the origin is O_B . The length of the vertical side of the box denotes the maximum food available to be exchanged, and the horizontal side the maximum amount of manufactured goods.

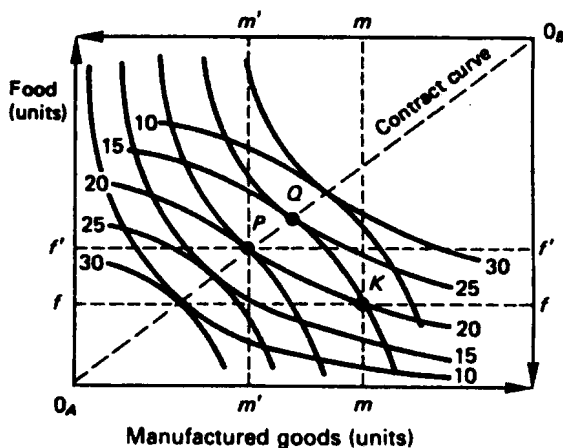


Figure 1.3 Efficiency in exchange

Suppose A and B commence with an initial distribution at K , where A has $O_A f$ food and $O_A m$ manufactured goods, and B has $O_B f$ food and $O_B m$ manufactured goods. K is not a Pareto-optimal situation. A could move along his indifference curve substituting food for manufactured goods until he reached the point P , where, being on the same indifference curve 20, he would feel no worse off. On the other hand, this exchange increases B 's satisfaction, putting him on a higher indifference curve 20 (from 15) where he has $O_B f'$ food and $O_B m'$ manufactured goods.

Had A been the more skilful bargainer, position Q could have been reached, and here A would have been on curve 25 without B being worse off. In practice, they are likely to end up somewhere between P and Q . What is important to note, however, is that a Pareto-optimal position will be achieved only when the marginal rate of substitution between any two goods is the same for each consumer, as at P and Q where their indifference curves are tangential. Indeed, it is possible to find such a point for all combinations of food and manufactured goods. A line joining these points is known as a 'contract curve', and Pareto optimality will only hold provided that the division of available goods between consumers is on this curve.

(2) Factor-combination efficiency

We can use the same technique to specify an efficiency condition for combining factors of production. In Figures 1.4(a) and 1.4(b) we have isoquants showing how two factors, land and capital, can be combined to produce given quantities of food and manufactured goods respectively. Note that the isoquants are convex to the origin. This denotes a diminishing marginal rate of *technical* substitution between factors, an increasing amount of one factor being needed to