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Analysis

An aggregate measure for benefit–cost analysis

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Abstract

The Kaldor–Hicks (KH) criterion has long been the standard for benefit–cost analysis, but it has also been widely criticized for ignoring equity and, arguably, moral sentiments in general. We suggest replacing KH with an aggregate measure called KHM, where the M stands for moral sentiments. KHM simply adds to the traditional KH criterion the requirement that any good for which there is a willingness to pay or accept count as an economic good. This suggested expansion of KH, however, must confront objections to counting moral sentiments in general and non-paternalistic altruism in particular. We show that these concerns are unwarranted and suggest that the KHM criterion is superior to KH because it provides better information.

Keywords: Benefit–cost; Moral sentiments; Potential compensation test

1. Background

The Kaldor–Hicks (KH) criterion arose out of discussions among prominent British economists during the late 1930s.[2] Before that time, it was generally assumed that each individual had an "equal capacity for enjoyment" and that gains and losses among different individuals could be directly compared (Mishan, 1981, pp. 120–121; Hammond, 1985, p. 406). Robbins (1932, 1938) disturbed this view by arguing that interpersonal comparisons of utility were unscientific. Kaldor (1939, pp. 549–550) acknowledged Robbins' (1938, p. 640) point about the inability to make interpersonal utility comparisons on any scientific basis, but suggested it could be made irrelevant. He suggested that when a policy led to an increase in aggregate real income,

> . . .the economist's case for the policy is quite unaffected by the question of the comparability of indivi-

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[2] These economists were Robbins, Hicks, Kaldor, and Harrod, all writing in the *Economic Journal*.

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dual satisfaction, since in all such cases it is possible to make everybody better off than before, or at any rate to make some people better off without making anybody worse off.

Kaldor went on to note (1939, p. 550) that whether such compensation should take place "is a political question on which the economist, qua economist, could hardly pronounce an opinion."[3] Hicks (1939) accepted this approach, which came to be called KH.

Thus, it came to be thought that including considerations of income distribution or of compensation would involve interpersonal utility comparisons, and that such comparisons should be avoided by excluding consideration of actual compensation or of income distribution.[4] It was thought that this exclusion would lead to a measure of efficiency that was more scientific.[5]

KH separates efficiency and equity and proposes to leave the latter to the politicians. Undoubtedly, there is some merit in separate accounting, but it does not follow that economists should refrain from providing information on equity and on moral sentiments. Increasingly, economists have not refrained (e.g., Andreoni, 1995; Palfrey and Prisbey, 1997; Office of Management and Budget, 2003).

The modern version of KH may be reasonably characterized by the following assumptions: (1) every dollar is treated the same regardless of who receives it, i.e., equal marginal utility of income;[6] (2) a project is efficient if it passes the Potential Compensation Test (PCT), i.e., if the winners could hypothetically compensate the losers (Kaldor, 1939, pp. 549–550);[7] (3) gains are measured by willingness to pay (WTP) and losses by willingness to accept (WTA); and (4) equity effects are to be disregarded. More controversial is whether or not moral sentiments, under which equity effects are a sub-category, are to be excluded in a KH test. To ignore moral sentiments imposes a substantial cost-it amounts, for example, to a dismissal of existence values in those instances in which they arise from moral sentiments. This topic is of interest because analyses that include moral sentiments can differ materially from those that do not (Portney, 1994).

2. An aggregate measure

Insofar as KH excludes moral sentiments, it excludes goods that can in fact be valued in the same manner that KH values other goods. That is, KH excludes some goods for which there is a WTP.[8] A logical extension or clarification of KH requires including all goods for which there is a WTP. Such an extension of KH we call an "aggregate measure" or

[3] It was thought that politicians or non-economists should make judgments and decisions about income distribution effects.

[4] As will be seen, economists' commendable but impossible efforts to avoid interpersonal utility comparisons created additional problems.

[5] Many economists have ignored the normative nature of any efficiency criterion. See, for example, the criticisms of economic efficiency and economists' use of it in the Hofstra Law Review (1980, 1981) volumes 8 and 9 and in volume 8 of the Journal of Legal Studies (1979).

[6] There are a number of recommendations that benefit–cost analysis incorporate distributional weights, e.g., Feldstein (1974), who proposes that the weights be inversely proportional to income. Thus, benefit–cost analysis has long entertained practices that imply a declining marginal utility of income.

[7] Subsequently, Tibor de Scitovszky (1941) (who later used the name Scitovsky) suggested an additional potential compensation test, according to which a project is acceptable when the potential losers could not bribe the potential winners to not undertake the project (Zerbe and Dively, 1994, p. 97). The KH criterion takes the status quo as the starting point and the Scitovsky version takes the new situation as the starting point. When KH is applied to both end states it satisfies both versions of the PCT, the Kaldor version and the Scitovsky version. Thus, we shall use the term KH to refer to both versions. It would be more accurate to call the sum of the equivalent variations the Scitovsky criterion, but this is awkward as he suggested that both versions of the PCT need to be satisfied and this double criterion is known as the Scitovsky criterion. For additional information, see Roger McCain's statement on this in http://www.ibiblio.org/pub/academic/economics/sci.econ.research/Monthly.compilations/ser.94.aug.1–114.

[8] We do not deal here with the question of when WTP is a better or worse measure than willingness to accept (WTA). That is, we do not assume that moral sentiments should be measured by WTP rather than WTA. This issue is discussed elsewhere (Zerbe, 2001).