

COST-BENEFIT ANALYSIS AND URBAN RENEWAL

by

ALAN M. WOFSY

A.B., UNIVERSITY OF CALIFORNIA (BERKELEY)  
(1965)

312347  
83

SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE  
DEGREE OF MASTER OF  
CITY PLANNING

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

May, 1967

Signature of Author . . . . .  
Department of City and Regional Planning

Certified by . . . . .  
Thesis Supervisor

Accepted by . . . . .  
Head, Department of City and Regional Planning



Room 14-0551  
77 Massachusetts Avenue  
Cambridge, MA 02139  
Ph: 617.253.2800  
Email: docs@mit.edu  
<http://libraries.mit.edu/docs>

## **DISCLAIMER OF QUALITY**

Due to the condition of the original material, there are unavoidable flaws in this reproduction. We have made every effort possible to provide you with the best copy available. If you are dissatisfied with this product and find it unusable, please contact Document Services as soon as possible.

Thank you.

**Some pages in the original document contain pictures, graphics, or text that is illegible.**

ABSTRACT

Title of the Thesis: COST-BENEFIT ANALYSIS AND URBAN RENEWAL

Name of the Author: Alan M. Wofsy

SUBMITTED TO THE DEPARTMENT OF CITY AND REGIONAL PLANNING ON MAY 19, 1967 IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF CITY PLANNING.

There are three reasons why the cost-benefit analyst who appraised public undertakings (e.g., urban renewal) must be concerned with distribution: (1) Statements about efficiency entail assumptions about the basis of efficient activities, i.e., about the equity of a given distribution of income. As regards public activities, where significant inequalities exist, there may be no justification for distinguishing between merit wants, social wants, and transfer payments. (2) Public allocative activities necessarily cause a shift in the distribution of income, which, depending on the analyst's evaluation of the original distribution, may or may not be desirable. Optimality criteria which attempt to abstract from distribution can lead to untenable conclusions, because by assuming that distribution is irrelevant they imply that it is equitable. (3) A chief cause of the problems of cities is related to the unequal distribution of income in the U.S.A. Those cities in which urban renewal has been thought necessary have a much higher proportion of impoverished individuals than do other political entities at the local level. Any resuscitation of central cities is dependent upon eliminating poverty and radically diminishing physical problems (e.g., pollution, congestion, lack of open space). However, since the chief instrumental goal of urban renewal has been to hold onto - or entice back - middle and upper income families, the social diseconomies associated with poverty have been exacerbated, while the physical diseconomies have largely been ignored. At the same time, suburbanites and exurbanites are not apt to return to the city so long as a "post-industrial" infrastructure is not provided, i.e., until social and physical diseconomies have been eliminated. Needless to say, were such an infrastructure established, urban renewal in its present form would be unnecessary - even for those who rationalize its currently myopic course.

The significance of social time preference is that a high rate of discount will militate against programs which have a long gestation period, as any program which seeks to resolve the social and physical problems of cities must. Social opportunity costs should be a measure of the benefits foregone in not undertaking a better project - vis-à-vis the analyst's schema of costs and benefits - than the one which was in fact undertaken; and as such serves as a suggestive critique of present programs.

A cost-benefit schema is presented which has two distinctive characteristics: (1) all costs and benefits accruing to individuals are considered; not solely those which involve a cash-flow. (2) Benefits and costs to individuals in different income groups are weighted. That is, benefits which accrue to - and uncompensated costs which are incurred by - low income families are deemed respectively more and less desirable than they would be for higher income families.

Thesis Supervisor . . . . . Jerome Rothenberg, Professor  
Department of Economics

## ACKNOWLEDGEMENTS

Professor Rothenberg made important criticisms of the first draft.

Sam Bowles helped clarify and justify my ideas.

Professor Howard was very helpful indirectly

Judy Mazia put up with me and my handwriting.

## TABLE OF CONTENTS

	<u>page</u>
CHAPTER ONE - SOME ECONOMIC AND SOCIAL CONCEPTS UNDERLYING COST-BENEFIT ANALYSIS	0.
I. EFFICIENCY v. EQUITY	1.
II. OPTIMALITY	5.
III. EXTERNALITIES	10.
IV. SOCIAL TIME PREFERENCE	19.
V. SOCIAL OPPORTUNITY COSTS	26.
VI. MERIT AND SOCIAL WANTS	30.
VII. INTEREST CONFLICTS	38.
 CHAPTER TWO - THE GOALS, CONSEQUENCES - AND SOME RATIONALES - OF URBAN RENEWAL	 41.
I. LAISSER-FAIRE URBAN RENEWAL	42.
II. AN ECONOMIC JUSTIFICATION OF URBAN RENEWAL	60.
III. THE INEFFICIENCY OF SLUMS	66.
IV. THE LEAST-COST CRITERION IN URBAN RENEWAL	70.
V. AN EITHER-OR VIEW OF URBAN RENEWAL	73.
 CHAPTER THREE - A COST-BENEFIT SCHEMA	 75.
I. THE RELEVANT POPULATION	76.
II. THE CATEGORIES OF COST-BENEFIT ANALYSIS	80.
III. APPROPRIATED BENEFITS (B <sub>a</sub> )	94.
IV. EXTERNAL ECONOMIES (B <sub>e</sub> )	96.
V. PRICE EFFECT BENEFITS (B <sub>p</sub> )	103.
VI. CONSUMER'S BENEFITS (B <sub>c</sub> )	105.
VII. COMPENSATED COSTS (C <sub>a</sub> )	107.
VIII. EXTERNAL DISECONOMIES (C <sub>e</sub> )	109.
IX. PRICE EFFECT COSTS (C <sub>p</sub> )	111.
X. UNDERCOMPENSATION OF COMPENSATED COSTS (C <sub>u</sub> )	114.
XI. SOCIAL TIME PREFERENCE	119.
XII. SOCIAL OPPORTUNITY COSTS	123.
XIII. EFFECTS ON CITY FINANCES	127.

APPENDICES -	129.
I. The Relation between Price Effect Benefits ( $B_p$ ) and Price Effect Costs ( $C_p$ ) with respect to changes in the Supply of Housing as a consequence of Urban Renewal	130.
II. A Fortran Program, discounting and adjusting costs and benefits to different Income Groups	135.
NOTES -	140.
BIBLIOGRAPHY -	145.

CHAPTER ONE

SOME ECONOMIC AND SOCIAL CONCEPTS  
UNDERLYING COST-BENEFIT ANALYSIS

## I. EFFICIENCY V. EQUITY

Academic economists often beg the efficiency v. equity dilemma by relegating it to the realm of non-problem (in a footnote). Thus in a book on the urban transportation problem one finds the following characteristic statement:

Since economic theory abstracts from value judgments on the optimality of existing income distributions, the question of whether an income distribution should or could be improved by a modification in the pricing structure is avoided. 1.

The question is whether in fact economic theory does abstract from value judgment on the optimality of existing income distribution, or whether - as we shall argue - it assumes that the existing income distribution is optimal.

Clearly economic theory is based upon certain propositions about the actual functioning and aim of the economic system. The chief of these naturally has to do with the way in which goods and services are given values. This proposition is often stated in the following way: values are determined in accord with consumer's sovereignty and consumer's sovereignty ought to determine values. This proposition is somewhat redundant in the sense that Hume's dictum "reason is and ought to be the slave of the passions" is. For if X is the case, it is somewhat irrelevant that the observer also believes X ought to be the case. Whereas if consumer's sovereignty does not prevail there is an implied criticism of the status quo in maintaining that it ought to.

The notion of the objective determination of values is



to be attacked on two levels: (1) consumer's sovereignty does not exist, and (2) judgments about efficiency cannot be made independently of judgments about distribution since the two are interdependent.

Let us begin with the second of these, which asserts that it is not true that economic theory abstracts from value judgments about distribution. This can be shown without proving that consumer's sovereignty does not exist, as Scitovsky has done:

...society's preference as revealed by the market are aggregated from the preferences of individuals in such a way that each person's preferences are weighted by his expenditures. And since the distribution of expenditures depends on the distribution of income and wealth, so does also the weighted aggregate of consumer's preferences. The economist, therefore, who accepts the standard of consumer's preferences as revealed by the market has accepted as given not only each individual's tastes but also the distribution of income and wealth, which determines the aggregation of these tastes. 2.

Joan Robinson carries this argument one step further in asserting that "private property in the means of production, combined with the rights of inheritance, produces a totally irrational distribution of purchasing power within society".<sup>3</sup> In any case, the fact that distributional "value judgments depend upon what is available for distribution, and the satisfactions derived from a collection of goods depend upon the desires generated by a particular distribution"<sup>4</sup> implies that any non-trivial statement about real income, efficiency, or social welfare must include explicitly or implicitly some statement about the real income position of individuals composing the

community.

The crux of the matter - especially so in cost-benefit calculations - is that income refers to a collection of heterogeneous goods which are rendered homogeneous by weighting them by their market prices; these prices are the result of the income distribution. Insofar as income is not equally distributed (and demand includes not only willingness but ability to pay), the process of consumer voting (to use the popular democratic voting analogy) allows minority desires to be satisfied. As Maurice Dobb has put it:

To the plain man it has always seemed absurd, even disingenuous, to enunciate certain propositions about the conditions of maximizing welfare when it was clear to all that, with the existing distribution of income, welfare could be increased by deliberately violating these conditions (e.g. by rationing scarce commodities and subsidizing food and house-building while taxing luxuries). 5.

Given that values (or prices) are inseparable from a given income distribution and to accept (reject) one is to accept (reject) the other, there still remains the first assertion, viz., that consumer's sovereignty does not exist. It has been remarked upon by Galbraith<sup>6</sup>, among others, that since economics seeks a status of science its assumptions about reality are considered by some practitioners to be immutable. While "administered prices, fixed by the seller are the rule and quasi-monopolistic conditions are universal"<sup>7</sup>, textbook economics still assumes the former to be the exception and atomistic competition to be the rule. On the other side of the coin, (almost) perfect knowledge, mobility, and freedom from

compulsions are likewise bastions of textbook economics, while again, the obverse (viz. product differentiation, advertising, built-in obsolescence) is the rule. In actuality the premises of economics are both value-laden and ideological, since, as Myrdal has pointed out, they give "a scientific appearance to an individualist, anti-interventionist prejudice".<sup>8</sup> In a similar vein (and presaging the spirit of our future arguments), Galbraith has written:

We do not have economic development in order to make our surroundings more hideous, our culture more meretricious, or our lives less complete... those who must insist that this is what people really want are those who most fear that, given the opportunity, people would make a different choice - one that involves a greater measure of social control of environment. 9.

## II. OPTIMALITY

In the final analysis, the raison d'etre of economics lies in its ability to determine the optimum conditions for allocating resources. From what has been argued thus far, an immediate paradox follows. Although it is claimed by some economists that nothing can be said regarding the optimality of the existing distribution of income, it is nevertheless the case that most changes "in the allocation of resources, and hence in the proportions in which different commodities are supplied (and in the prices of these commodities), inevitably alter the distribution of real income between different groups of consumers".<sup>10</sup> Other economists have been acutely aware of the efficiency-distribution problem. Little, e.g., has written that "the question of income distribution is logically prior to the question of the ideal output".<sup>11</sup> In this section we examine the difficulties inherent in some optimality criteria which seek to abstract output from distribution.

The original optimality criterion is that of Pareto, according to which a "move" (i.e. change in the allocation and distribution of resources) is an improvement if at least one person gains and no one loses. The central problem with this rule is that it has nothing to say about the vast majority of changes, i.e., those which involve some being made worse off. At the same time it can judge optimal a move which (as we shall demonstrate) increases inequality in a society which will universally be regarded as unjust.

In order to come to terms with the essential emptiness of

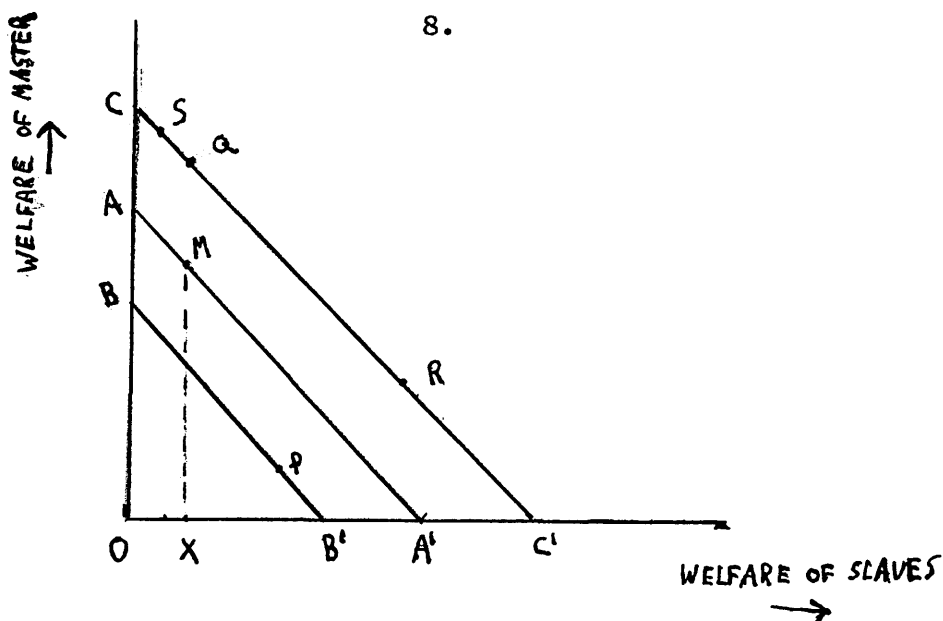
Pareto's rule, the so-called "compensation principle" and modifications thereof were put forth. The originator of this concept was Kaldor, who defined optimum moves as those in which individuals who were made worse off could be compensated by those who had been made better off, with the latter still receiving a net benefit. The immediate difficulty with this rule is what Baumol has termed its "crucial characteristic, namely, that it does not require that persons injured by some economic phenomenon must actually be compensated in full by those who have gained from it".<sup>12</sup>

There have been attempts to render the compensation principle more palatable by requiring actual compensations. Yet, as Streeten has pointed out, not only is actual compensation impractical on the level of knowledge of individuals' preferences, but more seriously, its "use would betray a conservative bias, because the basis of compensation is the status quo. A policy based on such a rule may involve changes which would preclude other changes which would have been more desirable".<sup>13</sup> Needless to say, economists have considered the problem of compensation at a very abstract level. However it is a crucial issue in cost-benefit analysis, especially as regards urban renewal. A certain amount of compensation is always given those who are displaced by an urban renewal project. However, the cost-benefit analyst who is concerned with distribution will (1) place a higher value on benefits which accrue to lower income groups, (2) consider as a cost the differences between the actual compensation to

losers (displacees) and the magnitude of their loss, and (3) judge the opportunity costs of a project in terms of the benefits foregone by not undertaking a more desirable project, from the standpoint of his schema of costs and benefits. These statements will be discussed more fully in the final chapter.

There are differences between Pareto and Kaldor and Hicks<sup>14</sup> regarding the criteria for optimum (welfare enhancing) policies, programs, or outputs. But as economists in the classical or neo-classical traditions they would agree with certain evaluations with which the present writer would disagree. In order to bring this point out, a diagram using the least ambiguous kinds of utility possibility curves will be used (all parallel, non-intersecting) in a hypothetical society which will universally be regarded as unjust.

Suppose we have a society composed of 11 individuals; 10 slaves and a master. The slaves' welfare will be denoted along the X axis and the master's along the Y axis. The initial utility possibility curve is given by AA'. BB' represents a utility possibility curve after the slaves have organized and use their unity to improve their income and decrease hours of work. CC' represents a utility curve after (say) an improved production technique is introduced, and the points along the curve imply whether the slaves have organized as with BB' or not.



The initial situation is represented by point M, in which the welfare position of the slaves is given by OX and that of the master by XM. According to the three economists we are discussing, any point along AA' is equally desirable. However, a move to BB' is by definition a welfare decreasing one since the possibility for utility along BB' is less than along AA', even though the actual welfare of the slaves is increased by a move from M on AA' to P on BB'.

Again, according to the economists, a move from M on AA' to Q on CC' is an optimal one since one person is made better off (the master) and no one is made worse off (the welfare of the slaves remains the same). This is the move we alluded to earlier in which inequality in an unjust society is increased and yet the change is judged an optimal one. On the other hand, if the move from M on AA' to either S or R on CC' (assuming the combined welfare of slaves and master is the same at either S or R, e.g., 200 for master and 50 for slaves at S and 150 for slaves and 100 for master at R), this change is

equally ambiguous on some criteria and equally desirable on others.

The moral of all this is that unless one explicitly passes judgment on the optimality of the existing distribution of income (one might add of political power as well) changes in the level of total income have no normative significance. Arrow has put this somewhat more forcefully: "There is no meaning to total output independent of distribution".<sup>15</sup> Specifically, in an economy with a price system, whether in fact a move or project is efficient involves a value judgment. Scitovsky has recently made a similar argument:

Indeed the main lesson to be learned from all this, from my account of the criticisms and shortcomings of consumers sovereignty and of the benefits and advantages of alternate aims, is that the economist can no longer regard his standards as given to him from outside, but must make a judgment of his own what standards to accept within what limitations and with what qualifications. 16.



## III. EXTERNALITIES

A highly important economic phenomenon from the point of view of public investment (or intervention) and one whose policy implications varies significantly with the observer's appraisal of the economic system (as to whether it is in equilibrium or not) is that of externalities. This latter point is brought out by Chenery:

In its earlier usage it [external economies] pertains to costs and benefits of production not adequately reflected in the price mechanism; in growth theory it refers to the effect of one investment on another. The former uses the assumptions of competitive equilibrium, while the latter acquires its significance from the assumptions of dynamic disequilibrium. 17

It will be useful to discuss the basis and implications of this statement. Scitovsky points out in his suggestively titled "Two Concepts of External Economies" that given the assumptions of general equilibrium theory, viz., perfect competition and perfect divisibility of all resources and products, any divergence from optimality (in Pareto's sense) occurs only when "there is an interdependence among the members of the economy that is direct, in the sense that it does not operate through the market mechanism. In general equilibrium theory, then, direct interdependence is the villain of the piece and the cause for conflict between private profit and social benefit".<sup>18</sup>

An externality exists when there is both "interdependence together with the lack of accompanying compensation",<sup>19</sup> leading to a condition in which the marginal social net benefit is greater or less than its marginal private return.<sup>20</sup> With regard to production, the output of the individual producer depends not only on "his

input of productive resources but also on the activities of other firms".<sup>21</sup> Put symbolically<sup>22</sup>, external economies exist whenever the output ( $x_1$ ) of a firm depends not only on the factors of production ( $l_1, c_1, \dots$ ) utilized by this firm but also on the output ( $x_2$ ) and factor utilization ( $l_2, c_2, \dots$ ) of another firm or group of firms:

$$x_1 = F(l_1, c_1, \dots; x_2, l_2, \dots)$$

Finally, given the assumption of general equilibrium theory, the only kinds of external economies which can arise are due to direct (i.e. non-market) interdependencies among producers or between producers and consumers and are termed "technological externalities". Briefly, technological externalities are distinguished from pecuniary externalities in that the latter (using the same notation as above) are represented by the following function:

$$P_1 = G(x_1, c_1, \dots; x_2, l_2, c_2, \dots)$$

where the profits of a firm depend not only on its own output but also on the output and factor outputs of other firms.

The problems associated with pecuniary external economies have appeared most often in the context of underdeveloped countries, where the economic situation is often described as one of "dynamic disequilibrium".<sup>23</sup> What is wanted is some criterion upon which to base investment decisions. For example, Chenery has posed the following question:

To what extent and under what circumstances do coordinated investment decisions lead to more efficient resource use than do individual decisions based on existing market information? 23.

There seem to be three reasons why "coordinated investment decisions" are often thought to be necessary to further economic growth. The first relates to the fact that interdependencies among the various elements of the economy may not - but should be - exploited. Since with pecuniary externalities, the profits of a firm B (and possibly its future investment) are dependent upon the output of another firm, A, if for some reason A does not exist or is operating on a very small scale, B will not be able to expand, nor will those firms which use B's output as inputs. In other words, the whole process of growth may be stultified in the absence of coordination, i.e. investing in A. As Dobb has put it,

When the expansion of one industry could not be undertaken at a profit, at least until an initial stage was passed, and yet its existence was essential to the growth of other industries, and without it these others would be brought to a standstill. 24.

then coordinated investment decisions are called for.

The second case in which pecuniary externalities may lead to insufficient investment (and output) has been discussed by Scitovsky. If investment in firm A does not lead to investment in firm B, but merely decreases the cost of A's inputs to B and consequently increases B's profits, then only "if the expansion of the two industries were integrated would the profitability of investment in each one of them be a reliable index of its social desirability".<sup>25</sup> When pecuniary external economies are appropriated

by firms then profits (in a market economy) are "a bad guide to economic optimum, so far as investment and industrial expansion is concerned".<sup>26</sup> Scitovsky feels it is necessary to coordinate those investment decisions "which have a delayed effect and - looking ahead to a future period - should be governed not by what the present economic situation is but by what the future economic situation is expected to be".<sup>27</sup>

The third argument for co-ordinated investment decisions exists when a chief premise of equilibrium theory is not met, that of perfect divisibility. Lerner has pointed out that an indivisibility:

..may be found in the factor, in the product, or in the method of production...factors are often available only in large units like waterways, that products are often produced in naturally large units like ocean liners or skyscrapers and that methods of production are also often of a minimum size even if the factors and the products are fairly dividable, like an assembly plant for automobiles or a continuous strip-steel rolling mill. 28.

Interestingly enough, the seminal work in cost-benefit analysis by Dupuit was addressed specifically to the determination of a criterion of the social desirability of investment in the classic types of indivisibilities, viz., those of transport, such as canals, roads, bridges, and railways.<sup>29</sup> Dupuit took as his example a bridge. If a toll was charged sufficient to cover the capital costs of the bridge, this would involve an important reduction both in its use and in the utility derived from its use. On the other hand, since its use involved

a zero marginal cost, utility would be maximized if there were no toll. As for calculating the social benefit of the bridge, he used the concept of "consumer's surplus", i.e., the difference between the maximum amount consumers are willing to pay rather than go without a specified amount of a good and what they actually pay. The usual procedure for this calculation is to estimate what the operator (of the bridge) could have appropriated had price discrimination been practiced. Simply stated, the views of both Dupuit and Lerner are that excess capacity and monopolistic pricing decrease the social benefits which can be derived from an indivisibility. As Lerner put it,

The uneasiness of accepting a permanent loss is often due to identifying the irrelevant aspects of perfect competition with the optimum use of resources. 30.

