ARTICLES

Looking Ahead: Agricultural Policy in the 1990s

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The 1980s have exited with a flourish. As 1989 came to a close, events on many fronts seemed to outpace our abilities to imagine what might happen next. On the political scene, the momentum of democratic reform was remarkable, and changes came suddenly. Political upheavals and reorganizations in Eastern Europe were dramatic examples of the global movement toward democracy and economic liberalization.

The structure of the world economy was itself undergoing dynamic change at the close of the 1980s. Economic reforms in China and in the Soviet Union, the anticipated co-integration of the economies of the European Community, and the continually emergent importance of the Japanese economy were developments indicative of this dynamism. These developments did not occur as suddenly as the recent examples of political change in Eastern Europe. However, these developments have been equally as momentous, and in some ways, their timing was equally as unpredictable as that of their political counterparts.

The course of events which led up to such watershed moments in the political and economic spheres did not necessarily signal that these developments were imminent. In some cases, dramatic changes occurred with astonishing rapidity, taking everyone by surprise. Recent events in Romania occurred in this manner. In mid-December 1989, few expected Romanian leadership to be vulnerable in the near future. By the end of December, civil war had broken out, and the President of Romania had been executed. Similarly, and perhaps even more astonishing, the opening of the East German border and the razing of the

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Berlin Wall came almost without notice.

Other sweeping changes of the 1980s became apparent and took effect in a more gradual fashion. Japan's success in the automotive industry exemplifies a significant and relatively rapid, but not sudden, development. Political reform in the Soviet Union also occurred at a rapid, though not sudden, pace. If somewhat less abrupt in their arrival, these events have been far reaching in their impact.

If momentous events such as those in Eastern Europe took the world by surprise in some instances, once these events were underway it seemed clear that "the times were right" for such events to transpire. Swift developments, which only a short time ago had seemed beyond the realm of possibility, suddenly seemed obvious and inescapable, almost a matter of course. Those who observed the dramatic events of the 1980s continually have remarked at the way in which these events, once underway, have developed momentums of their own. In retrospect, the events and conditions clearly had come together to present recognizable moments of opportunity.

The Greeks might have referred to these moments of opportunity as "kairotic moments." The Greeks used the concept of the kairotic moment to capture and to characterize the nature of moments in time that present unique possibilities. These moments, whether anticipated or unannounced, offer temporal windows of opportunity in which new horizons suddenly appear attainable. They are moments in which decisions must be made, as at a fork in the road. They are moments in which the course of events is not predetermined, but rather, is suddenly open for discussion and change. While the inertia of the past may lead up to and set the stage for the kairotic moment, the force of that inertia does not dominate the kairotic moment. Rather, the moment is one in which it is suddenly possible to redirect that inertia or even to reverse it. It is a moment that may be seized.

In Eastern Europe, true kairotic moments of opportunity presented themselves, and people seized the possibilities of those moments. The outcomes have been extraordinary and most likely irreversible. In attempting to anticipate the direction of agricultural policy in the United States as we begin the decade of the 1990s, the Greek concept of the kairotic moment is appropriate. Agricultural policy in the United States has been stubbornly stable for over fifty years. However, over the course of the mid- to late-1980s, events began to point towards the possibility of significant changes in the governing of agriculture. A number of forces, taken together, appeared to steer the environment surrounding policy determination toward a unique situation. In 1990 Congress was scheduled to formulate, debate, and enact new agricultural legislation to replace the 1985 Food Security Act.[1] As the 1980s drew to a close, it began to appear that the 1990 Farm Bill would be fashioned under conditions that might demand, or at least permit, significant changes to be made in what had previously been a stable policy regime. For a number of reasons, events began to come together in a way which suggested that the 1990s might present unique opportunities for reform in agricultural policy. In the language of the Greeks, a kairotic moment was perhaps in the offing for agriculture.

