

## The Interface Between Policymakers and Model Builders

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I have been asked to speak today on the subject of the interface between policymakers and modelers. Since the world interface is somewhat vague, I will attempt to translate so that people may understand what I am going to try to discuss. Basically, I want to talk about the problems that concern policymakers and what modelers might do to help improve policy decisions.

Since I have been both a policymaker and a model builder, more recently in the role of policymaker, I would like to outline some of the issues that I believe are important as perceived by policymakers, and some of the implications that these have for people who model policy options.

By definition, policymakers are individuals who reach their office, either in the executive or legislative branch, via the electoral process, or who are appointed by those who did. However much the individual policy maker may claim that the prime objective in his life is "good" policy, the realities are that he will be constantly reminded of the fact that he works for someone whose immediate objective, whether stated or not, is continuing in the office that he now holds. The simplest and crudest way to make this point is to say that no policymaker can escape the reality that all the decisions at the policy level have a political impact, and that impact must be considered in the decision process.

This reality of the politics of policymaking puts the policymakers and the decision process into a context which is not always well understood by modelers. But even when it is understood, it makes the problem of modeling policy alternatives extremely complex. Let me comment on several issues politics introduce into policy decision.

## **The Time Problem**

Everyone has commented that the time allowed policymakers tends to be substantially shorter than is desirable for decisionmaking, and furthermore, it makes modeling very difficult. It is very little consolation for an agricultural policymaker interested in expanding exports and improving farm prices to have a model builder tell him that sometime over the next five years the export market for farm products will be strong and lead to a boom in farm exports. The policymaker's problem is that he has to deal this day, this month, and this year with people who expect certain things to happen and, therefore, while it is desirable to look at the longer-run situation, it means very little if things are going very badly in the here and now.

To cite a current example, I believe almost any model of world supply and demand for grains during the next several years would suggest that a wheat and feedgrain set-aside in 1982 is a bad policy. But a wheat set-aside has been decided on short-run budget and price considerations. I believe that this phenomenon of policy making is called "the draining the swamp." It is one that plagues almost every U.S. administration and causes U.S. policymakers to look upon parliamentary governments with envy some days.

## **The Path is as Important as the Destination**

Similar to, but not exactly the same as, the issue of time is the issue of means. There is a practical political limit to the direction a policymaker can take in order to reach an objective. In most policy situations the ability to adopt and maintain a policy with a given objective depends not only on whether the objective itself appears rational and will have an outcome which is desirable, but also on whether or not the route to the policy objective is tenable. I could cite personal experiences and numerous observations in which government officials started out with policy goals that probably would have produced desirable results had they been allowed to pursue them. However, various political groups created so much difficulty over the chosen route that officials found the path was untenable and were forced to abandon the policy. In other words, for policymakers (unlike renting trucks to move) getting there is not half the fun. In fact, the question generally is can we survive the trip even if we want to get there?

### Who Gains and Who Loses?

Another major problem is that policymakers are rarely asked to choose between two Pareto better policies. Indeed, those policies which would benefit everyone are so obvious that they are decided and put forth by the professional bureaucrats. The decisions that are left to the policymakers are almost by definition decisions that require some to benefit while others suffer. To the decisionmaker, the question of who will benefit and who will suffer becomes almost as important as the question of what the policy will accomplish. The most skillful policymaker/politician attempts to convince the public that everyone will benefit and no one will suffer because of his policy actions. This attempt, however, tends to succeed in political campaigns more than it does in actual governance as the current administration, the last one, and the one before that can attest in varying degrees.

### **The Problem of Misplaced Preciseness**

Models are designed to predict with varying accuracy what will occur if certain variables are influenced. From the policymaker's point of view, degrees of accuracy may not be the most important element by which policies are judged. As an illustration, let me indicate some examples specifically relating to agriculture.

When I first accepted my position in the Department of Agriculture I was somewhat skeptical and critical that the Foreign Agricultural Service had consistently underestimated the projected growth in exports at the beginning of each crop year. My colleagues and I continually chided them to be more precise in their export estimates and to project increases more consistent with the expected actual increases. In retrospect, I think the Foreign Agricultural Service was aware of something that I only recognized later, that the accuracy of the direction of the increase is far more important than the preciseness of the actual projection. In other words, it is not a terrible error for a policymaker to predict farm exports or prices will rise and then to find that the increase was substantially greater than he had predicted. It is, however, both bad form and bad politics to have consistently predicted that there would be a rise in exports or a rise in farm prices and find that exports or prices are falling. The public tends to remember the direction and not the magnitude.

The importance of this phenomenon cannot be underestimated and should be obvious to people who merely observe the current

news. We have seen in recent months an administration claiming great victory for declining inflation rates even though lower rates were enough to have removed presidents from office in the recent past. The same has been true regarding interest rates. A decline in interest rates to levels only previously charged by loan sharks is now considered a major victory for the new economic policy.

### **The Tidal Wave Problem**

All policymakers recognize, in quiet moments, that in our economic system they have control over a few variables. What they often fail to recognize is how easily all the other variables may swamp the effect of the policy variable they control. In other words, what good is your tide table if your boat is swamped by a tidal wave?