To combine this with Scitovsky's observation that "profits under free competition may be regarded as a rough index of disequilibrium"<sup>31</sup>: social benefits are maximized when pecuniary externalities and excess capacity are minimized.

The major purpose of this discussion of externalities is for the application of this concept to areas which are analogous, but not generally conceived of in this light. Rothenberg has examined the externalities inherent in what he calls "jurisdictional mobility", whereby residents of one political jurisdiction (suburbs) can use the services of another political jurisdiction (cities) without contributing to their upkeep, which in turn affects tax rates, resource allocation, and locational decisions of firms.<sup>32</sup>

Taking a long view, Rothenberg suggests that urban renewal can have the untoward effect of inducing city officials to regard profitability as the answer to their problems, which may preclude the necessary structural changes, i.e., coordination of interdependent (from social and economic points of view) - yet fractionated (politically) units.

We are now in a position to investigate the relevance of externalities for cost-benefit analysis. As McKean suggests, the rationale for government investment (intervention) has been based on the existence of externalities.<sup>33</sup> Since payment cannot be exacted for economies or diseconomies and yet their existence has a positive or negative effect on social welfare, some government action is called for in a capitalist economy.

Suppose now that traffic congestion and its consequences (air pollution, noise, hindrance of pedestrian mobility, etc.) have become unbearable in a given city and the voters decide that a radical measure is needed, say banning automobiles from the center of the city in conjunction with provision of parking facilities on the periphery of the city and an efficient and palatable rapid transit system. What is the relation between such a policy and an analogous one in an underdeveloped country, say building a road to a hitherto inaccessible resource? Quite clearly, both involve indivisibilities. On the one hand, either automobiles are banned and measures are taken to insure mobility or not. On the other, either the road is built or not. Similarly, both actions are designed to cope with externalities. In the case

of the city, the immediate aim is the elimination of the diseconomies associated with traffic congestion. Assuming that intra-city mobility is enhanced, this in association with the elimination of diseconomies increases the desirability of living and working in the city.

In other words, there are significant benefits from the point of view of the present residents of the city in addition to those consequent upon the elimination of a diseconomy. In the case of the underdeveloped country, the consequence of building the road involves not merely the benefit of the resource and increase in per capita income, but also (in the presence of coordinated decision making) the generation of new industries for which the resource is a necessary input, and, thus, a further rise in per capita income.

The major point of this comparison is that the elimination of diseconomies and exploitation of potential economies are analogous in a very important sense. In both cases, indivisibilities may be prerequisites for bringing about a desired end and unless this is realized the present admittedly undesirable situation may become worse. On the one hand the city in question may become an even less desirable environment in which to live and work and in the case of the underdeveloped country, per capita income may decrease.

Traffic congestion is certainly not the only diseconomy present in cities. Others which are equally important will be discussed below. A chief thesis of this paper is that it is the presence of diseconomies in cities which has chiefly rendered them undesirable. Since urban renewal has not recognized this fact, the

consequence of "projects" is to ignore or exacerbate existing diseconomies, while futilely attempting to achieve those benefits consequent upon eliminating the diseconomies altogether.

It is interesting to note that the concept of indivisibilities has often been invoked in urban renewal. Its use has centered about the "need" to level the whole of an area. In *Kaskel v. Impellitteri* (1953) Judge Desmond stated:

the statute (and the Constitution), like other similar laws, contemplates that clearing and redevelopment will be of an entire area, not of a separate parcel, and surely, such statutes would not be very useful if limited to areas where every single building is substandard. 34.

This view (i.e. that total elimination of existing structures is necessary) has largely been discredited since 1953, though it is still an implied premise in much of urban renewal. In actuality the connotation of "indivisibilities" as used by Judge Desmond merely expresses the conditions under which the developer believes he will maximize his profits. This may have nothing to do with the necessary conditions for increasing social welfare or resolving the problems of central cities.

As a general rule, actions which decrease diseconomies are preferable to those which are neutral and both are preferable to programs which exacerbate existing diseconomies. A similar rule can be made for decisions or actions which internalize externalities. Finally it should be clear that cost-benefit analysis must explicitly take into account the externalities generated by a public project, since these will be the decisive



elements in determining the worth of a project.

## IV. SOCIAL TIME PREFERENCE

The literature of cost-benefit analysis is replete with formulae for calculating the discounted present value of future benefits for a given public undertaking. In a general way, all observers agree that some discount must be attached to income occurring at future dates if for no other reason than to set some limit upon any investment program. However, the discussion of cost-benefit analysts does not generally come to terms with the basic question, regarding the determination of the appropriate discount rate. There is generally some debate on a technician's level: the government's borrowing rate is less appropriate than the market rate of interest, or, since the market rate of interest is not uniform, the relevant rate is the interest rate available to one or another income class or firm. The question of the appropriate discount rate is intimately connected with many of the points which have already been raised, just as it is directly related to the kinds of projects which are undertaken. It is therefore quite important that the basic questions regarding its use be discussed.

The divergence between the private discount rate and social discount rate is not due solely to the facts that capital markets are not perfect and perfect competition does not prevail. Even granted the assumptions of equilibrium theory there still remains the possibility that atomistic savings and investment decisions will result in a higher marginal rate of substitution of future for present consumption than is desirable from the viewpoint of society as a whole.

In particular, it is possible to make all individuals better off by undertaking more investment collectively than each finds desirable to undertake privately. This point is brought out by Marglin<sup>35</sup>: given a general agreement that growth is not proceeding rapidly enough, it follows that the marginal social rate of discount is lower than the market rate. As a consequence it is necessary:

that the community in its collective, political capacity properly sees to it - directly or indirectly - that investment opportunities with future returns too low to justify private exploitation without the intervention of the state are in fact undertaken. 36.

One aspect of Marglin's statement is brought out in Sen's notion of the "isolation paradox", according to which an individual will be willing to sacrifice his own pleasure for future generations, provided that others are also ready to do the same.<sup>37</sup> This concept, Sen likens to an external economy which calls into question the meaningfulness of consumer's sovereignty (granted its validity at all) since "the consumers involved are not merely those of the present generation, but also those yet to be born and those who are now too young to express any preferences".<sup>38</sup> The inability of large numbers of individuals in this society to express "effective demand" and the concomitant unequal distribution of income were questioned at the beginning of this paper. As Schorr has written, "nearly half the population has incomes at the margin or below the level which would turn up in surveys as effective consumers demand".<sup>39</sup> The market rate of interest is a reflection of the time preference of the more affluent groups in a society, since the concepts of

savers' and consumers' voting are weighted according to the income of those "voting". For more technical reasons (e.g., capital market imperfections) Feldstein asserts that it is unlikely that there ever is a coincidence of private and social ends of discount and he suggests that social time preference "is a normative rate reflecting the government's evaluation of the relative desirability of consumption at different points in time".<sup>40</sup> He feels that since the market cannot express the collective "demand for investment to benefit the future and because we may prefer the weights of some political process to those of the market place", that the political process may be invoked.<sup>41</sup> Marglin on the other hand believes that the marginal social rate of discount can be objectively arrived at and that the government should undertake investment till further investment becomes marginal from the collective as well as individual points of view.<sup>42</sup>

There appears to be a more basic cause for divergences between private and social rates of discount, at least when employment or growth problems exist. According to Dobb:

..from the social standpoint, why should profitability be the criterion, even if we ignore external effects? Why should not the social return on investment be regarded as being the total resulting addition to national output, without any such deduction of the values of other factors?...from the community's point of view the possession of additional equipment that will enable one at future dates to afford more employment to labor is, surely, part of the benefit of investment. 43.

The chief argument of this section can be brought out through a clarification of the above quote. Dobb is mistaken in suggesting that "we" can ignore externalities. It is precisely those external effects, increased employment and investment opportunities as a result of certain investments, which are ignored by the entrepreneur. From the point of view of society the fact that such external effects follow from certain investments is the most cogent argument for coordinated decisions. However, it is highly probable that the gestation ( or "payoff") period for such investments - from the viewpoint of the investment rather than its effects - will be rather far off on the time horizon. It is also possible that its effects will not be immediately forthcoming, Nevertheless, the existence of the investment may be a sine qua non for further growth. The implication follows: namely, the social discount rate which is chosen is crucial. A high rate will be biased against projects whose payoff is not immediate.

We shall now make an analogy similar to that in the previous section on externalities! It is obvious to most observers that a low social discount rate is necessary in underdeveloped countries. What of a society in which there exist substantial diseconomies?

An illuminating observation of Pigou's will bring out much of what shall be said here and below on the subject:

Perhaps, however, the crowning illustration of this order of excess of private over social net product is afforded by the work done by women in factories...for there can be no doubt that this work carries with it...grave injury to the health of their children...In districts where women's work of this kind prevails there is presumably and this is the cause of the women's work - great poverty. This poverty, which is obviously injurious to children's health, is likely, other things being equal, to be greater than elsewhere in families where the mother declines factory work, and it may be that the evil of the extra poverty is greater than that of the factory work...Therefore prohibition of such work should be accompanied by relief to those families whom the prohibition renders necessitous. 44.

The "vicious circle of poverty" of which one hears so much in the USA of today, particularly as regards large numbers of individuals in those cities where urban renewal is believed necessary, is a "crowning illustration" of a perpetual diseconomy. And the social costs of poverty (sometimes mistakenly applied to slums) are enormous. In a sense, the lumpenproletariat has become an expensive luxury. An important argument in this paper will be, that it has been a mistaken view to regard urban renewal from the short-run profitability criterion implicit in the sorts of projects which are undertaken. On the other hand the termination of poverty may require a generation. Now given a high social rate of discount, poverty and the social costs it generates, will remain. For it will never be profitable to eliminate poverty, though the poor become ever more costly to contain and maintain. The kinds of programs or projects we have in mind are those which improve the income and self-sufficiency of the present generation of the poor, with the recognition that such individuals

will not themselves become wholly self-sufficient; the aim being to insure that their children do not continue the cycle of poverty. For example, the public provision of co-operative apartments and stores, and employment for the current generation of poor will involve a subsidy element which exceeds the benefits appropriated. On one level, a redistribution of this sort is not efficient, though as Maass has pointed out in a related area "the community would probably be willing to give up some efficiency to see the living standard of the Indians improved by their own labor rather than by the dole".<sup>45</sup> On another level, if the aim is to eliminate poverty, then our real concern is with providing an environment for the children of the poor which will enable them to become productive members of the labor force and society. Since terminating poverty means expenditures in the present which will yield benefits after a generation, then a high discount rate will militate against such programs. In anticipation of what will be analyzed in a later section, an observation of Grigsby's is apt:

...in the entire arsenal of housing and urban renewal programs, there is not today a single tool that comes to grips with the basic dilemma - low income. 46.

There are also physical diseconomies which entail large initial outlays and may not pay-off for many years. We have mentioned the elimination of auto congestion necessitating the provision of peripheral parking facilities and improved

public transit systems. In our view, the physical problems of cities are those associated with the kind of infra-structure lacking in "post-industrial cities", e.g., diminishing the pollution and noise levels and providing for pedestrian mobility and open space.

In conclusion, the choice of a discount rate is a vitally important consideration where the benefits from a public action do not accrue in the short-run, and this will be the case for those investments which seek to promote economic development or eliminate entrenched diseconomies.



## V. SOCIAL OPPORTUNITY COSTS

As a preface to our discussion of opportunity costs, a quote from Lerner will be useful:

the inadequacy of investment is mainly due to inadequacy of consumption. The inadequacy of consumption follows from the extremely unequal distribution of income which prevents the poor from consuming while the rich naturally save a large part of their income. 47.

In evaluating opportunity costs it is surely necessary for one to be aware of the consequences of Lerner's observation. The immense expenditures in the USA to stimulate demand must be looked at as an alternative to equalizing the distribution of income. By stimulating demand we mean, expenditures in the private sector on the "sales effort", i.e. advertising and policies of built-in obsolescence. In the public sector, the massive expenditures on defense and space fall into the same category.

In a perfectly egalitarian society, one might agree with Feldstein that a project's social opportunity costs is the present values of what society gives up in order to obtain the benefits of a particular project and that the social opportunity cost of transferred funds is indicated by the marginal rate of productivity of private investment.<sup>48</sup> However, the USA is hardly an egalitarian society. As Keyserling has pointed out:

More than 34 million Americans still live in poverty, with incomes at least 50 per cent below those required for a "minimum but adequate" budget in the American perspective and more than 20 million of these people are at least 33 1/3 per cent below the income which they must reach to lift them out of poverty. 49.

As has been mentioned already, efficiency and hence market prices and profitability are relative to a given distribution of income. Consequently, the notion of opportunity costs implies a value judgment as to whether a given income distribution is equitable. It has analytic significance only among individuals who hold the same value premises. It is probably the case that it is more "profitable" to invest a dollar in advertising or missiles than in a park or in the subsidized sale of cameras to slum children. However, no policy implications are entailed by the greater profitability of the former with respect to the latter.

Leaving aside the question of income distribution for a moment, opportunity costs are suspect on other grounds as well. Streeten points out that "wants and desires are not ultimate, independent, autonomous data, but the product of social relations..A different collection of goods, produced in a different manner, would result in a different set of wants".<sup>50</sup> Unfortunately, economists do largely accept market prices as "autonomous data". Galbraith is of course the chief respectable exception, and he has offered the opinion that:

privately produced goods and services, even of the most frivolous sort, enjoy a moral sanction not accorded to any public services except defense.<sup>51</sup>

If one agrees with Galbraith, one is forced to make qualitative judgments between the social value of heterogeneous goods and services. For to accept what Galbraith calls the "meretriciousness associated with the shaping of popular taste to economic need" as a datum is a political choice - non-partisan to be sure.

Let us now look at opportunity costs from a still different viewpoint. Suppose that a public project ensues in a society where there exists unutilized resources and moreover that in addition to producing certain benefits the project also mobilizes some of the slack resources. Given this situation the economy in question is not making full use of its available resources. This problem has been tackled by growth economists, especially where underdevelopment coexists with widespread unemployment. Marglin has focused on imputing a "shadow price" to resources which in the context of an underdeveloped country have no alternate use; unskilled labor in particular.<sup>52</sup> Clearly the opportunity cost of slack resources is from the societal standpoint much below the price they command on being utilized. Marglin points out that the shadow-wage rate approaches zero.

While the reader might agree with our earlier remarks on opportunity costs, he might argue that although shadow prices or wages are applicable in the context of underdeveloped countries they are not so in the USA. However, as soon as one drops the unwarranted assumption of "full employment" in the USA the relevance of shadow prices becomes evident. As Arrow puts it:

During a period of unemployment of labor or capital, the market price of an input will exceed its true social cost...Even in times of generally high employment there may be local area of unemployment; the same rules should hold for projects in such an area. 53.

It is well known that a 3.7% unemployment rate for the country as a whole masks the fact that unemployment for minority groups (and to a lesser extent for the ages 18-25) is consistently between

10-15%. With respect to policies for revivifying cities - where a large proportion of these groups with high unemployment rates reside - the kinds of projects undertaken might be quite different were unemployment considered in the calculation of social opportunity costs. One might add that the frequent criticism of the War on Poverty's retraining of individuals for jobs which do not exist would have considerably less persuasiveness if jobs were provided. Needless to say, from the perspective of eliminating diseconomies associated with poverty, the provision of well-paying jobs to members of the urban lumpenproletariat is a necessary condition.

Feldstein offers another conception of social opportunity costs; one which has greater analytic validity than the general notion of "the discounted rate of the consumption stream that would have occurred had the project not been undertaken". Both he and McKean feel that without capital rationing the cost of the project to society is the value of the transferred funds in the private sector.<sup>54</sup> However, with capital rationing, the social opportunity cost of a project is the social benefit which would have accrued had another project been undertaken. Since we dispute the validity of this general notion of opportunity costs, it should be irrelevant from our point of view whether or not a project is subject to capital rationing. Given our value framework, the cost of a project A for evaluative purposes should always be calculated in terms of the benefits foregone in not undertaking project B. The assumption is that any project is ostensibly undertaken to satisfy social or merit wants and that there are significant

social and merit wants that have not yet been - and need to be - satisfied. This assumption certainly does not hold for (even) the putative goals of all public investments - e.g. war and space - but in the context of resolving urban problems - the implied aim of urban renewal - it is safe to say that important social and merit wants are at issue. The role of the urban renewal cost-benefit analyst is to formulate a program best able to achieve - what he considers to be - the long-run goals implied in the fact that a renewal of urban areas (disregarding its actual form) has actually been thought necessary and to develop a schema for the various categories of costs and benefits along with an adjustment factor for costs and benefits to different income groups. The benefits which would have been forthcoming had such a project been undertaken measure the social opportunity costs of the projects which have actually been undertaken. The ideal program of the analyst serves as a standard upon which present programs can be judged.

## VI. MERIT AND SOCIAL WANTS

A brief delineation of Musgrave's "multiple theory of the public household" will serve as a fruitful reference concept in our discussion of social and merit wants as well as for future arguments on the nature of urban renewal.<sup>55</sup> In Musgrave's theory, the Fiscal Department is responsible for achieving these major objectives:

1. the diversion of resources to satisfy public wants
2. the establishment of the desired or "proper" state of distribution
3. the securing of price-level stability and full employment

Musgrave posits ~~three~~ Branches of the Fiscal Department, each determining the policies and programs necessary to achieve the particular objective in its domain. The Allocation Branch is responsible for 1; the Distribution Branch for 2; and the Stabilization Branch for 3; Musgrave's Fiscal Department operates at the national level. At the local or metropolitan levels, Chinitz and Tiebout have argued that a Stabilization Branch is not tenable.<sup>56</sup> They also maintain that redistribution will generally take the form of income - in-kind transfers (e.g. low-income housing) - i.e. will be incorporated in the Local Allocation Branch. While it is true that the provision of public goods often has distributional motivations or implications, transfer payments via public welfare make up a sizable part of the local budget in most cities and such transfers are clearly handled by some agency comparable to Musgrave's Distribution Branch.

It is the Allocation Branch and its provision of goods to satisfy social and merit wants which is our interest in this section. As for social or public goods, the major justification for their existence in a capitalist economy is presented by Baumol in the following way:

The reason a government must provide certain types of goods is that the private sector cannot be depended upon to offer them in appropriate amounts and the central explanation which is offered for this deficiency in recent writing relies heavily on the theory of externalities. 57.

In other words, social goods cannot be supplied through the mechanism of the market because their enjoyment cannot be made subject to price payment. Musgrave gives two conditions under which a good is properly of this nature, both implied in the notion of benefits which are yielded indiscriminately. The two conditions are:

1. there is necessarily joint consumption, i.e. the same amount must be consumed by all, and
2. the exclusion principle is inapplicable, i.e., the consumption of the good does not reduce its utility to any other individual and at the same time, the good is a "free" good once it is provided.<sup>58</sup> Since goods and services which satisfy social wants can be had by all without payment once they are provided, it is in the interest of individuals (so the argument goes) to understate the amount they are willing to pay (through taxation), i.e., the benefits which they receive from the good or services. The basic rule which Musgrave advances concerning the allocation of social goods is that their allocation should be "in response to the effective demand of consumers, determined by individual

preferences and the prevailing state of distribution".<sup>59</sup>

Given the weighting procedure implied in this rule one would suspect that not all goods nominally considered social are so in fact (e.g. space) and conversely, a deficiency in the supply of certain other social goods (trenchantly illustrated by the sale of public parks to private industries, e.g. lumber interests).

According to Musgrave, merit wants:

are met by services subject to the exclusion principle and are satisfied by the market within the limits of effective demand. 60.

That is, merit goods have perfect substitutes on the private market, and an individual is excluded from consuming them if he does not demonstrate effective demand, i.e., the ability to pay for them. Merit wants become public wants if they are considered so meritorious that their satisfaction is provided for through the public budget, over and above what is provided for through the market and paid for by private buyers.<sup>61</sup> Musgrave expresses the general view that the satisfaction of merit wants necessarily involves an "interference with consumers' preference". We have already disputed the validity of the notion of consumer's preference or sovereignty. To take our disputation one step further, while it is certainly the case that the output and pricing policies of oligopolies and monopolies as well as the omnipresence of advertising undeniably interfere with consumer's sovereignty, it can be argued that merit wants are satisfied through the political process in which there is a closer approximation of "one man, one vote" than in



the market place. Moreover, the preference which an individual voices qua consumer are certainly less inclusive than those which he voices qua citizen. Therefore, since the satisfaction of merit wants is requested by individuals in their status as sovereign citizens there is no interference with their preferences.

The distinction between merit wants, social wants, and redistribution is not nearly so clear as it might prima facie appear. Two contradicting statements may bring this point out:

Many so-called merit wants are in fact instances of a group redistribution objective and should be considered as such. 62.

Situations arise that seem to involve merit wants but on closer inspection involve social wants. 63.

Once the very real problem of interest conflicts among societal groups is brought out (as will be in the next section), the frequent equivalence of merit wants with social wants and/or the redistribution objective is not surprising. For example where significant inequalities exist, "law and order" may be considered a merit want of the dominant group and a condition for its fulfillment may be the satisfaction of merit wants and/or a degree of redistribution to the dominated groups. Engels has thoughtfully provided an appropriate example:

Modern natural science has proved that the so-called "poor districts" in which the workers are crowded together, are the breeding places of all the epidemics which from time to time afflict our towns...Here the germs hardly ever die out completely, and as soon as circumstances permit they develop into epidemics and then spread beyond their breeding places into the more airy and healthy

parts of the town inhabited by the capitalists.. As soon as this fact has been scientifically established the philanthropic bourgeois become inflamed with a noble spirit of competition in solicitude for the health of their workers. 64.

Musgrave, too, lists "free health measures" as one of those instances in which merit and social wants are inextricably bound up together.<sup>65</sup> On the other hand, public health measures, e.g. free out-patient clinics or Medicare, can be considered an instance of the "group redistribution objective". In the absence of a theory of group interests, these three concepts are somewhat vacuous. Even with an adequate descriptive theory of interest conflicts a good or service which is provided publicly must be evaluated in a specific manner in order to determine - from the observer's perspective - which objectives (and whose) it is serving.

