THE ECONOMICS OF URBAN RENEWAL*

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Introduction

In light of two implications of urban renewal, it is not at all surprising that this phenomenon provides an excellent area for the application of welfare economics. These implications are: First, that the market mechanism has not functioned "properly" in urban property; and second, that positive action can "improve" the situation. The propositions of welfare economics provide some tools for judging public policy measures such as urban renewal. But since these propositions themselves are based upon ethical postulates, it seems desirable that we begin our discussion of urban renewal by stating explicitly what we consider the role of the economist to be in this situation.

I

Welfare Economics and Urban Renewal

Welfare economics itself provides one criterion, the Pareto condition, for judging public policy measures. The Pareto condition states that a social policy measure can be judged "desirable" if it results in either (1) everyone being made better off, or (2) someone being made better off without anyone being made worse off. This rule is, of course, an ethical proposition, but it requires a minimum of premises and should command wide assent.

On the other hand, the economist need not be limited solely to the Pareto condition in giving policy advice. This becomes especially true when the objective ambiguity of the terms "better off" and "worse off" is considered. Indeed, the role of the economist in the formation of social policy may be compared to that of the consultant to an industrial firm. The consultant to a firm serves two functions. First, given the goals of the firm, he tries to find the best or most efficient means of achieving these goals. The second function of the consultant is equally important; he must try to clarify vague goals by pointing out possible inconsistencies and determining implications in order that re-evaluations and explicit statements can be made.

We conceive of the role of the economist as quite similar to that outlined for the consultant. First, the economist may try to clarify social goals by pointing out

inconsistencies and determining implications of possible social rules. Second, if a goal happens to be given and agreed upon—*i.e.*, if a social welfare function is defined—then the economist might try to advise the body politic by proposing policies for the attainment of the defined goals.

It is in the above spirit that we consider the problem of urban renewal. Granted the individualistic basis of western civilization, it seems reasonable to assume that any action which satisfies the Pareto condition would improve social welfare and, therefore, should be desired by society. On the other hand, society might desire, granted the institutional form of political decision-making, certain actions which violate the narrowly conceived Pareto condition.[1] Certainly income redistribution would fit this category. And so may urban renewal.

Specifically, the social welfare function which we use has the following properties: If the sum of the benefits, measured by changes in capital values, exceeds the sum of the costs, then the action is termed desirable. While this welfare criterion may not seem clear at this point, it is appropriate to note here that a major portion of the remainder of the paper will be devoted to determining how benefits and costs are to be measured. What is important here is to make clear the basis upon which our judgments will be made.

Several characteristics of this welfare criterion should be noted here. First, any action which satisfies the narrowly conceived Pareto condition will satisfy this criterion. On the other hand, any action which satisfies the welfare criterion need not meet the Pareto condition unless compensation is required. Second, our criterion is concerned with the efficient allocation of resources. The question of the ethically desirable distribution of income will not be considered here, although some might hold that urban renewal is concerned with income redistribution. We merely point out that income redistribution can be more efficiently achieved through other means than urban renewal.

II

THE PRICE MECHANISM AND URBAN BLIGHT

Having stated the position from which we shall make policy judgments, we now must examine the question of why urban renewal is necessary. In other words, why do "blighted" areas develop and persist? Why do individuals fail to keep their properties in "acceptable" states of repair?

Several arguments may be advanced as answers to the above questions. For example, it has been asserted that property owners have exaggerated notions of the extent and timing of municipal expansion. Hence they may neglect possible improvements of existing structures in anticipation of the arrival of more intensive uses which might bring capital gains.[2] Note that even if this argument is accepted

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[1] It is worthy of note that it can be argued very convincingly, if the individualistic ethic is adopted, that any social welfare function must satisfy a broadly conceived Pareto condition—that is, a Pareto condition defined by political consensus. See, *e.g.*, Buchanan, *Positive Economics, Welfare Economics, and Political Economy*, 2 J. LAW & ECONOMICS 124 (1959).

