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# Economists and the 2002 Farm Bill: What Is the Value-Added of Policy Analysis?

Bruce Gardner

The 2002 Farm Act is used as a case study of three problematic considerations related to economists' role in policy issues: priority on economic efficiency versus income distribution, the role of benefit-cost analysis, and appropriate policies given market power of agribusiness. The results of the 2002 Act relevant to each of these issues have been widely criticized, raising questions about the effectiveness of economists' involvement. However, given the uncertainties about many key program effects, criticisms of the Act are themselves in question. In this context, the role of economists is seen analytically as generating information for Bayesian decision makers, and practically as gaining attention for that information in the political process.

**Key Words:** benefit-cost analysis, farm bill, policy analysis

The Farm Security and Rural Investment Act of 2002—the Farm Bill—is popular politically. It passed in the House of Representatives by a vote of 280 to 141, and in the Senate by 64 to 35, and was signed by President Bush in May 2002 without a discouraging word. Yet, after passage, the Act has received little but criticism from economists, the national media, and commentators of all stripes.<sup>1</sup>

This situation raises questions that are highly relevant to the topic of the public-service role of economists. Are the critics correct? To what extent did economists influence the Act? How were economic issues integrated with the politics of the Act?

I will focus on three topics in the huge set of legislative provisions where the outcome has been particularly contentious: (1) the level of spending,

(2) the allocation of spending between commodity program payments and conservation/environmental programs, and (3) restrictions on meatpacker ownership of livestock. After addressing these issues, the paper turns to a discussion of how economists' contributions may be evaluated.

## Issues in the Farm Act

### *Level of Spending*

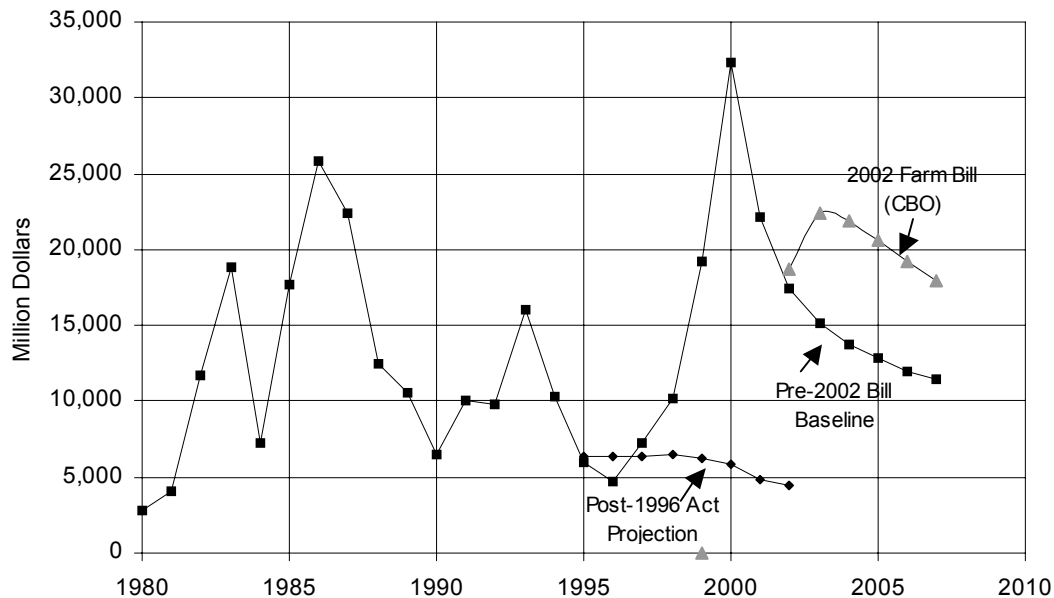
The main budget news about the 2002 Act is the projection that new provisions of the Act will cost \$80 billion over the 10 fiscal years 2002–2011 (Congressional Budget Office, 2002). Of this amount, \$45 billion are for fixed direct payments and the new “countercyclical payments” (basically a reinstitution of pre-1996 deficiency payments but without set-aside requirements). These amounts are in addition to the direct payments of about \$4 billion per year which were already in the baseline budget.<sup>2</sup> The result is total commodity program spending of about \$20 billion per year over the next five years. This is a lot, but as figure 1 shows, it is about \$4 billion per

