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IS IN-KIND REDISTRIBUTION EFFICIENT?

by

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DISCUSSION PAPERS

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INTRODUCTION

The traditional welfare economic case against in-kind redistributions is based on the notion that the potential beneficiary could do at least as well and usually better if he were given the cash equivalent of the in-kind subsidy.[1] The preferences of the potential taxpayer are ignored. This paper builds upon the work of Tibor Scitovsky [13] and James Buchanan [1]--who have incorporated taxpayer preferences into their analyses but, in doing so, have left out beneficiary preferences.[2] An analysis of the efficiency or lack thereof of in-kind redistributions must take account of both taxpayer and beneficiary preferences.[3]

In the first section of this paper I briefly summarize the positions of Scitovsky and Buchanan. In the second section, I develop a general model within which any possible combination of taxpayer and beneficiary preferences can be analyzed. I show that the traditional case against redistribution in-kind as well as the work of Buchanan and to a lesser extent Scitovsky, are special cases based upon particular assumptions about preferences of potential taxpayers and beneficiaries and on implicit interpersonal utility comparisons.

SECTION I.   BUCHANAN AND SCITOVSKY

Tibor Scitovsky argues that, while individuals are concerned about the overall distribution of income, for any given distribution, their sense of equity is satisfied in proportion to the degree to which

necessities are distributed equally.[4] He also suggests that although

in-kind redistribution is still inefficient, it may be desirable in

any case on political feasibility grounds. In the following section

I show that if Scitovsky's description of taxpayer preferences is

correct, in-kind redistribution may be efficient. I then consider

more rigorously the analytical implications of political feasibility

constraints.

James Buchanan has also challenged the argument that in-kind

redistributions are inefficient.[5] Unlike most other economists,

Buchanan treats distribution as an allocation problem. He rejects

the concept of a social welfare function on the grounds that inter-

personal comparisons of utility cannot be made on a scientific basis.

Whatever distribution of income exists at the time, he accepts.

Buchanan then asks is there some set of transfers that will make some

individuals better off and none worse off. If so, these transfers

should be instituted. If not, there should be no transfers.

While Scitovsky argues that non-poor individuals derive utility

from an egalitarian distribution of certain goods, Buchanan argues that

non-poor individuals in our society derive disutility from observing

particular manifestations of poverty, such as ragged dress or run-down

housing. Although there are important differences in these positions,

the similarity should not be overlooked. Both argue that the poor's

consumption of particular goods generates externalities. Buchanan

simply goes further and asserts that the non-poor neither care about

the distribution of income, nor derive disutility from poverty _per se_.

Since the behavior of the poor generates negative externalities, the non-poor have an incentive to bribe the poor to behave differently, i.e., to change their consumption bundles. The poor also benefit from the bribe or subsidy. Because the welfare of both the poor and non-poor increases, redistribution in-kind leads to Pareto Optimality. Moreover, Buchanan claims this explains why, in practice, redistributions are of the in-kind variety.

Buchanan's analysis raises several important normative and positive questions. Is there an implicit social welfare judgment in his normative analysis, and if so, what is it? Second, if the non-poor do suffer dis-utility only from the behavior of the poor several questions follow. Are in-kind redistributions alone sufficient to obtain a Pareto Optimal situation? Are cash redistributions inefficient? How does one account for the fact, not mentioned by Buchanan, that in practice, redistributions are also of the cash variety? Finally, would the answers to the foregoing questions differ if individuals derived disutility from poverty per se, as well as particular manifestations of poverty? In order to answer these questions, the preferences of both potential taxpayers and potential beneficiaries will be examined in the next section.

II. THE ALLEGED INEFFICIENCY OF IN-KIND REDISTRIBUTIONS

In this section I consider the alleged inefficiency of in-kind distribution. I consider what kind of redistribution is efficient: (1) if tax-payers derive utility from and are willing to pay something for increases in beneficiaries consumption of particular goods, or increases in their income, or some combination of both or (2) if taxpayers are not willing to

pay for either increases in beneficiaries' consumption of particular

goods or increases in their income.

I assume throughout the analysis that subsidized goods cannot be

traded for other goods. If free and costless trade is possible there

would be no difference between cash and in-kind redistributions from

the beneficiaries' point of view.[6] But the assumption of no trade

possible is very realistic. Moreover, I assume that the type of redis-

tribution will affect the beneficiary's consumption bundle, i.e.,

that the excess burden traditionally attributed to in-kind redistri-

bution exists.

A: The Taxpayer's Preferences

In general, the taxpayer, T, has the following kind of utility

function:

$$(1) \quad U^T = U^T(Y_T, Y_B, X_B)$$

where Y_T is T's net income after redistribution, Y_B is dollars of cash

redistribution from T to B (the beneficiary), and X_B is dollars T spends

on subsidizing B's consumption of X.[7] Given these definitions of Y_T,

Y_B, and X_B, the first can be written in terms of the other two, i.e.,

$Y_T = K-(Y_B+X_B)$. With this substitution, T's marginal rate of substitution

between cash and in-kind redistribution can be derived as:

$$(2) \quad \frac{dX_B}{dY_B} = - \frac{U^T_{Y_B} - U^T_{Y_T}}{U^T_{X_B} - U^T_{Y_T}},$$

where $U^T_{Y_B}$ is the marginal utility T derives from an increase in B's income,

$U_{X_B}^T$ is the marginal utility T derives from an increase in B's consumption of X, and $U_{Y_T}^T$ is the marginal utility T derives from an increase in his own income.

The preferences of any taxpayer can be described in terms of the relationships of these three marginal utilities. Figure I on the following page depicts a taxpayer's indifference map in cash and in-kind space. Cash redistribution is measured from left to right and in-kind redistribution from the bottom to the top of the page. The decrease in T's income as a result of redistribution is measured by the sum of the horizontal and vertical distances from the, as yet, unspecified origin.

The origin, which represents the pre-transfer distribution of income, is not specified because it will vary with both (i) the current distribution of income and (ii) the taxpayers' generosity and preferences for cash versus kind redistribution. The importance of the origin will become clear below.

I make three assumptions about Taxpayer T: (i) his preferences for cash vis-á-vis in-kind redistribution are characterized by diminishing marginal rate of substitution; (ii) he is indifferent between certain income distributions where he would feel his income is too low relative to that of the potential beneficiary and other income distributions where he would feel his income is too high relative to that of the potential beneficiary; but (iii) he would prefer a positive to a negative deviation of equal dollar magnitude from what he considers to be the optimal distribution. Alternative assumptions may be treated as special cases wherein only particular areas of the taxpayer's indifference map in Figure I are relevant.

