

## Book Reviews

Philip G. Pardey and Vincent H. Smith, eds. *What's Economics Worth? Valuing Policy Research*. Baltimore: Johns Hopkins University Press, 2004. Pp. xviii + 318. \$22.95 (paper).

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This collection of papers—which grew out of an effort initiated by the International Food Policy Research Institute, with preliminary contributions presented at three symposia between 1996 and 2001—intellectually flows from the strand of applied economics that has endeavored to measure the returns to investments in technology and scientific research and development (R & D). Having found handsome returns for many R & D ventures, especially in agriculture, this body of research has lent itself well to advocating continued and increased public support for science—to the delight of many a scientist but, in an age of increasingly tight budget constraints, with troublesome implications for those calling for equally strong support for social sciences. It seemed then to be a legitimate extension, hopefully leading to a bit of useful self-promotion, to ask a similar question of social sciences in general and economics in particular (and policy research specifically). The result is a wide-ranging assortment of contributions, sprinkled with methodological reflections and observations, and some data. The book contains 13 chapters, including some previously published papers but also several contributed or commissioned original pieces. At its best junctures the book is thought provoking, providing insightful remarks as well as useful analogies and valuable personal viewpoints. It thus succeeds in arousing the reader's interest in a set of questions that do not usually command the attention of economists' working hours. The relative novelty of some of the issues addressed may encourage further related work, which would make this book a useful starting point. Inevitably, however, some critical questions are left unanswered, while others turn out to be intractable.

In chapter 1 Pardey and Smith motivate the attempt to measure the value of economic research and provide an overview of the themes of the book. Chapter 2 by Pardey, Smith, and Chan-Kang presents time series data on some key variables that describe the evolution of the “economic research in-

dustry,” with some emphasis on its agricultural economics component, over most of the twentieth century. Having documented some of the characteristics of the demand and supply of economists, they conclude: “The fact that relatively large quantities of economists are employed at some positive market prices provides at least some *prima facie* evidence that their output has some economic value to someone” (53). Moving beyond this useful observation, chapter 3 by Krugman is a “think piece” that provides some inkling of the difficulties inherent in the themes tackled in this book. Krugman concludes that assessing the benefits from economic research presents special problems. One of them is that the “assessments of the results of policies based on economic analysis must generally involve some inference that is also based on economics” (69), a certainly worrisome circularity. Krugman illustrates and discusses other distinctive features of the economist’s approach to analysis, including a defense of the ubiquitous assumption of rational economic agents acting in their own self-interest and an explanation of why economic models should be evaluated based on their “usefulness” as opposed to their “truth.” With specific reference to economic policy research, Krugman emphasizes the predicament of assigning a value to policy advice that is not followed by policy makers (what he terms the *Cassandra problem*): “If we were allowed to count the benefits that society would obtain if only it listened to us, economics is an awesomely productive venture” (80). But Krueger’s 1997 American Economic Association presidential address, reported here as chapter 8, provides a counterpoint to that by noting that bad economic advice is also quite possible (she discusses at length the negative consequences of import-substitution policies for development widely advocated a few decades ago).

Chapter 4 contains another previously published piece, the 1993 Ely Lecture by Harberger, in which he puts forth the analogy of economists working in applied policy analysis with practitioners of medicine (“but for their presence and their struggle, things would be much worse” [88]). A critical difference, of course, is that medicine (unlike economics) does have a body of experimental results to draw upon, as Timmer notes in chapter 6. He reflects on his long experience as an advisor on Indonesian rice policies and makes it explicit that, ultimately, the economic effectiveness of alternative policies cannot be tested according to the standard scientific method. These two chapters emphasize that perhaps the most to be expected of economics in the policy arena is to help prevent bad choices from being made.