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Bruce Gardner is professor and chair, Department of Agricultural and Resource Economics, University of Maryland. He is the first recipient of the NAREA Award for Outstanding Public Service Through Economics. This paper is based on the author's presentation at the June 10, 2002, Awards Luncheon of the Northeastern Agricultural and Resource Economics Association annual meetings, Harrisburg, Pennsylvania. The author thanks meeting participants for their helpful comments.

<sup>1</sup> Even the humorist Dave Barry blasted the Act in a column not written entirely as a joke. He concluded by stating that while some readers may be so angry they would never read his column again, “I don't care! Thanks to the Humor Security Act recently passed by Congress, I'll be getting huge sums of money from the federal government to continue grinding out these columns, year after year, even if nobody wants to read them! No, that would be stupid” (*Washington Post Magazine*, June 30, 2002).

<sup>2</sup> Placing those payments in the current policy baseline for years beyond 2002 was itself controversial because the 1996 Act authorized them only through 2002.



Source: Author's calculations from Congressional Budget Office and House Agriculture Committee data.

**Figure 1. Commodity program outlay projections**

year less than the federal government has been spending over the last three years. The reason for the decline is that the market loss assistance and disaster assistance outlays of those years, which ran to \$8.5 billion per year, are not in the baseline and are not completely replaced by the new countercyclical payments.

So the new 2002 farm bill is not quite the unprecedented bonanza for farmers it has been portrayed as being. But it is shockingly high-cost compared to the \$10 to \$12 billion average annual cost of 1988–1997, or the baseline for 2002–2005 which was on the books before the 2002 bill was enacted (shown in figure 1). Economists have good arguments to show the gains from these payments accrue almost entirely to landowners. Moreover, from the U.S. Department of Agriculture's (USDA's) data (and from the Farm Subsidy database on the Environmental Working Group's website), we know that the payments go predominantly to wealthy people with large farms and, despite payment limitations, a lot of these payments are well into the hundreds of thousands of dollars annually.

#### *Commodity Payments vs. Conservation Programs*

Proposals were on the table, primarily in the Senate, which would have moved substantial sums of money away from direct payments and toward conservation,

risk management, and rural development programs. These proposals were defeated, but in the final compromise there are substantial additions to conservation programs. The Conservation Title (Title II) is scored by the Congressional Budget Office (CBO) at a cost of \$14 billion over the next 10 years. But only about a third of these funds are authorized for the first five years (FY2002–2006), and next year (2003) the funding is \$500 million—not much considering the numerous provisions and ambitious descriptions of what these programs are to achieve in the areas of cleaner water, less soil loss, farmland preservation, wildlife habitat, and other goals. And, unlike the commodity programs, the conservation programs require an annual appropriation of funds; just being authorized in the farm bill does not get them off the ground.

#### *Packer Ownership Ban*

The Senate farm bill amended the Packers and Stockyards Act to ban ownership or control of livestock by a packer prior to 14 days before slaughter. This amendment would have stopped production contracts, such as pervade the broiler industry, from use in cattle and hogs (and they are already widely used in hogs, of course). The House bill contained no such provision, however, and the Senate provision was dropped from the bill as enacted.

### The Role of Economists

The preceding three areas of focus from the 2002 Act are singled out because they provide examples of the most problematic aspects of economists' involvement in policy issues.

- The first consideration is the extent to which economic efficiency should be our guide and, as a corollary, what we should say on issues of income distribution.
- The second consideration is related to efficiency, but more specifically the role of full social-cost accounting, as an element in benefit-cost analysis—the idea being that public goods and externalities are topics on which we have special responsibilities to come to grips with market failures (and the limitations of what government can do to correct them).
- The third consideration is the more specific issue of agribusiness market power, and in particular what governmental remedies are appropriate in regulating businesses that deal with farmers.