The indifference map is divided into six areas by the three lines $U_{X_B}^T = U_{Y_B}^T$, $U_{X_B}^T = U_{Y_T}^T$, and $U_{Y_B}^T = U_{Y_T}^T$. The line $U_{X_B}^T = U_{Y_B}^T$ is the locus

Figure I: Cash Versus Kind Redistribution: A Taxpayer's Indifference Map
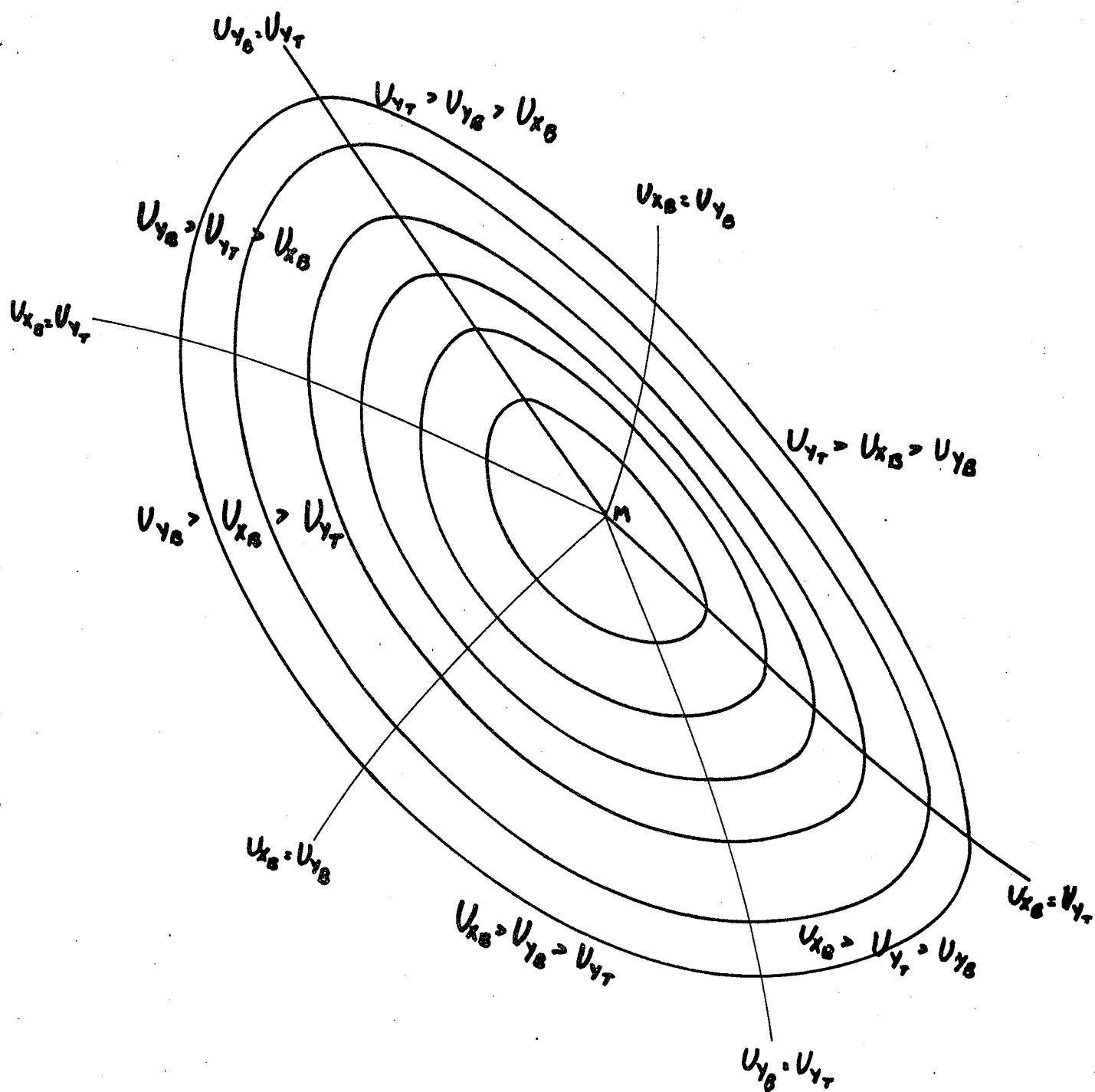
of points through T's indifference curves where the slope $(\frac{dX_B}{dY_B}) = -1$, that is the locus of points where the taxpayer is indifferent between cash and kind redistribution. Similarly $U_{X_B}^T = U_{Y_T}^T$ and $U_{Y_B}^T = U_{Y_T}^T$ are the loci points through T's indifference curves where the slopes are respectively infinite and zero.

Some taxpayers might prefer cash to kind no matter what the relative shares of cash and kind redistribution. In this case the entirety of the taxpayer's indifference map will lie above or to the left of the line $U_{X_B}^T = U_{Y_B}^T$. The opposite would be the case for the taxpayer who always preferred in-kind to cash redistribution. The taxpayer who never derived more utility from cash redistributions than from increases in his own income, as Buchanan posits, would just be a special case of the latter, where the map is restricted even further-- to the area where $U_{Y_T}^T > U_{Y_B}^T$. The taxpayer who never derived more utility from in-kind redistributions than from his own income increases would, similarly, be a special case of the former. Finally, the tax-payer who is indifferent between cash and kind redistribution no matter what the circumstances, has indifference curves which are straight lines with slopes of -1.

Taxpayers who would not willingly transfer any of their income in either cash or kind no matter how skewed in their favor was the income distribution, would have an indifference map only in the area to the northeast of the thick segments of the lines $U_{Y_B}^T = U_{Y_T}^T$ and $U_{X_B}^T = U_{Y_T}^T$. But very few individuals are so infinitely ungenerous. Moreover, such a strong assumption about taxpayers' utility functions is not necessary to derive the result that some taxpayers will oppose any kind of

redistribution. If the pre-transfer distribution of income is such that the origin is to the northeast of the abovementioned line segments, the taxpayer will oppose any kind of redistribution.