This Article outlines the sources behind the rather sudden optimism about the potential for significant change and reform in agricultural policy in the early 1990s. The Article also will assess the most likely paths that farm policy might follow in the near future. Looking toward the future is inevitably an inexact science at best, particularly when suggesting the possibility for change, change being by nature somewhat less predictable than a continuation of the status quo. This Article limits itself to developing a thematic impression of what might rationally be expected. To provide a perspective from which to evaluate outcomes potentially consistent with the current climate, this Article reviews the historical record of farm policy in the United States. An interpretation of this historical record will facilitate a discussion of policy outcomes that might reasonably be expected given the existing conditions.

I. Agricultural Policy: Past and Present

One can characterize early forms of governmental policy towards agriculture in the United States as primarily focused on institutional development. By the middle of the nineteenth century the federal government had begun to supply public goods within the agricultural sector. In 1862, Congress passed both the Morrill Land Grant College Act[2] and the Homestead Act.[3] Somewhat later, the federal government also became involved in establishing a public provision of agricultural research.[4] These efforts soon were complemented by the development of a publicly funded extension system. This system disseminated the accumulating knowledge and technologies to farmers at the local and individual level. From roughly the 1860s through the early decades of the twentieth century, the federal government's role with regard to agricul-

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[1] 7 U.S.C. §§ 1308-1 through 1308-3 (1988).

[2] Ch. 130, 12 Stat. 503 (codified as amended at 7 U.S.C. § 301 (1988)).

[3] Ch. 75, 12 Stat. 392 (repealed 1976).

[4] *See, e.g.*, Hatch Act of 1887, ch. 314, 24 Stat. 440 (codified as amended at 7 U.S.C. §§ 361a-361i (1988)) (authorizing appropriations for state agricultural experiment stations).

ture primarily was limited to activities designed to improve economic efficiency in the private sector. The benefits and costs of these programs were widely dispersed.

This period also marked the introduction of regulatory policies designed to alleviate some of the problems accompanying conditions of imperfect competition in the markets for some agricultural commodities. Actions, such as the adoption of the Interstate Commerce Act of 1887[5] and the Sherman Antitrust Act of 1890,[6] helped in this regard by regulating the actions of railroads and those of grain elevators. The Capper-Volstead Act of 1922[7] exempted agricultural cooperatives from antitrust regulations. This allowed farmers to market cooperatively their products and helped to offset the market power of merchandisers and manufacturers in the primary product commodity markets. In 1916, Congress sponsored a cooperative farm credit system designed to make funds more easily available to farmers.[8]

Although government had become involved in agriculture in a number of important ways by the mid-1920s, it rarely intervened directly in domestic agricultural commodity markets before the early 1930s. During the 1920s, low prices for farm products spurred a number of efforts to pass legislation that would allow direct market intervention to raise prices for agricultural commodities. Despite a growing level of political organization and influence by those who represented farmers' interests, such attempts failed.

The long history of redistributive commodity policy did not begin until after the onset of the Great Depression and during the emergence of the protectionist environment of the 1930s. The severity of economic conditions that agriculture faced during this period provided a kairotic moment for farm organizations. Their efforts to encourage governmental intervention in agricultural markets finally met with success. Congress adopted the Agricultural Adjustment Act of 1933[9] as part of the Roosevelt Administration's response to the extreme hardships and low agricultural prices of the Depression. This was the first legislation to introduce price-support and production control programs to agriculture. After several modifications to the Act of 1933, some motivated by Supreme Court constitutional rulings, Congress adopted the Agricultural

[5] Ch. 104, 24 Stat. 379 (1887).

[6] Ch. 647, 26 Stat. 209 (codified as amended at 15 U.S.C. §§ 1-7 (1988)).

[7] Ch. 57, 42 Stat. 388 (codified at 7 U.S.C. §§ 219-292 (1988)).

[8] *See* Federal Farm Loan Act of 1916, ch. 245, 39 Stat. 360 (repealed 1971).

[9] Ch. 25, 48 Stat. 31 (codified as amended at 7 U.S.C. § 624 (1988)).

Adjustment Act of 1938.[10] This Act of 1938 remains the legal authority for commodity price and production control aspects of agricultural policy in the United States.