[2] Fisher, *Economic Aspects of Zoning, Blighted Areas, and Rehabilitation Laws*, 3 AM. ECON. REV. 334 (1942).

as plausible—and the reason why property owners might have exaggerated notions about municipal expansion is by no means evident—it does not constitute an argument for urban renewal. Instead, one might infer that, given sufficient time, a transition to intensive and profitable uses would take place.[3] Then too, it can be argued that there is no reason to expect governmental authorities to have better judgment than individual entrepreneurs.

Aside from the previous "mistaken judgments" argument, it might seem plausible at first glance to believe on the basis of price theory and the profit maximization assumption that urban blight could not occur. After all, would not profit-maximizing individuals find it to their advantage to keep their property in a state of repair? Certainly it seems reasonable to suppose that if individual benefits from repair or redevelopment exceed individual costs, then individual action could be expected and no social action would be necessary. We shall now attempt to demonstrate why rational individual action might allow property to deteriorate and blight to occur.

First of all, the fact that the value of any one property depends in part upon the neighborhood in which it is located seems so obvious as hardly to merit discussion. Yet, since this simple fact is the villain of the piece, further elaboration is warranted. Pure introspective evidence seems sufficient to indicate that persons consider the neighborhood when deciding to buy or rent some piece of urban property.[4] If this is the case, then it means that externalities are present in utility functions; that is to say, the subjective utility or enjoyment derived from a property depends not only upon the design, state of repairs, and so on of that property, but also upon the characteristics of nearby properties. This fact will, of course, be reflected in both capital and rental values. This is the same as saying that it is also reflected in the return on investment.

In order to explain how interdependence can cause urban blight, it seems appropriate to introduce a simple example from the theory of games. This example, which has been developed in an entirely different context and is commonly known as "The Prisoner's Dilemma," appears to contain the important points at issue here.[5]

[3] Indeed, it can even be argued that this line of reasoning considered alone leads to the conclusion that urban renewal expenditures are wasteful. See, e.g., Davis, *A Pure Theory of Urban Renewal*, 36 LAND ECONOMICS 221 (1960).

[4] This interdependence of urban property values has, of course, long been recognized. See, for example, the discussion in ALFRED MARSHALL, PRINCIPLES OF ECONOMICS bk. 5, ch. 11 (8th ed. 1920). The following quote is especially interesting in this regard. "But the general rule holds that the amount and character of the building put upon each plot of land is, in the main (subject to the local building bylaws), that from which the most profitable results are anticipated, with little or no reference to its reaction on the situation value of the neighorhood. In other words, the site value of the plot is governed by causes which are mostly beyond the control of him who determines what buildings shall be put on it." *Id.* at 445.

[5] For an explanation of the "game theoretic" points of interest in the Prisoner's Dilemma example, see R. DUNCAN LUCE & HOWARD RAIFFA, GAMES AND DECISIONS 94-102 (1957). The reason for the intriguing title of this type of game theory analysis is interesting in itself. The name is derived from a popular interpretation. The district attorney takes two suspects into custody and keeps them separated. He is sure they are guilty of a specific crime but does not have adequate evidence for a conviction. He talks to each separately and tells them that they can confess or not confess. If neither confesses, then

For the sake of simplicity, let us consider only two adjacent properties. More general situations do not alter the result but do complicate the reasoning. Let us use the labels Owner I and Owner II. Suppose that each owner has made an initial investment in his property from which he is reaping a return, and is now trying to determine whether to make the additional investment for redevelopment. The additional investment will, of course, alter the return which he receives, and so will the decision of the other owner.

The situation which they might face can be summarized in the following game matrix:

<div align="center">

Owner II

Invest　　　Not Invest

Owner I

$$\begin{array}{c} \text{Invest} \\ \text{Not Invest} \end{array} \begin{pmatrix} (.07, .07) & (.03, .10) \\ (.10, .03) & (.04, .04) \end{pmatrix}$$

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The matrix game is given the following interpretation: Each property owner has made an initial investment and has an additional sum which is invested in, say, corporate bonds. At present, the average return on both these investments, the property and the corporate bonds considered together, is four per cent. Thus if neither owner makes the decision to sell his corporate bonds and make a new investment in the redevelopment of his property, each will continue to get the four per cent average return. This situation is represented by the entries within brackets in the lower right of the matrix where each individual has made the decision "Not Invest." The left hand figure in the brackets always refers to the average return which Owner I receives, and the right hand figure reflects the return of Owner II. Thus for the "Not Invest, Not Invest" decisions, the matrix entry reflects the fact that both owners continue to get a four per cent return.