The thick segments of $U^T_{Y_B} = U^T_{Y_T}$ and $U^T_{X_B} = U^T_{Y_T}$ are important for another reason. The parts of T's indifference curves which are to the southwest of these lines may be ignored because they represent inefficient distributions. Throughout this region of T's indifference map it is possible to hold T's level of welfare constant while increasing the amount of either in-kind or cash redistribution without decreasing the other, and in some regions ($U^T_{X_B} > U^T_{Y_T} > U^T_{Y_B}$ and $U^T_{Y_B} > U^T_{Y_T} > U_{X_B}$) both can be increased. Since such increases would increase the beneficiary's welfare while leaving that of the taxpayer unchanged, any distribution of income within this range is inefficient.

Finally, note that in the general case T's bliss point--i.e., the point of T's independent welfare maximization--is where $U^T_{X_B} = U^T_{Y_B} = U^T_{Y_T}$. (This is obtained by maximizing (1) subject to T's budget constraint.) In Figure I this condition is satisfied at point M. The importance of M can easily be over-emphasized.[8] As I will show below, M is just one of an infinite number of points along the utility possibility frontier. Choosing M from among these points requires a social welfare judgment.

B: The Beneficiary's Preferences

In order to analyze the efficiency (or lack thereof) of in-kind redistributions, preferences of beneficiaries as well as taxpayers must be considered. The beneficiary's utility function may be formulated as follows:

$$(18) \quad U^B = U^B (Y^B_B, X^B_B) ,$$

where Y_B is his income inclusive of cash transfers[9] and X_B is the dollar

cost to T of a particular kind of in-kind redistribution. (Again, though

B actually derives utility from consumption of X, this is related in a

unique way to T's expenditure on redistribution through X, but the former

is subject to manipulation.) B's marginal rate of substitution is:

$$(19) \quad \frac{dX_B}{dY_B} = -\frac{U^B_{Y_B}}{U^B_{X_B}} .$$

The marginal rate of substitution of B must always be equal to or greater

than one because $U^B_{Y_B}$ must always be equal to or greater than $U^B_{X_B}$. Since

I assume that in-kind redistribution vis-à-vis a potential cash equivalent

redistribution entails a welfare loss for beneficiaries the slope of B's

indifference curve $(\frac{dX_B}{dY_B})$ must be greater than one. Moreover, B's indif-

ference curves will reflect the property of diminishing marginal rate

of substitution.

The slope of B's indifference curves is a function of the welfare

loss he suffers from not getting the cash equivalent of an in-kind redis-

tribution. The magnitude of the welfare loss declines along his indif-

ference curves in cash and in-kind space as the proportion of cash to

in-kind redistribution increases. This is demonstrated in Figure II on

the following page. In Figure II dollars spent on X rather than units

of X is measured along the horizontal axis. For this reason the original

budget constraint or price line AB has a slope of -1. When X is sub-

sidized the price line pivots to AC. The new equilibrium would be at

a point such as E_1 where B's indifference curve—not shown—is tangent

Figure II: B's Welfare Loss as a Function of the Amount of In Kind
          Redistribution
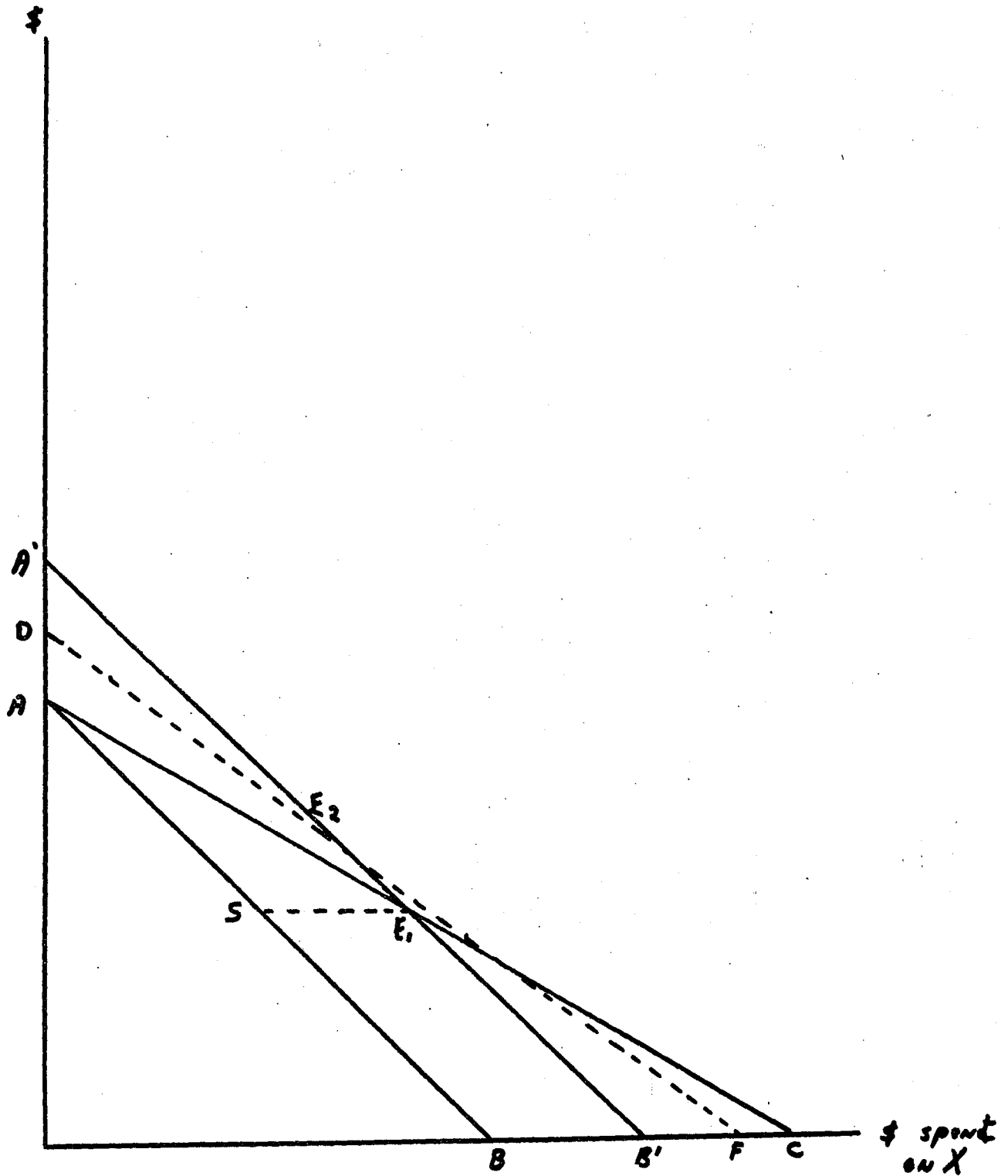
to AC. The cost to the taxpayer is SE_1 dollars. If the consumer were given SE_1 dollars in cash A'B' would be the new price line. The new equilibrium under these circumstances would be at a point such as E_2. Points along A'B' between E_1 and E_2 represent combinations of cash and in-kind redistributions which cost the taxpayer SE_1 dollars.