It can safely be stated that the higher the proportion of low-income individuals in a local political unit in the USA, the more that must be expended for merit wants and redistribution. So long as merit wants, social wants, and redistribution are provided for at the national level, no shift of population at lower political levels is occasioned. However, given a concentration of low-income individuals in a particular city one expects higher taxes than in a homogeneous middle-class community. As Musgrave has pointed out, at the local level individuals can move from "less to more congenial fiscal communities".<sup>66</sup> In spite of Musgrave's felicitous phrasing the financial plight of central cities has been exacerbated largely because middle-and-upper income individuals have the ability and

motivation to flee to the suburbs. And from the point of view of maximizing their welfare, if only through reducing the taxes they must pay, this is an eminently rational move. So long as the burden of maintaining the poor remains largely a local one, such movements are to be expected to continue. Even given a metropolitan taxing authority, individuals could still choose "more congenial fiscal" metropolitan areas.

It was mentioned earlier that a public good or service can meet one of several objectives. Rothenberg has suggested that the urban renewal program "operates as an indirect mechanism for transmitting intergovernmental grants".<sup>67</sup> From the perspective of the entire society, urban renewal is a program of the Redistribution Branch since funds are transferred to certain geographical areas (cities) for rather general ends, i.e., renewing cities. However, the kind of urban renewal project which is actually undertaken determines whether a merit or social want (or neither) is being satisfied. Therefore the question is an empirical one and each project must be examined in order for this determination to be made. The first question to be asked is whether a project satisfies collective, i.e., social wants. As far as the actual operation of urban renewal is concerned, it appears that most projects actually satisfy merit wants, i.e., cater to particular groups. While it is often implicitly assumed that (say) increasing the tax base is a social want at the local level, since this strategy may in fact militate against long-run structural solutions and since certain groups are often directly hurt by projects ostensibly

aimed at increasing the tax base such projects and their justification must be examined in terms of actual and expected beneficiaries.

The class of projects which satisfy social wants strictly or both social and merit wants are those which aim at the elimination of diseconomies. The fact that important diseconomies exist within cities is the chief reason why some kind of urban renewal is called for. However, it unfortunately does not follow that urban renewal in practice seeks to come to terms with these diseconomies. With regard to eliminating one important diseconomy, viz. poverty, Kenneth Boulding offers the following observation (apropos of the California Water Plan):

It would be well to be quite sure  
Just who are the deserving poor  
Or else some state-supported ditch  
May serve the undeserving Rich. 68.

State-supported urban renewal projects oftentimes manage to satisfy the dubious merit wants of more affluent members of the metropolitan area and, in addition - as we shall see - inflict real costs on the more vulnerable, less affluent, members of the city. Since a large part of urban renewal financing (from 2/3 to 3/4) is paid for at the national level, urban renewal need not entail substantial taxing effects on those members of the city or metropolitan area who do not directly benefit. Therefore Tiebout's and Chinitz' interpretation of merit wants at the local level is not necessarily an accurate one:

As we interpret merit goods, not only does the user of a subsidized merit good, by definition, pay less than the full price, but all citizens of the community are taxed to pay the subsidy regardless of their preference function. This is a case where the majority simply imposes its will on all. 69.

The uniqueness of urban renewal inheres in the fact that the provision of projects which satisfy merit wants will generally cost the citizens of the community very little in terms of actual financing. A substantial "tax burden" is borne by some groups in a most unusual form, viz., through forced relocation and decreases in the stock of low-rent housing. This is to say, that some groups directly bear major burden in the subsidization of others' "merit wants". It is certainly feasible that urban renewal could meet the interpretation of Chinitz and Tiebout; but it has not in practice. In a sense, then, urban renewal agencies have been able to carry out their programs "on the cheap", because there are substantial numbers of poor in cities who can be manipulated without compensation. From the point of view of society and hence of the cost-benefit analyst, such forms of compulsion and exploitation are social costs, and should be calculated as such.

## VII. INTEREST CONFLICTS

McKean has written that:

projects (as they will actually be carried out) will provide gratuitous or deliberate subsidies - subsidies that do not always represent equal treatment of people in equal circumstances. 70.

McKean leaves this particular problem unresolved - i.e., the problem of "who gets what, when, how?" Just as the social technicians of the Great Society have a gentlemen's agreement that certain subjects are taboo (chiefly, conflicts occasioned by the unequal distribution of wealth and power), so too, the prevailing ideology circumscribes those aspects of the status quo which are to be taken as givens. Thirty years ago, one of these "givens" was unemployment, which was lifted "out of the sphere of human policy and made to appear as a product of the natural order of things".<sup>71</sup> Needless to say, the dominant groups of any society delimit what may and may not be questioned by those analysts who wish to appear respectable, in the mainstream, and influential. Mannheim has set forth the reason why "restraint" is needed:

By calling everything utopian that goes beyond the present existing order, one sets at rest the anxiety that might arise from the relative utopias that are realizable in another order. 72.

An ex ante cost-benefit analysis, if it is to have any value at all, must make some attempt to predict the probable gains and losses to different groups as a result of a particular project. This is probably what Tiebout and Chinitz had in mind when they wrote:

It is easy to assume that transport investments are good for everybody concerned, at least the communities along the right of way and at the terminals. But...it is by no means obvious that a cost-benefit calculation would net out the same way for all communities. 73.

They go on to point out that, with regard to metropolitan-wide planning, there will certainly be disparities of costs and benefits between communities and "cooperation is not likely to be fostered by the evasion of these issues".<sup>74</sup> In a way, their view is a useful antidote to the usual liberal belief that "men of good will" can forget their actual interests, and opt for the "rational" approach as advocated by the initiator-mediator. At the same time, Tiebout and Chinitz do not actually spell out the real issues at stake, which in the final analysis relate to the fact that the city-suburb dichotomy is chiefly an economic and racial one. The animistic view of sociology, political science, and economics in the USA, i.e., the ascribing of independent interests to the political process and geographical areas obscures more than it illuminates. As Mannheim has so perceptively indicated:

The organizational anomaly of bourgeois society appears also in its social theory. The bourgeois attempt at a thoroughgoing rationalization of the world is forced nevertheless to halt when it reaches certain phenomena. By sanctioning free competition and the class struggle, it even creates a new irrational sphere. 75.

Implied in much of what we have said thus far is the belief that given inequality, terms like efficiency, optimality, general welfare and social wants are somewhat less than entirely meaningful,

and rather the opposite approach of wertfrei. The argument that the most efficient project should be undertaken given the distribution of income and then lump-sum transfers should be made to losers, ignores the fact that (1) such transfers are not in fact made and (2) we may be concerned with the form a subsidy or transfer takes, e.g. preferring an above market wage to a welfare payment. In concluding this chapter, a quote from Myrdal is appropriate:

The crux of the matter is, of course, that when the old liberal postulate of a harmony of interests is renounced, political conclusions - and ultimately theoretical research - must be founded on explicit value premises which must be concrete and take into account the actual conflicts of interests between different social groups. 76.

This is not to say that the cost-benefit analyst becomes an ideologist for one or another interest group. It is to say that the analyst must make a judgment as to the equity of the existing distribution of income and ownership of capital and as to the presence or absence of equality of opportunity. Since public actions do not benefit all groups equally, he cannot be indifferent to who benefits and who loses as a result of a public action.



CHAPTER TWO

THE GOALS, CONSEQUENCES - AND SOME  
RATIONALES - OF URBAN RENEWAL

## I. LAISSER-FAIRE URBAN RENEWAL

It has been held that urban renewal "is concerned with the allocation of land resources to competing uses, and not so much with the existence or non-existence of public goods and services".<sup>1</sup> For what it leaves unsaid as well as for the definition it offers, this view of urban renewal is not very helpful.

To say that urban renewal is predominantly "concerned with land allocation" obviously tells one very little either about urban renewal itself or the difference between urban renewal and other social phenomena which on a very formal plane have also been involved with land allocation. For example, the Enclosure Acts in Great Britain between 1760-1820 were very much concerned with the allocation of land. However, the reasons for the enclosure movement cannot be understood apart from the Industrial Revolution; similarly, urban renewal is a consequence of the problems of "post-industrial" America. Formal definitions of either of these public policies necessarily obscure their social and economic roots.

At another level, it is not very meaningful to abstract the formal consideration of "competing land uses" from the ends and beneficiaries of changes in land use. Here analogies between the enclosure movement and urban renewal are more to the point. The enclosure movement benefited the large landlords and impoverished the peasants. The farmers who were forced to leave the land "were compensated with a sum of money which was not enough to enable him to set up as a capitalist farmer or pay for the hedging of the plot allotted to him".<sup>2</sup> With necessary changes in character and historical milieu, there are interesting

parallels between the consequences of the enclosure movement and those of urban renewal.

The fundamental issues which divide individuals over urban renewal are not new, since changes in the status quo always bring benefits to some and inflict losses on others. For this reason, one may gain only a superficial view of the deeper problems in urban renewal if he views it in a too particularistic fashion, that is, as a specific response to the urban problems of mid-twentieth century America. In a sense, there always remain certain unresolved societal problems (who does and doesn't get what, when, how?) but the form in which they emerge is particular to a given social and historical context. It is in this more profound sense that the enclosure movement parallels urban renewal.

The American problems of racism and of discrepancies in income - and conflicts - between cities and suburbs were certainly not evidenced in nineteenth century France. Yet Engels' observation of Parisian urban renewal is markedly contemporary, and might be applied in toto to much of urban renewal in the USA of today:

In reality the bourgeoisie has only one method of settling the housing question after its fashion - that is to say, of settling it in such a way that the solution continually poses the question anew. This method is called "Hausmann". 3.

By "Hausmann" I mean the practice, which has now become general, of making breaches in the working-class quarters of our big cities, particularly in those which are centrally situated...No matter how different the reasons may be, the result is everywhere the same: the most scandalous alleys and lanes disappear to the accompaniment of lavish self-glorification by the bourgeoisie on account

of this tremendous success, but - they appear again somewhere else, and often in the immediate neighborhood. 4.

Almost one hundred years later, similar observations are being made a propos of American urban renewal, though with a degree of ingenuousness:

We know that soon the dilapidated houses and run-down shops will be replaced by impressive new apartments and office buildings. But there is much we do not know. What happened to the families who were evicted? 5.

Glazer has given an interesting account of the origins and developments of urban renewal in the USA. He points out that urban renewal was created by a curious alliance "of those seeking reform and those seeking profits".<sup>6</sup> The former were concerned with the lack of amenities and planning, and they wished to improve the lot of the poor (mainly through public housing). The commercial and financial interests on the other hand sought to maintain the level of business and property values in downtown areas, "jeopardized somewhat by an increasingly poor (and incidentally, non-white) central-city populace". According to Glazer, both the reformers and the dominant interests "wanted to stem the rapid flow of the more prosperous citizens to the suburbs".<sup>7</sup> This shared desire to hold onto or bring back the middle class is both the unifying factor and the justification for the kinds of projects which are undertaken. It does not appear that either Glazer or the reformers are aware, that given this basic instrumental goal (i.e., bringing back or keeping middle and upper income families) urban renewal in its present form is a logical

consequence. Glazer contends that the city politicians also share this premise, seeing it as a sine qua non for revivifying their cities, in terms of increasing the tax base. Needless to say, the alliance is no longer intact. The reformers are largely critical of urban renewal and their erstwhile bed-fellows. Yet, the reformers still generally accept the premises of urban renewal, and their criticisms are of its untoward consequences. The question of whether urban renewal gives "a hand to those who are most deprived" is no longer seriously asked. Its place is taken by "If not, does it in any way hurt them?"<sup>8</sup> Schorr and other reformers recognize that the instrumental goals of urban renewal are inconsistent with their own aims of helping the poor and improving the level of amenities in cities. Much writing by the reformers turns on demonstrating how physical and social diseconomies have been exacerbated as a result of renewal.

We have spoken of "bring back the middle class" as the goal of urban renewal. Actually, it is the chief instrumental goal about which there is a consensus - according to Glazer - among those interested in renewal. The middle class and its consumption function is surely not an end-in-itself. But a good sized middle class population is considered a necessary condition for bringing about other goals which are not themselves instrumental. About these other goals, i.e., those which are dependent on solid sales and a solid tax base, there is a certain amount of vagueness. And, indeed, those aspects of urban life which are held in high esteem by (say) Mumford and the denizens of European cities

(open space, pedestrian ways, architectural standards, and non-fetid waterways) may in the American context be merely instrumental. The idea that the city itself, and not just the people within it, exists to be exploited seems to be a uniquely American one; both at the level of idea and in its actual reification. This observation is reinforced by Veblen:

The location of any given town has commonly been determined by collusion between "interested parties" with a view to speculation in real estate, and it continues through its life-history (hitherto to be managed as a real estate "proposition." Its municipal affairs, its civic pride, its community interest, converge upon its real estate values, which are invariably of a speculative character, and which all its loyal citizens are intent on "booming" and "boosting."<sup>9</sup>

Veblen adds, it is "highly significant" that those residents who own no real estate nor hope to nevertheless perceive their interests to be identical with the rentiers and speculators, without realizing it is they (the renters) who pay for the publicity and enhanced rentals.<sup>10</sup> It is still the case that the dominant interests in American cities seek enhanced property values, rents, and sales. Urban renewal is a means toward their ends. The potential losers from urban renewal still possibly see the interests of the dominant groups to be equivalent to their own, i.e., urban renewal is viewed in general as a good thing. However, there is no doubt that particular projects, whose consequences are directly apparent, are not applauded by those most likely to lose. The general belief that urban renewal's role is to make the city more desirable for middle and upper

classes is now accepted by almost all. The notion that such a goal is indeed a public one to be undertaken with public funds and by public or quasi-public agencies suffered its last and final legal setback in the case of *Schneider v. Parker* (1953). In that case the court ruled that the redevelopment authority of Washington D.C. had acted ultra vires since no public purpose was evidenced in the proposed renewal project. As Judge Prettyman put it:

No acute housing shortage is to be met. In fact the plan provides for no more residents than presently occupy the area. No pressing economic condition, apart from the slums, is sought to be dealt with by this plan. No purpose of housing for the needy - low-rent housing - is the motivation. 11.

In the following year this ruling was over-turned in *Berman v. Parker*<sup>12</sup>, and renewal agencies were given wide latitude to determine the public interest. This "interest" more often than not has been equated with the interests of the banks, downtown merchants, and large developers and rentiers.

Both slum-elimination with redevelopment and rehabilitation (with enhanced rentals) displace those who do not have sufficient means to move from substandard housing of their own accord. Therefore, the necessary cause of slums, viz. poverty, is in no way diminished. The implied assumption is that nothing can be done about poverty, at least in the short-run. The paramount objective of renewal as we have mentioned is to greatly increase the number of middle-and-upper income families in the city, whereby property values, the tax base, and sales will be increased pari passu. A related objective is to bring "clean"

or "light" (in practice, capital intensive and specialized, or white-collar) industries into the city, since these provide jobs for middle income and college trained individuals (both instrumentally desired). In addition, such industries raise the tax base without directly causing diseconomies (smoke, noise).

The continued existence of low-income areas performs a necessary function in the renewal process. Since low-income individuals are liabilities from the points of view of large merchants and tax revenue, the areas in which the poor are concentrated - a fortiori if close to the downtown - are the natural locations for renewal projects. At the same time, the existence of other slums and low-income areas permits redevelopment to ensue with only minimal provision of compensation to - or disruption by - those displaced. In short, standing slums or low-income districts are ready-made receiving areas for those displaced. One could suppose that all penurious or marginal (economic-wise) individuals have been concentrated in one last area, i.e., the whole rest of the city has been taken over by and for middle income and above individuals. It is at this final stage, that the poor will be provided with decent housing and employment. However, that is not necessary, for when all receiving areas are themselves surfeited the renewal process can simply be terminated.

What we have outlined above is a "laissez-faire" view of urban renewal; laissez-faire in the sense that the pattern



of benefits and costs to classes of individuals are consistent and predictable and the costs are invariably borne by those least able to fend for themselves; individuals whose welfare is consequently diminished. Given this laissez-faire form of renewal, we will develop a model showing the meaning of "success" and of expected changes in benefits and losses occasioned by whether or not "success" is forthcoming. First it will be useful to consider Baumol's model of the problems of cities. Whether or not it actually corresponds to reality, Baumol's model puts into symbols a prevalent view, the acceptance of which demands some kind of urban renewal.

Baumol calls his model "the theory of cumulative détermination".<sup>13</sup> Basically, the model asserts that blight and per capita income are directly related in a dynamic sense, and out-migration is a consequence of increases in the former or decreases in the latter. The two basic equations Baumol puts forth are:

$$B_t = g(Y_t) \quad dg/dy < 0$$

which asserts that the index of blight and deterioration at time  $t$  ( $B_t$ ) is a decreasing function of per-capita income at that date ( $Y_t$ ) and:

$$Y_{t+1} = G(B_t) \quad dG/dB < 0$$

which asserts that per capita income in period  $t+1$  ( $Y_{t+1}$ ) is a decreasing function of level of blight in the previous period.

Naturally  $Y_{t+1}$  is an increasing function of  $Y_t$  and the

obverse is the important point, viz., that a decrease in per capita income in one period decreases per capita income in the next period which in turn increases blight. The implications of Baumol's model are that once an exodus from the city begun, it may only end at a point when per capita income in the city is at a very low level and only the non-mobile and impoverished remain. While Baumol asserts that radical measures are necessary to cope with the problems of cities, (and recommends in a related area the banning of privately owned passenger cars from downtown streets to cope with the traffic problem)<sup>14</sup>, the policy implication of his model need not be radical. For in fact there are only two ways to deal with the vicious circle of decreases in income begetting further decreases, and both of these methods entail funds from a higher governmental level. Either the "decision-makers" can implement policies designed to lure back or hold onto middle and upper income families, or the income of below middle income families, can be raised. Since the former approach has been the one taken, we shall assume it in our model of laissez-faire urban renewal.

We have the following assumptions: urban renewal is given, and all changes are therefore with respect to time. There are two income classes, middle (and above) and low (and below). The goal of urban renewal is to increase property values and average sales per resident, implying as the instrumental goal, an increase in the number of middle - and above - income families in

the city. These goals are not necessarily the desiderata of all groups in the city - as we hope to show. We shall use the following symbols:

$h$  total number of dwelling units

$h_1$  low rent units

$h_2$  middle rent (and above) units

$f$  total families

$f_1$  number of low income families

$f_2$  number of middle income (and above) families

$S$  level of sales, in terms of average sales per resident

$r$  level of median rent for all units

$r_1$  level of median rent for low rent units

$r_2$  level of median rent for middle rent (and above) units

$v$  vacancy rate for all units

$v_1$  vacancy rate for low rent units

$v_2$  vacancy rate for middle (and above) rent units

In order for middle-income families to be attracted to a project, desirable housing must be provided. The location of the project is subject to two constraints: greatest accessibility to the downtown and least acquisition cost of land plus improvements. The choice of location therefore falls on a slum area proximate to the downtown. One of the chief characteristics of urban slums or blighted areas is their high density, both

in terms of individuals per dwelling unit and dwelling units per acre. The projects which replace slums will have fewer dwelling units per acre than did the slum. A high density on a portion of the renewal site will be offset by open space and parking lots, so that total density will be less than pre-renewal. In other words, the number of dwelling units in the city decreases as a result of renewal, although the number of middle-and-above rent units increases; we have:

$$h = f(t) \quad 1.0$$

that is, changes in number of dwelling units is a function of time, given urban renewal and:

$$\frac{dh}{dt} < 0, \quad \frac{dh_1}{dt} < 0, \quad \frac{dh_2}{dt} > 0 \quad 1.1$$

since

$$\left| \frac{dh_1}{dt} \right| > \left| \frac{dh_2}{dt} \right| \quad 1.2$$

Given the decrease in low-rent units, it seems fair to assume that low income individuals will not migrate to the city. On the other hand, rents in the city will still be less expensive than those in the suburbs, so one does not expect an out migration of low-income families. In sum, given urban renewal, the number of low-income families in the city will remain stable over time, i.e., more or less constant:

$$\frac{df_1}{dt} = 0 \quad 2.0$$

If in fact migrations of low-income individuals to the city continued in spite of urban renewal, i.e.,

$$\frac{df_1}{dt} > 0$$

our arguments regarding the welfare effects of urban renewal

would be enhanced.

Given 1.2 and 2.0, the goals of increased property values and sales by downtown merchants are dependent upon changes in the number of middle-and-above income families who reside in the city. We examine the realization (or not) of these goals in light of the three possible outcomes of urban renewal vis-à-vis changes in the middle-income component of the city, which can (a) increase, (b) remain constant, or (c) decrease; again, given urban renewal.

Changes in the level of median rents (which we use as a proxy for changes in property values) are dependent upon either  $f_2, h_1$ , or  $h_2$ . In particular:

$$r = G (f_2, h_1, h_2) \quad 3.0$$

That is, the level of median rents is dependent upon changes in all three of the non-constant determined variables:

$$r_1 = g_1 (h_1) \quad 3.1$$

Since

$$\frac{df_1}{dt} = 0 \quad (2.0)$$

and

$$r_2 = g_2 (h_2, f_2) \quad 3.2$$

Alternatively to 3.0,  $r$  might be considered a function of  $r_1$  and  $r_2$ , i.e.:

$$r = G (r_1, r_2)$$

By 2.0, changes in the level of sales is dependent only on  $f_2$ . (Even were  $\frac{df_1}{dt} > 0$ , any increase in average sales per individual would still be a function of  $f_2$  alone):

$$s = k(f_2) \quad 3.4$$

Vacancy rates are dependent upon changes in the number of dwelling units and number of families (bidding for these units):

$$v = G(f_2, h_1, h_2) \quad 3.5$$

We now illustrate the three possible outcomes, taking first the case where the number of middle-and above- income families increases:

$$\frac{df_2}{dt} > 0 \quad \text{hence } \frac{df}{dt} > 0 \quad 4A.0$$

$$\frac{dr_1}{dt} > 0 \quad (\text{by 1.1, 2.0}) \quad 4A.1$$

$$\frac{dr_2}{dt} = \frac{\partial r_2}{\partial h_2} \frac{dh_2}{dt} + \frac{\partial r_2}{\partial f_2} \frac{df_2}{dt} \quad 4A.2$$

$$\frac{\partial r_2}{\partial h_2} \frac{dh_2}{dt} < 0 \quad 4A.3$$

i.e., the increase in  $h_2$  tends to lower  $r_2$ ; on the other hand,

$$\frac{\partial r_2}{\partial f_2} \frac{df_2}{dt} > 0 \quad 4A.4$$

$\frac{\partial r_2}{\partial h_2} \frac{dh_2}{dt}$  relates to supply and  $\frac{\partial r_2}{\partial f_2} \frac{df_2}{dt}$  to demand. Since

supply in the case of urban renewal increases before demand does, and prospective middle-class in-migrants are not indifferent to the level of rents, it is reasonable to expect that in the short-run,

$$\frac{dr_2}{dt} \leq 0 \quad 4A.5$$

i.e. the post-renewal median rents for  $h_2$  is less or equal than the pre-renewal rent level for  $h_2$ . At the same time, the decrease in  $r_2$  (which may be 0) will not be as large as the increase in  $r_1$ . Hence:

$$\frac{dr}{dt} > 0 \quad \text{since} \quad \left| \frac{dr_1}{dt} \right| > \left| \frac{dr_2}{dt} \right| \quad 4A.6$$

The vacancy rate for  $h_1$  will be quite small (possibly negative) and  $v_2$  will also be low, though not as low as  $v_1$ . Therefore:

$$v \rightarrow 0 \quad 4A.7$$

since  $v$  (pre-renewal)  $> 0$

and  $\frac{dv_1}{dt}, \frac{dv_2}{dt} < 0$

Finally, average sales per resident increases, since  $\frac{df_2}{dt} > 0$ :

$$\frac{ds}{df_2} > 0 \quad 4A.8$$

The second possible outcome is that the number of middle-and-above income families remains constant:

$$\frac{df}{dt} = 0 \quad \text{since} \quad \frac{df_2}{dt} = 0 \quad 4B.0$$

Therefore,

$$\frac{\partial r_2}{\partial h_2} \frac{dh_2}{dt} < 0 \quad \text{and} \quad \frac{\partial r_2}{\partial f_2} \frac{df_2}{dt} = 0 \quad 4B.1$$

So  $\frac{dr_2}{dt} < 0$  4B.2

and  $\frac{dv_2}{dt} > 0$  4B.3

i.e. the vacancy rate for  $h_2$  is greater post-renewal than pre-renewal.

