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Commodity Models and Their Contribution to Congressional Policymaking: Reflections from the 2002 Farm Bill and Beyond: Discussion

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Introduction and Background

The organizers of this session asked me to do two things: to place policy modeling into the context of both general congressional policymaking and that of the 2002 Farm Bill and to comment on the three papers of the session.

Commodity models provide results that are useful for congressional decision making. Expected impacts of proposed policies on supply, demand, prices, and income are of interest to members of Congress. But decisions by policymakers depend on a variety of factors beyond model results, including professional backgrounds and perspectives, personal experiences, familiarity with proposed and alternative policies, views of key constituents, and ideologies. Many policy changes are incremental. So while model results are important to the policymaking process, they rarely are the key determinant as to why one proposed policy trumps another.

The one main exception to this rule is for cost estimates prepared by Congress's official scorekeepers—analysts from the Congressional Budget Office (CBO). CBO cost estimates matter because of the Congress's budget rules. Under these rules, when a bill is being considered by the Congress, if a bill is estimated by CBO to increase spending above baseline levels, then a member *may* raise a budget point of order. If the point of order is upheld by the parliamentarian, then in the Senate, passing the bill requires 60 votes rather than a simple majority. In the House, the bill cannot be considered (although the rules of debate can waive budget points of order by a majority vote). To avoid these additional legislative hurdles, members and their staffs often change provisions of bills that "cost too much."

CBO cost estimates are the only estimates with a defined, formal role in the legislative process. Estimates from the Food and Agricultural Policy Research Institute (FAPRI) and its affiliates have institutional roles providing the estimated effects on farm income, supply, demand, and prices for selected commodities that CBO cost estimates do not provide. There is little interest on the Hill for full-blown welfare analyses or direct economic efficiency arguments.

Both CBO and FAPRI analyses are based on credible and consistent formal baselines and models that provide consistent results across numerous options. This is especially important because developing laws typically requires a number of compromises, and while models tend to be "black boxes" regarding one result relative to another possible result, inconsistencies across a range of options are somewhat—although not always a whole lot—easier for outsiders to determine.

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Farm Bill Analyses

CBO and FAPRI were the main sources of commodity policy information to the House Agriculture Committee for the 2002 Farm Bill. Beyond the full-scale commodity models of CBO and FAPRI (and other ad hoc models that they developed as needed), farm bill analyses and input were provided to the House Agriculture Committees by a number of sources. Various U.S. Department of Agriculture (USDA) agencies provided counsel on program operations and World Trade Organization (WTO) concerns during the farm bill conference between the House and the Senate, including the Farm Service Agency, the Foreign Agricultural Service, the Natural Resources and Conservation Service, Economic Research Service, and the Office of the Chief Economist, among others, as did the Office of the U.S. Trade Representative. (Although USDA analyses and commodity models have been important in previous farm bills, little formal analysis was provided by USDA for the 2002 Farm Bill.) Analyses of payment limits were prepared by the University of Arkansas, Kansas State University, the University of Illinois, and the Georgia Extension Service. The University of Georgia provided information on peanuts. Numerous land grant university economists provided information to member offices as well as to the House Agriculture Committee. Information also came from other congressional support agencies (beyond CBO): the Congressional Research Service and the General Accounting Office.

The approach taken by the House Committee on Agriculture to a new farm bill was based on six major principles:

- Retain and enhance market-oriented provisions of the 1996 Farm Bill
- Increase automatic countercyclical income support
- Appropriately balance funding for commodity programs, conservation programs, and other programs
- Comply with budget limits
- Provide consistent programs for all years
- Comply with WTO obligations

Other considerations in the House included the concerns of organized interest groups such as commodity organizations, the impact on members' districts and constituents, concerns about compromises with the Senate, and administration support. The 2002 Farm Bill conference between the House and the Senate was the longest in history: 63 days with 9 days of formal member meetings.

Selected Analytical Issues

My comments on the three papers will be largely from the perspective of baseline and stochastic analyses of selected policy and market issues.