Through each of these points we can draw price lines such as DF which involve progressively less price subsidization than AC and lead to tangencies with indifference curves along A'B'. The closer the slope of the price lines (like DF) to the pure cash price line, A'B', the larger will be the cash component and the higher will be the indifference curve which is tangent to that price line. The welfare loss from in-kind redistribution decreases as B attains increasingly higher indifference curves. Along indifference curves in cash and kind space, therefore, as the in-kind component decreases, the welfare loss decreases. Consequently his preference for cash versus in-kind redistribution will diminish. This means his indifference curves will exhibit a diminishing marginal rate of substitution.

C: Taxpayer and Beneficiary Preferences

The taxpayer's and beneficiary's indifference curves can now be analyzed together in a modified Edgeworth box diagram to ascertain when in-kind redistributions are efficient. The southwest corner of the box represents the pre-transfer distribution of income. Dollar amounts of cash redistribution are measured by the distance from the southwest origin to points along the horizontal axis and dollars amounts of in-kind redistribution are measured by the distance from the southwest

origin to points along the vertical axis. The northern boundary of the box is determined by the community's social welfare function.[10] Consequently, the Edgeworth box becomes a triangle, with one curved side.

To simplify the analysis I consider only the relevant range of various taxpayers' indifference maps. These ranges correspond to one or more of the six areas in Figure I. (Imagine that the Edgeworth triangle is superimposed on some part of the taxpayer's indifference map.) All references to taxpayer preferences should therefore be understood to apply to this relevant range only.

If $U^T_{X_B} > U^T_{Y_B}$, the taxpayer prefers in-kind redistribution. If $U^T_{X_B} > U^T_{Y_T}$ as well the taxpayer is willing to pay for an in-kind redistribution. If $U^T_{X_B} > U^T_{Y_B} < U^T_{Y_T}$, the taxpayer prefers in-kind to cash redistributions, but he prefers no redistribution to either. In both these cases at least some and perhaps a great deal of in-kind redistribution is efficient. If, on the other hand, $U^T_{Y_B} \geq U^T_{X_B}$, in-kind redistribution is inefficient irrespective of the relationship of $U^T_{Y_B}$ to $U^T_{Y_T}$.

Consider first the taxpayer who prefers cash to kind redistribution. Whether or not he wishes to transfer some of his income, only a pure cash redistribution will be efficient. This is illustrated in Figure III on the following page.

The bliss point of T lies outside the Edgeworth triangle. Consequently T is best off where I_7 is tangent to the cash axis. However, suppose the community's welfare judgment is that T's welfare should be reduced to I_1 in order to increase that of B. Given T's preference for cash over kind the slope of I_1 is less than one (absolute value) even

Figure III: Inefficiency of In Kind Redistribution: A Special Case
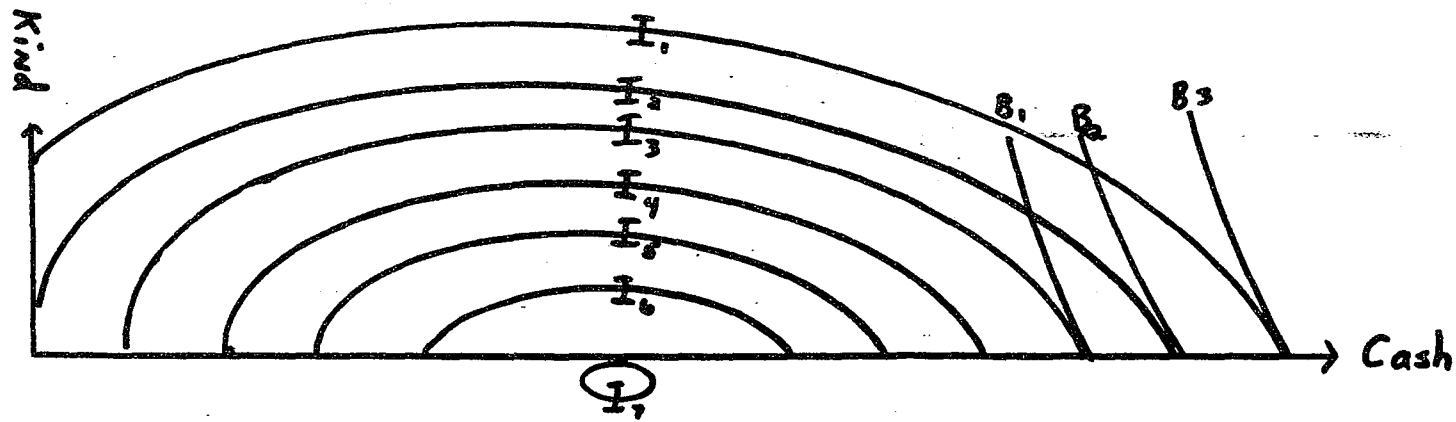
at the cash axis. But the slope of B's indifference curves are every-where greater than one. Consequently B's welfare is maximized (holding that of T constant along I_1) through a pure cash redistribution where B_3 crosses I_1 at the cash axis.

The argument would not be altered if the origin were at, or to the right of, the point where I_7 was tangent to the cash axis. Moreover, the same argument would clearly apply if T were indifferent between a cash and kind redistribution. However, if in the community's judgment T should be made worse off than I_1 in order to further improve B's welfare, the range where T prefers kind to cash redistribution could become relevant. In this case, the conclusion that an all cash redis-tribution is efficient might have to be modified.

In short, if the taxpayer is either indifferent or prefers cash to kind redistribution in the relevant range the latter is always inef-ficient. In these special cases, the traditional generalization from the partial equilibrium analysis of the excess burden of an in-kind redistribution to inefficiency of in-kind transfers in general equi-librium is valid.

Suppose, on the other hand, the taxpayer prefers in-kind to cash redistribution throughout the relevant range. In this case a pure in-kind, or some combination of cash and kind redistribution will be efficient. As depicted in Figure IV on the following page a combination of both is efficient. But this need not be the case. It depends upon the original distribution of income, the community's welfare judgment, and the preferences of T and B.