On the other hand,  $v_2$  and  $r_2$  do not significantly affect

$r_1$ ; i.e.,  $h_2$  are still priced above  $h_1$ . However, there is the possibility of increased filtering, a possibility which was absent in 4A. Therefore, although

$$\frac{dr_1}{dt} > 0 \quad \frac{dv_1}{dt} < 0 \quad 4B.4$$

still hold, the absolute increases or decreases in rent level and vacancy rates will be less than in 4A.

Similarly it still seems likely that

$$\frac{dr}{dt} > 0 \quad 4B.5$$

though again, less than in 4A.

Finally, average sales per person remain constant,

$$\frac{ds}{dt} = 0 \quad 4B.6$$

The third possible outcome is a net decrease in number of middle-and-above income families (which is the case in the absence of urban renewal) again, given urban renewal:

$$\frac{df}{dt} < 0 \quad \text{since} \quad \frac{df_2}{dt} < 0 \quad 4C.0$$

As with 4B.2, 4B.3,

$$\frac{dr_2}{dt} < 0 \quad \frac{dv_2}{dt} > 0 \quad 4C.1$$

though the changes are larger (absolutely) than in 4B. As a consequence, there is an increased likelihood of accelerated filtering, serving to minimize the rise in  $r_1$ . If  $-\frac{df_2}{dt}$  and  $\frac{dh_2}{dt}$  are large, there is the possibility that  $\frac{dr_1}{dt} \rightarrow 0$ .

In any case,

$$\frac{dr}{dt} < 0 \quad 4C.2$$

If rentiers of  $r_2$  choose to reduce rents significantly (and/or



convert downwardly) rather than face high vacancy rates, then these units become - in effect -  $h_1$ . Then both  $v_1$  and  $v_2$  will approach their pre-renewal levels. Finally,

$$\frac{ds}{dt} < 0 \qquad 4C.3$$

The implication of these three possible situations are rather interesting and straightforward and analogous to a statement of Grigsby's:

If middle and low-income families must depend on upper-income households for a supply of adequate housing rather than obtaining better homes directly through some form of subsidy, then either the mobility or the relative size of the latter group must increase. 15.

Now from the viewpoint of the "interests" of the city as we- and urban renewal - have defined them, 4A is the most desirable situation, 4B undesirable, and 4C the least desirable. However, from the perspective of low-income families, 4C clearly represents the case of accelerated filtering which will be translated into increases in the quality of units and decreases in the level of median rents. Therefore, the interests of low-income groups clearly run counter to the interests of the city; failure for the latter represent a boon to the former.

However, outcomes such as 4B or 4C would not be permitted to occur indefinitely. Either urban renewal will cease altogether, a different form of urban renewal (e.g. eliminating diseconomies) will be attempted, or measures will be taken to insure an outcome such as 4A. We now look at this last possibility, since the first two are not likely responses (yet) to "failure".

Urban renewal is not a mechanistic phenomenon. That is to say, there are a number of variables in the renewal process over which the city has a good deal of control. Given that the city desires to keep or entice middle income and above families, the chief controlled variable is that of neighborhood effects. The middle class has certain prejudices and desires, to which the city must cater. The city is able to choose the location of a project, and who will live in the area (post-renewal).

As we have seen, the city generally chooses a location close to the downtown which is presently inhabited by low-income families. Usually both of these factors determine location, neither alone is sufficient. Nothing is to be gained from the city's point of view by renewing an area far from the downtown (i.e., without a locational advantage) though inhabited by low-income families. Similarly, there is no reason to renew an area close to the downtown which is presently inhabited by middle and upper income families.

4A is the outcome to which the city aspires. Clearly, if a renewal area is deemed undesirable by the middle and upper income groups, 4B or 4C are the probable outcomes. The renewal area is presently occupied by low-income families. The city knows that if low income families are visible, middle and above income groups will not move in; i.e., the latter are prejudiced against the former. Whether there is total redevelopment or redevelopment plus rehabilitation, the effect is to raise property values and rents in the renewal area. This result ensures that only middle income groups can afford to live in the renewal area. Therefore,

what is desired (replacement of lower- by middle - income) is a consequence of renewal itself. Once an area is renewed the percentage of low-income families residing in the area approaches zero. This is ideally the case. However, if only a section of a low-income area is renewed or if the renewal area though sufficiently large is bordered by low-income areas, "success" may not be forthcoming. Whether success follows immediately or not there is a similar incentive for the city to undertake further renewal. If a project is successful, a losing proposition can only be averted by expanding the renewal area. In both instances, the desire and consequences of renewal are to reduce the numbers of low-income families in the renewal area, and to diminish the number of areas in the city which are inhabited by low-income families. The only limit on the renewal process would come with the complete saturation of areas inhabited by low-income families. When this saturation point is reached, further attempts to renew the city for middle-and-above-income families are impossible.

## II. An Economic Justification of Urban Renewal

In the previous section we discussed the consequences of laissez-faire urban renewal, which are logically entailed by the goals of raising property values and sales through the means of satisfying the real and conceivable prejudices of middle -and above- income families, whose residence in the city is seen as the necessary condition for achieving the goals of urban renewal. It was pointed out that all those who have been directly involved in urban renewal, whether for reform of profit, believed the middle income component to be the crucial factor in revivifying cities. Although the reformers have been critical of the consequences of renewal, since they have accepted the the major premise of the profit seekers, their criticisms have been neither convincing nor effectual.

There is an interesting parallel between the realm of practical affairs where the dominant business interest of the city provided the rationale for urban renewal which was in turn accepted by the reformers and the realm of academic cost-benefit theory. In this latter sphere we find that the conservative economists have given a conservative economic justification of urban renewal which has been both accepted and extended by more liberal economists. The so-called "prisoner's dilemma" model justifies urban renewal on the grounds that it can "internalize externalities" which is seen as "increasing the productivity of land." We shall now make a critical evaluation of these concepts.

The conservative economists to whom we have referred are

Davis and Whinston, whose views are presented in an article entitled "The Economics of Urban Renewal."<sup>16</sup> Their analysis is based on "the individualistic basis of Western Civilization" which vis-à-vis cost-benefit analysis and urban renewal means that if "the sum of benefits, measured by changes in capital values, exceeds the costs, then the action is termed desirable."<sup>17</sup> To determine when this individualistic spirit can be furthered, i.e., when capital values can be enhanced, they consider the prisoner's dilemma - which conveniently abstracts from the social setting, and seeks (nonetheless) to show how interdependencies lead to urban blight.

Since no one has suggested that lack of coordination among landlords in middle and upper income areas justifies urban renewal or leads to blight, the prisoner's dilemma model is applicable - if at all - only to low income areas. Briefly, the model contends that the total value of property in an area is related to the quality of each individual structure. However, the value of any individual property, A, can be enhanced if another property, B, is improved. Therefore the owner of A can receive a higher return if the owner of B improves its quality, while the owner of A does nothing, even though the combined return on A and B would be greater if they were both improved simultaneously. But since each individual is a "profit maximizer" he doesn't improve his property, hoping someone else will improve his. Hence, neither A nor B is improved and blight persists and gets worse. Therefore the government is justified in entering as a deus ex machina, buying up A and B and turning them over

to an entrepreneur, who will reap a higher profit than did the recalcitrant slumlords. In this way the individualistic spirit of Western Civilization - in terms of increased capital values - is furthered. One wonders whether Davis and Whinston would also apply their dilemma model to oligopolistic industries, whose output and pricing policies cause divergences between social and private benefits and costs. For example, automobile companies follow policies of forced obsolescence, price maintenance, and output restriction. At the same time, the output (automobiles) cause uncompensated social costs (pollution, deaths, congestion, and high insurance premiums). Would nationalization of the auto industry - or substitution of a single publicly supervised trust for the several oligopolists - and operating it in the public interest further the "individualistic spirit of Western Civilization?" One rather doubts that Davis and Whinston would advocate such a policy.

As for the problem at hand, we mentioned that Davis and Whinston abstract from the social setting. Blighted areas are inhabited by the least mobile members of society, by virtue of their low income or race. Therefore slumlords have no motivation to improve the quality of their buildings, since they are in a seller's market. It is doubtful that landlords could charge higher rents of present tenants even if improvements were made. In a seller's market like slum housing there is no reason to expect that price is related to quality. There is only one way that blighted areas can be put to "higher use" and this entails the replacement of present rentiers and other property owners by a large developer (chosen and

subsidized by the renewal authority) and replacement of present residents by those with higher incomes.

The policy implications of the "prisoner's dilemma model" as applied to the lack of co-ordination among slumlords is clearly an aberration of Scitovsky's justification of co-ordinated investment decisions to maximize "consumer's surplus" and minimize pecuniary externalities. In the latter, co-ordination leads to greater output with diminished price; the significance of this in our context is that not only are the same goods supplied, but their market price is reduced and more individuals are able to afford them. Were the implications of the lack of co-ordinated investments by slumlords consistent with Scitovsky's analysis, they would suggest how co-ordinated slumlord decisions (if possible) or the centralized decision of the renewal authority lead to enhanced quality (with no - or minimal - increase in rents) or to decreased rents for units in blighted areas, whether through rehabilitation or redevelopment. Needless to say, the prisoner's dilemma model, insofar as it justifies the form which urban renewal has hitherto taken, anticipates a change in the goods supplied (i.e., replacement of lower - by higher - priced units) and necessarily a decrease in the number of units which low income families can afford.

The extension of the dilemma model is implied in Rothenberg's concept of increased productivity of land. Rothenberg maintains that the large-scale assembly of land made possible by eminent domain creates internalized decision-making.<sup>18</sup> After adjustment for changes in locational advantages and tax

capitalization, the enhanced value of the land forming the redevelopment site due to this internalization of externalities represents the net benefits of the renewal project.<sup>19</sup> Although Rothenberg seeks to abstract the value of the land from the use to which it is actually put, it is obvious that land value is only relevant to an actual or potential use. Therefore, the enhanced value of land is relative to its most profitable potential use. The whole notion of increased productivity of land is operationally capable of being applied only to low-income and (especially) blighted or slum areas, and as such serves as a justification for urban renewal in its present form. The productivity of land in Beverly Hills, California could be increased by leveling all the structures and pumping for oil. But it is unlikely that such a productivity enhancing program would be advocated. And in general, the replacement of residences by industry (or highways) will always increase the productivity of land (even before the industry or highway is constructed). Yet industries manage to find locations not presently used for residences, though highways have a tendency to be located in low-income areas.

The essential tendentiousness of "increased productivity of land" is this: whenever there is a concentration of low-income families in an area with locational advantages, it is always possible to increase the value of the land through redevelopment or rehabilitation (and expelling the low income families). The land need not actually be redeveloped; its potential use for higher



income groups will in itself raise the productivity of the land in that particular area. This concept of increased productivity merely gives an objective patina to the belief that central city land is "too good" for low income families. The facts that blighted areas exist and that the value of land therein can be elevated are not consequences of the lack of co-ordination among slumlords; they are consequences of the lack of mobility (i.e., the race and low income) of those forced to live in slums.

### III. The Inefficiency of Slums

Since it is generally slums which are chosen for renewal, it is not surprising that renewal authorities and some cost-benefit analysts seek to ascribe certain social costs to slums as physical entities - costs which are ostensibly eliminated by urban renewal. This tendency has led Glazer to remark:

Planners have compared the costs of police, welfare, and other social services of an area to be leveled with the reduced costs after rebuilding, neglecting to take into account the fact that the costs are incurred not by neighborhoods or buildings but by people.<sup>20</sup>

Not only are such social costs merely shifted to a new location within the city, but they are often exacerbated in the process and new ones are created. If displaced individuals move into existing slums, the maintenance costs associated with these are likely to increase, while if they move into non-blighted low rent areas, these are likely to become slums. On the other hand, if displacees move into standard housing, new problems are created. Schorr cites a case where displacees procured better housing which forced them to decrease expenditures on food, resulting in a higher death rate than formerly.<sup>21</sup> In any case, there are the psychological problems of readjustment and possible scars of being treated as an object; possible loss of livelihood, and the removal costs. These costs will be considered in our cost-benefit schema:

The other extreme is the fatalistic view of Davis and Whinston: since the poor are always with us, and as they can't afford decent housing, slums may be efficient.<sup>22</sup> However, slums are somewhat more than substandard housing and other individuals

besides adult slum residents are affected by the social and environmental conditions of slums. It will be instructive to consider for whom and in what ways slums are inefficient, for slums mean different things to different groups. By slums we mean concentrations of immobile individuals - immobile by virtue of low income or dark pigmentation.

It has been argued that if one asserts that poverty and bigotry are the sufficient causes of slums, then it is inconsistent to also impute an inefficiency to slums. However, in the urban setting, given racial and economic segregation on the one hand, and poverty on the other, all that slums signify is the environment of these immobile individuals. Being poor or non-white means living in a blighted area. The elimination of the physical structures in a slum in no way decreases the sufficient cause of slums. The displaced are still poor or non-white and - in the absence of increased income - must move into environments which are or become similar to the pre-renewal slum. In saying that slums are inefficient, we are saying that poverty entails the concentration of the most vulnerable members of society. Were these individuals given employment with a decent wage or a "guaranteed minimum income" there would be no slums. Concentrations of non low-income families are not inefficient; nor are such concentrations slums.

The following list suggests in which ways slums are inefficient for different groups:

1. For slum dwellers:
  - a. ~~lack of economic opportunity~~  
lack of economic opportunity
  - b. high predisposition to social pathology (addiction, crime, etc.)
  - c. lack of economic or ethnic integration
  - d. exploitation by landlords and merchants<sup>23</sup>
  - e. substandard public services (health, education, recreation)
2. For the city as an economic and political unit:
  - a. above average expenditures for fire, police, and welfare
  - b. less than average property tax revenue
3. For society as a whole:
  - a. the expense of supporting a lumpenproletariat, i.e., the opportunity costs of un- and under-employed individuals
  - b. the external cost generated by poverty (prisons, mental hospitals, "bad image abroad," injury to National Guardsmen)
4. For downtown merchants:
  - a. if slums are close to the downtown, their cost is equivalent to the increased sales made possible by converting the area into residences for middle - and above - income families
5. For large developers:
  - a. ~~the elimination of slums through urban renewal makes possible~~  
the elimination of slums through urban renewal makes possible riskless profits

This list does not exhaust the groups for whom slums are inefficient, and nothing is said regarding those groups for whom slums are efficient, e.g., merchants, pushers, slumlords, and non-slum families which prefer racial and economic segregation. Our point is that slums are inefficient for different groups for dissimilar reasons. Moreover, for certain groups, slums are inefficient by virtue of their location alone. From the viewpoint of downtown merchants, it is inefficient for concentrations of low-income individuals to live close to the downtown. For these merchants, it is eminently desirable that laissez-faire urban renewal ensue and

that it be successful. It is in their interest that slums move from the downtown area, not that the causes of slums be dealt with. However, for slum dwellers and society as a whole it is slums per se which are inefficient, and not just their location. An important fallacy of urban renewal is that it acts as if the location of slums were the problem rather than the existence of slums, no matter where. By incorporating the objections to slums of certain groups (downtown merchants and large scale developers) and ignoring the etiology of slums and the magnitude of costs which they inflict on other groups (slum dwellers and society at large), it is not surprising that urban renewal not only creates new social costs, but also does not diminish the incidence of slums. Now supposing that our laissez-faire model of urban renewal is not accepted as corresponding to reality. It still must be demonstrated that a particular urban renewal project decreased the number of slum dwellers without causing a net decrease in their welfare and in that of other low-income individuals who are affected by the consequences of the project. In sum, the redevelopment of a slum in no way implies that the social costs associated with the poverty of its (pre-renewal) residents or with other low-income individuals in the city have in the aggregate been reduced.

#### IV. The Least-Cost Criterion in Urban Renewal

P. Steiner has set forth a proposition which justifies in certain circumstances - a short-cut approach to cost-benefit analysis:

Benefit measurement is hard, and time-consuming and should be undertaken only when required.<sup>24</sup>

If the benefit are fixed, then it is possible to base project selection on a least-cost criterion. In order for benefits to be fixed, the alternative projects must be perfect substitutes, producing and undifferentiable output. Projects which meet these conditions are generally of the public works variety: irrigation, electrification, flood control, and transportation facilities.

Where objectives are not equivalent to the direct services of a public activity, or there are a multiplicity of (possibly conflicting) objectives, or where the question of who loses and who gains is not incidental, under these circumstances, a least-cost criterion is not applicable. In short, while public works type projects are not ambiguous, urban renewal is. Urban renewal does not directly provide services in the way that a power plant produces electricity. It is inconceivable that electrification could impede economic development. However, there are innumerable variations in the kinds of projects which can be undertaken and instrumental goals which can be emphasized in renewal. Consequently, it is possible that projects can be selected which bear no relation to the long-run goal of renewal, i.e., revitalizing cities. Although certain groups benefit consistently by certain urban renewal policies, it does not follow that social welfare in the aggregate

is enhanced. Since it is precisely the immediate objectives of urban renewal which must be scrutinized, it would be inapposite to take these as givens.

A.H. Schaaf has recently attempted to judge urban renewal on the basis of alternative costs.<sup>25</sup> He has assumed that the ultimate goal of urban renewal is to bring all residential structures up to certain standards. These - the code compliance standard and the long term renewal standard - define the fixed benefits. Either one or the other of these standards is a given, and the alternative cost is considered in relation to rehabilitation and replacement. Whichever of these two methods achieves "the publicly stipulated renewal standard" more cheaply is preferred.<sup>26</sup>

Although Schaaf chides renewal officials against predicating renewal policies on the return of middle and upper income groups, one wonders what impetus there would be for establishing renewal standards without such an expectation. At the same time, Schaaf is rather reticent on the question of who is to benefit by compliance with the renewal standards. There will certainly be costs to low-income families, who will be faced with higher housing costs. Schaaf however concentrates on the costs to landlords, whose profit calculations determine whether they will renew or withdraw their property from the market. The costs which they face are diminished by public expenditures for environmental improvements and liberal financing. The residents of blighted areas do not enter into the decision matrix. If slumlords decide to comply with the standards, slum dwellers

can expect higher rents (which are often excessive in any case) or eviction; if they do not comply, slumdweller are certain of displacement, since the property will either be withdrawn from the market or redevelopment will ensue. While Schaa f points out that "someone" must bear the costs of urban renewal, he is as unclear about who that "someone" is as he is about who benefits. In fact, his whole analysis is not concerned with either the benefits or costs of urban renewal; he merely wishes to point out that it sometimes costs less to rehabilitate a structure than to demolish it and construct a new one.<sup>27</sup> Certainly costs of this sort should be minimized, just as the renewal authority should use competitive bidding and abstain from graft. But there are many other costs in urban renewal - costs which do not involve a cash flow and may be nevertheless more significant than the construction costs. It is fallacious to consider that only costs which involve a cash flow are real costs, just as it is misleading to assume that the benefits of urban renewal are fixed. (We hope to avoid both these mistaken views in the cost-benefit analysis scheme which is presented in the final chapter.)



## V. An Either-Or View of Urban Renewal

Implied in much of this chapter is an either-or view of urban renewal. Urban renewal monies can either be used to induce middle and above income families to move into the city and increase the level of rents, and ~~disables~~ and possibly the tax base; or urban renewal monies can be used to eliminate social and physical diseconomies and their causes and raise the level of municipal services. The former approach, though short-sighted - is understandable: the city once had many more middle and upper income families than it now possesses. The decline of the city proceeded pari passu with the outmigration of these affluent groups. In order for the city to rise again, these groups must be induced to return to the city.

Whether or not such a shift is desirable in the first place, suburbanites and exurbanites are not going to move to the city so long as substantial diseconomies are to be found there. Although the slum elimination cum project approach has been justified by certain analysts on the grounds that unco-ordinated decisions of landlords in blighted areas are inefficient, the mere co-ordination of decisions or substitution of centralized decision making do not ipso facto come to terms with the crucial objections to atomistic decision making. Pigou justified municipal planning on the grounds that it was "idle to expect a well-planned town to result from the independent activities of isolated speculators."<sup>28</sup> The question remains as to what municipal planning ought to accomplish; how does co-ordinated decision making lead to more desirable outcomes than does isolated speculation? So long

as planning satisfies social wants it automatically increases social welfare. The collective wants which Picou felt a municipal authority ought to satisfy were those "of beauty, of air, and of light."<sup>29</sup> Few would deny that these collective wants, to which can be added such physical diseconomies as noise, congestion, lack of open space and pedestrian mobility, are far from being satisfied in American cities. Ironically, urban renewal has had almost no positive effect on either satisfying these social wants or eliminating the related diseconomies. In fact, urban renewal has itself been a form of speculation. A small area of the city is dramatically changed, while the rest of the city - aside from new slums created by the project displaces - remains unaltered. Renewal authorities apparently hope that prospective in-migrants will base their decisions to move back on the amenities in the one rebuilt area. But this is wishful thinking. For the overall undesirable aspects of city living have in no way been improved. In fact, the return of more affluent individuals <sup>means</sup> more private automobiles and hence more congestion and air pollution. In sum, there is no reason for affluent individuals to return to cities in their present condition; should these individuals return, the basic problems of urban America will not be resolved. These basic problems are both physical and social (poverty) and any resuscitation of American cities will only be a consequence of eliminating these root problems.