On the other hand, if both individuals made the decision to sell their bonds and invest the proceeds in redevelopment of their property, it is assumed that each would obtain an average return of seven per cent on his total investment. Therefore, the entry in the upper left of the matrix, the entry for the "Invest, Invest" decisions, has a seven per cent return for each owner.

The other two entries in the matrix, which represent the situation when one owner invests and the other does not, are a little more complicated. We assumed, as was mentioned earlier, that externalities, both external economies and diseconomies, are present. These interdependencies are reflected in the returns from investment. For example, consider the entries in the brackets in the lower left corner of the matrix. In this situation, Owner I would have decided to "Not Invest" and Owner II would have decided to "Invest."

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he will book them on some minor charge and both will receive minor punishment. If both confess, then they will be prosecuted but he will recommend less than the most severe sentence. If either one confesses and the other does not, then the confessor will receive lenient treatment for turning state's evidence, whereas the latter will get "the book" slapped at him. The Prisoner's Dilemma is that without collusion between them, the individually rational action for each is to confess.

Owner I is assumed to obtain some of the benefits from Owner II's investment, the redevelopment contributing something to a "better neighborhood." For example, if the two properties under consideration happened to be apartment buildings, the decision of Owner II to invest might mean that he would demolish his "out-dated" apartment building and construct a new one complete with off-street parking and other amenities. But this would mean that the tenants of Owner I would now have an easier time finding parking spaces on the streets, their children might have the opportunity of associating with the children of the "higher class" people who might be attracted to the modern apartment building, and so forth. All this means that (as soon as leases allow) Owner I can edge up his rents. Thus his return is increased without having to make an additional investment. We assume that his return becomes ten per cent in this case, and this figure is appropriately entered in the matrix. Owner II, on the other hand, would find that, since his renters also consider the "neighborhood" (which includes the ill effects of Owner I's "out-dated" structure), his level of rents would have to be less than would be the case if his apartment building were in an alternative location. Thus we assume that the return on his total investment (the investment in the now-demolished structure plus the investment in the new structure) falls to three per cent. This figure is also appropriately entered in the matrix. For simplicity, the reverse situation, where Owner I decided to invest and Owner II decides not to invest, is taken to be similar. Thus the reverse entries are made in the upper right corner of the matrix.[6]

Having described the possible situations which the two owners face, consider now the decision-making process. Both owners are assumed to be aware of the returns which are available to themselves in the hypothesized situations. Owner I will be considered first. Owner I must decide whether to invest or not invest. Remember that the left hand entries in the brackets represent the possible returns for Owner I. Two possible actions of Owner II are relevant for Owner I in his effort to make his own decision. Therefore, Owner I might use the following decision process: Assume, first, that Owner II decides to invest. Then what decision would be the most advantageous? A decision to invest means only a seven per cent return on Owner I's capital, whereas the decision not to invest would yield an average return of ten per cent of the total relevant amount of capital. Therefore, if Owner II were to decide to invest, it would certainly be individually advantageous to Owner I not to invest. But suppose that Owner II decided not to invest. Then what would be the most advantageous decision for Owner I? Once again the results can be seen from the matrix. For Owner I the decision to invest now means that he will

[6] Economists might think that we have used inappropriate and sleight-of-hand methods by lumping together old and new investments, and also by considering the average rate of return instead of marginal rates. Actually these methods are completely appropriate here due to the way we have simplified the problem to make the exposition of the game theory easier. The old investment does not represent a sunk cost, since it is yielding a return and thus has economic value. Both owners are assumed to have precisely the amount of money in bonds that is required for the redevelopment of their property. The rate of return on the bonds can be assumed to be the "social rate of return" and the best alternative available to the two individuals. Since the owners are interested in maximizing the total income from their capital, the above assumptions allow us to lump together and to use average rates.

receive only a three per cent return on his capital, whereas the decision not to invest means that he can continue to receive the four per cent average return. Therefore, if Owner II were to decide not to invest, it would still be individually advantageous to Owner I not to invest.

