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Policy Center Methodology: Its Implications For Marketing Research and Extension

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In the 1980's, the center phenomena swept university campuses. Centers for addressing policy issues became particularly prominent. We are aware of policy centers related to agricultural and food issues at the following universities: Purdue, Minnesota, Georgetown, Oklahoma State, Cornell, Kansas State, Iowa State, Missouri, Texas A&M, Arkansas and California. This list is not meant to be exhaustive, but rather is illustrative of a concept that has proliferated.

The purposes of this paper are:

- To provide a perspective on the reasons for the proliferation of the policy center concept.
- To explore the usefulness of what centers may be able to do for marketing research and extension.

Rationale for Policy Centers

With the land grant and other university systems in place, it is legitimate to ask why policy centers were formed in the first place. Land grants, and the agricultural economics profession in particular, exist, in theory at least, to answer "real world" questions and problems. If they were fill-

ing this need, then why create special organizations to focus on policy?

Centers were created to fill, at the very least, a perceived need. In many cases, this perception was reality. Some of the specific policy center roles were, and continue to be:

- Centers aid policymakers as an objective third party in decisions. There are generally two views available to the Congress – those of interest groups and the administration. More often than not these views may be assumed to represent an adversarial perspective. That is, they are designed to shed the best light on facts supporting the position of an advocate. In this environment, policy centers operate as the independent third party opinion for Congressional decision makers.

What makes such center functions unique compared with other university research is that we are on call to respond to requests for analytical assistance on a timely basis. The research is highly applied, but has a sound theoretical underpinning.

- Policy centers sometimes aid private sector interest groups in analyzing policy issues. This function has substantial similarity to that performed by private sector consulting firms. However, it is presumed those private sector groups that come to university centers for analytical assistance are looking for answers to questions, as opposed to justifying a policy position that has already been decided – frequently the assumed role of the so-called "beltway bandit."
- Policy centers may improve analytical tools and skills of policy research. In its pure form, a policy center designed for theoretical and methodological purposes might have been created to be more competitive in obtaining research grants from the National Research Initiative (NRI) or the National Science Foundation (NSF). However, any policy center that expects to be around for the long run must be theoretically and methodologically up to date.
- Centers provide a forum for policy education. Globalization of the U.S. economy has made policy issues more complex. Thus, policy tools and their economic impact have become more complex, more difficult to analyze and more difficult to understand. The result is an even greater need for policy education. For example, the marketing loan

was a seemingly simple tool to most economists and farm organizations, but it was found to be much more complex than originally thought. Today, in an environmental era, it is very important that interest groups understand the concept of non-market values and their implications for policy.

Priority Objectives

In reality, all of the existing policy centers perhaps would list each of the above as an objective. However, the order of priorities would be substantially different. For example, both the Agricultural and Food Policy Center (AFPC) at Texas A&M and the Food and Agriculture Policy Research Institute (FAPRI) at the University of Missouri and Iowa State place a priority on the objective third party opinion to the Congress. To perform these functions, we must develop and maintain the analytical tools required to develop the necessary baselines that serve as a point of departure for analyzing the impacts of proposed policy changes. These models must contain the policy variables that can be adjusted to provide timely answers to Congressional questions. Once such baseline and analyses of policy changes are completed, we are in a strong position to develop policy extension programs that are the product of our research.

Objectivity Issues

Concern has existed that AFPC and FAPRI not become aligned with particular advocacy proposals. For example, mixing private sector consulting-type projects with public sector analyses in response to congressional requests creates a perception of

a lack of objectivity – regardless of the care taken in protecting objectivity. This perception was clearly evident to AFPC faculty in its private/public sector research on reduced chemical use financed, in part, by two chemical companies.^{1/2} In spite of the questions raised regarding the appearance of a potential conflict of interest, there was little, if any, focus on the empirical results, per se. In fact, the U.S. Department of Agriculture's Economic Research Service (ERS) analyses of the chemical use reduction issue, which to our knowledge were never published, indicated that the AFPC results were not appreciably different from those made by ERS.

This discussion of the perception and objectivity of what policy centers do has relevance to this workshop for at least two reasons:

- Many of the issues that marketing economists work on are a highly controversial part of the policy arena. For example, industrial organization research having antitrust implications has been subject to the same type of advocacy criticism as the research of the policy centers. The controversy surrounding some of the NC-117 research results is illustrative. It also illustrates the problems of securing continuing funding support for research in the politically volatile policy arena.
- Our research results have usefulness outside the policy arena, particularly in the areas of marketing and farm management. It

is important that you understand we are very concerned about objectivity in our research. Therefore, most of the remainder of this paper is devoted to our methodology and our products, which should be useful in marketing research and extension activities.