At the very least, some in-kind redistribution will be efficient because the welfare loss B suffers approaches zero as the amount of

Figure IV: Efficiency of In Kind Redistribution: A Special Case
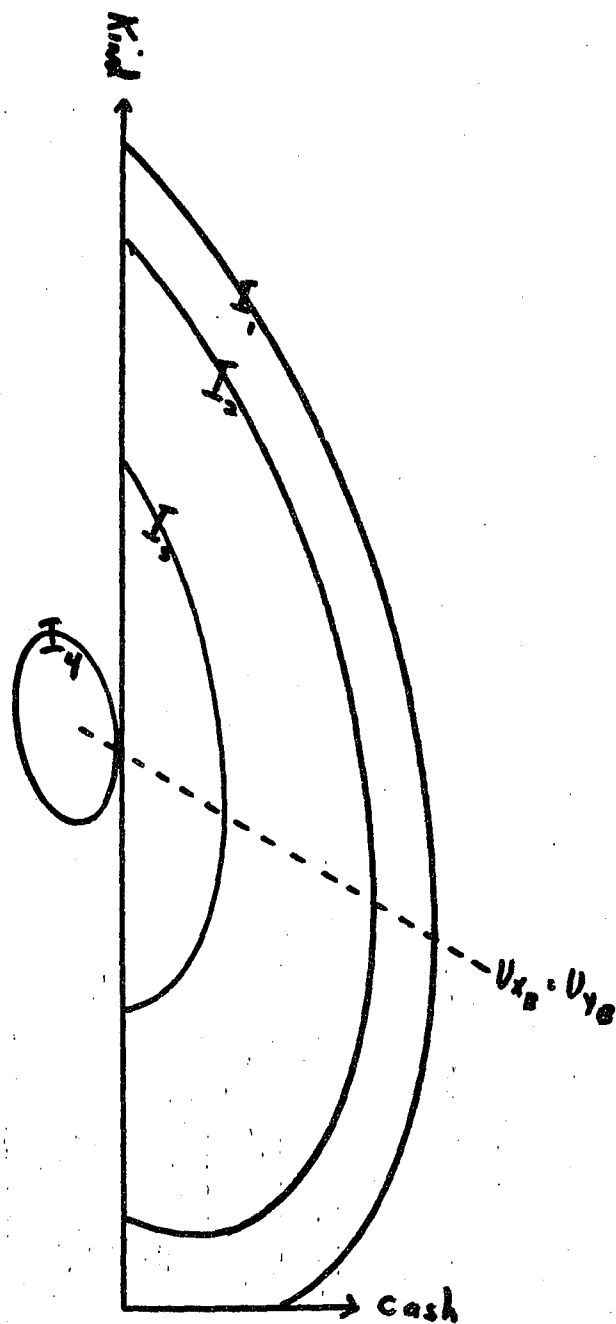
in-kind redistribution approaches zero. This implies in turn that the
slopes of B's indifference curves approach one near the cash axis.
But the slopes of T's indifference curves are by assumption everywhere
greater than one. Consequently a tangency a very small distance from
the cash axis is assured. On the other hand a tangency near the in-
kind axis is also quite possible, and, even probable for low levels
of total redistribution where the welfare loss from even a pure in-
kind redistribution will probably be small.

The argument would not be altered if the origin were at, or
above, the point where I_4 is tangent to the in-kind axis. At least a
little and perhaps a lot of in-kind redistribution will be efficient
irrespective of whether the taxpayer is willing to pay for it or not.
Thus the assumption by some economists that the efficient aggregate
amount of subsidization of a good is determined by simply aggregating
the willingness to pay of all individuals, is false.[11] More or less may
be efficient depending on society's welfare judgment. For the case
illustrated in Figure IV less would be efficient. Taxpayer T is best
off when he subsidizes X only, i.e., where I_4 is tangent to the in-
kind axis. But given the community's welfare judgment society is
better off if he spends less on subsidizing X and more on increasing
B's income than he would choose to do freely. Only if there is a welfare
judgment which specifies that T's welfare should not be reduced below
his independent utility maximizing level would willingness to pay be
a sufficient criterion for determining the aggregate amount of subsi-
dization.

Moreover, Buchanan's assumption that taxpayers are only willing
to pay for beneficiaries' consumption of particular items is not a

necessary condition for demonstrating the efficiency of in-kind redis-

tribution. (It is, however, sufficient.[12]) Nor is it necessary that

taxpayers prefer in-kind to cash redistribution throughout the Edgeworth

triangle. It is only necessary (though not sufficient) as depicted in

Figure V on the following page that within some range along their indif-

ference curves, taxpayers prefer in-kind to cash redistributions. In

this case, which appears to be what Scitovsky has in mind, either a

pure cash, or a pure in-kind, redistribution or some combination of

both, will be efficient. As depicted in Figure V a combination of both

is efficient. But this need not be the case. If the slope of B's

indifference curves were steeper everywhere (less steep) than I_1, a

corner solution along the cash (in-kind) axis would have resulted.

D: From the Edgeworth Box to Utility Space

Figures III, IV and V are translated into utility space in Figure

VI on page 19. Initially I shall assume that the utility possibility

function is derived only from individual preferences and a production

transformation function, defined so as to include the taxation and

coercion costs of transfers. The initial, or pre-transfer distribution

of income is denoted by I. From H to J the utility frontier has an

unconventional positive slope indicating that T's as well as B's welfare

increases as T pays for redistributing income to B.[13] Any distribution

along HJ is inconsistent with a Bergsonian welfare function, because the

slope of the latter must always be negative.[14] If the taxpayer prefers

in-kind to cash redistribution, JK is the relevant utility frontier;