The situation for Owner II is similar. If Owner I is assumed to invest, then Owner II can gain a ten per cent average return on his capital by not investing and only a seven per cent return by investing. If Owner I is assumed not to invest, then Owner II can gain only a three per cent return by investing, but a four per cent average return by not investing. Therefore, the individually rational action for Owner II is also not to invest.

The situation described above means, of course, that neither Owner I nor Owner II will decide to invest in redevelopment. Therefore, we might conclude that the interdependencies summarized in the Prisoner's Dilemma example can explain why blighted areas can develop[7] and persist. Before concluding the analysis, however, we might try to answer some questions which may at this point be forthcoming.

First of all, it might be suggested that we have imposed an unrealistic condition by not allowing the two owners to coordinate their decisions.[8] After all, does it not seem likely that the two owners would get together and mutually agree to invest in the redevelopment of their properties? Not only would such action be socially desirable, but it would seem to be individually advantageous. Note that while it might be easy for the two property owners in our simple example to communicate and coordinate their decisions,[9] this would not appear to be the case as the number of individuals increased. If any single owner were to decide not to invest while all other owners decided to redevelop, then the former would stand to gain by such action. The mere presence of many owners would seem to make coordination more difficult and thus make our assumption more realistic. Yet, this is precisely the point; it is the objective of social policy to encourage individuals in such situations to co-ordinate their decisions so that interdependencies will not prevent the achieve- ment of a Pareto welfare point. In this regard, it is worthwhile to note that, if coordination and redevelopment do take place voluntarily, then no problem exists, and urban renewal is not needed.

Second, it might be observed that, if coordinated action does not take place, incentive exists for either Owner I, Owner II, or some third party to purchase the properties and develop both of them in order that the seven per cent return can be

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[7] It is to be emphasized that these results depend upon the interdependencies or neighborhood effects being "sufficiently strong" to get a combination of returns similar to those which we used in the example. It is unlikely that this condition would be satisfied for all urban property. Our point is that similar combinations seem possible, and if they do occur, then they can explain one peculiar phenomenon of urban property. The explanation is presented later in the paper.

[8] It is worthy of note that experimental data concerning the prisoner's dilemma in other contexts tend to indicate that, if communication does not take place, players continually choose individually rational strategies. For the results of these laboratory experiments, see Scodel, Minas, Ratoosh & Lipetz, *Some Descriptive Aspects of Two-Person Non-Zero-Sum Games,* 3 J. CONFLICT RESOLUTION 114 (1959).

[9] It will be recalled that we made the example overly simple only for the purpose of exposition. While the consideration of many individuals would make the example more realistic, it would only make the game theory more complicated and not alter the result as far as this case is concerned.

obtained. And certainly, it cannot be denied that this often occurs in reality. However, it is necessary to point out here that, because of the institutional pecularities of urban property, there is no assurance that such a result will always take place. Consider, for example, an area composed of many holdings. Suppose that renewal or redevelopment would be feasible if coordination could be achieved, but that individual action alone will not result in such investment due to the interdependencies. In other words, the situation is assumed to be similar to the previous example except that many owners are present. Incentive exists for some entrepreneur to attempt to purchase the entire area and invest in redevelopment or renewal.

Now suppose that one or more of the owners of the small plots in the area became aware of the entrepreneur's intentions. If the small plots were so located as to be important for a successful project, then the small holders might realize that it would be possible to gain by either (1) using their position to expropriate part of the entrepreneur's expected profits by demanding a very high price for their properties, or (2) refusing to sell in order to enjoy the external economies generated by the redevelopment. If several of the small holders become aware of the entrepreneur's intentions, then it is entirely possible, with no communication or collusion between these small holders, for a situation to result where each tries to expropriate as much of the entrepreneur's profit as possible by either of the above methods. This competition can result in a Prisoner's Dilemma type of situation for the small holders. Individually rational action on their part may result in the cancellation of the project by the entrepreneur. Indeed, anyone familiar with the functioning of the urban property market must be aware of such difficulties and of the care that must be taken to prevent price-gouging when an effort is made to assemble some tract of land.[10]