CHAPTER THREE  
A COST-BENEFIT SCHEMA

## I. THE RELEVANT POPULATION

Johansen has pointed out that where municipalities have "complete freedom" to determine tax rates, there will be considerable variations in the taxation level from one municipality to another.<sup>1</sup> Capital, labor, and residents are attracted to municipalities with lower tax levels. In the USA it is the suburbs which have been able to attract industry and residents through low tax rates while central cities have had to increase their tax rates merely to keep the level of services at a minimum. Consequently, the inequalities in the level of per capita income between cities and suburbs have increased. There are other pertinent factors. Certain political decisions have contributed to suburbanization, chiefly large-scale subsidised insured mortgages for single-family homes following WW II and enormous expenditures for metropolitan highways (rather than mass transit). There are however important reasons for suburbanization aside from responses to federal allocations and tax rate differentials. For residents, the diseconomies associated with urban life in the USA seem most significant. The decentralization of industries has been abetted by a decentralized labor force as well as by many of the same factors which induced the outmigration of individuals. Industries have been able to minimize certain fixed costs (e.g. land cost) as well as variable ones, property tax payments (if expansion is anticipated) and transportation time by decentralizing. Differential tax rates have influenced all outmigration decisions, but other

equally important phenomena have also affected the locational decisions of firms and households.

Urban renewal is mainly financed at the national level, indicating that the problems confronting cities are national in scope. It is assumed that cities are worth preserving in their traditional form. More precisely, it is not the case that urban renewal envisages either cities becoming one-class or one-race enclaves or metropolitan areas becoming ribbons of highway connecting various other activities, as in LA. (One critic of urban renewal, Scott Greer, disagrees with both these assumptions.<sup>2</sup>) Insofar as urban renewal represents an intergovernmental transfer, it is taking cognizance of the inability of cities to compete with suburbs in attracting industries and residents and of the concomitant factors, viz., higher tax rates and low levels of services for cities vis-a-vis suburbs. Were urban renewal funds utilized for improving the level of city services or eliminating diseconomies, societal benefits would be equivalent to the increased level of satisfied social wants. However, when urban renewal funds are used to influence the locational decisions of firms and households, it is conceivable that no net societal benefits will be forthcoming - even if existing diseconomies are not exacerbated.

Arrow has suggested that:

All benefits are, in the last analysis, benefits to individuals whom we may think of as consumers, but the relation may be indirect, through facilitating the production of goods desired by consumers. 3.

Suppose that an industry is induced to move to a city through a write-down made possible by urban renewal. It may be that from the perspective of the whole society it would have been better had the industry actually remained outside the city. If its employees are suburbanites, they must spend more time commuting in the city, or, the firm itself may be a monopoly. Looked at another way, suppose the firm would have located somewhere else in the absence of the write-down. Therefore, the use of the write-down in no way increased potential benefit accruing to society as the result of the firm's operations. The write-down only reduced the initial capital investment of the firm. At the same time, the monies involved in the write-down could have been used for some other purpose, one whose coming to fruition was dependent upon public expenditures (e.g., low-rent housing or improved education or a park).

The principal objection to the use of urban renewal funds for influencing locational decisions is that it represents an unwarranted subsidization of certain groups. Unwarranted, because social benefits are not increased by using public funds to make one locational decision more expensive than another, when the opposite decision would have been the case in the absence of such subsidies. It may have been undesirable for the Federal government to have subsidized suburbanization for a decade, but to subsidize de-suburbanization without increasing the overall quality of urban life does not rectify the original policy.

Making suburbs worse off in order to (possibly) make cities better off in the short run (i.e., by attracting middle income suburbanites through subsidized housing) is a self-defeating policy. As regards cost-benefit analysis the determination of whether urban renewal has merely altered locations of households or firms necessitates an examination of the objectives and consequences of the project under examination.

## II. THE CATEGORIES OF COST-BENEFIT ANALYSIS

Our approach to cost-benefit measurement has two distinctive characteristics. We attempt (1) to take into account all social costs and benefits which accrue to different income groups and (2) to add an adjustment coefficient to costs and benefits which accrue to different income groups. For the reasons discussed in the two previous chapters, we assume that benefits and costs do not have an equal weight for individuals of different income levels. It is undesirable if a project furthers inequality, while projects which serve to equalize income are ceteris paribus desirable.<sup>4</sup> The multiplicity of objectives in urban renewal suggests that the city has a rather wide latitude in choosing which objectives best contribute to increasing the welfare of its residents. It is not the case that slum elimination or provision of merit goods (via subsidization) to middle-and-above income families are mandatory. If projects which seek these instrumental ends are chosen, the choice has been voluntarily made by the city. The goals enumerated by the Report of the Special Commission on Low-Income Housing of the Commonwealth of Massachusetts are certainly not inconsistent with tenable urban renewal projects. They include<sup>5</sup>:

1. the creation of sound, stable, and viable communities.
2. the provision of maximum freedom of choice
3. the development of balanced neighborhoods of diverse social, economic, and ethnic groups.

The city or urban renewal agency does not solely clear land



and sell it to the highest bidder, i.e., the public is not indifferent to the kind of project which is undertaken. This follows from the fact that urban renewal is a public undertaking with a public purpose. Land and subsidies are allocated to developers so as to achieve the public purpose. A Land Disposition between the Boston Redevelopment Authority and a private developer states:

The Redeveloper will devote the property to the uses specified in the controls and the plan and will comply with the requirements thereby specified and will not use the property or any part thereof or devote the same to any use other than the said permitted uses. 6.

A cost-benefit analysis of urban renewal must evaluate the sum of benefits from - and consequent to - the kind of project which is actually undertaken. To speak of increased value or land apart from the use to which the land is put tells one very little either about the goals - or efficacy - of urban renewal. Diverse kinds of renewal projects are conceivable satisfying social and/or merit wants and being undertaken and operated by entrepreneurs or governments. All projects should be evaluated in the same manner irrespective of their type of proprietorship.

We shall now discuss costs and benefits of urban renewal formally and partially, saving for later sections the substantive and general aspects of cost-benefit measurement. The formal discussion of costs and benefits considers the various categories under which the costs and benefits are to be subsumed, without investigating the specific costs and benefits which ensue in urban renewal. This initial discussion is partial in

the sense that certain aspects of cost-benefit analysis are excluded. These excluded components include (1) social opportunity costs, (2) social time preference and (3) effects on municipal tax base and level of services, and an analysis of whether the renewal project has merely altered locational decisions (in which case the partial view of benefits will overstate the actual contribution of the project to social welfare). Needless to say, an adequate analysis of urban renewal entails a general cost-benefit model. However, the general consequences of urban renewal can be appraised with greater precision after the partial analysis is completed.

While it is true that all benefits are social benefits, a distinction has been made between those benefits which are actually appropriated, and those which are not.<sup>7</sup> Those benefits which are appropriated have been called private benefits if the goods or services were provided by an entrepreneur. This private provision may or may not be the case in urban renewal. It is less ambiguous therefore to consider them as appropriated benefits, whether appropriated by a firm or a government (say, in operating a municipal garage). Of the benefits which follow from the provision of a good or service but are external in the sense that the provider of the good or service either can not or does not appropriate them, i.e., charge for the enjoyment, there are two types. One we have already discussed, i.e., technological externalities. The second external benefit represents the non-appropriated benefits enjoyed by the

direct consumers of the project. Before giving a brief description of this second type of external benefit, which we call Consumers' Benefits, it will be instructive to give a brief account of the concept of consumer's surplus. We do not use this concept because of certain conceptual problems. However, once these problems are overcome (which we have not been able to do) it will be of great importance in cost-benefit analysis. In any case, our concepts of Consumer's Benefits and Price Effect Benefits (to be discussed) have been inspired by the concept of consumer's surplus.

The concept of consumer's surplus has been used in theoretical cost-benefit analysis, but does not seem to have actually been applied to compute benefits.<sup>8</sup> The theory underlying consumer's surplus is that whenever a demand curve is downward sloping, and the marginal utility of money is constant<sup>9</sup>, a decrease in price and increase in quantity supplied for a good which is already being consumed provides the consumer with a surplus of enjoyment. Since the good was being consumed at the higher price some individuals were willing to pay for it at that price so they save with a reduction in price and are able to consume more at the lower price. So long as the quantity supplied is greater than zero and there is no price discrimination, there is always a consumer's surplus, since willingness to pay is given by the total area under the demand curve between zero and the quantity supplied, and this area is greater than the area given by price actually paid x quantity supplied.

The concept of consumers' surplus in this form hinges on the notion of willingness to pay which obviously depends on the given distribution of income. At the same time, the actual willingness to pay is an empirical question, even more difficult to determine than the demand curve itself! Most problematic of all is the underlying premise, that demand curves can simply be added without any adjustments for the fact that "demand" is proportional to income. As has been mentioned, once a method for adjusting the sum of individual demand curves is arrived at (which approximates "one man, one vote"), the concept should become operational.

Our concept of Consumers' Benefits is derived neither from willingness to pay nor from demand curves. It rests on the assumption that a renewal project will often provide services to its direct consumers (e.g., tenants in a housing project) which are of a higher quality than are similar services outside the project in the same price range. What we are interested in calculating is the difference between the price consumers pay for the services of the project and the price which a comparable service (or good) fetches in the private market. Alternatively, we are interested in calculating the different between the quality of services offered to consumers of the projects and the quality of services which are similar (though not necessarily comparable, i.e., of equal quality) and in the same price range. In either case,

the price or quality comparison is made after the project is completed, taking into account post-renewal prices of similar non-project services. The reason for considering post- rather than pre-renewal prices for similar services is due to the fact that the project itself may serve to alter the prices of similar non-project services. The effect of the project on the supply of similar services is (one kind of) what we term Price Effect Benefits (or Costs) and this is the last kind of benefit which we consider. (The calculation of Consumers' Benefits will be discussed more fully below.)

When the project is itself an input for other goods or services, and no appropriation is exacted, we have External (technological) Benefits. When the project changes the supply of other goods or services, we have Price Effect Benefits (and Costs). For example, the project may increase the supply of middle rent housing and decrease the supply of low rent housing. Hence, tenants in middle rent housing pay less than they did formerly for housing of the same quality, while landlords of low rent housing charge higher rents than they did pre-renewal for housing of the same (low) quality. Therefore, both middle rent tenants and low rent landlords receive Price Effect Benefits.

We have then three classes of benefits: those which are actually appropriated by the provider of the service or good; those which are not appropriated (including External Benefits and Consumers' Benefits); and those which are consequences of changes

in the supply of goods or services, i.e., Price Effect Benefits.

For benefits, we use the following notation:  $B$  are the total social benefits;  $B_a$  are the benefits which are appropriated;  $B_e$  are the External Economies;  $B_c$  are the Consumers' Benefits; and  $B_p$  are the Price Effect Benefits. So we have:

$$B = B_a + B_e + B_c + B_p$$

Since costs are the obverse of benefits, we have a similar scheme for them. The counterpart of appropriated benefits are compensated costs, by which one generally means remuneration for factors of production (land, labor, and capital). As we have seen in our discussion of social discount rates and social opportunity costs, it may be necessary to impute a cost to labor ("shadow wage rate") and to choose a discount rate which diverges from the actual market rate of interest. However, this will depend on the nature of the project and the goals behind its implementation. The counterpart of  $B_e$  are External Diseconomies, though there need not be a one-to-one correlation. That is, there can be  $B_e$  without  $C_e$ , and in general, the presence of one as a result of a renewal project does not entail the presence of the other. On the other hand, whenever there are  $B_p$ , there are always Price Effect Costs. In the illustration we gave for  $B_p$ , there will be Price Effect Costs for landlords of middle rent housing and for tenants of low rent housing. More generally, if the project reduces the supply of certain goods or services or confers a locational advantage on certain activities, some entrepreneurs, rentiers,

and consumers are made better off, while some are made worse off. Price Effect Costs can also occur when there are  $B_e$  for renters in the area adjoining the project. In this case Price Effects Costs will represent the moving and adjustment costs for tenants who are forced to move from the adjoining area because they are unable to afford the increased rentals entailed by the  $B_e$  increasing the value of land in these areas. The final cost we consider is what Pearce and Sturmev have termed "exploitation", i.e. the undercompensation of compensated costs.<sup>11</sup> While they had in mind the exploitation of workers in the absence of organization, urban renewal provides other examples of potential under compensation, some of which have figured prominently in criticisms of the operations of urban renewal. Undercompensation of compensated costs is a measure of the difference between what individuals who are displaced by renewal receive from the Renewal Agency and the actual costs which they incur. These actual costs include moving costs and such readjustment costs as psychological problems, loss of employment or income, rises in rents which are not accounted for by the general rise in rents, i.e.,  $C_p$ , and similar readjustment costs, which will be discussed more fully below.

The symbols for social costs are as follows:  $C$  are the total social costs;  $C_a$  are the compensated costs;  $C_e$  are the External Diseconomies;  $C_p$  are the Price Effect Costs; and  $C_u$  are the

undercompensation of compensated costs. The total social cost equation is given by:

$$C = C_a + C_e + C_p + C_u$$

B-C does not represent the net benefits of an urban renewal project. Some social discount rate must be chosen to make comparable benefits and costs which accrue at different points in time. Similarly, the benefits foregone in choosing one project rather than another and (where applicable) divergences between social costs and market prices, i.e., social opportunity costs, must also be calculated. We leave the consideration of opportunity costs and discount rates vis-à-vis urban renewal to a later section, since they are intimately related to the kind of project which is actually undertaken- its objectives and inputs. There is one adjustment that must be made irrespective of the kind of project which is actually undertaken and this is for the distribution of costs and benefits to income groups; The adjustment for compensated costs,  $C_a$ , is not based on the income group of gainers or losers as with the other types of benefits and costs. For  $C_a$ , the type of adjustment needed relates to opportunity costs, i.e., whether  $C_a$ , ought to be inflated or deflated. We have already discussed the political (or ideological) context of "consumer voting" and related concepts given an unequal distribution of income. We have also stressed that poverty itself produces diseconomies and any projects which make the rich richer and the poor poorer exacerbate diseconomies. Most observers agree that the problems



of cities (of inadequate housing<sup>12</sup>, of physical and social pathologies, of high containment costs) are all directly or indirectly related to poverty. The elimination of poverty would obviously obviate the form which urban renewal has hitherto taken, and would enable cities to tackle their other crucial problems, i.e., those of physical diseconomies. In sum, it makes no sense to talk of renewing cities if physical and social diseconomies are ignored or exacerbated.  $B_e$  and  $C_e$  can be theoretically calculated like other components of B and C. However the social diseconomies associated with poverty and the unequal distribution of income are exacerbated or meliorated in relation to all components of B and C. Therefore, multipliers (or coefficients) must be attached to all the components of B and C (except  $C_a$ ), according to the income level of individuals who bear costs or receive benefits.<sup>13</sup>

We first look at adjusted B and adjusted C in a general way, i.e., without specifying the coefficients or number of income groups, since the coefficients we choose are merely suggestive. The formula for adjusted net benefits is:

$$\sum_{i=1}^n x_i B_i - \sum_{i=1}^n x_i C_{ei} + x_i C_{pi} + x_i C_{ui} + C_{ai} = \text{adjusted net benefits}$$

Where i represents income groups and  $x_i$  is a variable coefficient

whose value is determined by i. For gross B:

$$\sum_{i=1}^n x_i B_i = \sum_{i=1}^n x_i B_{ai} + x_i B_{ei} + x_i B_{pi} + x_i B_{ci}$$

And for C:

$$\sum_{i=1}^n x_i C_i = \sum_{i=1}^n x_i C_{ei} + x_i C_{pi} + x_i C_{ui} + C_{ai}$$

If one desired a specificity of five income groups,

$i = 1, 2, 3, 4, 5$  where one is the lowest income group and five, the highest, there would be five values of  $x_i$ ; (say)  $a, b, c, d, e$  where the values of  $x_i$  correspond to the values of  $i$  in the same position. The values of  $x_i$  are inversely proportional to the income of the group to which they relate. Hence:

$i$	$X_i$
1	a
2	b
3	c
4	d
5	e

Where  $a > b > c > d > e$

and income of group  $1 < 2 < 3 < 4 < 5$

It seems advantageous to take the value of  $x_3$  corresponding to the median income group as unity, i.e., equal to 1. Given inequality, we are more indifferent to costs and benefits accruing to individuals in the median income group than we are to gains or losses to lower or higher income groups.

If  $B_e$  or  $C_e$  accrue indiscriminately, i.e., independently of the income of recipients, we first determine whether they accrue only to residents of the city or both to residents of the city and to those of the metropolitan area. If only to residents of the city, then coefficients and the relative magnitudes of the  $B_e$  and  $C_p$  should be proportional to each income group as a percentage of the total population of the city. For example, if  $B_e$  amounts to \$50,000 for one year and if income group 1 comprises 35% of the total population of the city, then  $.35 \times \$50,000 \times$  the appropriate coefficient accrues to members of income group 1. If  $B_e$  or  $C_e$  accrue to both residents

of the city and to residents of the metropolitan area, then we determine the respective percentages accruing to city and non-city residents, and they follow the same procedure. For example, if 75% of the \$50,000 accrue to members of the city, then the  $B_e$  to income group 1 are  $.35 \times .75 \times \$50,000 \times$  the appropriate coefficient +  $.15$  (the percentage of group 1 of the non-city metropolitan population)  $\times .25 \times \$50,000 \times$  the appropriate coefficient (which is the same as for Group 1 in the city).

We offer the following chart as a plausible breakdown of income groups. The figures in the first column represent the poverty level for families of different sizes and age compositions. The figures in the first column are taken directly from M. Orshanksy of the U.S. Dept. of H.E.W.<sup>14</sup> As the base family size we use the family of four. A family of four with an income less than \$4000 per year is in income group 1; with less than \$6000, in group 2; with less than \$7500 in group 3; with less than \$15000, group 4; and with more than \$15,000, group 5. To determine what income group a family above the poverty level with more or less than four members should be placed in, we have simply used the income ratios for families of four: thus the upper income limit for a family of three to be considered as members of income group 2 is

$$2 \text{ is } \frac{6000}{4000} = \frac{3}{2} \times 3160 = 4740$$

and for a family of two (over 65) to be considered members

of group three its income must be greater than

$$\frac{3}{2} \times 2460 = 3690$$

and less than

$$\frac{7500}{6000} = 1.25 \times 3690 = 4613.$$

The multipliers (or what might be called the coefficients of deprivation) which weight costs and benefits to individuals in different income groups are multiples of the unity coefficient for income group 3 (for a family of four, more than \$6000 per year and less than \$7500). They appear at the bottom of the chart.

COEFFICIENTS WHICH ADJUST COSTS AND BENEFITS TO DIFFERENT INCOME GROUPS

Number in Family	Age of Head (if relevant)	Yearly Income for Group i, i=1,2,3,4,5				
		1 less than	2 less than	3 less than	4 less than	5 greater or equal to
11	under 65	1885	2828	3531	7062	7062
1	over 65	1745	2618	3273	6546	6546
2	under 65	2715	4073	5091	10182	10182
2	over 65	2460	3690	4613	9226	9226
3		3160	4740	5925	11850	11850
4		4000	6000	7500	15000	15000
5		4675	7013	8766	17532	17532
6		5250	7875	9844	19688	19688
7 or more		6395	9593	11991	22182	22182
Coefficient (x <sub>i</sub> ) Associated with Costs and Benefits to Income Group i		2.0	1.5	1.0	.75	.5

III. APPROPRIATED BENEFITS  $B_a$ 

The distinctive characteristic of  $B_a$  is that a cash flow is always involved and for this reason  $B_a$  has often been considered private benefits, since the value of the good produced or service rendered is appropriated. However, since the good or service can be provided publicly as well as privately, the important point is that consumers pay something and benefits are therefore appropriated by an entrepreneur - public or private.

Consider three types of renewal projects or elements of a renewal project: housing, retail stores, and a community center. For each element we distinguish between entrepreneur and consumers and hence between profits on the one hand and rents, sales, and fees (prices) on the other. Taking housing first, to make our point we introduce two unrealistic assumptions: the discount rate is zero and benefits are yielded at a constant rate of \$100,000 per year for forty years:<sup>15</sup>

$$B_a \text{ Benefits} = y \int_0^{40} e^{-rt} dt$$

$$\text{since } r = 0$$

$$= y \int_0^{40} dt$$

$$= 40y$$

$$\text{since } y = 100,000$$

$$= 4,000,000$$

$B_a$  after 40 years is \$4,000,000. Now assuming a 20% return on rents (after taxes), \$800,000 has accrued to the rentier and \$3,200,000 to the tenants. Assuming that the rentier is

in income group 4 and the tenants in income group 3, adjusted  $B_a$  is  $(.75)\$800,000 + (1)\$3,200,000$ .  $B_a$  can be figured in a similar way for the retail stores and the community center. There are complications if the retail stores have monopoly privileges, in which case  $B_a$  will be excessive, and  $C_p$  must take account of this. Since we assume the community center to be publicly operated, the coefficient for profits will be 1 while the coefficient for price minus profit will depend on the income of the group utilizing the facility.

IV. EXTERNAL ECONOMIES  $B_e$ 

With external economies, we enter into the realm of benefits which have traditionally been disregarded, since no cash flow is involved. These are the benefits for which no payment can be - or is - exacted. Elements of projects or single projects which satisfy social or merit wants can yield  $B_e$ .