Methodology

There are five main components (models) that are in use in the combination of FAPRI and AFPC:

- The macroeconomic and international parameter estimates are provided by the Wharton Economic Forecasting Associates' (WEFA) Wharton Econometrics baseline and Project Link. They provide key macroeconomic projections including inflation, employment, GDP, income, interest rates and exchange rates.
- FAPRI-Iowa State maintains a set of international crop and livestock models that provide estimates of the world supply-demand balance, including trade flows, for each commodity.
- FAPRI-Missouri maintains agriculture subsector models for major domestic crops, livestock/poultry and dairy. The macroeconomic projections are input into these sector models as well as to the FAPRI-Iowa State models. The domestic crop, livestock/poultry and dairy models are run at the same time with

results from one feeding into the other until a simultaneous solution is obtained. FAPRI-Missouri also maintains models to develop estimates of government cost and farm income. Results from these are produced in a manner consistent with that delivered by other government agencies like the Congressional Budget Office (CBO) or U.S. Department of Agriculture (USDA). We have found this to be of considerable benefit when communicating our results to Congress and the administration.

- AFPC maintains and updates approximately seventy-five representative crop and livestock farms located in major production regions which it simulates utilizing the FLIPSIM model. The farms are developed using data obtained from producer panels normally identified by extension farm management specialists located in the production area. Two farms are normally selected for each production region – a moderate full-time commercial farm and a larger farm that is two to three times the size of the moderate farm. The large farm is designed to develop a concept of the extent of economies of size. FLIPSIM simulates the annual economic activities of each of these farm, using accounting equations, identities and probability distributions that account for yield and price variability. The interest, inflation rates and other general economic

variables come from WEFA, while the commodity prices and yields come from FAPRI. Key output variables include the representative farms' net cash income, present value of ending net worth and other financial indicators. A joint research project with ERS has demonstrated the validity of the production cost estimates developed by this process. Also, utilizing the Farm Cost and Returns Survey data indicates that the moderate size representative farm generally accounts for 15 to 30 percent of the region's production.

- AFPC maintains a general equilibrium macroeconomic agriculture subsector model, AG-GEM, which includes the major program crops and livestock. This model, originally developed by Penson and Taylor, is currently being updated by AFPC under the leadership of Penson. An earlier version of the AG-GEM model was used to analyze the impacts of chemical use reduction on agriculture. The AG-GEM model has the advantage of being able to simultaneously consider the impacts of changes in macroeconomic policy on agriculture and of agricultural policy on the macro economy.

In AG-GEM, the impacts of changes in crop policy on the livestock sector are simultaneously determined. It is possible, as a consequence, to directly analyze the impacts of agricultural

policies on consumer prices as well as on the various components of the agribusiness sector.

It has been said that one cannot change policies to change the past. Policy changes only affect the future. USDA and CBO both produce a baseline against which all policy options are measured. This extends throughout the entire government and is not limited to agriculture. In order to analyze agricultural policy changes then, it is necessary to develop a long-term baseline. Some refer to this as a forecast but, while it is a projection, it is not necessarily a forecast. It assumes, for example, that policies are fixed and will not change. A baseline developed at this time, for example, must assume no General Agreement on Tariffs and Trade (GATT) agreement while one would probably "forecast" an agreement. One would "forecast" further budget cuts for agricultural spending, but a baseline must assume continuation of current policies.

In forming the baseline, the WEFA and FAPRI model components operate on an interactive basis with AFPC representative farms. That is, during the formation of the FAPRI baseline, tentative proposed market prices are fed into the relevant representative farms to determine their reasonableness. For example, if it were determined that most of the farms lost substantial net worth over a short time period, it might be concluded that the proposed baseline prices were not sustainable and needed to be reevaluated. Experience has indicated that this interactive process between the sector models and the representative farms results in a more realistic baseline.

Once the baseline is tentatively developed, it goes through a peer review process whereby selected industry, university and government experts are asked to evaluate the results and present their evaluations at a workshop held in early January of each year. This evaluation often leads to changes in the final baseline which is then presented to Congress and USDA in late February or early March. Once final, the baseline becomes the benchmark against which proposed policy changes are evaluated over the following year. Again, this is a process fairly consistent with that used by CBO and USDA.

The potential for directly linking the farm level results back into the FAPRI sector models or into our AG-GEM model has been extensively discussed, researched, evaluated and rejected. While a direct hard-wired linkage has appeal conceptually, moving from the farm level to the sector level is extremely difficult practically. In other words, we find the farm level results to be the most useful in evaluating and explaining the impacts of prospective economic conditions and policy changes, rather than as a hard-wired feedback loop into the sector models. The prospective outlook can be much more effectively explained to a Congressperson in terms of the impacts of policy on a set of farms, some of which are located in or near his/her district or state, than in terms of either billions of dollars of income or percentage changes in prices.