On the questions of budget spending and benefit-cost analysis, the outcomes were arguably counter to what economists, or at least most mainstream economists, recommended. With respect to the spending level, Joseph Stiglitz, former chair of President Clinton's Council of Economic Advisers, voiced what many were thinking when he stated, "[The Act] is the worst form of political hypocrisy.... we have been going around the world telling countries that subsidies distort and lead to unfair competition. We've lost all credibility all over the world" (quoted in *New York Times Magazine*, June 9, 2002, p. 25).

Although heavily veiled and stated in low-key prose, analyses from the USDA's Economic Research Service (ERS), and more broadly from the Council on Food, Agricultural, and Resource Economics (C-FARE, the most politically involved arm of the American Agricultural Economics Association), lead in the opposite direction of the Farm Act's concentration on commodity-based subsidies. The analyses do this by focusing on the multiple objectives farm policy must serve, the generally high level of average farm household incomes and wealth, the increasing divergence between commodity returns and farm household incomes (because of off-farm incomes), and the tremendous diversity of types of farms (see, for example, C-FARE, 2001). More explicit but still quite general advice along

these lines was provided by USDA; note especially the endorsement of switching more spending toward conservation programs, in "Designing a Market-Based Stewardship Program" (USDA, 2001, p. 86). While some movement in this direction was embodied in the Senate's farm bill, the more traditional House bill prevailed.

Notwithstanding criticisms of the spending level, counter-arguments more favorable to economists' concerns can be made about the 2002 Act's provisions. Consider the following: The direct payment spending, though large, is essentially a set of lump-sum payments that farmers cannot change through their decisions about what to produce, how much to produce, or the production practices followed.<sup>3</sup> Therefore, few if any deadweight losses due to market distortions will occur, and the policies in fact are quite efficient.

This need not have been the case. The bill could have brought back set-asides along with target prices, or reestablished export subsidies or Commodity Credit Corporation (CCC) purchase and storage programs. But Congress eschewed these possibilities, and indeed replaced market-distorting programs with payment programs in peanuts and dairy (replacing a supply control program and the Northeast Dairy Compact, respectively). Therefore, the counter-argument runs, what we have is in fact a considerable economic success!

What does this counter-argument miss? One big omission is the deadweight losses associated with raising the taxes which will sooner or later have to be levied to pay the \$4.5 billion annual additional payments. With a marginal cost of raising funds of 10 to 25 cents per dollar raised (see Alston and James, 2002), the deadweight loss on this score could well be \$1 billion annually.

A second issue is the updating of acreage and yield bases for payments to 1998–2001 averages, if the farmer chooses, which blunts the point that the payments do not influence production decisions. Now farmers will have an incentive to maintain production in order to be in a favorable position for future updating.

A third issue is a set of individually small but collectively significant changes: (a) the market-distorting sugar support price is effectively increased, (b) the new Dairy Market Loss Program makes

<sup>3</sup> The bulk of these payments (the countercyclical payments) are not decoupled from market conditions since they fall as market prices rise, once the loan level is reached. So they will not be counted as decoupled for World Trade Organization (WTO) purposes. But they are decoupled from farmers' input- and output-level decisions, and thus are lump-sum in that (highly relevant) sense.

payments on a current production base, (c) part of the new peanut support system is a marketing loan program that makes payments on a current production base, and (d) similar marketing loan programs are introduced for wool, mohair, honey, and pulses (chickpeas, lentils, and dry beans). These are significant new market-distorting (production-inducing) subsidy programs.

A fourth issue involves international repercussions: foreign countries and international organizations have almost uniformly castigated the farm bill as trade-distorting, revealing the U.S. line on international agricultural trade liberalization as a paradigm of hypocrisy. However, for reasons given above, it is not so clear that the farm bill is a quantum leap in distortionary policy. And with respect to trade policy, the farm bill avoids the obvious pitfall—the risk of violating our WTO commitment to cap “amber box” spending at \$19.1 billion—by a provision that the Secretary “shall, to the maximum extent practicable,” adjust the expenditures on payments to assure no violation will occur.