Suppose the community center has a nursery school and it is built in a low-income area. If the staff and facilities of the nursery school are of a high caliber, the children may be so inspired that they no longer take their present environment as a given. If the nursery school contributes to breaking the cycle of poverty, not only the children and their parents gain, but the society also gains, and this societal  $B_e$  can be calculated. We determine what the probability would be of the children of individuals with a certain income or race to have a poverty line income. We also determine the probability of the children acquiring social pathologies again given their social situation. In general the procedure for calculating  $B_e$  associated with merit goods entails an investigation of the needs the merit goods satisfy and costs to society in the absence of such merit goods. For example, Aid to Dependent Children and orphanages might be associated with the absence of birth control clinics. Similarly, welfare payments (and social workers' salaries) are associated with inadequate opportunities. As was pointed out in Chapter I, Section (6)



the fact that merit wants are satisfied means benefits accrue to groups which are not direct consumers of the merit goods. It remains with the analyst to determine what  $B_e$  is associated with a particular merit good and the general way to look at this is to determine the costs to society in the absence of certain merit goods of given quality. For example, the provision of public housing (of the sort Jane Jacobs and others criticize) will decrease expenditures for fire and physical health. However, public housing of a high quality or publicly provided housing with opportunities for individuals to form a cooperative (i.e. become owners) will often serve to foster autonomy, thus decreasing public expenditures for welfare, mental health, police and national guard. As a final example, suppose that retail cooperatives are elements in an urban renewal project in a low-income area. The benefits would include  $B_g$  (all of which are appropriated by the consumer-operators), they would include the reduction in price occasioned by the elimination of (exploitation by) slum merchants, and the benefits associated with fostering autonomy and cooperation among hitherto apathetic and vulnerable poor. This latter possibility indicates that the severing of dependency relations can have an important role to play in reducing anomie, and breaking the perpetuation of poverty, with the presence of which are associated social costs with price tags (mental illness, police, national guard, dope addiction, etc.)

In urban renewal  $B_e$  will often be occasioned by an amenity

or social good, one which yields benefits indiscriminately. If parks, recreational areas, or other forms of open space (e.g. pedestrian ways) are provided in conjunction with a renewal project, several groups benefit: those who utilize the space, those who gaze and those who reside or own property in the vicinity of the amenity. Amenities such as parks are the classical forms of technological spillovers and Pigou has remarked:

Uncompensated services are rendered when resources are invested in public parks in cities; for these, even though the public is not admitted to them, improve the air of the neighborhood. 16.

That parks have been provided privately is quite useful for the cost-benefit analyst. As Chinitz and Tiebout have indicated, the estimation of  $B_e$  is rendered more tractable if there exist "alternative private equivalents" for the good or service in question.<sup>17</sup> An operational calculation of  $B_e$  with respect to parks for at least those in contiguous areas can be made by investigating what individuals who own parks in cities pay for this privilege. The Gramercy Park in New York City is privately and co-operatively owned and the magnitude of its financing could be used as a benchmark for determining the values of parks to those who utilize them. If rents and property values rise in the surrounding area and if structural improvements are made, a certain percentage of this change in values can be attributed to the amenity (park in this case) provided. As for the gazers and occasional utilizers a value can be imputed to the enjoyment they receive in various ways,

e.g., by choosing some multiplier of the time (in money terms) they spend and transportation costs they incur, in deriving satisfaction from the amenity. If the park actually increases the quality of the air in the surrounding area a value can be imputed by determining what the cost would have been - in the absence of the park - to obtain a similar pollution abatement.

"Pollution abatement" leads us to another aspect of  $B_e$ , viz., the reduction or elimination of diseconomies. Certain diseconomies can be eliminated by regulation and entail no expenditure of public funds. That cities have not chosen to enforce existing codes or establish necessary regulatory devices to control diseconomy production is chiefly related to the distribution of political power, i.e., the causers of diseconomies have disproportionate political influence. We have in mind diseconomies which are caused by easily identifiable economic units, e.g. public utilities and slumlords. Since the diseconomies associated with such units are tolerated by governments, economists have often suggested that these units should be subsidized. This proposal has been disposed of by Pearce and Sturmev:

In the discussions of market solutions to externality situations, the proponents of the bargaining solution speak of the third party "compensating" the creator of the disservice for not creating further costs. This usage is an odd one. Presumably we cannot speak of compensating someone for not creating further trouble any more than we could speak of compensating murderers for not committing a second or third crime. 18.

There are other diseconomies whose elimination necessarily entails more than regulation. Cars cannot simply be banned from city centers without an alternative means of transport and facilities for the storage of autos at the periphery of the center. There are other possibilities, e.g. separation of pedestrian and vehicular traffic, and mandatory night truck deliveries. By whatever means accomplished, a drastic reduction in downtown traffic would have the following effects: diminished air pollution, noise, urban automobile insurance rates, accidents, injuries, deaths; possibility of using streets for other purposes (e.g. parks, stores, arcades), increased pedestrian mobility, improved health, increased life expectation, increased sales, increased social interaction, and the preconditions for a beautiful urban environment. In other words, a radical transformation in transportation modes would yield extensive  $B_e$ . These  $B_e$  could all be theoretically imputed a value, but we leave this to the time when the banning of vehicular traffic is a possible policy.

As we have mentioned, the diminution of diseconomies associated with slums depends upon the kind of project which is undertaken. If the residents of an eliminated slum are all provided with standard housing (which remains standard), municipal expenditures for fire protection will decrease (assuming a greater than average fire rate in the slum). However, even if these conditions are met, the income level of the displacees has been decreased, and one can say little a priori about changes in overall expenditures for police, welfare, or health.

As for the "collective problem of beauty", the use of the city for the purposes of selling goods or what Galbraith terms "the meritriciousness associated with the popular trend to economic need" - can to a large extent be reduced through aesthetic standards, i.e. regulation. This applies to such things as flashing neon signs, billboards, and other demand stimulating excesses. It is interesting to note that hanging signs - to say nothing of flashing ones - are forbidden in the posh areas of New York City - along Fifth and Park Avenues. If social control of environment is not only countenanced but demanded by the "classes", this same control should be the prerogative of the "masses". If a renewal project must conform to aesthetic standards, there is the implication that the project delights and educates onlookers. Similarly, if the project is innovative in design or construction it provides a rationale for similar endeavors, which did not appear - in the absence of the project - to be feasible. In this latter case, the project does not merely yield ~~Price Effect Benefits and Costs~~, since it has made a contribution to knowledge. Therefore a certain percentage of the benefits of future similar structures can be counted as the  $B_e$  of the original project. As for the aesthetic considerations per se, an estimation of  $B_e$  can be made analogously to those imputed to parks for casual users and observers. Or the aesthetic criterion committee can examine structures for which an admission is charged for sightseers (e.g. castles) and compare the archi-

tectural merits of the project with those of buildings which exact an admission charge. If the project is .1 as beautiful as (say) the castle, the number of individuals who view the former can be multiplied by .1 times the admission charge of the latter and an imputed value of  $B_e$  can be arrived at.

Lastly we consider  $B_e$  in areas surrounding the renewal project. If amenities are provided (e.g. parks or new schools), then the changes in property values in the contiguous areas are a fair measure of  $B_e$ . Even if no amenities are provided in the project, rents and property values may still rise in the adjacent areas. If this increase is not due solely to a locational advantage,  $B_e$  are equivalent to the present value of enhanced rentals. When rents rise due to  $B_e$  and not to  $B_p$ , the coefficient which weights the  $B_e$  associated with the enhanced capital values should be the adjustment factor of the average of incomes of property owners and tenants, since both of these gain when rent rises are a consequence of  $B_e$ . Alternatively, we might impute half the rise in rents to property owners and half to tenants, and then multiply  $B_e$  by the appropriate coefficient.

## V. PRICE EFFECT BENEFITS $B_p$

The following ends of  $B_p$  are possible in urban renewal:

1. With respect to changes in rents and property values if the supply of one price range of housing is reduced and the supply of a second price range of housing is increased, landlords in the former and tenants in the latter will receive  $B_p$ . Since for every  $B_p$  there is a  $C_p$  we cannot determine a priori whether  $B_p - C_p$  is positive. It seems intuitively clear that if those receiving  $B_p$  have a lower income than those receiving  $C_p$  and hence a higher coefficient that ceteris paribus,  $B_p$  will exceed  $C_p$ . The "other things being equal" relates to changes in the stock of housing. And again it seems intuitively to be the case that if the supply of housing is increased then  $B_p$  of tenants will exceed  $C_p$  of landlords. The circumstances under which  $B_p$  do in fact exceed  $C_p$  will be examined analytically in a later section.
2. If retail stores were demolished, sales in other retail stores would increase:
  - a. if the retail stores eliminated served a wider range of consumers than those who were displaced, then sales increase in the area surrounding the renewal site. Also, since competition is reduced, prices may be raised and sales increase further.
  - b. if the project area is sufficiently large, new retail stores will be constructed. To attract the new stores, the renewal authority will often eliminate all potentially competitive existing stores. In this case, the new stores have monopoly privileges and

the difference between the price of its goods and the price in competitive circumstances represents  $B_p$ .

c. The sales of stores in areas to which displacees and evictees move increase.

3. We have the following kinds of miscellaneous  $B_p$ .

a. If tax concessions are made to entrepreneurs and rentiers who locate in or near the renewal site, the magnitude of  $B_p$  involved is the difference between taxes actually paid and what taxes would have been in the absence of a concession.

b. Since relocation agencies often judge "success" by the number of displacees who have become home owners it can be assumed that displacees are often cajoled into buying homes although they do not have sufficient means to make payments. At the same time FHA loans will often not be made to low-income families.<sup>19</sup> Therefore banks and real estate agents receive  $B_p$  equivalent to the commissions and interest charged to displacees who (at least) make down-payments on homes.



VI.  $B_c$  CONSUMER'S BENEFITS

Our view of  $B_c$  implies subsidization of a good or service. The subsidy is generally provided by a government but could be provided privately (e.g. by a non-profit organization).  $B_c$  measures the difference between what the consumers of a good or service actually pay and what consumers have paid or are paying for comparable goods or services. Comparability of goods and services relates to their quality. As in the aesthetic appraisal of different buildings, judgments about qualitative differences entail some degree of subjectivity - at least until a standard is accepted or established. If one aims at a high degree of specificity, the difficulties of initial qualitative judgments are diminished. For example, a comparison between the facilities of a hypothetical public community center and those of a private or semi-public athletic club could be quite specific, even down to the quality of the respective basketball courts. If individuals pay \$100 per year for membership at a certain athletic club or social club whose facilities are 4 times better than those of a public community center which charges \$10 per year for membership then the Consumer's Benefits per member at the latter is \$15 per year.

The typical example of  $B_c$  in urban renewal occurs in housing. The actual subsidy involved in renewal housing (write-down, subsidized interest rates, etc.) is irrelevant in the determination of  $B_c$ . The question to be asked is: What is the

rent for units of the same size in buildings of comparable quality and similar propinquity to the downtown? To answer this question, the skills of the appraiser will probably be needed<sup>19</sup>, though no conceptual difficulty is posed.

Alternatively, the evaluation of Bc might consider the rent/income ratio for residents of the project (by family size and age). One could evaluate the average quality of units rented by similarly sized and aged families with identical incomes and rent/income ratios as those in the project. Bc will then be seen in terms of the value ascribed to qualitative differences.

An illustration of the first approach might be the following: the number of units of a specified size (*i*) in the project we denote by  $n_i^*$  and the yearly rental per  $n_i^*$  is denoted by  $r_i^*$ ;  $n_i$  and  $r_i$  represent the same concepts for units in a building of comparable quality and location to the project. The total Bc for a year would be:

$$n_i r_i - n_i^* r_i^* \int_0^x e^{-rt} \quad x=1$$

For a specific example, suppose  $n_i^*$  refers to the number of units with a certain number of bedrooms in the project and  $n_1^* = 50$  (studio),  $n_2^* = 50$  (1 bedroom) and  $n_3^* = 50$  (2 bedrooms).  $r_1^* = \$600$ ,  $r_2^* = \$900$ , and  $r_3^* = \$1200$ .  $n_i$  is identical with  $n_i^*$  and  $r_1 = \$900$ ,  $r_2 = \$1200$  and  $r_3 = \$1500$ . We have:

$$n_i r_i - n_i^* r_i^* = \$45,000$$

and if the social discount rate is chosen as .04,

$$Bc = \frac{45000}{.04} (1 - e^{-.04}) = \$43,875.00$$

The use of second method (rent/income ratios) to calculate Bc is less precise but conveys more information than the first approach. For simplicity assume that all units are the same size, all families have four members and income of \$6000 per year with rent/income ratios of .2 in the project. The second step is to locate similarly sized families with the same income and rent/income ratio as those in the project. Next the units in the project are compared with those occupied by the non-project families. Suppose there are five qualitative criteria and five possible ranks, 1 being the highest and 5 the lowest, and finally assume that a ranking of 1 is three times higher than a ranking of 3; 2 is 2.5 higher than one of 5, etc. Remembering that project and non-project refer to individuals with the same economic and familial characteristics, we might have a ranking of the following kind:

	Project	Non-Project
Location	1	2
Light and Air	1	4
Structural Condition	2	3
Aesthetic Value	1	2
Size of Apt.	2	5

By forming ratios of ranks non-project/project summing through and dividing by 5, we find that individuals in the project have 2 times as much quality as those outside through both groups expend the same amount for rents. A cash value could be attached to the extra quality afforded to project residents. For example, one might say that 2 times better means a Bc per project resident of .5 times their annual rent.

An analysis of this sort might indicate an upper level on quality of dwellings available for individuals in a given income group in the absence of housing being provided as a merit good or without a subsidy of another sort. If a renewal project which includes housing acts to reduce rents for similarly priced (i.e. competitive) non-project units, then we must distinguish between  $B_c$  and  $B_p$ .  $B_p$  for residents of the project is equivalent to the average reduction in rents in competitive non-project units, i.e. the average difference between the rent charge for competitive non-project units before and after renewal. The calculation of  $B_c$  for project residents relates to the post-project situation, and can be looked at in either of the two ways we have mentioned. That is,  $B_c$  can mean the difference in rents between what project residents pay and what non-project residents pay for comparable (i.e. equal) units; or it can measure the difference in quality between project and non-project units in the same rent range.

## VII. Ca COMPENSATED COSTS

Ca represent what may be considered the "inputs" (both fixed and variable) or factor payments which compensate individuals who in some way contribute to the projects' coming into being and its continued operation. All Ca are borne either by the public (in the form of governments or quasi-governments) or by entrepreneurs (who may be, but are not generally, the public). It is convenient to look at Ca chronologically, whereby the early costs are borne entirely by the public and the later ones mainly by the entrepreneur.

The initial Ca are entirely of an administrative nature, largely for "survey and planning". Certain administrative costs occur during the entire period preceeding the completion of the project. Included are salaries for employees, publicity costs, rents and improvements in site offices, the materials used up or depreciated (e.g., typewriters) and the proportion of ongoing expenses for which the renewal project is responsible (e.g., phone bills, rent at the main office). Next come the Ca associated with preparing the site. These include:

- 1) payments to property owners for land and improvements
- 2) relocation payments to families and firms displaced
- 3) payments for site clearance
- 4) payments to firms, e.g., for legal services, to private social welfare organizations, and consultants such as architects, engineers, planners, etc.

## 5) expenditures for site improvements

Once the site is prepared, there ensue the costs of constructing the project. These Ca are borne jointly by the public and the entrepreneur. The least obvious Ca associated with construction is that of interest payments. For purposes of determining the respective shares of public and entrepreneur, we take the market rate of interest and subtract from it the interest which the entrepreneur pays. The proportions remain the same no matter what discount rate is selected. After completion of the project, operating costs are the responsibility of the redeveloper and other firms (e.g., stores). As we mentioned earlier, Ca may entail a special adjustment for opportunity costs. This will be discussed in a latter section.

## VIII. Ce EXTERNAL DISECONOMIES

Since Ce are the opposite of Be we have held that the elimination of the former is an instance of the latter. At the same time, a project can exacerbate existing physical and social diseconomies or create new ones. With regard to social ones, take the following plausible occurrences. The individuals who are displaced or other low-income families whose rents have risen suffer a decrease in income. They may commit crimes, have mental or physical breakdowns, or school age members of the families may "drop-out" in order to support their family and will probably take a menial task. All of these occurrences represent costs not only to the individuals involved but to society as a whole. If the probability that a marginal individual (income-wise) whose income decreases will in fact impose such a Ce on society can be determined, the calculation of Ce is not difficult. This determination can be made by investigating past increases in Ce resulting from urban renewal. Suppose that of 200 displaced individuals the condition of 20 so worsened that society incurred social costs (it costs from \$3000-\$5000 per inmate in mental institutions and prisons) and assume further that the present value of the Ce is \$100,000. To be still more hypothetically assume that the percentage of individuals so affected and consequent Ce to society were consistent for projects, say .1. We could then say that the probability of an individual with a

low income who is displaced by renewal or whose income decreases will impose Ce on society is 10% (20/200) and the average (considering all displacees) Ce incurred by society per displacee is \$2000.

As for the physical forms of diseconomies, traffic congestion is the one which will typically be generated. The provision of parking lots in projects is of course an attraction to potential residents or employees - who will generally be able to afford autos. But clearly, each additional automobile makes a contribution to the pollution, congestion, and noise levels. Likewise, the construction of massive white collar complexes (epitomized by the "World Trade Center" in NYC and Government Center in Boston) may actually induce individuals to drive autos to work. The public transit systems in Boston and NYC were not designed to handle so many additional thousands of workers all entering and exiting at the same time and at the same station. It is highly likely that auto congestion costs will be less for these workers than the costs of overflowing subways (buses) and stations (stops).

Aside from congestion, urban renewal does not generally exacerbate or generate physical diseconomies. The opportunity costs of not resolving existing diseconomies is of course another matter.



## IX. Cp PRICE EFFECT COSTS

There are three main kinds of Cp associated with the corresponding Bp.

1) If the project increases the supply of one price range of housing, average rents in this price range will be less after renewal than they were before renewal. Therefore landlords incur Cp equal to the decrease in average rents times the number of dwelling units in this price range pre-renewal times the coefficient associated with the median income of landlords in this price range. If a renewal project decreases the supply of housing in a given price range, tenants will incur costs equivalent to the increase in average rents times the number of pre-renewal units in this price range times the coefficient associated with the median income of tenants in this price range. One might use the average income of tenants in a particular price range rather than the median income for computing the appropriate coefficient since the income variance for tenants will not be as significant as that for landlords. For example, one does not expect high income tenants in low rent housing, though there might be both low income and high income landlords in the same price range.

2) Insofar as the renewal project decreases retail competition, one expects non-competitive pricing. This is especially evident in renewal projects which are to include new retail stores. The renewal authority wants to induce retail stores to move

to the renewal area, and these must be able to afford the increased rentals. The prospective retail operators will not be willing to locate in the project unless they are also assured of a market in the surrounding areas, which necessitates a reduction in the number of stores in and on the periphery of the renewal site. In order to determine whether monopoly prices are charged in the new stores, one does not compare pre-renewal prices with post-renewal prices for retail stores. The reason for this is the well known phenomenon of merchant exploitation in the slums. The appropriate comparison should be made between the prices which the new stores charge and those charged by similar stores in competitive circumstances. The difference will represent Cp for consumers in and near the renewal site.

If retail prices increase in areas to which displacees move, we again have Cp. This Cp is borne both by the displacees and by the pre-renewal residents of the area.

3) If we assume that the revenues collected by the municipality are totally spent to provide goods and services for its firms and residents and that tax rate times assessed valuation is the major component of the city's revenue, then any tax concessions or abatements which are made in conjunction with a renewal project impose an additional tax on firms and residents who have not been granted abatements; this tax is just equal to the magnitude of the abatement and/or concession.

There is one significant Cp which is related with Be. If the project enhances the value of the surrounding area, pre-renewal residents may not be able to afford the enhanced rentals. If this adjacent area was pre-renewal a low rent area and a middle rent project is constructed, then the rents in this adjacent area may go up to the middle rent range, and pre-renewal tenants are indirectly displaced. If a high rent project were constructed in the midst of a middle rent area, then rents might rise in this area to the high rent range, and the middle income tenants would be indirectly displaced. In both these instances, Cp represent the moving - and adjustment costs of those who are displaced as a result of the kind of project which is undertaken. These costs will be discussed in the next section, where we consider the costs incurred by those who are directly displaced by renewal, and who may or may not receive compensation commensurate to their Cp. Needless to say, those who are indirectly displaced are never compensated.

## X. Cu UNDERCOMPENSATION OF COMPENSATED COSTS

In the last analysis, it is the fact that individuals can be coerced which makes urban renewal possible. Landlords and home owners can be forced to sell; firms and residents, to move. Even were a higher purpose - than appears to be - the apologia for treating individuals as objects, one would expect - in a democratic society - an overcompensation of individuals who are manipulated to achieve this magnam bonum. There is nothing intrinsic to urban renewal which inexorably must penalize some (the most vulnerable at that) in order to satisfy others. Granted that urban renewal uses public monies it does not follow that double taxation of some is called for. There are interesting analogies between the taxation aspects of urban renewal and of taxation per se which on the normative plane, are brought out by Musgrave:

It follows from the principle of neutrality that taxes should be imposed so as to place the least burden upon whoever is to be taxed. There should be no excess burden that can be avoided. 21.

Without assenting to the present instrumental objectives of urban renewal, one can still discuss the compensation which ought to be accorded those upon whom urban renewal places an "excess burden".

The Cu for displaced landlords is the least ambiguous. It should simply be the difference between what the landlord receives from the renewal authority and the assessed valuation (or fair market value) of land plus improvement. If the assessors

are diligent, inflated values, via sales to paper companies and similar ploys should not influence assessed valuation. The Cu for displaced owner-occupiers is less obvious, since it includes the Cu for the owner-occupier qua landlord as well as qua resident. This latter component of Cu is in principle the same for all displaced residents. Were an ancillary objective of renewal to improve the welfare of all displacees by providing them with better quality homes and increased incomes (by whatever means) there would be Bc and Ca rather than Cu. Similarly, Be would be more likely than Ce. Needless to say, this ancillary objective is presently non-existent.

Although we discount the notion of "ability to pay" an analogous concept could be accepted. Suppose all displacees were informed of the post-renewal experiences of past displacees via-à-vis increased rentals, loss of employment, loss of accessibility to the downtown, to friends, and to familiar places, and of the sheer cost of moving. Assume further that each displacee is provided with a counsel. This takes place before they are in fact displaced. The individuals could name the amount of money which they believe would compensate them in view of the experiences of past displacees. An appropriate figure might be the sum of expected increased rentals over a five year period, plus total moving costs, plus a pass on the public transit systems for five years. It is a figure such as this which a cost-benefit analyst might arrive at independently of a particular family's own calculations.

There have been a number of studies of increased rentals to individuals who have been displaced<sup>21</sup> and these could serve as a guide, along with an appraisal of the actual supply of low-rent standard units in the metropolitan area. If individuals are relocated near their former residence, the transit pass might be unnecessary. It would serve as an ex ante inducement toward increased mobility by formerly immobile individuals.

The rise in rents encountered by displacees will generally be at least partly due to the decrease in housing. In order to avoid double counting, either one of two procedures might be followed. (1) if no compensation is made, then the rise in rent component of Cu should be adjusted for Bp. That is, if rents in low-rent units rose by \$12 per year and the increased rental faced by a displacee was \$14 a year, then the rise in rent component of Cu would be \$2 per year for that displacee. (2) If the compensation is to be made or if displacees demand ex post compensation, then the total \$14 should be placed in Cu (which, if compensation is made, becomes Ca) and Cp should be reduced by \$12.