Other contributions include that of Smith and Freebairn (chap. 5), who focus on how the nature of the economics research output may affect the way its potential benefits can be estimated. Lindner (chap. 7) revisits his own 1987 Australian Agricultural Economics Society presidential address on the signif-

icance of Bayesian decision theory to measuring the value of information (the relevance of that stems from viewing new knowledge as information). The idea of policy research as information for decision makers facing uncertainty is also the main theme in Gardner's chapter 9, where he draws from his own experience as a U.S. agricultural policy advisor, presents some case studies, and concludes that "there are substantial net gains to the ongoing policy research agenda" (220). Chapters 10–12, by Norton and Alwang, Ryan, and Zilberman and Heiman, respectively, take seriously the objective of the book and provide interesting case studies on how the welfare effects of particular economic research programs can be estimated. Pardey and Smith sum up the salient contributions of the volume in chapter 13.

This book offers a number of perspectives on the role of the "economics research industry" in a modern society. The reader's awareness of some of the things that economists do is enhanced, especially with respect to applied research meant to inform and influence real-world policies. The skeptical reader, of course, could question some of the premises of this venture. The catchy title, *What's Economics Worth?* poses a question that arguably cannot be answered. To address this question one would need to compare the models of a world with economics and one without. But economics is simply the endeavor of the human intellect to answer "economic questions," for example, questions about resource allocation in a market economy. As long as there are economic questions and people can think, economics must exist—thus the difficulties in modeling the "without it" situation. The subtitle of the book—*Valuing Policy Research*—puts the matter at hand in more tractable terms. Given the deep economic reach of many policies, the stakes are high. It is thus reasonable to conjecture that economic analysis, good economic analysis at least, can be immensely valuable—Krugman's guess is no less than \$100 billion per year (for the U.S. economy alone). It turns out, however, that giving a solid intellectual foundation to any such answers is problematic. There are, of course, the standard problems that plague welfare economics—for example, the limitations of the Pareto principle and the ultimate need for value judgments when comparing states that involve winners and losers. Accepting that normative rankings of such states are meaningful, there remains the fact that the theoretical construct to "value" alternative states is itself the product of economics. Hence the circularity problem, discussed by Krugman, which inevitably arises when one tries to put a monetary value on the contribution of economics to answering a policy question.

Several of the essays collected in this book are worth reading. The contributors are well-known economists and agricultural economists with a track record in policy analysis. The nature of the topics discussed will not fail to

engage the reader—I enjoyed reading this book. Whether this collection should be viewed as the first, or the last, word on the somewhat elusive questions that it poses remains an open question. As Lindner wryly observes in his chapter, “the dangers with any formal system of research evaluation is the onset of diminishing and even negative returns to effort, the opportunity cost of which is actually doing research” (167). Still, if we as economists need to justify the value of economic research, this book provides a wealth of perspectives, ideas, and examples that certainly help make the case that “economics matters,” as Pardey and Smith put it in their convincing opening line.

Giovanni Federico. *Feeding the World: An Economic History of Agriculture, 1800–2000*. Princeton Economic History of the Western World. Princeton, NJ: Princeton University Press, 2005. Pp. 416.

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*Feeding the World* is a treatise on economic history. Its chapters include “Why Is Agriculture Different?” Trends in the Long Run,” “Patterns of Growth: The Inputs,” “The Causes of Growth: The Increase in Productivity,” “Technological Programs in Agriculture,” and “Agricultural Institutions and Growth. The final chapter concludes with “Fifteen Stylized Facts.”

The book is written in the economic history tradition. Several periods are covered. The first period is 1800 to the establishment of the modern agricultural experiment station model around 1850. The second period is the period from 1850 to 1910 or so and covers the flowering of the experiment station model. The third period is the 1910–60 period. The fourth period was the period from 1960 to 1995, when most developing countries realized Green Revolutions. The fifth period is from 1996 to date, the period of the Gene Revolution (although this period is not actually covered in the book).<sup>1</sup>

The organizing principle for the book is agricultural institutions and institutional changes. The book also notes that population growth after World War II in developing countries also forced institutional change.<sup>2</sup> The periods noted above figure prominently in the book. Prior to 1910 in virtually all

<sup>1</sup> The Gene Revolution (the recombinant DNA revolution) for crops is controversial. A considerable gap between the European Union and North America (the United States and Canada) has emerged.

<sup>2</sup> Between 1960 and 2000, many developing countries, particularly in Africa, experienced a tripling of population. Yet, food consumption per capita increased because of the Green Revolution.