Can we go beyond efficiency to say that transferring hundreds of millions of dollars in payments from rank-and-file taxpayers to millionaires each year for the next 10 years is, in and of itself, wasteful (beyond the deadweight losses)? I may say so as a concerned citizen, as an egalitarian, or as a libertarian who doesn’t like the government taking money out of one set of pockets and putting it into another as a general proposition; but for an economist trying to be objective, the case is not so clear.

With respect to spending on conservation/environment versus lump-sum direct payments, the issue here is one of costs and benefits. Consider a program costing \$1 billion. Are the social plus private benefits generated by spending a billion dollars on conservation programs greater than the private benefits of a billion dollars to farmers or landowners through commodity program payments?

What makes the comparison difficult for the conservation programs is that the farmer’s conservation payments are largely used up in the costs of the conservation practices funded. The net farmer benefits are the surplus payments received by farmers over and above the costs of the practices. To those benefits we must add the social benefits of cleaner water, scenic views, wildlife value, and other gains. How big is the sum? How can we be confident the total benefits will justify the costs?

The few estimates attempted suggest the Conservation Reserve Program has generated benefits that exceed the costs. Yet this is not an indisputable

finding, because so often the environmental benefits are hard to measure.

Suppose the new Conservation Security Program costs \$100 million for payments to farmers, who have to use the funds for practices that cost them \$70 million, in return for which farmers get \$10 million in private benefits (soil preserved) and society gets social (nonmarket) benefits of \$40 million. The overall net return on the \$100 million of taxpayer cost is  $(\$100 - \$70 + \$10 + \$40) = \$80$  million. The other option is just to give \$100 million to farmers, requiring them to do nothing in return. The net overall social (private plus public) return on the \$100 million spent is \$100 million.

This is just an example, of course, but it illustrates that the costs of conserving production practices are a real hurdle conservation programs must surmount, suggesting the decision Congress made to spend more on direct payments and less on new conservation programs than in the main alternative was not necessarily the egregiously bad decision some commentary has portrayed it to be.

With respect to packers and contracting, the situation is different. From beginning to end of the debate, economists were on both sides of the issue. Indeed, economists made stronger public statements during the Congressional deliberations than on either of the bigger-money issues already discussed. The Farm Bill title developed out of legislation proposed by Senator Harkin (D-Iowa), Chair of the Senate Agriculture Committee, strengthening a call from several Midwestern state officials for a Producer Protection Act that would give growers several forms of protection against being exploited economically under production contracts, and ban paying producers according to how they performed as compared to other producers. The Senate bill added to such protections a ban on packer ownership or control before 14 days in advance of slaughter. The Conference Committee dropped the ban on ownership or control, and restricted to swine production the Senate bill’s stipulation that contracting growers can discuss the terms of their contract with advisors or relevant government agencies, notwithstanding any confidentiality clause the contract may contain.

Some agricultural economists cautioned against the Producer Protection Act, notably Feuz et al. (2002) and Boehlje et al. (2001).<sup>4</sup> But they did not have strong empirically based arguments to support

<sup>4</sup> See also the related story, “Contract Farming Legislation Wrong-Headed: Purdue Report Warns that Well-Intentioned Lawmakers May Harm Family Farming,” *Progressive Farmer* (June 2001), available online at [www.progressivefarmer.com/issue/0501/contract/default.asp](http://www.progressivefarmer.com/issue/0501/contract/default.asp).

the idea of harm to producers from such legislation. In an especially vigorously argued contribution, Conner et al. (2002) rebut objections raised against the packer ownership ban, and argue more broadly that oligopsony power of packers is harming farmers. Where their argument is weak, however, is its lack of an analytical or factual basis for expecting a ban on packer ownership to reduce oligopsony power and thereby improve the economic situation of live-stock producers.