If the above analysis is correct, then it is clear that situations may exist where individually rational action may not allow for socially desirable investment in the redevelopment of urban properties. Now such situations need not—indeed, in general will not—exist in all urban properties. The results of the analysis not only required special assumptions about the nature of investment returns caused by interdependencies, but it was also shown that, due to the special institutional character of tract assembly, the presence of numerous small holdings can block entrepreneurial action for redevelopment. These two conditions may or may not be filled for any given tract of land. However, we now may use the above results to *define* urban blight.[11] Blight is said to exist whenever (1) strictly individual action does not result in redevelopment, (2) the coordination of decision-making via some means would result in redevelopment, and (3) the sum of benefits from renewal

[10] For example, Raymond Vernon states, "As the city developed, most of its land was cut up in small parcels and covered with durable structures of one kind or another. The problem of assembling these sites, in the absence of some type of condemnation power, required a planning horizon of many years and a willingness to risk the possibility of price gouging by the last holdout." RAYMOND VERNON, THE CHANGING ECONOMIC FUNCTION OF THE CENTRAL CITY 53 (1959).

[11] It is to be pointed out and emphasized that our definition of the term "blight" does not seem to be what is meant by the term in common usage where it has a connotation of absolute obsolescence. Our definition refers to the misuse of land in general and carries no such connotation. The difference in meanings is unfortunate, but we could not find a more appropriate term.

could exceed the sum of costs. These conditions must be filled. We shall devote a major portion of the latter part of the paper to making this definition operational; but, for the moment, let it suffice for us to point out two factors. First, it is a problem of social policy to develop methods whereby blighted areas can be recognized and positive action can be taken to facilitate either redevelopment or renewal. Second, and this point may be controversial, blight is not necessarily associated with the outward appearance of properties in any area.

Since this second point may be subtle and seem contrary to intuitive ideas about blight, further discussion may be warranted. Note that we have defined blight strictly in relation to the allocation of resources. The fact that the properties in an area have a "poor" appearance may or may not be an indication of blight and the malallocation of resources. For several factors, aside from tastes, help to determine the appearance of properties. The situation which we have described, where individually rational action may lead to no investment and deterioration, is only one type of case. Another may be based on the distribution of incomes. Poor classes can hardly be expected to afford the spacious and comfortable quarters of the well-to-do. Indeed, given the existence of low income households, a slum area *may* represent an efficient use of resources. If the existence of slums per se violates one's ethical standards, then, as economists, we can only point out that for elimination of slums the main economic concern must be with the distribution of income, and urban renewal is not sufficient to solve that problem. Indeed, unless some action is taken to alter the distribution of income, the renewal of slum areas is likely to lead to the creation of slum areas elsewhere.[12] It is to be emphasized that slums may or may not satisfy the definition of a blighted area. On the other hand, the mere fact that the properties in some given area appear "nice" to the eye is not sufficient evidence to indicate that blight (by our definition) is absent.

One additional remark of clarification seems warranted. It is obvious that not all individuals are free to purchase or rent property in all areas of the metropolis. Discrimination—*e.g.*, by race—may create two or more "separate" markets, and there seems to be no reason to suspect short-run equilibrium in the sense of investment return *between* markets. We simply note here that, granted the discrimination, this fact does not affect our definition of blight, nor does it alter the proposals which we shall present.

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[12] It is a curious fact that renewal seems to be regarded as a "cure" for slum areas. For, granted the distribution of income and the fact that the poor-classes simply cannot afford to pay high enough rents to warrant the more spacious and confortable quarters, the renewal of all slum areas, unless accompanied by an income-subsidy program, would only be self-defeating and lead to social waste. Renewal of all slum areas could cause rents for the "nicer" quarters to fall temporarily within the possible range of the poor classes, but the rents would not be sufficiently high to warrant expenditures by the landlord to maintain the structure. New slums would appear, calling for more renewal activity. This process would simply continue. On the other hand, efficient slum-removal programs are possible, and one will be presented at a later point in this paper.

III
A BRIEF CRITIQUE OF PRESENT PRACTICES

Having seen that, due to externalities or interdependencies and the difficulty of tract assembly, individually rational action may allow blight to develop, we now turn our attention to questions of public policy. It bears repeating that wherever our definition of blight is satisfied, then resources are misallocated in the sense that some institutional arrangement—some means—exists under which redevelopment or renewal could profitably be carried out. The problem is to discover that institutional arrangement. We begin our search by examining briefly the relevant aspects of the present practices.