The AG-GEM model is not designed to be a substitute for either the WEFA or the FAPRI sector models. Once updated and operational, AG-GEM will serve as an additional tool against which both the baseline and policy changes can be

evaluated. It will be particularly useful in evaluating the impact of macroeconomic policy changes on agriculture – the main purpose for which it was initially developed.

Peer Review, Communicating Results

More extensive comments are warranted regarding peer review. As already mentioned, in developing the baseline we incorporate peer review as a matter of course. This is an integral part of the baseline development and all concerned parties know that the review has occurred. Thus, while there may be some specific criticism regarding a specific variable in a specific year, most know we subject ourselves to more open review than almost any other group, which does aid credibility.

Peer review is also a critical portion of our work in representative farms. After developing the representative farm, we will return to the panel and obtain their approval of the makeup of the representative farm before ever using that farm in our analysis.

We rely very heavily on peer review in developing analysis of policy alternatives. For example, work done in 1992 on the Dunkel proposal involved meeting with industry, administration and Capitol Hill personnel in order to develop consensus on the underlying assumption set. Dairy analysis in 1991 heavily relied on pulling groups together to get expert opinion to help back-up and cross-check model results. We have counted on this expert review in analysis as well since our first analysis of the Food Security Act of 1985. Again, this is a significant aid to our credibility. We have checked and

rechecked our work and had others check our work before ever releasing our analysis.

Communication of our work is also of great importance. Again, recognize that our primary audience consists of decision makers and people who will be deciding policy or deciding what policy path they want to pursue in the future. Timing of the communication is very important. A forty-page report delivered on Tuesday morning when the vote was taken on Monday evening is worthless – and, in many cases, may even be harmful. Requests that are time critical must be covered. This is true in policy analysis, but is just as true in marketing.

Because of the political arena in which we deal, it is also important to insure that all sides recognize we are not trying to short, or control, information. We make every effort to insure that any analysis conducted by our shops that is to be released to the public is released to all parties at the same time. This includes both political parties and both sides of the Capitol, as well as release to the administration and trade associations. We insure that we are the ones telling the story regarding the analysis, and do not let someone else tell the story, or provide the interpretation for us. We also air all sides of the issue and insure that we do not say Option A is better or worse than Option B. Determining better or worse is the decision maker's job.

Implications for Marketing

There are at least three major implications of policy center activities for marketing research, teaching and extension:

- Much of our research involves the modeling of commodity markets. Extensive thought is given to how domestic farm, trade and macroeconomic policies impact these markets. For those marketing economists involved in commodity modeling, it would be useful to have a regular exchange of modeling methodology and results. A particular current need is the ability to more realistically incorporate risk and weather into our modeling activities.
- Our baseline and analyses of the impacts of policy changes should be of substantial interest and usefulness to extension commodity specialists who do considerable outlook and policy work. Our educational work with farmers indicates the potential for substantially reducing market risk through adequate consideration of the factors underlying our projections and the tools available for reducing risk. The FAPRI baseline and AFPC farm level impacts are published annually shortly after the first of the year when extension activity reaches its peak. For virtually every major proposed policy change, either FAPRI or AFPC will have completed an analysis, often substantially prior to the Congressional decision.
- Many contemporary policy issues involve marketing – particularly from a consumer perspective. To our knowledge, there are rela-

tively few centers located at land grant universities even though, commercially, there are several firms providing service in this area. Consideration of the application of the marketing center concept to specifically serve the needs of the Congress and/or state legislatures merits consideration.

ENDNOTES

1. This research received extensive discussion in successive issues of *Choices*. R.D. Knutson, C.R. Taylor, J.B. Penson and E.G. Smith, "Economic Impacts of Reduced Chemical Use." *Choices* (Fourth Quarter 1990), pp. 25-31. Harry Ayer and Neilson Conklin, "Economics of Ag Chemicals: Flawed Methodology and Conflict of Interest Quaquire." *Choices* (Fourth Quarter 1990), pp. 24-30. The first quarter (1991) issue of *Choices* contained five letters to the editor on pp. 40-42, including three by the above-mentioned authors and critics, as well as letters by Otto Doering and John Hosemann. Then, in the third quarter of 1991, *Choices* contained three more letters to the editor by David Zilberman and Andrew Schmitz; C. Robert Taylor and John Penson; and Dean T. Chen.
2. John R. Schaumb, "Economic Impacts of Chemical Use Reduction on the South: Discussion." *South. J. Agr. Econ.* July, 1991, p. 25.