The above issue was addressed by the USDA's Grain Inspection, Packers and Stockyards Administration (USDA/GIPSA, 1997) in its comments on a petition for rulemaking which would have accomplished essentially the same end (banning packer ownership or control) through USDA's regulatory authorities under the Packers and Stockyards Act. GIPSA quotes four economists from Land-Grant Universities, all of whom express disbelief that restraining packers from ownership or control would increase farm-level product prices. Despite the fact that 1,651 of 1,757 comments favored the petition, USDA concluded that "promulgating the rules suggested by the petition is unwarranted" (USDA/GIPSA, 1997). The petitioners' lack of success through the USDA precipitated the legislative efforts of 2001–02, which also ultimately failed.

During the 2002 legislative debate there was little public discussion, in hearings or other governmental forums, on the anti-packer provision. But the tenor of the earlier regulatory discussion gives strong signals to indicate USDA economists (both within GIPSA and ERS) would have been advising against the efficacy of this title, notwithstanding general concern among agricultural economists about producers' risks of being exploited under contracts with imperfectly competitive buyers.<sup>5</sup>

One could point to the outcome of the rule-making petition, and perhaps of the farm bill title, as a victory of economists' arguments over reasonably strong political pressure toward an opposite conclusion. But actually the economists' arguments are not very strongly stated. They don't say that captive supplies and packer concentration are known to be harmless to producers, but rather that the evi-

dence is inconclusive. The more fundamental issues exemplified by the debate are quite general ones: How suspicious should we be of agribusiness? And what should government do to regulate such businesses to reduce their market power?<sup>6</sup> I am not going to try to resolve these issues, but instead to use this debate as an illustration of a more general context for considering how to place a value on policy research.

### Valuation of Policy Research

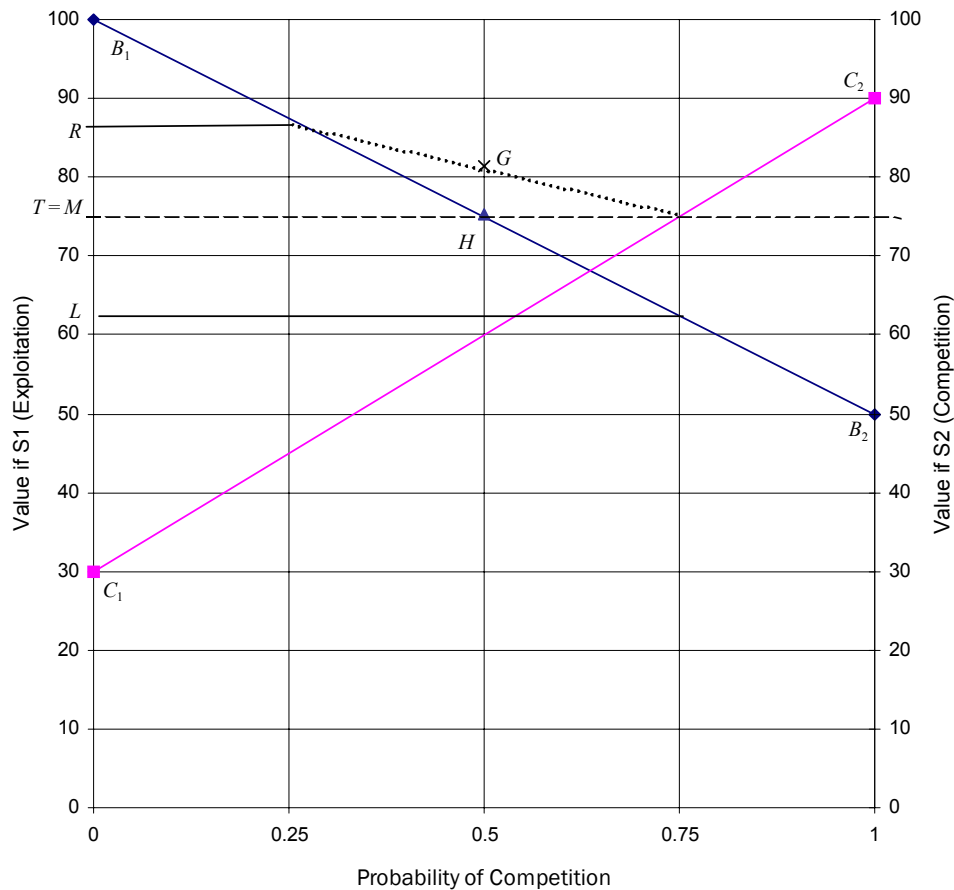
In carrying out policy research, the goal is to provide a service to society. The key to evaluating this service is to recognize that the good being produced is information. The value of policy research is the increase in the value of public goods produced as a result of this information being available. So, to have any value, the research must somehow affect public (i.e., governmental) decisions.