while JL is the relevant utility frontier if the taxpayer is either

indifferent to or prefers cash to in-kind redistributions. The frontier

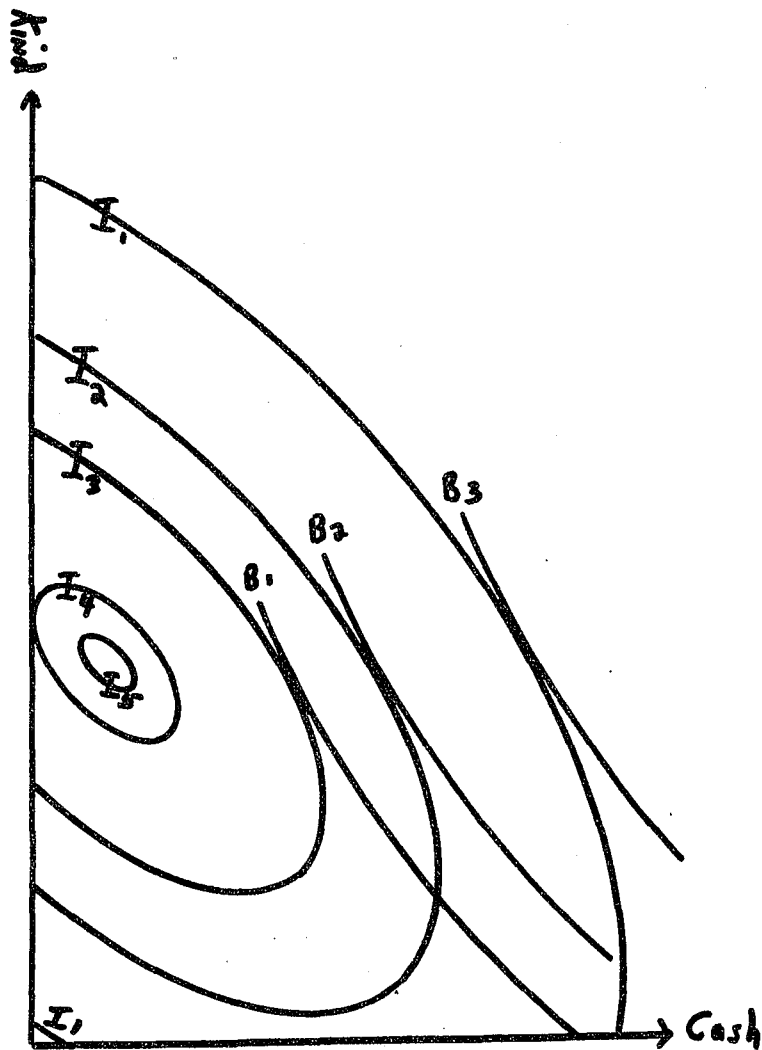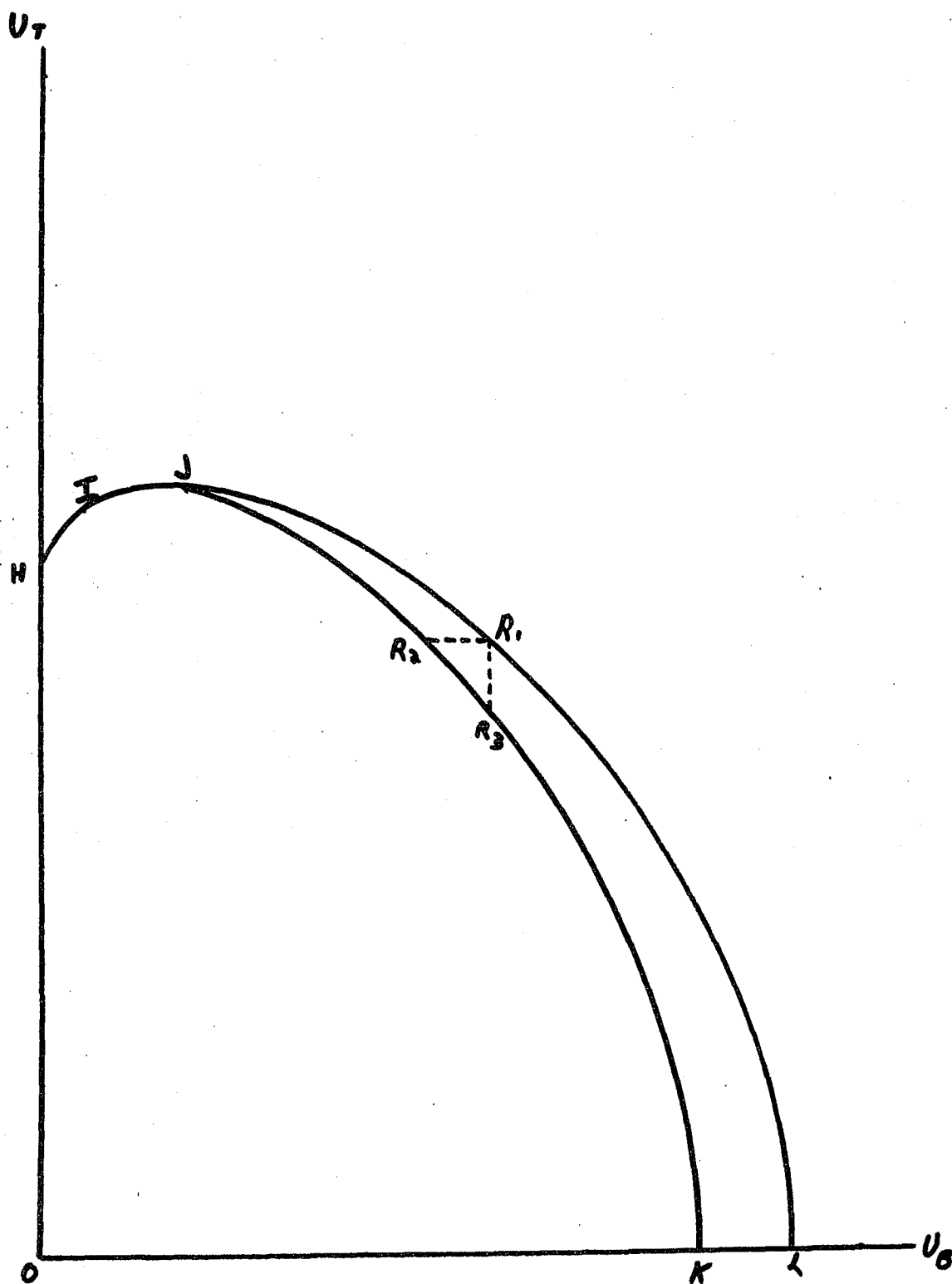Figure V: Efficiency of In Kind Redistribution: A Less Special Case

Figure VI: Taxpayer Preferences and the Utility Frontier

JK must lie within JL. Consider a cash redistribution of X dollars.
Let R_1 represent the new distribution if T does not care or prefers
cash. Now suppose T prefers in-kind. If his welfare is held con-
stant, this implies either that his taxes are lower, or the redis-
tribution is in-kind, or some combination thereof, as compared to the
case where he is indifferent between cash and in-kind. In any case
B must be worse off. The new distribution is given by a point such
as R_2. But we could also hold B's welfare constant. The new distri-
bution would be at R_3. The point is that if T does prefer kind to
cash, there is less welfare to share. Whether T or B suffers as a
result depends on society's social welfare function. This point has
apparently eluded some economists.[15]

It is impossible to say, *a priori*, whether movements along JK
are achieved by pure cash, pure in-kind, or some combination of both.
Along JL, of course, redistributions consist of pure cash.

