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AGRICULTURAL POLICIES IN THE USA\*  
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It is an honor and a pleasure to give this address to this distinguished audience. It is also a pleasure to be back in Hungary and to see first hand the substantial progress this country is making in transforming its economy and adapting it to an international economy that itself is undergoing very rapid change. Surely, policy makers must often feel they are shooting at a moving target!

Deciding what to cover in my remarks today proved to be quite a challenge. The title given me implies that I am to discuss primarily sectoral policies. Yet macroeconomic policies arguably have far more influence on farm producers and consumers of food than the sum total of microeconomic or sectoral policies. Macroeconomic policies include monetary and fiscal policy, exchange rate policy, and trade policy. Similarly, it implies that I am to concentrate on the policies affecting the producer. Yet, domestic feeding programs such as food stamps and the international food aid program have had a significant effect on the U.S. agricultural sector.

To further compound the problem, even a discussion of the commodity programs is not a simple issue. These programs vary a great deal from one commodity to another, and in some cases they have changed a great deal over time. Thus a rather long paper could be written just on those programs.

In the interest of time and relevance to this audience, I have chosen to provide a selective overview of what I consider to be the main elements of the U.S.'s food and agricultural policy. In making the selection I have tried to concentrate on what might be of most interest and value to this audience at this juncture in our history. Many countries are undertaking major reforms of their economies, with a great deal of attention to making them more market

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oriented. In so doing they often look to the United States to see what they might learn. Hence I have tried to focus on what might be of value to them.

My comments are divided into two main parts. In the first part I will try to provide an overview of U.S. policies. In the second part I will try to draw some of the lessons learned from our experience. At the end I will have some concluding comments.

### An Overview of U.S. Food and Agricultural Policies

The discussion of national economic policy for any country has to start with the basic institutional framework. Much of policy is imbedded in those institutions. In the case of the United States, many of those institutional arrangements are so taken for granted that it is easy for us to forget them, or to underestimate their importance. After an overview of those institutions, I will then discuss in turn (1) science and technology policy for agriculture; (2) commodity programs; (3) environmental policy; (4) feeding programs; and (5) food safety policies.

### The Basic Institutional Framework

The U.S. economy is based on a system of private property. Individuals are given the right to own capital assets, and to make decisions, within limits, about how they will use those assets. They can buy and sell these assets, except for that capital imbedded in human capital. In the latter case, they can buy and sell the services of human capital, including both their physical labor and the cognitive and specialized skills they acquire, but they cannot buy and sell the human itself. The legal proscriptions against slavery prevent that.

As we will see below, however, the U.S. economy has an important public sector as well, one in which important economic activities are either in the public sector or are supported by public means. This feature of the U.S. economy is important, since many free market zealots imply that the public sector is unimportant, or not needed. We will see that some of the most important services for a modern food and agricultural sector come from the public sector. Neglecting this sector can lead to disappointing economic growth.

A third component of the institutional arrangements for the U.S. economy is the civil rights

assured through the Constitution and by the legal system as it has evolved over time. These civil rights include the right to make contracts, the right to have these contracts enforced, the right to be protected by due process of law, and the right of habeas corpus. As countries evolve from authoritarian forms of government to more democratic forms, attention logically is directed to the issue of human rights. If at the same time the society is shifting to a greater dependence on markets to organize their economic activities, they also must give attention to the issue of civil rights.

### Science and Technology Policy

An important feature of U.S. food and agricultural policy has been the attention it has given to science and technology. Perhaps the most unique part of this policy has been the land grant colleges and universities. This system of public universities evolved in a step-wise fashion.<sup>1</sup> The first step was the creation of the colleges and universities by the Morrill Act of 1862.<sup>2</sup> Individual states were given grants of land if they would create institutions of higher education for the masses that would be open to the sons and daughters of farmers and industrial workers, and that would teach agriculture and the mechanical arts. This significant broadening of opportunities for higher education was probably unique in the world. Although since transformed by changes in the economy, this system is still in place.

Later (1877), as the national frontier closed and the supply of cheap land declined, food prices began to rise in real terms. Congress in its wisdom then passed legislation that led to public support for agricultural research through the land grant universities. The subsidies provided for this system by the Federal government were only forthcoming if the states provided matching money - a unique feature of the U.S. system. This laid the ground for a collaborative effort between the federal and state governments.

Despite the importance of the public sector in agricultural research, which includes a federal

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<sup>1</sup>Succinct histories of the land grant and state experiment station system can be found in Ruttan (1982, pp. 76-83) and Hayami and Ruttan (1985, pp. 203-230).

<sup>2</sup>The historically Black land grant colleges and universities were created by legislation passed in 1890.

research system in addition to the state system through the land grant universities, the private sector has also played an important role. Most of the research that has led to the mechanical innovations in U.S. agriculture has been done by the private sector. Similarly, some biological innovations, and especially those in the hybrid corn and poultry sectors, have come from the private sector. The challenge for policy makers is to find the appropriate balance between the private and public sectors and to identify which research activities should be in one sector and which in the other.