Title I of the Housing Act of 1949[13] seems to have set the general pattern for urban renewal practices. While the Act of 1954[14] broadened the concept, the general formula for urban redevelopment remains essentially unchanged. Both federal loans and capital grants are provided for the projects. Loans are generally for the purpose of providing working capital. The capital grants may cover up to two-thirds of the net cost of the project, with the remainder of the funds being provided by either state or local sources.[15]

The striking fact about the present program, and also about many of the proposals for extending that program, is the utter lack of a relevant criterion for expenditures. How much should be invested in urban renewal? How does one determine whether projects are really worthwhile? Does the present program attempt to "correct" the allocation of resources or does it simply result in further misallocation? There seems to have been little or no serious effort to find answers to these questions. In fact, it is widely admitted that there is a lack of adequate criteria even to determine what projects should be undertaken.[16]

It seems evident from the statements of mayors and others who propose expansions of the present program that the need approach to governmental expenditures underlies their suggestions. That is to say, a certain project "needs" to be carried out; and, granted this requirement, money is sought for the project. It should be evident that this approach to governmental expenditures may not result in the correct allocation of resources. The need approach obscures budgetary considerations and makes comparison of alternatives difficult, since a need is simply assumed without reference to other possible areas of expenditure. The need approach is arbitrary and overlooks

[13] 63 Stat. 413, 42 U.S.C. §§ 1441-60 (1958).

[14] 68 Stat. 622, as amended, 42 U.S.C. §§ 1450-62 (1958); 68 Stat. 596, as amended, 12 U.S.C. §§ 1715k, 1715l (1958).

[15] There are, of course, conditions which must be satisfied before a community can be eligible for federal funds. See, e.g., COMM'N ON INTERGOVERNMENTAL RELATIONS, TWENTY-FIVE FEDERAL GRANT-IN-AID PROGRAMS (1955).

[16] A remark by Morton J. Schussheim, Deputy Director of the Area Development Division of the Committee for Economic Development, is interesting in this respect. Mr. Schussheim writes, "It is true . . . that local officials responsible for urban renewal programs do not have adequate criteria for determining what projects to undertake and on what scale." A Pure Theory of Urban Renewal: A Comment, 34 LAND ECONOMICS 395 (1960).

the return on investment, an extremely important consideration for the problem of
a rational allocation of resources.[17]

IV

REDISTRIBUTION, THE COST-BENEFIT CRITERION, AND URBAN RENEWAL

Having pointed out that the existing institutional arrangements concerning urban
renewal contain no explicit criterion for determining either the amount of such
expenditure or when a project is desirable, we now propose the previously introduced
benefits-cost criterion and will discuss later the institutional arrangements under
which it could be applied. First, however, let us detail more fully our use of this
criterion and the reasons for its selection.

We assume that income and utility are positively correlated. This means that
if potential benefits, appropriately-defined, exceed costs, then the conditions for
Pareto optimality, in the absence of corrective measures, are not filled. It is possible
for some action to be taken which will make one or more persons better-off without
making anyone worse off.[18] In this context, the action will take the form of in-
vestment in urban renewal.

It is to be emphasized again that the benefits-cost criterion refers only to the
problem of efficiency—*i.e.*, to the allocation of resources on the basis of a given
distribution of income. However, it is possible to design programs which do
redistribute income but which still are completely compatible with the benefit-cost
criterion. The point is that the two problems—distribution and allocation—must be
kept conceptually separate.

Given the fact that interdependencies are a cause of blight, two kinds of action
are possible—preventive and reconstructive. We consider first preventive action

As was pointed out earlier, the problem in preventing the development of blight
consists essentially in finding methods of coordinating the decisions about investment
in repair and upkeep so that the socially and individually desirable choices are
equated. One step in this direction can be made through the development and
use of a special type of building code which bears a superficial resemblance to
municipal zoning.[19] It can be seen from the Prisoner's Dilemma example discussed
earlier that it is individually desirable to invest *if there is assurance that all individuals*

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[17] It may be commonplace to point out that there exists for any given social action a social welfare
function which is maximal for that action, and by definition this resource allocation is optimal. Our
point is simply that it seems dubious that a type of need approach,to forming criteria is reasonable, given
that urban problems are not unique as a social problem.