For an example, in the spring of 1980, the USDA was trying to stabilize grain markets in the aftermath of the Russian embargo. We had only loans, reserve rules, and purchases as policy variables. We used them, but the results were far from satisfying to farm producers. The problem, however, was not our ineffective use of the available policies; it was that those policies were swamped by the sudden jump in interest rates and other factors outside the control of agricultural policymakers. The reality did not change the perception, however, that our policies were inadequate.

The current administration is experiencing this phenomenon now. Auto import controls have not improved auto sales, budget cuts have not reduced the budget deficit, and farm exports have lagged earlier expectations despite an emphasis on expanding exports. They are now learning that all individual policies can be quickly and easily overwhelmed by other economic and political events.

The concerns I have just outlined tend to result in a series of short-run policies that appear to be unrelated to any administration's stated long-run objectives. They produce conservative administrations that use price controls, short-supply embargoes, and finally, cuts in defense spending; and liberal administrations that decontrol, cut budgets, and refuse to use production controls and trade restrictions to protect constituent groups.

### **Politics of Policymaking in the 1980s**

Now let me translate these political issues that so greatly influence the policymakers into the context of the 1980s. First, despite

the overwhelming vote in 1980, there is no indication that the **volatility** of the electorate has ended. Because of it, no president has **served** two terms in two decades, and in the same period an unprecedented number of Congressional seats have turned over — in both directions. The number of politicians who view their position as "safe" is very small and likely to remain so. Therefore, they will focus more and continued attention on the time and path problems involved in the policy process.

This fact, in turn, makes who gains and who loses an important daily issue. In a political world of single-issue groups, their money and their support depends upon how their interests are treated in every policy decision. In farm policy this is especially difficult because the policymaker cannot deal with each commodity in a vacuum, as each commodity group wishes to be treated.

Because most of the public obtains its perception of how policies are working via 30-second capsules on TV and radio, the issue of "misplaced preciseness," or the importance of the overall accuracy of the projected policy outcome, will continue to be significant. The electronic media report direction, not magnitude, and say nothing about either the reason for change or what is likely to happen next.

Finally, in the area of agricultural commodity policy, the tidal wave effect is a dominant force. The money and credit system both for agricultural producers and for participants in the agricultural commodity markets is now fully integrated into a national and international market for money and credit.

In my view, policymakers will continue to have the concerns I have outlined; indeed they may become stronger rather than weaker. Until and unless model builders can understand and address these concerns, there will continue to be a gap between policymakers and model builders. Models with single-objective functions no longer suffice.

### **How Can Model Builders and Policymakers Function?**

How can modelers function in this environment? Basically, I think that policymakers and model builders need the answers to two sets of questions. The first is, "What are the possible ways of getting from here to there, and what will be the impact on various groups or sectors using different paths?" Second, "What can go wrong, what difference will it make, and how likely is it to happen?"

Part of the problem with this approach is that policymakers do not often ask these questions and, what is worse, are not appreciative of the answers when they are given. Moreover, government officials are generally reluctant to discuss the realities of short-term constraints, and often they are not even aware of them. They tend to ask the model builders for answers within a prestrained philosophical framework. The model builder provides answers even further constrained by the limits of his data and models. The decisionmaker is disappointed, upset, and looks for other advice when events intervene which were outside the framework of his question, and the modeler is frustrated to find the policymaker taking actions which are based upon incomplete and/or inaccurate judgments on issues he could have addressed.

Let me cite an example of the kind of problem that is involved. For three years the U.S. government, and the European Community for a longer period, has wrestled with the high cost of dairy price support programs. Let us assume that the political realities in both situations prohibit abolishing the support programs. The policy assumption, and therefore the question generally asked by policymakers, is how much should the support level be reduced to minimize the high budget cost.

A better approach to the issue might be: (1) Why is the program generating increasing costs? (2) What is the nature of the production or consumption situation which significantly affects costs? (3) Which policy variables will really change anything? (4) Will changes in consumption, production technology, or marketing technology swamp any politically tolerable changes in the policy variable?

Let me close with a fable about the interaction of model builders and policymakers. Once upon a time there was an agency in Washington. That agency had computers, and any agency that has computers obviously builds models. This agency, therefore, hired some model builders and they built a model of the feed-livestock economy of another country. The model was designed to predict the amount that the other country would import under certain conditions relating to internal crop production, livestock numbers, etc. Then the greatest of all policymakers became very upset with the other country, and thus, was looking for sanctions that would punish the other country. Therefore, he said to the agency that had the model builders, "Please tell me what would happen if I stopped all United

States exports to that country." The model builders did not have a model that was designed to answer that question, so they gimmicked up the model that was designed to predict imports and came up with a conclusion that the other country would have a 25 percent decline in livestock output if the United States stopped exports to the other country.

Unfortunately, the top policymaker believed this, and therefore he stopped exports to the other country. He was surprised and dismayed to find that the other country did not have a 25 percent decline in livestock output. He never asked why someone didn't tell him that the model was giving him a bad estimate.

All fables are supposed to have a moral. Well, there may be several to this one. One could gather from this story: Never trust an estimate from the agency. A lot of people had come to that conclusion without ever having seen the feed-livestock model. A second conclusion is that no model builder should be asked a question without asking what can go wrong, and how likely it is to occur. However, the most important conclusion coming from this little fable is that one who builds models should never accept an answer that clearly defies common sense.