Rawlsian Cost-Benefit Analysis

Subjects: Economics | Social Sciences, Mathematical Methods
Contributor: António Caleiro

The use of a Rawlsian perspective in cost-benefit analysis is proposed. For the purposes of the cost-benefit analysis, this perspective is at least as adequate as the traditional perspective, of a utilitarian nature.

Cost-Benefit Analysis   Rawlsian Criterion   Utilitarian Criterion

1. Introduction

Cost-benefit analysis can be understood as a methodology to support decision-making, especially suitable when it comes to issues of a social nature, which are often the target of decisions, whether private or public ones. In fact, whenever any decision, regardless of its nature, involves benefits and costs of a social nature, one should or, at the very least, could use the cost-benefit analysis to verify the extent to which that (private or public) decision is desirable, from a social point of view. For example, one could/should use cost-benefit analysis to verify whether the (private) decision to set up a company involving the creation of jobs, but also pollution, is socially desirable, as well as to verify, from the point of view of all involved, whether a (public) decision to hold an event in a particular location is socially desirable, involving greater publicity in favor of that location, but also costs associated with traffic limitations, for (alleged) safety reasons. These two examples clearly illustrate the range of cases to which cost-benefit analysis can be applied. It can even be applied to the exercise of positions, in which, whoever holds the position, has private benefits and costs, and gives rise to external benefits and costs, through the effect of their decisions on others.([1]) This also means that one could, or should, also use cost-benefit analysis to classify the individual holding the position in question, for example during an academic competition.

2. Methodological Approaches to Cost-Benefit Analysis

Simply put, there are two broad methodological approaches to cost-benefit analysis.([2]) One of the approaches consists on adapting the traditional methods of (investment) project analysis, so that all benefits and all costs (i.e., said, internal and external ones) are monetarily valued, using as decision criteria the Net Present Value (NPV) and/or the (Internal) Rate of Return (IRR) of those net benefits. Another approach, closer to Welfare Economics, uses concepts such as social surplus and Pareto Optimum/Improvement. In this branch of Economics, as is known, the so-called utilitarian and Rawlsian perspectives play a fundamental role.([3])

In simple terms, according to the utilitarian criterion, a situation, say A, is socially desirable to a situation, say B, if the sum of the utility levels, in situation A, of the individuals constituting society is greater than the sum of those levels of utility in situation B. Obviously, as extensively referred to in the literature, the use of this criterion can raise

equity problems, as, in the limit, the gain of a single individual (from situation A in relation to situation B) exceed the losses of all others, situation A will be considered better from a social point of view. From this point of view, not only problems of inequality may arise/increase,([4]) but also problems of democratic sustainability of collective choices may occur.

Also in simple terms, according to the Rawlsian criterion,([5]) a situation A is socially desirable to a situation B if the individual in the worst circumstances – the, so-called, 'underdog' – registers an improvement in her/his situation (in A, relative to B). Note that this individual may not be the same in both situations, but that, allegedly, the 'underdog' in the second situation, B, could not be worse than in the first situation, A.

To illustrate the argument in favor of using the Rawlsian criterion in the cost-benefit analysis, consider the following table, in which the benefits and costs of an investment prject are registered, in present values, by 3 individuals, which are, for simplicity, the only ones affected by that project.

	Benefits (B)	Costs (C)	B - C
Individual 1	100	10	90
Individual 2	10	20	-10
Individual 3	20	40	-20
Total	130	70	60

According to the traditional cost-benefit analysis, i.e., the one using the utilitarian criterion, the sum of benefits net of costs being positive, makes it socially desirable that the project to be implemented. Plainly, in this case, this decision results from the fact that the benefits are concentrated (essentially, in individual 1), with the costs being more dispersed, which results in the existence of utility losses, on the part of individuals 2 and 3. This fact, naturally, raises equity issues, i.e. the extent to which it is fair to take this project forward – whose benefits accrued by individual 1 can be only of a private nature – since there are two harmed individuals and (only) one beneficiary.

According to the Rawlsian perspective -- which, from the outset, has the advantage of making relative the appraisal in question, because, albeit implicitly, it has to be considered a starting situation -- the nature of the decision will depend on who was the worst-off individual before and after the project was implemented (in case of a favorable decision). In this case, if that individual was the 2 or the 3, obviously one should choose not to implement the project, unless individual 1 compensates the others, i.e. if there is a Pareto movement, which turns out to be possible. The investment project should only be subject to a favorable decision (without compensation) if that individual was individual 1 and even so, if and only if, individuals 2 and 3 were not in a worse situation than that in which individual 1 was (in the initial situation). Clearly, in this case, such a possibility could (or not) be verified depending on the difference in the initial utility levels earned by each one of these two individuals.

References

1. Caleiro, António Bento; Sobre a aplicação da análise custo-benefício ao exercício de cargos. Technical Report, 2014, https://doi.org/10.13140/RG.2.2.29275.77601.

2. Sugden, Robert; Williams, Allan. The Principles of Practical Cost-Benefit Analysis; Oxford University Press: Oxford, 1978; pp. 1.

3. Amartya Sen; Rawls versus Bentham: An axiomatic examination of the pure distribution problem. *Theory and Decision* **1974**, *4*, 301-309, 10.1007/bf00136651.

4. Caleiro, António Bento; Are Equity and Inequality Incompatible? A graphical response. *International Journal of Latest Trends in Finance and Economic Sciences* **2016**, *6: 4*, 1244-1246.

5. Rawls, John. A Theory of Justice; Harvard University Press: Cambridge (MA), 1971; pp. 1.