The third leg on the stool of science and technology policy is extension or technology transfer. Policy makers eventually recognized that just generating new production technology was not sufficient. It had to be transferred to the producers if it was to be useful. This led to federal legislation that provided federal support for extension activities, also to be delivered through the land grant universities. This, too, had its financial sharing arrangements, with the sharing in this case extended to the county. This system evolved into one in which county agent offices were established in virtually every county in the nation, with these offices linked organically with the land grant universities.

Another important ingredient of this science and technology policy has been the system of public schools at the K-12 levels. Students have been able to obtain primary and secondary education tuition-free. Moreover, in most states young people are required to go to school until they are at least 16 years of age. This system in the United States is financed through state and land governments.

To conclude, the key element of science and technology policy for the United States has been the integration of important elements of higher-level education, agricultural research, and extension in one institution - the land grant universities. This integration has proved to be an efficient way to organize and deliver the services of science and technology because of the apparent complementarities among the three components. Organizing these services in relatively autonomous universities has also reduced the politization of these services, which often occurs when one or more components of the system are organized in Ministries of Agriculture, as is often the case in other countries.

### Commodity Programs

The basic goal of commodity programs in the United States has been to support the prices of agricultural commodities above what would otherwise be market-clearing levels. Most of these programs had their genesis during the Great Depression of the 1930s. The incomes of farm people were desperately low, and policy makers concluded that the best way to address this problem was to raise the prices farmers received.

The basic mechanism for raising these prices in the beginning was for the government to take production off the market and create isolated stocks that were acquired when producers, who had been given non-recourse loans at the support levels for the commodities, turned their output over to the government. The accumulation of these costly stocks eventually led to production control programs that led to the diversion of land from production. It also led to the feeding programs which will be discussed below.

These basic price support programs have in some cases evolved significantly over time. For example, for the basic commodities the programs have been converted into producer payment schemes in which the producer receives a check direct from the national Treasury rather than through higher prices. Under this scheme market prices are allowed to decline to their market-clearing levels, with the result that the consumers receive at least some of the benefits of the program in the form of lower prices. The check the producer receives covers the difference between the "target" price and market price in a pre-determined period during the marketing year.

Two issues of macroeconomic policy are important in understanding these commodity programs. First, the motivation for the continuation of these programs in the period following World War II was the chronic overvaluation of the dollar. This overvaluation was equivalent to a tax on exports that caused U.S. producers to lose their competitive edge in international markets. It was also equivalent to a subsidy on imports, which could have caused imports to come into the country at lower prices than would have otherwise been the case.

The second aspect of macroeconomic policy has been the levels of protection necessary to sustain the domestic commodity programs. Without this protection, sustaining the programs would have been a bottomless

pit in terms of the drain on the national treasury. This same protection contributes to the tensions in the current round of Multinational Trade Negotiations.

### Environmental Policy

Environmental policy for agriculture has also evolved over time. For quite a number of years farmers could receive government payments for undertaking certain conservation activities such as the building of contours and terraces, the planting of conserving crops, and other activities. More recently, a conservation reserve or set-aside of land has been an important means of pulling land out of production to help sustain higher prices.

These programs have not been fully protective of the environment by any means. For example, the commodity programs themselves have engendered pollution of underground water supplies and surface lakes, streams, and rivers by promoting the excess use of fertilizer and pesticides. They have done this by means of the high price support levels and the land diversion programs that have encouraged producers to strive for higher yields on the land in production as the means of receiving higher incomes. The commodity programs, by assuring more stable prices, have also probably encouraged monoculture and a shift away from rotations, which in turn has probably led to more erosion of topsoil than would otherwise have been the case.

### Feeding Programs

During the 1950s and the 1960s, when large stocks of excess production were accumulating in government hands, a number of means were devised to dispose of these stocks. One of these was to dispose of the stocks in a food stamp program that provided food at low, and in some cases, zero prices to low income individuals in society. This program has both grown and evolved over time. Today, it is a major component of the nation's social welfare program. It has also gradually been converted into what is the equivalent of a negative income tax, with the ability to cash out the stamps and use the money for other purposes.

Parallel to the development of this domestic feeding program, a food aid program was developed for the developing countries. This program also grew rapidly, and at one time was accounting for approximately 25 percent of this nation's foreign

economic assistance to the developing countries.

The food aid program is a good example of dumping one's domestic problems onto the international economy. The rhetoric surrounding the program has always been filled with good-intentioned rhetoric. The truth of the matter, however, is that much of the political support for the program comes from a desire to dispose of excess production abroad. A rose by any other name is still a rose. In this case it is called dumping.

Academic critics of this program, such as T.W. Schultz, at one time brought about some modest restrictions on this program so as to reduce the damage to producers in other countries. However, the coining of a new concept - monetization - has brought it back with most of its original shortcomings.

