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# THE JOURNAL OF Agricultural Economics Research



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Economic Research Service

# Articles

Economic Theory in Agricultural Economics Research

Box-Cox Estimation of U.S. Soybean Exports

Productivity of Highly Erodible Cropland

Farmgate, Processor, and Consumer Price Transmissions in the Wheat Sector

## Book Reviews

Pesticide Policy, Production Risk, and Producer Welfare: An Econometric Approach to Applied Welfare Economics

Macroeconomics, Agriculture, and Exchange Rates

Efficiency in Irrigation: The Conjunctive Use of Surface and Groundwater Resources

Japanese Agriculture Under Siege: The Political Economy of Agricultural Policies

Land Policies and Farm Productivity in Thailand

Food Subsidies in Developing Countries: Costs, Benefits, and Policy Options

National Policies and Agricultural Trade

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### In This Issue

When editor Daniel Hausman introduced the first issue of *Economics and Philosophy*, he hailed the release of economics from the chains of logical positivism and lauded the renewed awareness by economists of the roots of their theory

"The final collapse of logical positivism or logical empiricism, which we might date to the 1960s, has reopened a wide range of philosophical questions about the causes and character of scientific progress. Serious work in economics often makes controversial methodological claims. Deep disputes in economic theory are frequently disputes as much about how economics should be done as they are about particular results." (Journal of Econ. and Phil., Apr. 1985, pp. 1, 3)

In this issue, the invited essay by Castle recalls to agricultural economics some of the important methodological issues such as verification and explanation that have occupied the attention of theory economists for the past two decades. He mentions, for example, the treatment of anomalies, or contrary findings, in empirical research. Anomalies have now risen to the stature of a separate section in one of the journals published by the American Economic Association.

One of Castle's important messages relates to the personal benefit and collective cost of specialization. He is concerned that the rigors of orthodoxy, particularly in graduate school, require elimination of methodological diversity. Single theoretical formulations are repeated, and individual researchers become hardened against challenges to adopted theories and philosophical foundations. He prescribes pluralism in theory and method. There is much more in his essay and we invite comment and responses.

Davison, Arnade, and Hallahan compare three approaches to estimating elasticities in major soybean export markets. Their concern is not only the limited number of estimates of longrun elasticities of demand for soybeans, but the inadequacy of much agricultural trade modeling for forecasting. Their linear, log-linear, and Box-Cox models do present some anomalies compared with the naive (last year) model, but they demonstrate, nonetheless, that functional form makes a difference. Income and price elasticities range widely from elastic to inelastic in the seven markets in the study.

Heimlich argues that if highly erodible land is not less productive, hence of lower value, then the costs of removing the erodible land from production by traditional government programs will cost more than is generally assumed. With data from the National Resources Inventory, field crop yields, and crop budgets, he tested differences in revenue from erodible and non-erodible land. The differences are weak, so he concludes that blanket policies that rely on erodible land's low productivity are misplaced.

Babula and Bessler model the responsiveness of the market to a shock, the effect of drought on wheat prices and wheat-based goods at the processor and consumer levels. Their vector autoregression model showed swift upward response in processor prices and slower, enduring effects on consumer prices.

Books on a wide variety of subjects are reviewed in this issue beginning with Szmedra's critique of Antle's book on production risk applied to pesticide policy. The favorable evaluation, particularly of the guides to empirical testing, is summed by the reviewer's "an enjoyable read" Likewise, Denbaly compliments Paarlberg and Chambers for producing a unique contribution to the relatively new field of macroeconomy and agriculture

Coyle reviews Hayami, who recommends strong medicine, mostly based on market principles, for the inefficient and trade-protected Japanese farmer Coyle commends the analysis and conclusion that structural reform is needed to improve the efficiency of Japanese agriculture Bajwa reviews the book edited by O'Mara on supplementary irrigation O'Mara's book includes references to irrigation development models in California, the Indus Basin, and north China

The book on food subsidies in developing countries edited by Pinstrup-Andersen is less than completely useful to readers in developing countries, according to reviewer Yetley Even so, says Yetley, the book is one of the few available on the subject and is a helpful source of references. Hyde remarks on the renewal of interest in land tenure as a research topic in agriculture and resource economics and points to the book on Thailand by Feder and others as an example of how such research should be done. He endorses the book's emphasis on secure tenure for efficiency and

long-term investment Shane calls the OECD book on national policies and agricultural trade a benchmark study in dealing with the problems of world trade interdependence and conflicting domestic policies. While generally supportive of the study, Shane notes it's limited commodity and country coverage, partial equilibrium, static analysis, and narrowness of the liberalization scenario.

A final note on research specialization I hear complaints about the technical specialization of articles in this journal and others Specialization in JAER is not surprising because this is the house journal of an agency of research specialists. All the incentives to specialize mentioned by Castle reside here as well as in academia. Our submissions, hence acceptances and published articles, reflect work in process and only rarely do we share in the whole picture of a researcher's or research unit's undertaking. The solution rests with individuals willing to extend beyond their specialty, to join others and supply those integrative overviews we love to read but fear to write

Gene Wunderlich