

AN ECONOMIC PERSPECTIVE



By Robert N. Stavins

The Myths Of Market Prices And Efficiency

In my two previous columns I described a pair of prevalent myths regarding how economists think about the environment: “the myth of the universal market” — the notion that economists believe that the market solves all problems; and “the myth of simple market solutions” — the notion that economists always recommend simple market solutions for social problems. In response to those myths, I noted that in the environmental domain, perfectly functioning markets are the exception, not the rule, and that no particular form of government intervention is appropriate for all problems.

A third myth is that when non-market solutions are considered, economists use only market prices to evaluate them. No matter what policy instrument is chosen, the environmental goal must be identified. Should vehicle emissions be reduced by 10, 20, or 50 percent? Economists frequently try to identify the most efficient degree of control — that which provides the greatest net benefits. This means that both benefits and costs need to be evaluated. True enough, economists typically favor using market prices whenever possible to carry out such evaluations, because these prices reveal how people actually value scarce amenities and resources. Economists are wary of asking people how much they value something, because respondents may not provide honest assessments of their own valuations. Instead, economists prefer to watch how people reveal their preferences, such as when they pay more for a house in a neighborhood with cleaner air, all else equal.

But economists are not concerned

only with the financial value of things. Far from it. The financial flows that make up the GNP represent only a fraction of all economic flows. The scope of economics encompasses the allocation and use of all scarce resources. For example, the economic value of the health damages of pollution is greater than the sum of health-care costs and lost wages (or lost productivity), as it includes what lawyers call pain and suffering. Economists might use a market price indirectly to measure revealed rather than stated preferences, but the goal is to measure the total value of the loss that individuals incur.

For another example, the economic value of some parcel of the Amazon rain forest is not limited to its financial value as a repository of future drugs or as a location for ecotourism. Such “use value” may only be a small part of the properly defined economic valuation. For decades, economists have recognized the importance of “non-use value” of environmental amenities such as wilderness areas or endangered species. The public nature of these goods makes it particularly difficult to quantify the values empirically, as we cannot use market prices. Benefit-cost analysis of environmental policies, almost by definition, cannot rely exclusively on market prices.

Economists try to convert all of these disparate values into monetary terms because a common unit of measure is needed in order to add them up. How else can we combine the benefits of ten extra miles of visibility plus some amount of reduced morbidity, and then compare these total benefits with the total cost of installing scrubbers to clean stack gases at coal-fired power plants? Money, after all, is simply a medium of exchange, a convenient way to compare disparate goods and services. The dollar in a benefit-cost analysis is nothing more than a yardstick for measurement and comparison.

A fourth and final myth is that economic analyses are concerned only with efficiency rather than distribution. Many economists do give more attention to aggregate social welfare than to the distribution of the benefits and costs of policies among members of society. The reason is that an improvement in economic efficiency can be determined

by a simple and unambiguous criterion — an increase in total net benefits. What constitutes an improvement in distributional equity, on the other hand, is inevitably the subject of much dispute. Nevertheless, many economists do analyze distributional issues thoroughly. Although benefit-cost analyses often emphasize the overall relation between benefits and costs, many analyses also identify important distributional consequences.

So where does this leave us? First, economists do not believe that the market solves all problems. Indeed, many economists make a living out of analyzing “market failures” such as pollution in which laissez faire policy leads not to social efficiency, but to inefficiency. Second, when economists identify market problems, their tendency is to consider the feasibility of market solutions because of their potential cost-effectiveness, but market-based approaches to environmental protection are no panacea. Third, when market or non-market solutions to environmental problems are assessed, economists do not limit their analysis to financial considerations, but use monetary equivalents in benefit-cost calculations in the absence of a more convenient unit. Fourth and finally, although the efficiency criterion is by definition aggregate in nature, economic analysis can reveal much about the distribution of the benefits and the costs of environmental policies.

Having identified and sought to dispel four prevalent myths about how economists think about the natural environment, I want to acknowledge that my profession bears some responsibility for the existence of such misunderstandings about economics. Like our colleagues in the other social and natural sciences, academic economists focus their greatest energies on communicating to their peers within their own discipline. Greater effort can certainly be given by economists to improving communication across disciplinary boundaries. And that is my goal in this column in the months ahead.

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