An alternative way to look at Cu would be to use the past experiences for ex ante calculations of Cu. That is, the actual physical, psychological, and economic costs incurred by past displacees or specified family sizes and ages would be computed and after adjusting for expected rises in the price level, a figure could be produced which would measure expected Cu for present displacees.

If one is interested in an ex post determination of Cu,

one measures the costs incurred by the displacees of the project. Most of these calculations are not difficult with the exception of loss of friends and familiar places. This latter could simply be a measure of transport costs and time expended in order for the displacees to visit friends and sights from where he is presently residing with a frequency approaching that before displacement. If compensation is to be made, it may take the form of a five year pass on the transit system.

To assign a figure to the phenomenon of "grieving for a lost home"<sup>23</sup>, the following procedure might be utilized. From past experience we calculate the probability that displacement and loss of former friends, environment, and home would induce grief. We then calculate the average duration of this psychological (though natural) disorder for those experiencing it. If the probability is .2 and the average duration is 2 years and if more affluent social groups would have countered such a disorder by seeing a psychiatrist bi-weekly at \$30 per session, this component of Cu is  $.2 \times 52 \times 30 = \$312$  per displacee - if the payment is in advance of displacement.

It is also necessary to make an estimation of the probability that a family will face a decrease in income during the adjustment period, that the head of the family will lose his (or her) job, and if a new job must be acquired, the difference between expected and past earning. For displaced

operators who provide services or sell goods,  $C_u$  represents the difference between what they are paid for relocating and their actual expenses. It also included the difference between changes in rent minus changes in income, if the difference is positive. If they are compelled to enter a new occupation, then the above  $C_e$  is not applicable. The relevant figure would then be the loss of income during the readjustment period plus former income minus expected income (say) over a five year period; if this latter difference is negative, then there is no  $C_u$  aside from the interim loss of income.

With regard to  $C_e$ ,  $C_p$  and  $C_u$  we can agree with the observation by Pearce and Sturmev:

The uncompensated costs do not differ intrinsically from those which are compensated. Costs change categories over time; politicians, social workers, and monarchs were once unpaid; but are now salaried. 24.

An analogous statement could be made for  $B_e$ ,  $B_p$  and  $B_c$ . However it is less important from the social standpoint if benefits are appropriated than if costs are not adequately compensated! As Dupuit pointed out, social benefits can be diminished if an attempt is made to appropriate all benefits enjoyed (pre-appropriation). But the non- or under- compensation of costs which are borne by individuals - especially as a consequence of a public undertaking - is unjust and exploitative.



## XI. SOCIAL TIME PREFERENCE

In choosing between alternative renewal projects, it is first necessary to take account of all social benefits and not solely those which are actually appropriated. However, even if this is done, there still remains the possibility that projects with a short gestation period will dominate those with a longer gestation period. We have already seen how this short-run view may inhibit the internalization of externalities or the elimination of diseconomies (Ch.1, sec. 3) For the higher the social rate of discount, the greater the bias against projects whose return is not immediately forthcoming.

Suppose we have <sup>two</sup> potential renewal projects, neither of which seeks the elimination of diseconomies (i.e., neither of which will have a delayed gestation), we are then more or less indifferent to the discount rate which is chosen. On the other hand, if a potential project does seek the elimination of diseconomies, we are not indifferent to the discount rate which is chosen. The problems associated with physical and social diseconomies in American cities are severe and likely to become worse. Their elimination has never been sought because the pay-off period always seemed too far off on the time horizon. And indeed, the longer their resolution is put off, the greater will be the amount of resources necessary, once the costs of further delay begin growing exponentially. At the present time however, when the "crisis of cities" is

a cliché, projects which may actually terminate the "crisis" are never considered feasible. The dominant interest groups do not of course think in terms of discount rates. On the contrary, discount rates are a reflection of the interests of these dominant groups. However, it does not follow that discount rates which are actually chosen are in the interest of most members of the society.

While other analysts reject the market rate of interest on the grounds that capital markets are imperfect or economic growth is proceeding too slowly, we feel that a rejection of market rates is warranted on the grounds that the most pressing domestic problems entail expenditures whose return may not be forthcoming for a generation. We do not accept the fatalistic views that the poor "are always with us" or that polluted air and congestion are eternal attributes of cities. If a project aims at the elimination of diseconomies, it and alternatives should be discounted at a rate which is  $1/2$  to  $1/4$  that of the market rate of interest. The basic premise is that the possibility for resolving important social problems should not be jettisoned simply because such problems are not amenable to resolution in the short-run.

Formulae for expressing discounted present value can take three general forms depending on whether the benefits are constant, discontinuous, or continuous (but not constant). If benefits accrue at a constant yearly rate ( $\$/yr$ ), the chosen rate is less crucial than if benefits are discontinuous or continuous (but not constant), Assuming that all these formulae

express net benefits (i.e. discounted benefits less discounted costs), net benefits at a constant yearly rate appear in the following form:

$$\text{Net Benefits} = a \int_0^x e^{-rt} dt = \frac{a}{r} (1 - e^{-rx})$$

where  $a$  is given in \$/year,  $r$  is the discount rate,  $t$  is time and  $x$  is the last pay-off period.

If net benefits accrue in a discontinuous manner, say \$0 for the first year, \$100 in each of the next five years, \$175 in the sixth year, etc., we have the usual type of present value formula:

$$\text{Net Benefits} = \frac{b_1}{(1+r)} + \frac{b_2}{(1+r)^2} + \frac{b_3}{(1+r)^3} + \dots + \frac{b_n}{(1+r)^n}$$

or more generally:

$$\text{Net Benefits} = \sum_{j=1}^n \frac{b_j}{(1+r)^j}$$

where  $b_j$  has a specified value for each  $j$ .

In this discontinuous cases, the time profile for benefits is crucial and one must be concerned with the discount rate.

For the continuous case, we consider a function with a perpetual though possibly delayed net benefit stream:

$$F(t) = 1 - \frac{a}{t} \quad \begin{array}{l} a \text{ is an integer (say) between } 1 \\ \text{and } 10 \end{array}$$

$$\text{Net Benefits} = \int_0^{\infty} F(t) e^{-rt} dt$$

The year in which this project begins yielding benefits depends on the value of  $a$ . A higher value of  $a$  in conjunction with a high value of  $r$  might preclude such a project. It is a project with a benefit stream of this form, which only begins paying off

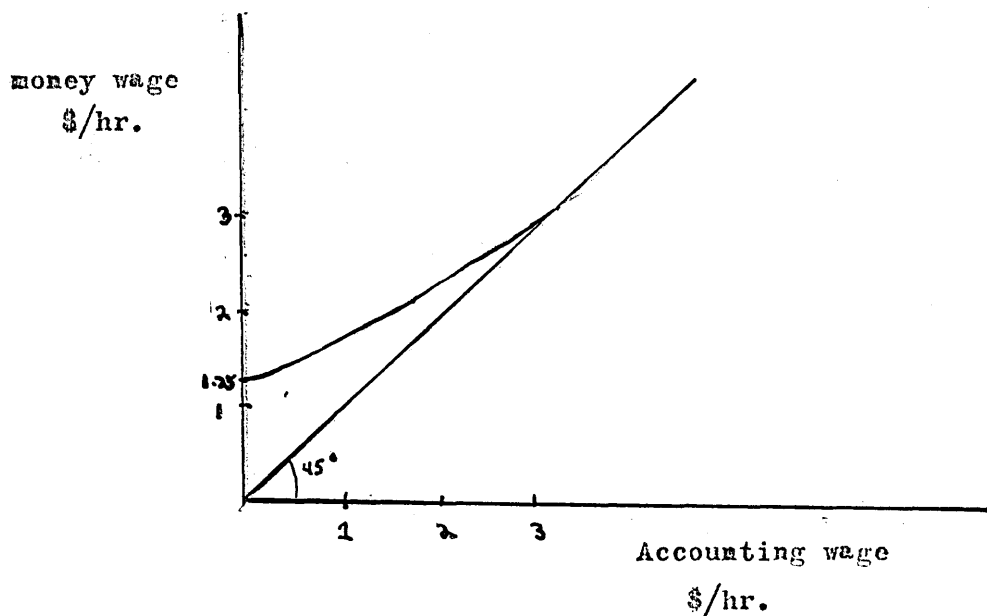
when  $t \rightarrow a$  and then approaches a unity limit, which could be quite substantial if  $B_e$  and  $-C_e$  are involved, and yields in any case a perpetual benefit stream.

## XII. SOCIAL OPPORTUNITY COSTS

There seem to be two levels of social opportunity costs in urban renewal. There are the opportunity costs which ought to be included in the cost-benefit analysis calculation itself and there are those which should relate the project to opportunities foregone. The former represent opportunity costs which adjust  $C$  upwardly or downwardly with respect to actual expenditures for the project. The adjustments are most conveniently included with  $C_a$ . An upward adjustment is called for if the Renewal Authority does not take bids on a project and confers monopsony privileges upon an entrepreneur or if the entrepreneur is a monopolist.  $C_a$  will then be excessive and the fact that the Renewal Agency abets a monopolist or encourages monopsony entails an additional cost. Similarly, if the Renewal Authority chooses the redeveloper through non-competitive means, one assumes that the costs to the public (in terms of write-down and tax abatements and the likelihood of graft) will be excessive, and an upward adjustment in  $C_a$  is again called for. The general assumption in these upward adjustments is that monopolists and monopsonists necessarily behave in an anti-social manner, and any governmental support of these groups imposes costs on society.

As an example of a downward adjustment in  $C_a$ , consider

the case of an urban renewal project which employs (pre-renewal) unemployed individuals, of which there is no shortage in American slums. The wage paid to these individuals overstates the opportunities foregone had they not been employed in the renewal project. Additionally, if they acquire skills or union membership as a consequence of their employment in the project, an additional contribution has been made to social welfare. The use of accounting - or shadow - wage to downwardly adjust the actual wage paid might be of the following kind:



The second level of opportunity costs expresses whether or not a project is or was worth undertaking. This level has two characteristics, both of which have already been mentioned. The first relates to the effects of instrumental objectives on the metropolitan area, and hence on the welfare of the entire society. If the subsidy element implied in urban renewal was utilized solely to influence locational decisions of households or firms, we have prima facie evidence that no net benefits resulted from the urban renewal project. In particular, if the urban renewal project subsidized non-efficient or monopolistic firms or induced firms to locate in the city on the basis of write-downs and tax-abatements whereas in the absence of these subsidies, the firms would have remained - or located - elsewhere, the renewal project probably entails a net decrease in social welfare. An analogous argument can be made regarding household moves, especially where renewal funds are used to induce middle and above income families to leave the community in which they presently reside. In this case, the move causes increases in the tax-rates or decreases in the level of services in the communities which are unable to subsidize families for want of renewal monies. More generally, it is not in the interest of society that renewal funds be used solely to alter locational decisions.

The second characteristics of this level of opportunity costs is the most important one. Since it is agreed that some form of urban renewal is needed, the social opportunity costs of

a given project are equivalent to the expected net benefits of the best alternative project. Throughout this paper we have maintained that the best projects are those which eliminate physical and social diseconomies. It remains with the individual cost-benefit analyst (or social critic) to propose those projects best able to realize the long-term goal of revivifying cities. Social opportunity costs are then an implied criticism of the present operations of renewal; the higher the social opportunity costs, the better is the proposed project, or the more short-sighted is the actual project.



## XIII. EFFECTS ON CITY FINANCES

Our schema for cost-benefit calculation incorporates potential improvements in the level of city services due to enhanced revenues or decreases in outlays for services associated with poverty. Since city revenues are largely based on property values, all of  $B_a$  and some components of  $B_e$  will express gains for the city's financial position. The other components of  $B_e$  are an indication of decreases for certain services related to physical and social diseconomies. It does not follow of course that a particular project actually improves the financial condition of a city.

Renewal will cause decreases in the city's revenue on several counts. There is a time gap between the demolition of tax-paying properties and the completion of the project; there are tax-abatements and write-downs (some of which come from the city); there are decreases in the value of property in other sections of the city; there are the costs of environmental improvements and administration, and (possibly) the transfer of city property (e.g., streets) to the redeveloper; and finally, there are increased welfare and related expenditures for families who have been made worse off as a result of renewal.

An even more important question than whether a renewal project enhances the short-run financial position of a city is whether the goal is itself not merely a "red herring". Some observers feel that the goal of an increased tax base militates against the structural changes, e.g., some form of

metropolitan government, which are needed to make cities viable. We come to the same conclusion for different reasons. Those projects capable of raising the tax-base in the short-run are precisely those which are antithetical to the goal of eliminating physical and social diseconomies.

**APPENDICES**

The Relation between Price Effect Benefits (Bp) and Price Effect Costs (Cp) with respect to changes in the Supply of Housing as a consequence of Urban Renewal

We assume three rent ranges of housing: low rent, middle rent, and high rent; and five income groups. We have two time periods, pre-renewal and post-renewal. When there is no specification as to time period,  $h_i$  represents the number of dwelling units in rent range  $i$ ,  $i = 1, 2, 3$ ; where rent of  $1 < 2 < 3$ . Total housing for all three rent ranges is given by:

$$h = h_1 + h_2 + h_3 \quad (1)$$

The number of units in each of the rent ranges  $h_i$  is:

$$h_i = \sum_{j=1}^n h_{ij} \quad (2)$$

where  $h_{ij}$  is the  $j$ th unit in rent range  $i$ . When a time specification is given, then  $H_i^* = h_i$  pre-renewal, and  $H_i = h_i$  post-renewal. Hence:

$$H^* = H_1^* + H_2^* + H_3^* \quad (3)$$

$$H = H_1 + H_2 + H_3 \quad (4)$$

The average rent in  $h_i$  is represented by  $\bar{r}_i$  which is determined by:

$$\bar{r}_i = \frac{1}{n} \sum_{j=1}^n r_{ij} \quad (5)$$

where  $r_{ij}$  is the rent of the  $j$ th unit in  $h_i$ . When a time specification is given,  $\bar{R}_i^* = \bar{r}_i$  pre-renewal and  $\bar{R}_i = \bar{r}_i$  post-renewal. Total rent pre-renewal is :

$$R^* = \bar{R}_1^* H_1^* + \bar{R}_2^* H_2^* + \bar{R}_3^* H_3^* \quad (6)$$

Total rent post-renewal is:

$$R = \bar{R}_1 H_1 + \bar{R}_2 H_2 + \bar{R}_3 H_3 \quad (7)$$

We assume that whenever  $\bar{R}_i^* > \bar{R}_i$ , then  $H_i^* < H_i$ , and vice versa. This is a reasonable assumption, since we are only dealing with Price Effect Benefits and Costs; i.e., only with price changes induced by changes in supply. Whether or not  $B_p$  is forthcoming for tenants in  $h_i$  is determined by the difference  $(\bar{R}_i^* - \bar{R}_i)$ , which is abbreviated in the following way:

$$(\bar{R}_i^* - \bar{R}_i) = \Delta_i \quad (8)$$

If  $\Delta_i > 0$  there are  $B_p$  for tenants and  $C_p$  for landlords, while if  $\Delta_i < 0$  there are  $B_p$  for landlords and  $C_p$  for tenants. The absolute change in average rents in  $h_i$  is symbolized by

$$|\Delta_i| \cdot (H_i) (x_i) = B_p \text{ for tenants when } \Delta_i > 0 \quad (9)$$

where  $x_i$  is the coefficient associated with the median income of tenants in  $h_i$ . There will be  $C_p$  for landlords amounting to:

$$|\Delta_i| (H_i^*) (y_i) = C_p \text{ for landlords when } \Delta_i > 0 \quad (10)$$

where  $y_i$  is the coefficient with the median income of landlords in  $h_i$ . If  $x_i \geq y_i$  then  $B_p$  will exceed  $C_p$  since  $H_i > H_i^*$ . If  $x_i < y_i$  then whether or not  $B_p > C_p$  is determined by how much larger  $H_i$  is than  $H_i^*$ .

On the other hand, if  $\Delta_i < 0$ , there will be  $B_p$  for landlords

amounting to:

$$|\Delta_i| (H_i) (y_i) = B_p \text{ for landlords when } \Delta_i < 0 \quad (11)$$

And there will be  $C_p$  for tenants amounting to:

$$|\Delta_i| (H_i^*) (x_i) = C_p \text{ for tenants when } \Delta_i < 0 \quad (12)$$

Whether  $\Delta_i \geq 0$ , it is seen that  $h_i$  associated with tenants is always greater than the  $h_i$  associated with landlords. The reason for this is straightforward. With a decrease in the number of dwelling units, the same number of post-renewal tenants are in need of housing as were pre-renewal, while a decrease of the number of units in  $h_i$  for landlords means they have changed the property's use or sold the property. The  $B_p$  to post-renewal landlords in  $h_i$  is the difference in rents which they charged before and after renewal times the number of units which so increased, i.e., the post-renewal units.

If the number of units in  $h_i$  is greater after renewal than it was before, the gain to tenants is proportional to the number of units which cost less after renewal than they did or would have before renewal. The additional units cannot represent a loss to landlords since they did not exist pre-renewal, i.e., the loss to landlords can only take account of the number of units whose rents actually decreased, i.e., the pre-renewal units. Looked at another way, the owners of the additional units do not suffer any  $C_p$  because these units rent for less than did comparable units pre-renewal.

In order to calculate whether  $B_p > C_p$ , we multiply

$|\Delta_i|$  and the determinant whose elements consist of  $h_i$  and income

coefficients. Position of elements in the determinant is given by the following rules:

$$H_i \text{ always appears in position } (1,1). \quad (13)$$

$$H_i^* \text{ always appears in position } (1,2). \quad (14)$$

$$\text{If } \Delta_i > 0, x_i \text{ appears in position } (2,2) \text{ and } y_i \text{ appears in position } (2,1). \quad (15)$$

$$\text{If } \Delta_i < 0, x_i \text{ appears in position } (2,1) \text{ and } y_i \text{ appears in position } (2,2) \quad (16)$$

In other words, under (15), there are  $B_p$  for tenants and  $C_p$  for landlords; while under (16) there are  $B_p$  for landlords and  $C_p$  for tenants. If  $\Delta_i > 0$  for all  $h_i$ , then  $B_p > C_p$  only if:

$$|\Delta_1| \begin{vmatrix} H_1 & H_1^* \\ y_1 & x_1 \end{vmatrix} + |\Delta_2| \begin{vmatrix} H_2 & H_2^* \\ y_2 & x_2 \end{vmatrix} + |\Delta_3| \begin{vmatrix} H_3 & H_3^* \\ y_3 & x_3 \end{vmatrix} > 0$$

Now supposing that  $\Delta_1 < 0$ ;  $\Delta_2, \Delta_3 > 0$ . Then in order for  $B_p > C_p$ , the following must be  $> 0$ . (Note that we apply (16) to the first determinant and (15) to the other two.)

$$|\Delta_1| \begin{vmatrix} H_1 & H_1^* \\ x_1 & y_1 \end{vmatrix} + |\Delta_2| \begin{vmatrix} H_2 & H_2^* \\ y_2 & x_2 \end{vmatrix} + |\Delta_3| \begin{vmatrix} H_3 & H_3^* \\ y_3 & x_3 \end{vmatrix} > 0$$

Now consider a numerical example of this last case. An urban renewal project has demolished 1000 units of  $h_1$  and replaced them with 500 units of  $h_3$ . Rents rise in  $h_1$  by \$36/unit/year and drop by \$12/unit/year in  $h_3$ . Assuming some families from  $h_2$  move into  $h_3$ , rents drop in  $h_2$  by \$3/unit/year, although the number of units in  $h_2$  is the same before and after renewal. Finally, assume that the median income of tenants in  $h_1$  puts them in

Income Group 2; those in  $h_2$  are in Income Group 3; and those in  $h_3$  are in Income Group 4. The corresponding Income Groups for landlords are 3, 4, and 5. We have:

$$|\Delta_1| = 36 \quad |\Delta_2| = 12 \quad |\Delta_3| = 3$$

$$\begin{array}{ll} x_1 = 1.5 & y_1 = 1 \\ x_2 = 1 & y_2 = .75 \\ x_3 = .75 & y_3 = .5 \end{array}$$

The number of units pre - and post - renewal in each of the  $h_i$  is:

$$\begin{array}{ll} H_1^* = 10000 & H_1 = 9000 \\ H_2^* = 8000 & H_2 = 8000 \\ H_3^* = 6000 & H_3 = 6500 \end{array}$$

And:

$$36 \begin{vmatrix} 9000 & 10000 \\ 1.5 & 1 \end{vmatrix} + 3 \begin{vmatrix} 8000 & 8000 \\ .75 & 1 \end{vmatrix} + 12 \begin{vmatrix} 6500 & 6000 \\ .5 & .75 \end{vmatrix} =$$

- \$187,500.

So in this example,  $B_p < C_p$ .



A Fortran Program, discounting and adjusting costs and benefits to different income groups

The following Fortran IV program presents a rapid and general method for determining the income group of a family according to its size, age, and yearly income. After the income group of a family which receives one or more of the eight benefits or costs is determined, these are adjusted by the appropriate coefficient. The relation between size, age, and yearly income of families and the corresponding income groups and coefficients is presented in a table of page 92. Finally, the discounted net benefits to all and each income group is calculated and printed.

