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Article

***1651 COST-BENEFIT DEFAULT PRINCIPLES**

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For most government action, however, the benefits do seem to exceed the costs. . . . But even though the overall picture shows no cause for alarm, a closer look at federal regulatory policy shows a wide range of problems. Perhaps foremost is exceptionally poor priority setting, with substantial resources sometimes going to small problems, and with little attention to some serious problems. [\[FN36\]](#) There are also ***1659** unnecessarily high costs, with no less than \$400 billion being attributable to compliance costs each year, [\[FN37\]](#) including \$130 billion on environmental protection alone. [\[FN38\]](#) OMB's own report shows some disturbing numbers. For the next fifteen years, OSHA's methylene chloride regulation will have annual costs of \$100 million and annual benefits of \$40 million; [\[FN39\]](#) a regulation calling for roadway worker protection has benefits of \$30 million, but equivalent costs; the cost-benefit ratio for airbag technology innovations seems bad, though there is uncertainty in the data; [\[FN40\]](#) EPA's regulation for financial assurance for municipal solid waste landfills has monetized benefits of \$0, but costs of \$100 million, and this is expected for the next fifteen years. [\[FN41\]](#) The point has been dramatized by repeated demonstrations that some regulations create significant substitute risks [\[FN45\]](#)--and that with cheaper, more effective tools, regulation could achieve its basic goals while saving billions of dollars. [\[FN46\]](#)

In these circumstances, the most attractive parts of the movement for cost-benefit analysis have been rooted not in especially controversial judgments about what government ought to be doing, but instead in a more mundane search for pragmatic instruments designed to reduce three central problems: poor priority setting, excessively costly tools, and inattention to the unfortunate side-effects of regulation. By drawing attention to costs and benefits, it should be possible to spur the most obviously desirable regulations, to deter the most obviously undesirable ones, to encourage a broader view of consequences, and to promote a search for least-cost methods of achieving regulatory goals. [\[FN47\]](#) Notice that, so defended, cost-benefit analysis functions not only as an obstacle to unjustified regulation but also as a spur to government as well, showing that it should attend to neglected problems. If cost-benefit balancing is supported on these highly pragmatic grounds, it might well attract support from many different people with diverse theoretical commitments.

In fact, the record of cost-benefit analysis, at least within the EPA, is generally encouraging. [\[FN48\]](#) Assessments of costs and benefits have, for example, helped produce more stringent and rapid regulation of lead in gasoline, promoted more stringent regulation of lead in drinking water, led to stronger controls on air pollution at the Grand Canyon and the Navaho Generating Station, and produced a reformulated gasoline rule that promotes stronger controls on air pollutants. [\[FN49\]](#) In these areas, cost-benefit analysis, far from being only a check on regulation, has indeed spurred governmental attention to serious problems.

***1661** Cost-benefit analysis has also led to regulations that accomplish statutory goals at lower cost, or that do not devote limited private and public resources to areas where they are unlikely to do much good. With respect to asbestos, for example, an analysis of benefits and costs led the EPA to tie the phase-down schedules to the costs of substitutes, and also to exempt certain products from a flat ban. [\[FN50\]](#) With respect to lead in gasoline and control of CFCs (destructive of the ozone layer),

cost-benefit analysis helped promote the use of economic incentives rather than command-and-control regulation; [\[FN51\]](#) economic incentives are much cheaper and can make more stringent regulation possible in the first place. For regulation of sludge, protection of farm workers, water pollution regulation for the Great Lakes, and controls on organic chemicals, cost-benefit analysis helped regulators produce modifications that significantly reduced costs. [\[FN52\]](#) For modern government, one of the most serious problems appears to be not agency use of cost-benefit analysis, but frequent noncompliance with executive branch requirements that agencies engage in such analysis. [\[FN53\]](#)