At the time of its inception, commodity policy was marketed to the public as a policy designed to stabilize and ensure farmers' incomes through a particularly difficult period. At the time, policymakers emphasized that the measures taken were not implemented to establish the foundational superstructure for a permanent policy of income support for agriculture. In 1934, Secretary of Agriculture Henry Wallace insisted that the intervention in commodity markets which had been initiated in the Agricultural Adjustment Act of 1933 was merely "a temporary method for dealing with an emergency." Publicly stated intentions to the contrary, the immediate establishment of an involved decentralized institutional structure with which to administer new programs seemed to belie the claim that Congress designed the policy to be temporary. Once established, these structures provided a powerful momentum and constituency that favored maintaining the adopted policies.

Whether intentional or not, the general form of the commodity policies implemented in the 1930s has proven difficult to dismantle and has taken on the appearance of a permanent fixture. This has been due in part to the momentum of the established institutional structure. The powerful ideological commitment towards nurturing the continued existence of the family farm and of small rural communities as ways of life also contributes to this permanency. Agriculture is an industry that declines in relative importance and in absolute population as modernization and industrialization occur. The visible manifestations of this decline, such as the steady fall in the number of farms, continue to trigger support for existing types of commodity policies. This support occurs because the evolution of the agricultural sector is viewed as threatening the ideologically favored forms of rural social and economic environments. The traditional forms of commodity policy have been perceived as ways to counteract these changes.

An ideological commitment to a traditional conception of agriculture, combined with the specific forms taken by commodity policy, have contributed to the emergence of strong interest group organizations within agriculture. The emergence of these special interest group organizations within agriculture also has contributed to the continuance of the familiar forms of commodity programs. Agricultural interest groups have actively engaged in political rent-seeking behavior to maintain existing

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[10] Ch. 30, 52 Stat. 31 (codified as amended at 7 U.S.C. §§ 1301-1359 (1988)).

forms of intervention. In this context, rent-seeking refers to actions taken by individuals or groups of individuals (in this case farm and commodity organizations) that are intended to direct public policy to serve their own interests. Rent-seekers accomplish their goals through the broadly defined activity of "lobbying." This rent-seeking behavior results from the particular ways in which the government allocates program benefits to farmers. Since the original farm legislation of the 1930s, Congress has designed commodity policy so that the amount of program payments each producer receives in any given year is directly related, through the program's participation rules, to the quantity of output that she produces. Programs that exhibit this relationship between output level and program benefits received are called "coupled payments" schemes. Historically, the use of coupled payment schemes in the United States has resulted in concentration of the commodity programs benefits to increasingly narrow groups of recipients. This has occurred as the recipients of program benefits become fewer in number. These recipients also have become increasingly specialized in their production activities, at least partially in response to the structure of the programs.

These developments have encouraged the formation of commodity-specific organizations designed to facilitate political activity that seeks to maintain and improve the commodity producer's welfare. For example, wheat producers formed political lobbying organizations to apply political pressure for policies that would enhance the incomes of wheat producers. Likewise, other commodity producers formed their own organizations. These individual commodity organizations gradually replaced the more general, and previously predominant, farm advocacy organizations as the primary vehicles for effective political expression. The ideology behind farm policy has been one of the most effective tools that these organizations possess. Arguably, the marketing of this ideology by farm and commodity organizations is one of the most important factors in their continued importance.

Another result of coupled commodity programs is that economic incentives for resource allocation in production, and generally in the consumption of the output produced, are distorted relative to what they would be in the absence of these programs. Economists have long pointed out that such distortions create economic inefficiencies and therefore are not generally pareto optimal.

Not only do the resulting distortions create inefficiencies in production by altering production incentives, they also encourage resource expenditures in attempts to influence policy. This type of expenditure is a further waste of resources when evaluated from a societal point of view.

Another difficulty is necessarily associated with programs characterized by coupled payments. Because payments are linked to the amount of output produced, outside and uncontrollable economic forces affecting the levels of production or of consumption can have important impacts on a commodity program's effectiveness and budgetary costs.

