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Economics Is Not the Right Language for Addressing Climate Change

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Economics is not a useful language for discussing climate change policy for three main reasons:

- Cost-benefit analysis requires unrealistic assumptions about human preferences, technological possibilities, and property rights.
- Traditional economic assumptions tend to bury important ethical and moral questions beneath technical details.
- Because speaking in economic terms requires specialized knowledge, fewer people can participate in the political area, narrowing the public policy discourse.

Why is the debate over what to do about climate change formulated mainly in terms of economics? Economics is not the standard discourse in other cases in which fundamental values are at stake, nor is it the ruling principle in most of life's important decisions.

There are several reasons for the prominent role of economics, some more respectable than others:

1. The cost-benefit framework is an appealing way to frame policy questions in a diverse and pluralistic society, at least in cases involving ordinary goods where everyone can agree that "more is better." This relatively mild type of agreement allows the Kaldor-Hicks compensation principle to be deployed: A policy change is beneficial if the winners can compensate the losers and still have something left over. In practice, these compensating payments are rarely made, but the gains and losses tend to balance out over a large number of marginal policy moves, provided one group does not maintain a monopoly of power or exercise undue influence on the decision-making process.

In the climate case, however, the main beneficiaries of the policy are likely to be future individuals who do not yet exist. Even if they did, there is no way they could transfer some of their gains back to us in the present, because time travel is impossible. Hence, the consensus-building Kaldor-Hicks compensation rule cannot be invoked. Economic cost-benefit calculations going beyond Kaldor-Hicks require very strong utilitarian assumptions

[1] Economics for Equity and the Environment Network (E3) is a nationwide network of economists developing arguments for environmental protection with a social equity focus. For more information, please contact Kristen Sheeran, Director, at ksheeran@e3network.org. E3 is a program of Ecotrust.

allowing comparison of the consumption of different individuals living at different times and places, with different standards of living, prices, technologies, environments, and cultures. This necessitates various versions of discounting (to compare present and future consumption), indexing (to compare situations with different bundles of good and different prices) and direct interpersonal comparisons (as between rich and poor people in the present). The assumptions required to carry out these calculations are far more contestable than the simple Kaldor-Hicks rule.

These very strong utilitarian assumptions must be made in order to cast the climate policy problem as one of maximization of a mathematical objective function. The "benefit" to this formulation is that it allows economists to pretend that the policy problem can be solved by numerical calculations akin to those carried out by natural scientists. The first-order conditions for maximization and the market-clearing restrictions that place limits on the goods that can be produced and consumed have the appearance of the laws that constrain the outcomes of physical processes. However, economic problems are fundamentally different because (1) human agents (and their social systems) are capable of genuine choice, unlike physical systems, and (2) the background "givens" (such as human preferences, technological possibilities, and property rights) that are needed to make the maximization problem well-defined are not really given at all, because they are subject to choice and change.

2. The economics framework has a tendency to submerge ethical questions beneath technical details, and to transform moral questions into technical ones in a non-transparent or invalid way. Thus, intergenerational equity is prior to technical issues of discounting, and to convert the intergenerational equity problem into one of choosing a discount rate entails the concomitant adoption of numerous assumptions of strong utilitarianism and interpersonal comparisons (see #1 above). Similarly, the "representative agent" approach (which is usually necessary because of computational or informational limitations) covers over substantive assumptions about distribution of property rights and the operation of labor and capital markets within societies and across nations. The standard economic assumptions (that only absolute and not relative consumption matters for utility, that agents can formulate far-seeing plans rationally, that production is organized optimally, etc.) all embody judgments about human beings and human organizations that are not well-supported by the evidence.

Clarity is lost when these matters of ethics and value are transformed into seemingly technical issues. Paradoxically, it may be easier to gain agreement on some of the underlying moral principles (i.e., our duty to the future, provision for a social safety net for the weak, promoting opportunities for social and economic mobility, orientation towards

"sustainable development") than on the technical features of mathematical models embodying differences of principle in a non-transparent fashion.

3. Couching the climate policy problem primarily in economic terms gives economists disproportionate influence in the debate, so it is in economists' personal and professional interest to formulate the debate in economic terms. Mastering the technical apparatus of contemporary economics is an unacceptably high hurdle for participation. Achieving the right balance between scientific expertise and popular participation in the political arenas of modern mass societies is by no means easy or straightforward. Technical knowledge is essential for informed discussion many issues and public ignorance is a huge barrier to good decision-making, but at the same time expertise can serve as an excuse for self-aggrandizement. This is not to say that economists are any more power-hungry than others; rather, the tension between expertise and participation is one of several deep governance problems plaguing the modern world.

Even if economics ought not be the sole (or even the primary) ground upon which climate policy is debated, it should not be overlooked that there is a great deal of agreement among almost all economists about the main features of the problem. The emission of anthropogenic greenhouse gases constitutes an environmental externality, so some restriction of emissions would increase market efficiency; the externality is global, so coordinated international action is the most effective means of correcting it; and the significance of low-probability, high-impact catastrophic climate risks needs to be a major element in formulating policy. Multiple analytical routes lead to broad conclusions of this type, and economists can enhance their credibility (and helpfulness) by maintaining an appropriate degree of methodolog