Of course cost-benefit analysis is hardly uncontroversial. [\[FN54\]](#) Insofar as both costs and benefits are being measured by the economic criterion of “private willingness to pay,” there are many problems. Poor people often have little ability, and hence little willingness, to pay, and some people will be inadequately informed and therefore show unwillingness to pay for benefits that would improve their lives. [\[FN55\]](#) In some circumstances, regulatory agencies should seek not private willingness to pay, but reflective public judgments as expressed in public arenas. [\[FN56\]](#) Society is not best taken as some maximizing machine, in which aggregate output is all that matters. Sometimes a regulation producing \$5 million in benefits but \$6 million in costs will be worthwhile, if those who bear the costs (perhaps representing dollar losses alone?) can do so easily, and if those who receive the benefits (perhaps representing lives and illnesses averted?) are especially needy. Sometimes public deliberation, with its own norms and constraints, will reveal that government should proceed even if the costs exceed the benefits, measured in terms of private willingness to pay.

In view of these problems, the strongest arguments for cost-benefit balancing are based not only on neoclassical economics, but also on an understanding of human cognition, on democratic considerations, and ***1662** on an assessment of the real-world record of such balancing. [\[FN57\]](#) Begin with cognition. People have a hard time understanding the systemic consequences of one-shot interventions. [\[FN58\]](#) Unless they are asked to seek a full accounting, they are likely to focus on small parts of problems, producing inadequate or even counterproductive solutions. [\[FN59\]](#) Cost-benefit analysis is a way of producing that full accounting. Ordinary people also have difficulty in calculating probabilities, and they tend to rely on rules of thumb, or heuristics, that can lead them to make systematic errors. [\[FN60\]](#) Cost-benefit analysis is a natural corrective here. Because of intense emotional reactions to particular incidents, people often make mistakes in thinking about the seriousness of certain risks. [\[FN61\]](#) Cost-benefit balancing should help government resist demands for regulation that are rooted in misperceptions of facts. The idea here is not that the numbers are all that matter, but that the numbers can inform public debate simply by providing relevant information. [\[FN62\]](#)

With respect to democracy, the case for cost-benefit analysis is strengthened by the fact that interest groups are often able to use these cognitive problems strategically, thus fending off regulation that is desirable or pressing for regulation when the argument on its behalf is fragile. [\[FN63\]](#) Here cost-benefit analysis, taken as an input into decisions, can protect democratic processes by exposing an account of consequences to public view. Of course, public deliberation might reveal that private willingness to pay greatly understates the actual benefits of the project at issue. Values will inevitably play a role in the characterization and assessment of costs and especially benefits, [\[FN64\]](#) but a review of the record suggests that cost-benefit balancing leads to improvements, not on any controversial view of how to value the goods at stake, but simply because such balancing leads to more stringent regulation of serious problems, less costly ways of achieving regulatory goals, and a reduction in expenditures for problems that are, by any account, relatively minor. [\[FN65\]](#)

***1663** None of these points suggests that cost-benefit analysis is a panacea for the problems that I have identified. Everything depends on questions of implementation, and there are also hard questions about appropriate valuation, questions to which I shall return. It is possible that cost benefit balancing could provide a form of “paralysis by analysis,” and thus prevent desirable regulations from going forward. I have emphasized that the numbers should not be decisive. Sometimes respect for rights, or concerns about irreversibility, justify a rejection of cost-benefit balancing. [\[FN66\]](#) Interest groups will undoubtedly portray both costs and benefits in a self-serving manner. The central point is that cost-benefit analysis can be seen, not as opposition to some abstraction called “regulation,” and not as an endorsement of the economic approach to valuation, but as a real-world instrument designed to ensure that the consequences of regulation are placed before relevant officials and the public as a whole, and intended to spur attention to neglected problems while at the same time ensuring that limited resources will be devoted to areas where they will do the most good. Thus understood, cost-benefit analysis promises to attract support from a wide range of people with diverse perspectives on contested issues--a promise realized in the apparently growing bipartisan

consensus on some form of cost-benefit balancing in many domains of regulatory policy. [\[FN67\]](#) An understanding of this consensus is an indispensable background for approaching the cost-benefit default principles.