Assume for the moment that all taxpayers prefer in-kind to cash
redistribution and that some combination of both is efficient. In
order to describe the best state of the world, an ethical judgment or
a social welfare function specifying interpersonal utility comparisons
must be supplied. To say that a combination of cash and kind redis-
tributions is a necessary condition for achieving the "best state of
the world" is not to characterize that state uniquely.

If one individual's welfare can be increased without diminishing
the welfare of any other individual, the allocation of resources is
inefficient. This is the case along HJ. But all points along JK are
no less efficient than J. While it is true that moving from J to K

involves taxation and coercion costs, this does not make R_2 or R_3 inefficient. For at R_2 or R_3 no less than at J it is impossible to make T or B better off without making the other worse off. Contrary to what Buchanan seems to implicitly assume, the Pareto criterion of efficiency does not say that no one should be made worse off in order to make someone else better off.

The only difference between R_2, R_3 or any point along JK is in the distribution of welfare between T and B. Some individuals, Buchanan perhaps, will prefer J. Others will prefer some other distribution in which B is better off. The important points are these: (i) a choice is required to describe the best state of the world, and (ii) both choices involve an interpersonal utility comparison.

### III. THE IMPORTANCE OF POLITICAL FEASIBILITY

Up to this point I have assumed that the utility possibility function can be fully characterized by individual preference functions and a production transformation function. This assumption overlooks the possibility that political feasibility may be an important element in the possibility constraint. Within the utility possibility frontier there may lie what Samuelson, [11], has called a political feasibility frontier. The former is based on technological constraints and personal tastes alone, while the latter encompasses political feasibility constraints as well. The important point for the analysis here is that, given certain kinds of welfare or value judgments, some allocations of

resources that are inefficient in terms of the utility possibility frontier will be preferred to efficient ones. Such a case is illustrated in Figure VII on the following page.

HIJKL is the utility possibility frontier. HIJK'L' is the political feasibility frontier. The initial income distribution is denoted, as before, by I. Taxpayer T is willing to pay for subsidizing B's consumption of X up to J, but beyond J additional subsidization is inefficient--either because T does not prefer that his unwillingly paid tax dollars be used for additional subsidization of X, or because (even though he may prefer this) his preference is so weak relative to B's welfare loss that any more subsidization of X would still be inefficient. The point K' represents the division of welfare when T is taxed enough to achieve an equal distribution of X. As illustrated in Figure VII, given a social welfare function wherein more equality is preferred to less, K' will be preferred to J on welfare grounds, even though the latter is efficient on technical grounds alone while the former is not. The point K is, of course, preferable to K'. In general although all efficient points are not preferable to all inefficient ones, there is always at least one efficient point preferable to any inefficient one. But by assumption this efficient solution is not politically feasible. In other words even if subsidization of X in excess of taxpayer's willingness to pay is inefficient in the narrow sense, it still may be preferable on welfare grounds given the political system and certain kinds of welfare or value judgments such as more equality is preferable to less.

Figure VII: The Political Feasibility Constraint
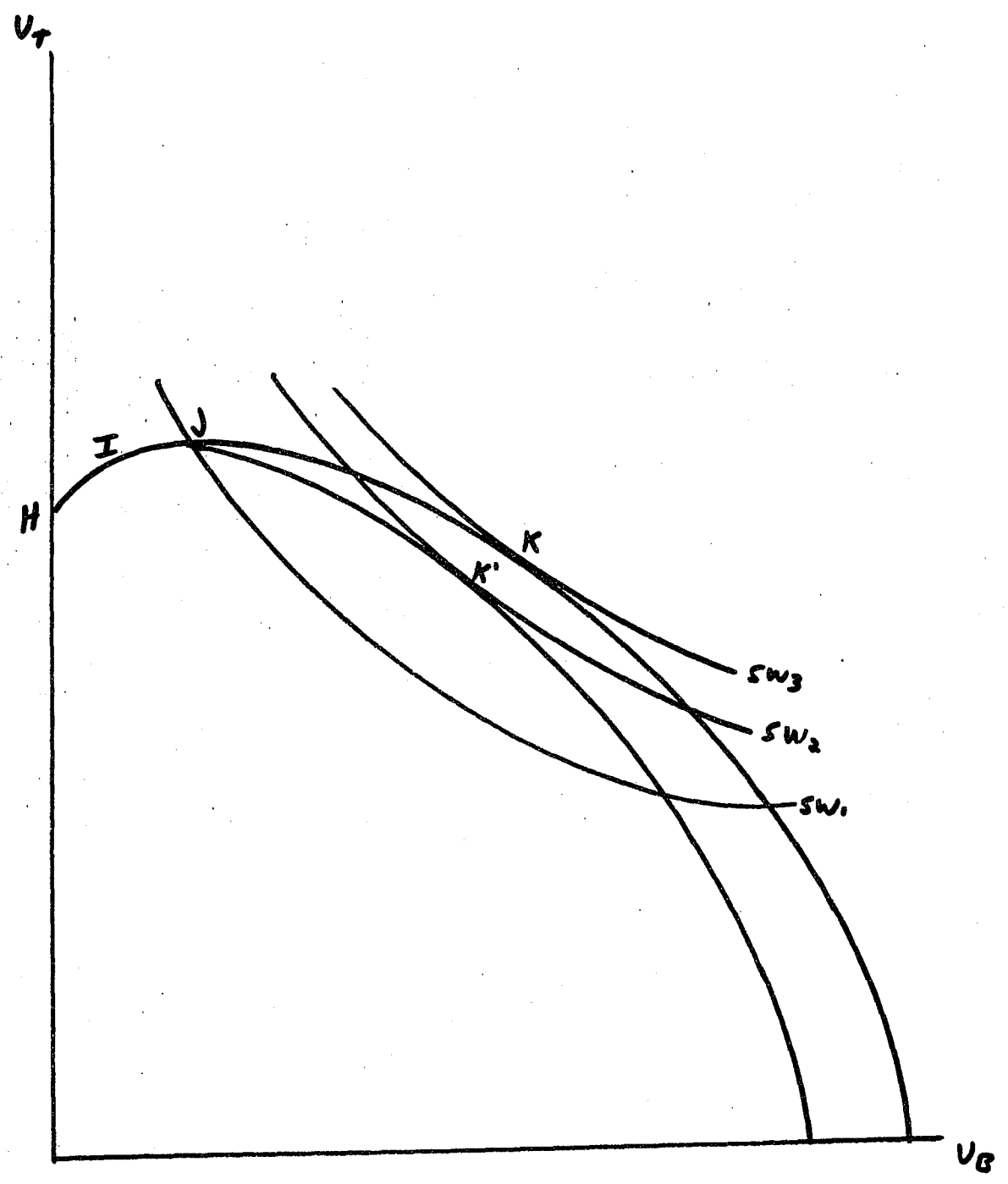
While it is not clear that the foregoing is what Scitovsky had in mind in his references to political feasibility, it is clear that political feasibility considerations should not be dismissed by the welfare economist who is interested in real policy problems. Almost 40 years ago, R.H. Tawney, in his classic work Equality, described what is in essence a second best strategy for egalitarians.