[18] It is easy to see the exact relation between benefits-costs and the Pareto condition. If the sum of
benefits exceeds the sum of costs for some particular action, then although some individual might be
made worse off by the action, it is theoretically possible to pay compensation to that individual so that
the Pareto condition will be satisfied.

[19] It is to be emphasized that the building code envisioned here bears only a superficial resemblance
to zoning. The two tools are aimed at different problems. Municipal zoning tries to prevent the establish-
ment of "undesirable" properties in specified neighborhoods. These special building codes would be
aimed at the elimination of interdependencies affecting repair and upkeep decisions. For an elaboration
on the complexities involved in municipal zoning, see Davis & Whinston, *The Economics of Complex
Systems: The Case of Municipal Zoning* (O.N.R. Research Memorandum, Graduate School of Industrial
Administration, Carnegie Institute of Technology, 1961).

will be constrained to make a similar decision. The special building code specifying minimum levels of repair and upkeep can provide a rough approximation toward optimal levels of coordination.

A brief outline of the scheme follows: Since it is intuitively obvious that different types of property require different kinds of repair and types of upkeep, it would seem desirable that these building codes differ according to the type property under consideration. The role of the planner would be to try to determine the proper restrictions for each type of property. He could try to gather information on inter-action effects through the use of statistical sampling techniques and questionnaires. He then could draw up districts and try to estimate the proper level of the building code for each district. A crude approximation to the benefit-cost criterion is easily supplied. It is advantageous to property owners mutually to constain themselves to make "appropriate" repair expenditures, for this coordinates decisions. Therefore, the planner can simply submit the proposed code for each district to the property owners of that district; if the planner has proposed an appropriate code, then mutual consent should be forthcoming. If mutual consent is not obtained, then it would seem suitable to assume that the proper code for the district has not been proposed and that a new proposal would be necessary.[20]

While codes adopted via the above scheme should be helpful in preventing blight, it must be noted that implementation of this plan would require the selection of an appropriate institutional and legal framework. As economists, we do not pretend to know the legal difficulties which might be involved; but a joint effort by the two professions to set up the framework for such a scheme seems to us to be desirable.

Let us now turn our attention to the policy problem when blight is already in existence. Present practices provide something of a framework here; what is missing is a relevant criterion. Of course, it should be noted that it may sometimes be possible to obtain redevelopment through individual effort via the previously-stated special-building-code method. In other instances, the optimal property uses may have changed from what they formerly were. The area may be composed of lots too small to obtain an orderly transition of property uses by means of the building code. It may be desirable to replan streets, or other reasons may be advanced for the usual type of urban renewal effort. Therefore, let us try to determine the appropriate comparison of costs and benefits when the usual type renewal activity takes place.

Let us assume that the city government has marked some blighted area for redevelopment. Taking the property tax rate as given, suppose that the city has raised funds for the project by selling bonds. With the money thus raised, the city has purchased the blighted area, using the right of eminent domain wherever needed.

[20] Our use of the term "mutual consent" may represent something of a subterfuge. In actuality, it may not be desirable to insist on unanimity nor would it seem desirable to use a simple majority. Something on the order of eighty to ninety per cent may be reasonable. For a discussion of the problems involved in voting and the difficulties associated with the selection of political decision rules, see the unpublished manuscript by JAMES M. BUCHANAN & GORDON TULLOCK, THE CALCULUS OF CONSENT (mimeo.) (Department of Economics, University of Virginia, 1959).

Suppose that the city has demolished the outdated structures, made adequate pro-
vision for public services, and then, having finished its part of the operation, sold lots
to entrepreneurs who have agreed in advance to build, say, modern apartment
buildings.

Note what city action has accomplished. It has removed the obstacles to private
renewal. The right of eminent domain has removed the possibility of price-
gouging and stubborn property owners acting so as to prevent the assembly of a
large enough tract. Each entrepreneur who buys the lots from the city is assured
that adjoining lots will also be suitably developed, so that interaction difficulties are
eliminated.