Baselines

How are markets changing—what will the future bring both with or without a new policy? Because the baseline is the benchmark from which impacts of all options is measured, its levels of supply, demand, and prices can be crucial under certain types of policies—especially countercyclical policies where government benefits increase when prices decrease, decrease when prices increase, and disappear when prices go above a fixed trigger level. So the levels and sequence of baseline prices over a 10-year forecast/estimating period make a difference. Stochastic analyses as discussed here reduce the significance of baseline levels but do not eliminate them. Beginning in the mid-1990s, baseline price forecasts tended to increase over the 10-year estimating period—sometimes substantially. Rising price baselines were the main reason for the Senate's farm bill proposal to reduce payment rates for direct payments in later years. Current baseline prices for CBO and FAPRI are relatively flat throughout the 10-year estimating period. This return to an early 1990s view of long-term prices, combined with stochastic analysis, has increased CBO's and FAPRI's estimates of government costs over a 10-year scoring period by a fairly substantial amount.

Stochastic Analysis

We do stochastic analysis because the deterministic baseline is always wrong. Rather than measuring impacts of a policy against one set of baseline assumptions, stochastic analysis measures the impacts of a policy against many sets of baseline assumptions and reports an expected value. CBO's introduction for the 1996 Farm Bill of "probability scoring" has led to better cost estimates for price-dependent programs and has reduced the number of policy proposals (and enacted policy) that rely on budget gimmicks.

Comments on Modeling from a Hill Perspective

Because model results can have an impact on major policy issues, we need the best models and results possible given the resource constraints that we face. But given that available resources are limited, how good is "good enough"? Where do we focus our energies? Markets, policies, and their interactions are complicated. Structural change—both in markets and in policies—make the modeling process more difficult. In the final analysis, we must rely on professional judgment. Key questions include "are the direction and magnitudes of estimated results plausible and reasonable?"

Congressional analysts face additional important challenges. First, a quick turnaround is often essential. Second, results across numerous proposals with marginal changes must be consistent. Third, analysts need to answer questions and provide results even if there is little information on which to base an analysis. Finally, real-world decisions affecting millions of people are made on the basis of their analyses. This is obviously an important responsibility.

Comments on Other Papers

Ramirez, Mohanty, Carpio, and Denning: "Issues and Strategies for Aggregate Supply Response Estimation for Policy Analyses." Ramirez and others use small-scale econometric principles and strategies to come up with reliable yield and acreage models for policy analyses. Their objective is to improve model specification—especially confidence intervals. This is an important concern—especially as stochastic analysis has become the Hill standard.

One of my concerns is the need to ensure that policy parameters are specified appropriately, too. I would suggest that the authors reexamine policy periods as specified in the analysis. Frequent policy changes add to challenges of small-sample econometric analysis.

Rude and Meilke: "Developing Policy Relevant Agrifood Models." The authors ask if institutional partial equilibrium commodity models are still relevant given changes in market and policy structures. This paper is thought provoking and lays out questions that need to be asked to more fully understand the current structures of markets and how they relate to policy issues. But that new models may be needed for emerging issues such as food safety does not make current commodity models irrelevant for commodity issues. In my opinion, given how complicated markets and policy are and the disagreements within the profession as to the contributions of policy to structural change, trying to incorporate vertical linkages, market power, and other market attributes could make models even more unwieldy and opaque. Concerns on market power and so on are appropriate to communicate to policymakers, but I would not try to formally incorporate them into institutional commodity models.

Westhoff, Fabiosa, Beghin, and Meyers: "Challenges in Modeling the Effects of Trade Agreements on the Agricultural Sector." In my opinion, this paper is an excellent overview of real-world concerns in policy analysis for policymakers—especially the Congress. My earlier comments on baselines, stochastic analysis, and other modeling issues foreshadow my finding much to like in this paper and my agreement with most of its observations.

Concluding Comments

For all their limitations, significant improvements have been made in policy modeling and analysis for the Congress in recent years. Stochastic analysis, first introduced into congressional decision making by CBO for the 1996 Farm Bill and adopted by FAPRI for the 2002 Farm Bill, has had a major impact on farm legislation. Fewer policy gimmicks are finding their way into law, and stochastic analysis has been a major reason. Over time, I have become less and less comfortable with rising price baselines given all the competitive pressures from South America and nontraditional suppliers. I view as a favorable outcome the return—for the time being—of relatively flat price forecasts. This, too, can reduce budget gimmicks.

Both of these factors will impact the next farm bill—whether that bill is debated in 2007, when the current bill expires, or earlier through budget reconciliation instructions.