Recognition of this situation sets us up to use the well-established theory of the value of information in decision making, most helpfully developed in the context of Bayesian decision makers (see Hirshleifer and Riley, 1992, chapter 5). The Bayesian approach takes seriously the idea that policy makers are uncertain about the consequences of policy alternatives, and also that research findings reported to policy makers may be incorrect. The value of policy research then depends upon: (1) the value of the policy change induced by the research findings, if they are correct; (2) policy makers' prior knowledge of the issue; and (3) the accuracy of the researchers' findings. To observe how these factors interact, consider a simplified example of the issue of packer regulation (illustrated by figure 2).

Let there be two possible states of the world:  $S_1$ , where packers are exploiting farmers through their ownership/control of livestock under production contracts with growers; and  $S_2$ , where competition is sufficient such that the contracts are mutually beneficial to growers and packers. The world is in one of these two states, but policy makers don't know which. Policy research provides an estimate of which state prevails.

<sup>5</sup> The Bush Administration took no official position for or against the packer ownership ban in 2002, continuing the noncommittal stance the Clinton Administration had taken in the earlier petition for rulemaking. There is some partisan distinction though, because in the Conference Committee on the 2002 farm bill, the Senate's four Democratic conferees supported the title while the three Republicans opposed it [although Senator Grassley (R-Iowa) was a strong supporter in the Agriculture Committee], with the House conferees not participating in voting on the measure.

<sup>6</sup> To lay my own prejudices on the table, I am suspicious of the market power of agribusiness, but I am also suspicious of policies to regulate them, and I don't believe regulatory remedies should be legislated without a clear prospect that feasible regulation will generate social benefits which exceed the costs. In the case of the packer ownership ban, some farmers find production contracting attractive, so why not let them do it? In Maryland we have a track record on production contracting in broilers, and it is good. In a recent assessment of Maryland's agricultural situation and prospects, we found broiler growers among the state's least unhappy producers (Gardner et al., 2002).



**Figure 2. Value of findings on competition**

Two policy actions are possible:  $B$ , ban packer ownership or control under contracts; and  $C$ , let the contracts proceed. The social value of the resulting outcome is  $V(i, j)$ , where  $i$  is the state of the world and  $j$  is the policy chosen.  $V$  is measured by a weighted sum of producer (both farmers and packers) and consumer-taxpayer benefits. There are four possible outcomes, shown as points  $B_1$ ,  $B_2$ ,  $C_1$ , and  $C_2$  in figure 2. If policy  $B$  is chosen, the result is point  $B_1$  if packers are oligopolistic exploiters, but  $B_2$  if competition rules and farmers are denied a beneficial marketing option under the ban. If policy  $C$  is chosen, the result is  $C_1$  if packers are oligopolistic exploiters, but  $C_2$  if competition rules. We will regret choosing  $B$  if competition rules, and  $C$  if packers are oligopolistic exploiters.

The distance along the horizontal axis of figure 2 measures subjective probability,  $B_2$  (increasing left to right from 0 to 1), of packers being competitive (and this implies the value of  $B_1$ , since  $B_1 + B_2 = 1$ ). Suppose we are maximally uncertain about  $B_1$  and

$B_2$ , so  $B_1 = B_2 = 0.5$ . To find the policy that maximizes the expected value of  $V$ , we want the highest level, point  $H$ , which is obtained by choosing policy  $B$ . Then maximize the expected value of  $V(i, j)$  by choosing policy  $B$ , giving expected  $V(i, j)$  at the level of point  $M$ .