One fact needs great emphasis here. *The elimination of externalities or inter-
action effects causes social and private products to be equated.* Therefore, if possible
redistribution is left aside; and if for the moment problems.are waived which arise
from public projects where the market mechanism does not serve as an adequate
guide, then it can be stated that revenues and expenditures can be made identical to
costs and benefits. Therefore, renewal projects are warranted if, and only if,
revenues exceed expenditures. And, even where problems associated with redistribu-
tion and public projects are not waived, it is still possible to make the revenue-
expenditure criterion approximate the benefit-cost criterion, although some admin-
istrative difficulties.are involved.

What are the appropriate comparisons of costs and benefits? Consider first the
case without the complications. The costs of the local government include the
acquisition of land, demolition and improvements, aiding the relocation of displaced
families, and interest expenses.[21] The measurement of revenues is slightly more
complicated. The primary item, of course, would be receipts from the sale of lots.
Since we are dealing with local government, however, a tax on real property will
exist. Since the discounted value of the tax is likely to be shifted onto the im-
mobile resource—land—it is necessary to account for this factor. If the project
is successful, the new structures should have a higher value than the old; so there
should be a net addition to tax revenues. This net addition should be discounted
to a present value and counted as a receipt from the project. Thus, a comparison of
revenues and expenses is possible, and the project is warranted only if revenues
exceed expenses.

We now consider the second case with the additional complications. Note that
the previous discussion still applies here, with the following qualifications upon the
administrative rules involved. If public projects such as parks, playgrounds, public
buildings, and so forth, are planned in conjunction with the renewal effort, then
estimates of the social benefit to be derived from these projects must be made by the

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[21] Peculiarly enough, the present-day requirement that individuals be paid for their property and
the administrative rule of aiding individuals who may be dislocated to find new quarters affords a
method of approximate compensation so that the Pareto condition can be satisfied.

governmental unit or units which ordinarily pay for them.[22] These estimated benefits are to be considered as revenues from the renewal effort, and the appropriate governmental units are to be required to contribute these amounts to the authority which administers the renewal activity. Thus the revenue-expenditure criterion should very closely approximate the benefits-cost criterion, depending, of course, upon how well the governmental units estimate the social benefits derived from the special public projects.

If there happens to exist some agreed-upon ethical distribution of income, then we point out first that urban renewal is not an efficient method of achieving redistribution. Possible benefits might accrue to special groups instead of the low-income classes. Other methods for simple redistribution exist which should be preferred to urban renewal. However, if the ethical distribution is connected with some arbitrary housing standard below which conditions are viewed as inadequate for "decent living," the cost-benefit criterion need not be rendered useless. Conditional subsidies could be granted to the low income households living in substandard housing. These subsidies would make it possible for the cost-benefit criterion to work effectively for renewal purposes.

Several corollaries to the cost-benefit criterion should be pointed out. If problems of ethical income distribution are waived, then from the standpoint of a rational allocation of resources, no federal or state subsidies are needed for urban renewal purposes per se. Of course, the adjustments made for the second case may have to be accomplished, but note that in reality these are based upon considerations not directly dependent upon urban renewal. Renewal projects should not lose money. Indeed, they should result in a profit. On the other hand, granted the fact that constitutional and/or statutory debt limits have often been imposed upon local governments, these should be waived for borrowing for urban renewal purposes. Finally, the local governments should be granted the power of eminent domain for urban renewal purposes.

CONCLUSION

In arriving at these indications for the use of the cost-benefit criterion in urban renewal, we started with the Pareto condition. However, it was suggested that other social welfare functions, which allow for income redistribution or even minimum condition housing, need not affect the usefulness of this criterion as long as the rational allocation of resources is viewed as a *conceptually separate* problem. It is to be emphasized that for the purpose of urban renewal, conceptual separation of the two problems can be achieved through the methods outlined above.

[22] We assume that the units which ordinarily pay for this type of public projects are identical to the units which derive the benefits from these projects. If this is not the case, then further administrative adjustments have to be made, but these adjustments should be made anyway and should not be dependent upon possible urban renewal projects.