#### Food Safety

Food safety has been an important element of food and agriculture policy for quite some time. Provision was made long ago to inspect the meat packers and to inspect and regulate other parts of the food distribution sector. These interventions have for the most part been to protect the consumer, although in some cases they have been little more than non-tariff barriers to trade when applied to imported commodities and food items.

The growth in the use of chemicals in modern agriculture, and the increased sensitivity to these "environmental" problems has led to an expansion in the number and significance of regulations for the food and agriculture sectors. They are now becoming rather pervasive in the sector.

#### Lessons Learned

There are a number of important lessons the United States should have learned from its experience with the variety of government interventions it has used in favor of its food and agricultural sector. Again, I will focus on only a few of what seem to be the more important and salient.

The first has to do with identifying the ultimate beneficiaries of investments in science and technology. Past investments in agricultural research in particular have been largely justified on the grounds that they were going to help raise the incomes of farmers. The truth of the matter is that most of the benefits have



gone to the consumer, not to the producer. In fact, given the general need for the United States to overvalue its currency if the dollar were to be the international currency, and the failure to promote competitive policies generally, farmers and agricultural workers have had to bear a disproportionate adjustment problem as production continued to outpace demand.

As part of a national development policy, this has been a sound policy. The benefits of the new technology have been widely diffused in the economy in the form of prices that have been lower than they would otherwise have been. This decline in the real price of food is equivalent to an increase in the real income of consumers. Moreover, given that low-income consumers tend to spend a larger share of their budget on food than do middle- and upper-income consumers, the benefits of the technology have been relatively in favor of the poor.

The issue, therefore, is not to argue against the investment in new technology. Attempts to estimate the social rate of return to such investments have consistently shown that these rates of return are quite high - ranging all the way from 35 percent to over 100 percent. It is difficult to find cheaper sources of economic growth! The issue is to use the right rhetoric in justifying the programs.

Second, while research has been an important theme in the science and technology policy for agriculture, that research has tended to have a bias towards plants and animals and away from the people problems that have been so important in the sector. To put it bluntly, the plants and animals have done well; the people have not. Poverty is disproportionately present in the agricultural and rural sectors of the United States.

Third, given the location and ecological specificity of agricultural technology, the partnership that evolved between the federal government and state and local governments has been an efficient system for generating new production technology. It has kept the system decentralized, and this has helped adapt the technology to local conditions, while at the same time promoting competitive measures in the system.

Fourth, commodity programs have been a failure in terms of raising the per capita income of rural people. They have been a failure for a number of reasons. First, they do not address the underlying secular

adjustment problem that characterizes agriculture in most countries, an adjustment problem that requires the transfer of labor out of the sector. To the contrary, they impede the adjustment process by providing incentives to remain in agriculture since that is the only way to collect the benefits of the government subsidies.

In addition, while not addressing the underlying adjustment problem, the programs have actually exacerbated the income distribution problem within agriculture. Large producers receive large income transfers. The poor, given that they produce so little, receive a disproportionate share of the government's largesse. Thus, programs that are justified on the grounds of saving the family farm tend to have just the opposite effect, despite provisions that limit the size of payments to individual producers.

Fifth, the system of land grant universities and the system of lower-level public schools have provided the way out of rural poverty for many people. This educational system has been an important means of upward mobility for rural people. However, policy makers have tended to underinvest in the education of rural people compared to their urban counterparts. Larger investments would have helped narrow the chronic income gap that emerged. In addition, adjustment policies that would have helped rural people, especially farmers, to adjust to alternative employment have been sorely lacking. Such policies would have further narrowed the sectoral gap in per capita incomes.

Sixth, the importance and role of technology in addressing environmental problems has been mixed. The critics of agricultural technology blame it for the pollution of underground aquifers and the above-ground water supplies. They fail to recognize that this same technology has made it possible to withdraw large amounts of environmentally fragile land out of production while at the same time making it possible for agricultural output to outpace demand. If it were not for this technology, the U.S. would be producing crops such as corn on the hilly slopes of Appalachia and on the mountainsides of the Rocky Mountains.

Seventh, we have learned just how difficult it is to bring about policy reform in a political democracy, especially when the benefits of the existing programs tend to get capitalized into the value of fixed assets.

The basic problem here is that the capital loss producers will experience when policies are reformed are typically imposed on different people than those who benefitted from the program in the beginning. The net result is that although there is ample research and analysis that shows the costs and lack of effectiveness of current policies and programs, the reform of bad policies comes hard.

#### Concluding Comments

U.S. commodity policy has become vulnerable as the U.S. economy finds itself becoming increasingly well integrated into a global economy. Many, if not most, of its food and agricultural programs were developed during the period when the national economy was for all intents and purposes a closed economy. Those conditions no longer prevail. In the future, the United States, as well as other countries around the world, will have to shape their policies to be consistent with these new opportunities. An important implication of so doing is that macroeconomic policy will be increasingly important as a component of food and agricultural policy.

A corollary of the above proposition is that international institutional arrangements will also have to be reformed. These include the international monetary system, exchange rate policy, and trade policy mechanisms. A more systematic discussion of these forms will have to wait for another day.

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