Now consider the value of a policy research program that provides an estimate of whether packers are competitive or not. The research program will deliver an estimate, but it may be incorrect. As an example, consider the research program undertaken by GIPSA following enactment of the 1996 Federal Agriculture Improvement and Reform (FAIR) Act. The finding of GIPSA's research program can be viewed in these terms as generally favoring competition, but the probability of that finding being incorrect was not negligible—leaving room for arguments of the kind outlined above. Suppose (this is purely conjectural) the uncertainties are as given by the following probabilities of research findings:

True State	Research Finding	
	Competitive	Exploitive
Competitive	0.75	0.25
Exploitive	0.25	0.75

If the true state is either exploitation or competition, the research will correctly obtain this finding with 75% probability, but with 25% probability the research will produce the incorrect finding. These likelihoods provide us with an operational measure of research quality—the higher the quality, the closer to 1's on the principal diagonal. Applying Bayes' Theorem to calculate the posterior probabilities, the posterior probabilities are 0.75 that each result, if found by the research, is true. The calculations are as follows.<sup>7</sup>

State	Prior Probability	Likelihood of State, Given Estimate	Prior × Likelihood	Posterior Probability, Given Estimate
Oligopoly	0.5	0.75	0.375	$0.375/0.50 = 0.75$
Competition	0.5	0.25	$\frac{0.125}{0.500}$	$0.125/0.50 = 0.25$

In figure 2, if the finding were of exploitation, we have  $B_2 = 0.25$ , and we choose  $B$ , with expected benefits at  $R$ . If the finding were of competition, we have  $B_2 = 0.75$ , and choose  $C$  with expected benefits at point  $T$ , which happens to equal  $M$ . The research finding makes no difference in our choice in the first case. But the research causes us to reverse course in the second scenario, with an expected gain in welfare of  $M! L$  over the choice we would have made in pre-research ignorance.

Before the research is undertaken, the expected value of  $V$  is the mean of  $B_1$  and  $B_2$ , which is plotted at point  $H$  (figure 2). When we undertake the research program, the expected value of our ending point after the research is completed (under our provision that each research finding is equally likely) is  $G$ . Thus, the ex ante value of the research is measured by the vertical distance  $G! H$ .

The preceding describes an ideal of influence upon policy and the value of such influence. In conclusion, I turn to a key aspect of practice.

### Policy Research in the Political Arena

A practical issue is how to get one's findings noticed. I take seriously the notion that public service through economics should influence actual policy, but there are real issues in how far to go in advocacy. Some people make a sharp distinction between positive and normative economics: Should we restrict ourselves to policy analysis that spells out the consequences of alternative governmental actions? Or should we make explicit recommendations?

Whenever I have done the former, and the alternative policies under consideration have notably different consequences, I have usually not been able to resist saying which alternative I favor. In any case, taking the "normative leap" to recommendations typically matters little in practice, because what cuts the most ice is analytical findings about the results of choosing one alternative over another, and that is what the economist gets from positive analysis.

A related practical issue is getting one's analysis and recommendations accepted (as opposed to being dismissed). Typically, we follow a quite passive approach: build the correct analytically supported case, and they will accept it. If they don't, it's their problem. What can an academic or agency-bound economist do beyond this?

- First, you can take steps to get your positions and findings noticed, principally publishing in places outside the academic journals and participating in broadly aimed conferences or other public events.
- Second, you can retail your findings to policy makers via personal communication with staffs or office-holders.
- Third, you can step up to defend your views in public discussion, written and oral, when alternatives are being debated.

Personally, I have attempted all these strategies at various times, and with very mixed success. What I have had finally to accept is that you never see a group or person converted before your eyes if they disagreed before. You find yourself either beating your head against a wall (where your recommendation is unwelcome) or knocking on an open door (when your recommendation is welcome). What you can hope to accomplish is to plant seeds for further thought in your audience, which is arguably all we can or should wish for.

<sup>7</sup> The situation would be more complicated if the prior probabilities were not 0.5 and if the likelihood matrix were not symmetric—e.g., if there were greater errors in research findings of competition than of oligopoly (see Gardner, 2002, for details).



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