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[\[FN36\]](#). This is the theme of Stephen Breyer, *Breaking the Vicious Circle* (1993).

[\[FN37\]](#). Thomas D. Hopkins, *The Costs of Federal Regulation*, 2 J. Reg. and Soc. Costs 5, 25 tbl. 2 (1992).

[\[FN38\]](#). Paul R. Portney & Robert N. Stavins, *Regulatory Review of Environmental Policy*, 8 J. Risk and Uncertainty 111, 119 n.1 (1994).

[\[FN39\]](#). OMB 2000 Report Charts, *supra* note 32, tbl. 12.

[\[FN40\]](#). *Id.*

[\[FN41\]](#). *Id.*

[\[FN42\]](#). *Id.*

[\[FN43\]](#). On the problem of incoherent regulation, see Cass R. Sunstein et al., *Predictably Incoherent Judgments*, *Stan. L. Rev.* (forthcoming 2002).

[\[FN44\]](#). Tammy O. Tengs et al., *Five Hundred Life-Saving Interventions and Their Cost-Effectiveness*, 15 *Risk Analysis* 369 (1995).

[\[FN45\]](#). See John Graham & Jonathan Wiener, *Risk vs. Risk* (1995).

[\[FN46\]](#). See, e.g., A. Denny Ellerman et al., *Markets For Clean Air* (2000); Robert Stavins, *Market-Based Environmental Policies*, in *Public Policies for Environmental Protection*, *supra* note 25, at 31, 35-55.

[\[FN47\]](#). For many examples, see *Economic Analysis*, *supra* note 25.

[\[FN48\]](#). See *id.*

[\[FN49\]](#). See *id.* at 458.

[\[FN50\]](#). *Id.* at 458.

[\[FN51\]](#). *Id.* at 49-86, 131-169.

[\[FN52\]](#). *Id.* at 458.

[\[FN53\]](#). See Hahn, *supra* note 17.

[FN54]. For a general challenge to quantification, see Heinzerling, *supra* note 19.

[FN55]. See Adler & Posner, *supra* note 15.

[FN56]. Many of these points are pressed in Elizabeth Anderson, *Value in Ethics and Economics* (1993).

[FN57]. I attempt to develop this point in Cass R. Sunstein, [Cognition and Cost-Benefit Analysis](#), 29 *J. Legal Stud.* 1059 (2000). In the same vein, see Allan Gibbard, *Risk and Value*, in *Values At Risk* 94-112 (Douglas MacLean ed., 1986).

[FN58]. See Dietrich Dorner, *The Logic of Failure* (1997).

[FN59]. *Id.*

[FN60]. Amos Tversky & Daniel Kahneman, *Judgment under Uncertainty: Heuristics and Biases*, in *Judgment Under Uncertainty: Heuristics and Biases* 3, 11 (Daniel Kahneman, Paul Slovic, and Amos Tversky eds., 1982); Roger G. Noll & James E. Krier, *Some Implications of Cognitive Psychology for Risk Regulation*, 19 *J. Legal Stud.* 747 (1990).

[FN61]. See George F. Loewenstein et al., *Risk As Feelings*, 127 *Psychol. Bull.* 267 (2001).

[FN62]. See Cass R. Sunstein, *The Arithmetic of Arsenic* (Aug. 2001) (unpublished manuscript), available at <http://www.aei.brookings.org> [[hereinafter Sunstein, *Arsenic*]].

[FN63]. See Timur Kuran & Cass R. Sunstein, [Availability Cascades and Risk Regulation](#), 51 *Stan. L. Rev.* 683 (1999).

[FN64]. See *id.*

[FN65]. See *Economic Analysis*, *supra* note 25, at 455-76.

[FN66]. [Tenn. Valley Auth. v. Hill](#), 437 U.S. 153 (1978).

[FN67]. See Exec. Order No. 12,866, 58 Fed. Reg. 51,735 (Sept. 30, 1993).

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