We have had to make several assumptions in writing the program, but all of these could be changed without vitiating the general form of the program. These assumptions are:

- (1) The magnitude of costs and benefits to all families is known. If only an unbiased sample of costs and benefits to families were known, the net discounted benefits accruing to each income group would be determined by multiplying the sample's costs and benefits by:  $1/\text{sample}$  as a fraction of total families in the income group; which, in the case of a 20% sample would be  $1/.2 = 5$ .
- (2) Benefits and costs are assumed to accrue at a constant rate of \$/year. Each card lists the benefits and costs to a family for one year, which accrue at the same rate during the whole time period, beginning with the first year. It was also assumed that  $C_a$  all appear at the outset of the project, and are therefore equal to market prices for that year.  $C_u$  are incurred for five years, and are not discounted. All other costs and benefits ensue for a forty year period. The discount rate used in the program is .03.
- (3) On each data card is eight pieces of information, each allotted ten columns. In the first field of ten column appear the size of the family. We used the following code:

- 1 = family of one under 65 years of age
- 1 = family of one over 65 years of age
- 2 = family of two; head under 65 years of age
- 2 = family of two; head over 65 years of age
- 3 = family of three
- 4 = family of four
- 5 = family of five
- 6 = family of six
- 7 = family of seven or more

In the program, I stands for the numbers denoting family size. In the second field appears yearly income for family, for which we used the variable K. The next eight fields are composed of the different costs and benefits:

<u>Field</u>	<u>Cost or Benefit</u>	<u>Read equivalent</u>
3	B <sub>a</sub>	X(1)
4	B <sub>e</sub>	X(2)
5	B <sub>p</sub>	X(3)
6	B <sub>c</sub>	X(4)
7	C <sub>a</sub>	X(5)
8	C <sub>e</sub>	X(6)
9	C <sub>p</sub>	X(7)
10	C <sub>u</sub>	X(8)

The program appears on the following three pages.

```

DIMENSION X(8), BNET(5)
DIMENSION BA(5),BE(5),BP(5),BC(5),CA(5),CE(5),CP(5),CU(5)
DIMENSION B(20), C(20)
EQUIVALENCE (B(1),BA(1)),(B(6),BP(1)),(B(11),BE(1)),(B(16),BC(1)),
1(C(1),CA(1)),(C(6),CE(1)),(C(11),CP(1)),(C(16),CU(1))
DATA B,C/40*0./
1 READ(5,5) I,K,(X(J),J=1,8)
5 FORMAT (2I8,8F8.0)
N=I+3
GO TO(12,10,96,11,13,14,15,16,17,18),N
10 IF(K.LT.1885) GO TO 19
IF (K.LT.2828) GO TO 20
IF(K.LT.3531) GO TO 21
IF(K-7062) 22,23,23
11 IF(K.LT.1745) GO TO 19
IF(K.LT.2618) GO TO 20
IF(K.LT.3273) GO TO 21
IF(K-6546) 22,23,23
12 IF(K.LT.2715) GO TO 19
IF(K.LT.4073) GO TO 20
IF(K.LT.5091) GO TO 21
IF(K-10182) 22,23,23
13 IF(K.LT.2460) GO TO 19
IF(K.LT.3690) GO TO 20
IF(K.LT.4613) GO TO 21
IF(K-9226) 22,23,23
14 IF(K.LT.3160) GO TO 19

```

```
IF(K.LT.4740) GO TO 20
IF(K.LT.5925) GO TO 21
IF(K-11850) 22,23,23
15 IF(K.LT.4000) GO TO 19
IF(K.LT.6000) GO TO 20
IF (K.LT.7500) GO TO 21
IF(K-15000) 22,23,23
16 IF(K.LT.4675) GO TO 19
IF(K.LT.7013) GO TO 20
IF(K.LT.8766) GO TO 21
IF(K-17532) 22,23,23
17 IF(K.LT.5250) GO TO 19
IF(K.LT.7875) GO TO 20
IF(K.LT.9844) GO TO 21
IF(K-19688) 22,23,23
18 IF(K.LT.6395) GO TO 19
IF(K.LT.9593) GO TO 20
IF(K.LT.11991) GO TO 21
IF(K-22182) 22,23,23
19 INDEX=1
FACTOR=2.
GO TO 69
20 INDEX=2
FACTOR=1.5
GO TO 69
21 INDEX=3
FACTOR=1.
```

```

GO TO 69
22 INDEX=4
FACTOR=.75
GO TO 69
23 INDEX=5
FACTOR=.5
69 BA(INDEX)=BA(INDEX)+X(1)*FACTOR
BE(INDEX)=BE(INDEX)+X(2)*FACTOR
BP(INDEX)=BP(INDEX)+X(3)*FACTOR
BC(INDEX)=BC(INDEX)+X(4)*FACTOR
CA(INDEX)=CA(INDEX)+X(5)
CE(INDEX)=CE(INDEX)+X(6)*FACTOR
CP(INDEX)=CP(INDEX)+X(7)*FACTOR
CU(INDEX)=CU(INDEX)+X(8)*FACTOR
GO TO 1
96 CONST=1.-EXP(-1.2)
DO 9 I=1,5
BNET(I)=(((BA(I)+BE(I)+BP(I))/0.03)*CONST)-(5.*CU(I)+(((CP(I)+CE(I)
1)/0.03)*CONST)+CA(I))
9 CONTINUE
C. BNETI AND BNET(I) DENOTE NET BENEFITS TO INCOME GROUP I.
BNETX=BNET(1)+BNET(2)+BNET(3)+BNET(4)+BNET(5)
WRITE(6,99) BNET(1),BNET(2),BNET(3),BNET(4),BNET(5),BNETX
99 FORMAT('1BNET1='F10.2/' BNET2='F10.2/' BNET3='F10.2/' BNET4='F10.2
1/' BNET5='F10.2/'0TOTAL NET BENEFITS ='F12.2)
STOP
END

```

## NOTES

Chapter One

1. Meyer, Kain, and Wohl, The Urban Transportation Problem, footnote, p. 335.
2. Scitovsky, "A Critique of Present and Proposed Standards," p. 232.
3. Robinson, "Consumer's Sovereignty in a Planned Economy," p.70.
4. Streeten, "Appendix: Recent Controversies," p. 214.
5. Dobb, Economic Theory and Socialism, p. 61.
6. Galbraith, "Economics v. the Quality of Life,"
7. Robinson, loc. cit.
8. Myrdal, The Political Element in the Development of Economic Theory, p. 137.
9. Galbraith, op. cit., p. 39.
10. Dobb, op. cit., p. 63.
11. Little, Critique of Welfare Economics, p. 182.
12. Baumol, Welfare Economics and the Theory of the State, p. 163.
13. Streeten, op. cit., p. 212.
14. for a complete discussion of these and other optimality criteria, cf. Baumol, op. cit.
15. Arrow, Social Choice and Individual Values, p. 40.
16. Scitovsky, op. cit., p. 240.
17. Chenery, "The Interdependence of Investment Decisions," p. 83.
18. Scitovsky, "Two Concepts of External Economies," p. 70 (hereafter "Two Concepts")
19. Baumol, op. cit., p. 25.
20. Ibid., p. 26.
21. Scitovsky, "Two Concepts," p. 71.
22. The symbols come from J.E. Meade, "External Economies and Diseconomies in a Competitive Situation," Economic Journal, 1952, pp.54-67; cited in Ibid., p. 72.
23. Chenery, loc. cit.
24. Dobb, An Essay on Economic Growth and Planning, p.11. (hereafter Essay)
25. Scitovsky, "Two Concepts," p. 78.
26. Ibid., p. 79.
27. Ibid.
28. Lerner, The Economics of Control, p. 174.
29. Dupuit, "On the Measurement of the Utility of Public Works."

30. Lerner, op. cit., p. 174.
31. Scitovsky, "Two Concepts," p. 77.
32. Rothenberg, Economic Evaluation of Urban Renewal, Chapter 5.
33. McKean, Efficiency in Government through Systems Analysis, p. 136.
34. 306 N.Y. 73, 115 N.E. 2d 659 (1953); the passage cited appears in Haar, Land-Use Planning, p. 420.
35. Marglin, "The Social Rate of Discount and the Optimal Rate of Investment."
36. Ibid., p. 111.
37. Sen, "On Optimizing the Rate of Saving," p. 484.
38. Ibid., p. 482.
39. Schorr, Slums and Social Insecurity, p. 60.
40. Feldstein, "Opportunity Cost Calculations in Cost-Benefit Analysis," p. 118.
41. Feldstein, "The Social Time Preference Discount Rate in Cost-Benefit Analysis," p. 365.
42. Marglin, "The Opportunity Costs of Public Investment," p. 288.
43. Dobb, Essay, pp. 16-17.
44. Pigou, The Economics of Welfare, pp. 187-188.
45. Maass, "Benefit-Cost Analysis: Its Relevance to Public Investment Decisions," p. 215.
46. Grigsby, Housing Markets and Public Policy, p. 275.
47. Lerner, op. cit., p. 296.
48. Feldstein, "Opportunity Cost Calculations in Cost-Benefit Analysis," p. 129.
49. Keyserling, "When Will U.S. Economists Catch Up?", p. 56.
50. Streeten, op. cit., p. 215.
51. Galbraith, op. cit., p. 36.
52. Marglin, Public Investment Criteria, p. 46.
53. Arrow, "Criteria for Social Investment," p. 8.
54. McKean, op. cit., p. 76 ff; Feldstein, "Opportunity Cost Calculations . . ." p. 117
55. Musgrave, The Theory of Public Finance, Chapter 1.
56. Chinitz and Tiebout, "The Role of Cost-Benefit Analysis in the Public Sector of Metropolitan Areas," p. 253.
57. Baumol, op. cit., p. 20.
58. Musgrave, op. cit., p. 10.
59. Ibid., p. 13.

60. Ibid.,
61. Ibid.
62. Marglin, Public Investment Criteria, p. 22.
63. Musgrave, loc. cit.
64. Engels, "The Housing Question," p. 578.
65. Musgrave, loc. cit.
66. Ibid., p. 10.
67. Rothenberg, op. cit., p. 102.
68. Quoted in Marglin, Public Investment Criteria, p. 21.
69. Chinitz and Tiebout, op. cit., p. 253.
70. McKean, op. cit., p. 132.
71. Dobb, Studies in the Development of Capitalism, p. 382.
72. Mannheim, Ideology and Utopia, p. 197.
73. Chinitz and Tiebout, op. cit., p. 263.
74. Ibid.
75. Mannheim, op. cit., p. 122.
76. Myrdal, Value in Social Theory, p. 256.

## Chapter Two

1. Davis, "Urban Renewal: A Reply to Two Critics," p. 104.
2. Trevelyan, A Shortened History of England, p. 457. Trevelyan quotes an observer of the enclosure movement who wrote in 1801: "By nineteen out of twenty Enclosure Bills the poor are injured and most grossly."
3. Engels, op. cit., p. 607. Engels adds that he is not referring to the "specifically Bonapartist manner of the Parisian Haussmann;" i.e., of driving broad streets through the worker's quarter and lining them on both sides with "big luxurious buildings."
4. Ibid., pp. 607-608.
5. Bollens and Schmandt, The Metropolis, p. 253.
6. Glazer, "The Renewal of Cities," p. 197.
7. Ibid.
8. Schorr, op. cit., p. 140.
9. Veblen, "The Country Town," p. 407.
10. Ibid., p. 408.



11. 117 F. Supp. 705 (D.D.C. 1953); the passage cited appears in Haar, op. cit., p. 440.
12. 348 US. 26, 75 Sup. Ct. 98, 99 L. Ed. 27 (1954)
13. Baumol, "Urban Services: Interactions of Public and Private Decisions," p. 11.
14. Ibid., p. 15.
15. Grigsby, op. cit., p. 82.
16. Davis and Whinston, "The Economics of Urban Renewal."
17. Ibid., pp. 51-52.
18. Rothenberg, op. cit., p. 128.
19. Ibid., p. 154.
20. Glazer, op. cit., p. 199. ( for an example of this approach, cf. Mao, ref. # 38.)
21. Schorr, op. cit., p. 144.
22. Davis and Whinston, op. cit., p. 60.
23. for an illuminating account of merchant exploitation in the slums, cf. Caplovitz, The Poor Pay More.
24. Steiner, "The Role of Alternative Cost in Project Design and Selection," p. 417.
25. Schaaf, Economic Aspects of Urban Renewal: Theory, Policy, and Area Analysis.
26. Ibid., p. 7.
27. Ibid., p. 18.
28. Pigou, op. cit., p. 195.
29. Ibid.

### Chapter Three

1. Johanesen, Public Economics, p. 355.
2. Greer, Urban Renewal and American Cities, Chapter 8.
3. Arrow, "Criteria for Social Investment," p. 6.
4. Lerner once wrote: "The maximization of probable total satisfaction is attained by an equal distribution of income." op. cit., p. 29.
5. Commission on Low-Income Housing, Final Report, p. 10.
6. "Land Disposition Agreement between Boston Redevelopment Authority and Raymond's Redevelopment Associates; Article III, Section 301, (a(1)).
7. This discussion is an attempt to modify and extend cost-benefit categories put forth by Pearce and Sturmev, "Private and Social Costs and Benefits: A Note on Terminology,"
8. see for example, Maass et. al., Design of Water-Resource Systems.

9. Hicks, Value and Capital, p. 40.
11. Pearce and Sturmev, op. cit., p. 156.
12. M. Reid of the Chicago school of economics has written: "If greater equality comes it will contribute to the elimination of poor housing," Housing and Income, p. 397.
13. for another discussion of weighting benefits, see "A Survey of the Theory of Public Expenditure Criteria," Eckstein.
14. Orshansky, "Counting the Poor: Another look at the Poverty Profile," p. 52.
15. for technical discussion of discounting, cf:
  - (i) Baumol, Economic Theory and Operations Analysis, Chapters 18-19.
  - (ii) Allen, Mathematical Analysis for Economists, p. 401 and ff.
  - (iii) Hall, A Methodology for Systems Engineering, pp. 272-282.
16. Pigou, op. cit., p. 184.
17. Chinitz and Tiebout, op. cit., p. 256.
18. Pearce and Sturmev, op. cit., p. 155.
19. see for example, United South End Settlements, Castle Square Residential Relocation Program, Final Report.
20. Prest and Turvey make the same point in a slightly different context, "Cost-Benefit Analysis: A Survey," p. 192.
21. Musgrave, op. cit., p. 141.
22. For example, Hartman, "The Housing of Relocated Families."
23. Fried, "Grieving for a lost Home."
24. Pearce and Sturmev, op. cit., p. 157.

## BIBLIOGRAPHY

1. R.G.D. Allen, Mathematical Analysis for Economists. New York: Macmillan, 1964. (1.
2. Kenneth Arrow, Social Choice and Individual Values. New York: Wiley, 1951. (2.
3. Kenneth Arrow, "Criteria for Social Investment," Water Resources Research, (3.  
First Quarter, 1965.
4. W.J. Baumol, Welfare Economics and the Theory of the State, Second Edition. (4.  
Cambridge: Harvard, 1965.
5. W.J. Baumol, "Urban Services: Interaction of Public and Private Decisions," (5.  
in H.G. Schaller, ed., Public Expenditures in the Urban Community, Washington,  
D.C.: Resources for the Future, 1963.
6. W.J. Baumol, Economic Theory and Operations Analysis. 2nd ed. Englewood (6.  
Cliffs, N.J.: Prentice Hall, 1965.
7. J.C. Bollens & H.J. Schmandt, The Metropolis. New York: Harper & Row, 1965. (7.
8. Boston Redevelopment Authority, "Land Disposition Agreement between Boston (8.  
Redevelopment Authority and Raymond's Redevelopment Associates." mimeo, 1966.
9. David Caplovitz, The Poor Pay More. New York: Free Press of Glencoe, 1963. (9.
10. H.B. Chenery, "The Interdependence of Investment Decisions," in Moses (10.  
Abramovitz et. al., The Allocation of Economic Resources. Stanford, Cal.:  
Stanford University Press, 1959.
11. Benjamin Chinitz & C.M. Tiebout, "The Role of Cost-Benefit Analysis in (11.  
the Public Sector of Metropolitan Areas," in Julius Margolis, ed., The  
Public Economy of Urban Communities. Washington, D.C.: Resources for  
the Future, 1965,
12. Otto Davis, "Urban Renewal: A Reply to Two Critics," Land Economics, (12.  
Feb., 1963.
13. Otto Davis & A.B. Whinston, "The Economics of Urban Renewal," in (13.  
J.Q. Wilson, ed., Urban Renewal: The Record and the Controversy.  
Cambridge, Mass.: The M.I.T. Press.
14. Maurice Dobb, On Economic Theory and Socialism. New York: International (14.  
Publishers, 1955.
15. Maurice Dobb, An Essay on Economic Growth and Planning. New York: (15.  
Monthly Review Press, 1960.
16. Maurice Dobb, Studies in the Development of Capitalism, revised ed. (16.  
London: Routledge & Kegan Paul, 1963.
17. Jules Dupuit, "On the Measurement of the Utility of Public Works," English (17.  
trans. in International Economic Papers, No. 2. London: Macmillan, 1952.
18. Otto Eckstein, "A Survey of the Theory of Public Expenditure Criteria," (18.  
in National Bureau of Economic Research, Public Finances: Needs, Sources,  
and Utilization. Princeton, N.J.: Princeton University Press, 1961.
19. Friedrich Engels, "The Housing Question," in Marx and Engels, Selected (19.  
Works in Two Volumes, Vol. I. Moscow: Foreign Languages Publishing  
House, 1962.
20. Martin Feldstein, "Opportunity Cost Calculations in Cost-Benefit Analysis," (20.  
Public Finance, Vol. XIX, No. 2, 1964.
21. Martin Feldstein, "The Social Time Preference Discount Rate in Cost Benefit (21.

- Analysis," Economic Journal, Vol. LXXIV, No. 294, June, 1964. (21.)
2. Marc Fried, "Grieving for a Lost Home: Psychological Costs of Relocation," in ref. # 13. (22.)
3. J.K. Galbraith, "Economics v. the Quality of Life," Encounter, Jan., 1965. (23.)
4. Nathan Glazer, "The Renewal of Cities," Scientific American, Sept., 1965. (24.)
5. William Grigsby, Housing Markets and Public Policy. Phil.: University of Pennsylvania Press, 1963. (25.)
6. Scott Greer, Urban Renewal and American Cities. Indianapolis: Bobbs-Merrill Co., 1965. (26.)
7. Charles Haar, Land-Use Planning, A Casebook on the Use, Misuse, and Re-use of Urban Land. Boston: Little, Brown, 1959. (27.)
8. A.D. Hall, A Methodology for Systems Engineering, Princeton, N.J.: D. Van Nostrand, 1965. (28.)
9. Chester Hartman, "The Housing of Relocated Families," in ref. # 13. (29.)
10. J.R. Hicks, Value and Capital. 2nd ed. Oxford: Clarendon Press, 1946. (30.)
11. Leif Johansen, Public Economics. Amsterdam: North-Holland, 1965. (31.)
12. Leon Keyserling, "When will U.S. Economists Catch UP?" Encounter, May, 1965. (32.)
13. A.P. Lerner, The Economics of Control. New York: Macmillan, 1944. (33.)
14. I.M.D. Little, Critique of Welfare Economics. 2nd ed. Oxford: Oxford University press, 1957. (34.)
15. Arthur Maass et al., Design of Water-Resource Systems. Cambridge, Mass.: Harvard University Press, 1962. (35.)
16. Arthur Maass, "Cost-Benefit Analysis: Its Relevance to Public Investment Decisions," Quarterly Journal of Economics, Vol. LXXX, May, 1966. (36.)
17. R.N. McKean, Efficiency in Government through Systems Analysis. New York: Wiley, 1958. (37.)
18. J.C.T. Mao, Efficiency in Public Urban Renewal Expenditures through Capital Budgeting; Berkeley, Cal.: Center for Real Estate and Urban Economics, University of California, 1965. (38.)
19. Karl Mannheim, Ideology and Utopia. New York: Harcourt, Brace and Co., 1936. (39.)
20. S.A. Marglin, "The Social Rate of Discount and the Optimal Rate of Investment," Quarterly Journal of Economics, Vol. LXXVII, No. 1, Feb. 1963. (40.)
21. S.A. Marglin, "The Opportunity Costs of Public Investment," Quarterly Journal of Economics, Vol. LXXVII, No. 2, May, 1963. (41.)
22. S. A. Marglin, Public Investment Criteria. London: George Allen & Unwin, 1966. (42.)
23. J.R. Meyer, J.F. Kain, M. Wohl, The Urban Transportation Problem. Cambridge, Mass.: Harvard University Press, 1965. (43.)
24. R.A. Musgrave, The Theory of Public Finance. New York: McGraw-Hill, 1959. (44.)
25. Gunnar Myrdal, The Political Element in the Development of Economic Theory, London: Routledge & Kegan Paul, 1953. (45.)

46. Gunnar Myrdal, Value in Social Theory. London: Routledge & Kegan Paul, 1958. (46.)
47. Mollie Orshansky, "Counting the Poor: Another Look at the Poverty Profile," in L. Ferman, J. Kornbluh, A. Haber, eds., Poverty in America. Ann Arbor: The University of Michigan Press, 1965. (47.)
48. D.W. Pearce & S.G. Sturmev, "Private and Social Costs and Benefits: A Note on Terminology," Economic Journal, March, 1966. (48.)
49. A.C. Pigou, The Economics of Welfare. 4th ed. London: Macmillan, 1960. (49.)
50. A.R. Prest & R. Turvey, "Cost-Benefit Analysis: A Survey," in Surveys of Economic Theory, Vol. 3. New York: St. Martin's Press, 1966. (50.)
51. Margaret Reid, Housing and Income. Chicago: University of Chicago Press, 1962. (51.)
52. Joan Robinson, "Consumer's Sovereignty in a Planned Economy," in Joan Robinson, Collected Economic Papers, Vol. III. Oxford: Oxford University Press, 1965. (52.)
53. Jerome Rothenberg, Economic Evaluation of Urban Renewal: Conceptual Foundations of Benefit-Cost Analysis, mimeo. (forthcoming) (53.)
54. A.H. Schaaf, Economic Aspects of Urban Renewal: Theory, Policy, and Area Analysis. Berkeley, California: Real Estate Research Program, Research Report # 14, 1960. (54.)
55. Alvin Schorr, Slums and Social Insecurity. Washington, D.C.: U.S. Dept. of H.E.&W, Research Report No. 1 (no date). (55.)
56. Tibor Scitovsky, "A Critique of Present and Proposed Standards," in Tibor Scitovsky, Papers on Welfare and Growth. Stanford, Cal.: Stanford University Press, 1964. (56.)
57. Tibor Scitovsky, "Two Concepts of External Economies," in ref. # 56. (57.)
58. A.K. Sen, "On Optimizing the Rate of Saving," Economic Journal, Sept., 1961. (58.)
59. Special Commission on Low-Income Housing, Final Report. Commonwealth of Massachusetts, House Document No. 4040., April, 1965. (59.)
60. P.O. Steiner, "The Role of Alternative Cost in Project Design and Selection," Quarterly Journal of Economics, August, 1965. (60.)
61. Paul Streeten, "Appendix: Recent Controversies," in ref. # 45. (61.)
62. G.M. Trevelyan, A Shortened History of England. Baltimore, Maryland: Penguin Books, 1960. (62.)
63. Thorstein Veblen, "The Country Town," in Max Lerner, ed., The Portable Veblen. New York: The Viking Press, 1958. (63.)
64. United South End Settlements, Castle Square Residential Relocation Program, Final Report. Boston, Feb. 1, 1964. (64.)