> If every individual were reared in conditions as favorable to health as science can make them, received an equally thorough and stimulating education up to sixteen, and knew on reaching manhood, that given a reasonable measure of hard work and good fortune, he and his family could face the risks of life without being crushed by them the most shocking of existing inequalities would be on the way to disappear. Sharp contrasts of pecuniary income might indeed remain, as long as society were too imperfectly civilized to put an end to them. But the range of life corrupted by their influence would be narrower than to-day. It would cease to be the rule for the rich to be rewarded, not only with riches, but with a preferential share of health and life, and for the penalty of the poor to be not merely poverty, but ignorance, sickness and premature death. [See 14, p. 163.]

IV. Conclusion

In general, in-kind redistributions may be efficient, depending upon potential taxpayer and beneficiary preferences, the initial, or pre-transfer distribution of income and the community's social welfare function. If taxpayers prefer cash to in-kind redistributions or are indifferent, the latter are certainly inefficient. The traditional welfare economics case against redistribution in-kind depends upon this implicit, unproven, empirical assumption. If on the other hand taxpayers prefer in-kind to cash redistributions, some of the former is almost certainly efficient.[16]

But how much is efficient depends not only on taxpayers' preferences,

but on beneficiaries' preferences and the community's welfare judgment

as well.

FOOTNOTES

[1]If the price line confronting the beneficiary is not pivoted, there
may be no excess burden. The beneficiary may be given x units or a
voucher for the purchase of x units of the good. In this case his con-
sumption of the good may be identical to what it would have been had he
been given the cash equivalent, and there is no excess burden. Through-
out the article, however, I will assume that there is an excess burden.

[2]Taxpayers and beneficiaries are defined in net terms. If an indivi-
dual's taxes exceeds his subsidy from a redistributional program he is
a taxpayer. If the opposite is true he is a beneficiary. For analytical
convenience I assume no one breaks even.

[3]Lucien Foldes has criticized the traditional case through theoretical
counter examples. [See 2, 3, 4.] He shows that under certain circum-
stances redistribution of all goods may be more efficient than redistri-
bution of money alone. There are three major objections to his work.
First the policy choice is redistribution of money vs. redistribution of
a few--not all goods. Second, his demonstration of the superiority of
in-kind redistribution in the face of ignorance of individual preference
functions depends upon the assumption that policymakers are not ignorant,
but actually rather well informed. In his example, they are only uncer-
tain as to which of two sets of preferences or contract curves prevails.
But in practice policymakers know next to nothing about the slope and
location of contract curves, or their utility space equivalent--the
utility possibility frontier. (This appears to be the point that Mishan
[9] made and Foldes misconstrued [4].) It is not merely a question of
uncertainty as to which of two, or several, states of preferences exists
as Foldes treats the problem.
   Under these circumstances Foldes' demonstration [4] that a concern
with the distribution of income rather than the distribution of welfare
is inconsistent with a definite welfare function, seems beside the point.
Samuelson [12] in making this same argument long ago labeled such a con-
cern a fetish or shibboleth, but added, "albeit a useful one." Given
our ignorance of individual preferences, the qualification is worth
pondering.
   Finally, Foldes implicitly accepts the traditional assumption that if
the beneficiary suffers an excess burden from in-kind redistribution, then
such redistribution must be inefficient. I show this is not necessarily so.

[4]Public provision may not be the most efficient method of achieving an
egalitarian distribution of particular goods. See Irwin Garfinkel [5, and
6] and C.M. Lindsay [8].

[5]While Buchanan at one point asserts that his work should be viewed as
positive rather than normative, I treat it as a normative piece for two

reasons: (1) it has normative content--See [7]--and, (2) even if the normative implications are not of interest to Buchanan, they are certainly relevant to welfare economics.

[6] In a real economy, however, there are always costs associated with trade. Trade takes time and the cost of establishing a market is always greater than zero. Moreover, even if free and costless trade were possible, in-kind redistribution might be inefficient even though it involved no excess burden from the beneficiary's point of view, because of the ineversability of production. [I owe this latter point to Charles Metcalf.]

[7] Actually, T derives utility from B's income and consumption of X, but these are related by some parameter to my definitions of Y_B and X_B, and the latter lend themselves to easy manipulation while the former do not.

[8] For two examples of such overemphasis see C.M. Lindsay [8] and Mark V. Pauly [10] who implicity assume that M is the only efficient point.

[9] This assumes that the increase in B's utility from an additional dollar of income is the same irrespective of whether the source is a transfer or earned income. This may not be the case, but the conclusions in this discussion would not be modified.

[10] I abstract from the problem of deriving a consistent community social welfare function from individual preferences.

[11] See Pauly [10] and Lindsay [8].

[12] If the relevant range is confined to the area where $U_{X_B} > U_{Y_T} > U_{Y_T}$ only in-kind redistributions are efficient no matter what beneficiary preferences are like, because the slope ot T's indifference curves will always be greater than those of B.

[13] Alternatively the utility possibility frontier might be confined to the area to the right of J. But there is some analytical usefulness of examining the possibility that the initial distribution of income is along HJ.

[14] This follows from the definition of a Bergsonian welfare function, wherein a ceterus paribus increase in one individual's utility increases welfare.

[15] See Burton Weisbrod, [16], and Vincent Taylor, [15], who argue that the choice of whether or not to recognize taxpayer preferences is a welfare choice between beneficiaries and taxpayers.

[16] For evidence that suggests taxpayers prefer some types of in-kind redistributions see [5].

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