Since the adoption of the original commodity policies of the 1930s, the evolution of agriculture and its economic environment occasionally have emphasized the existing policy regime. In particular, times of agricultural commodity surpluses have made the existing commodity policies expensive to maintain. Historically, agriculture has moved toward times of surplus when governed by coupled policies due to the combination of two stylized facts of agriculture. Agriculture consistently has maintained a higher productivity growth rate than the remainder of the economy and has faced a relatively inelastic demand for its output.

Together, these two factors have relentlessly pushed U.S. agriculture toward surplus production under conditions imposed by the current policy regime. For this reason, these programs tend to become costly and increasingly distortionary if not continually adjusted to market conditions. Policy changes that would lower the costs of commodity policy and lessen its distortionary impact generally threaten the welfare of the members of the commodity-specific interest groups who benefit from existing programs. The political influence of these groups, gradually built up and strengthened over time, has made changing existing policies extremely difficult.

On occasions when policymakers have considered change, they have discovered that the political economy of agriculture has become tied to ideologies and to the influence of interest groups so powerfully entrenched as to be able to successfully resist significant change. This has remained true even through the most urgent of fiscal and financial crises. Thus, although a series of farm bills and amending legislation have followed the two Agricultural Adjustment Acts of the 1930s, and although on each occasion the debate was spirited and the process far from boring, the resulting commodity policies have been essentially static in their basic form.

Agriculture in the United States in the 1990s, having been governed by the same basic agricultural policy framework for over fifty years, has become well acquainted with the existing policy regime. The remarkable stability of agricultural commodity policy since the 1930s has allowed vested interests to become increasingly powerful. This has made efforts to reform agriculture even more difficult. The primary policy instruments that characterize present U.S. domestic farm commodity policy continue to be based on price supports, target prices, deficiency payments, and acreage reduction schemes. These program instruments are supported, as necessary, through the use of import restrictions and export subsidies.

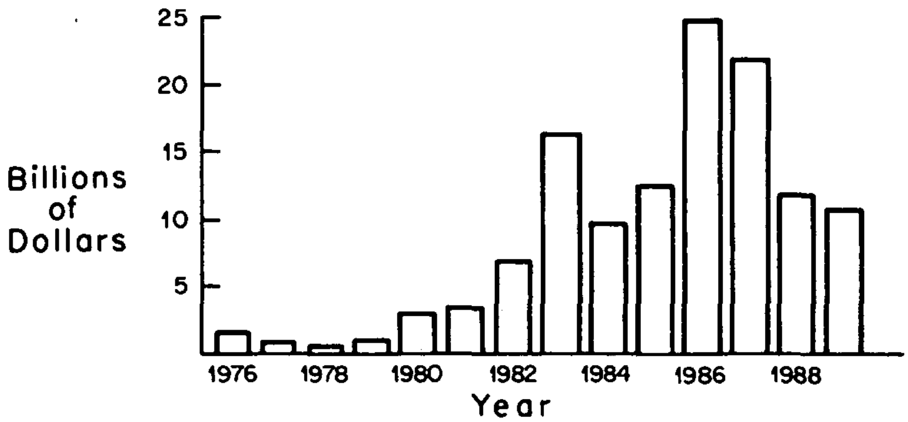
Policies oriented toward providing public goods, such as the Land Grant Universities and publicly sponsored agricultural research, extension services, and regulatory agencies, also have continued and proliferated. In contrast to the coupled commodity programs, public sponsorship of these activities is generally economically efficient. Rather than creating distortions in the allocation of resources, these policies are designed to help society overcome the distortions that would arise in the absence of collective action. These policies are potentially pareto improving and welfare enhancing from a societal perspective. These are policies that make society more economically productive. They are policies that do not create incentives to expend valuable resources unproductively in competition for program benefits.

II. Pressure for Reform

History reveals the many difficulties encountered in attempting to alter existing agricultural policy. Extraordinary circumstances are apparently necessary to make significant reform possible. After all, the last successful effort to alter significantly the framework of commodity policy was passed under the stressful conditions of the Great Depression. Nevertheless, the circumstances that characterize the current state of agriculture have generated speculation that significant efforts to reform agricultural policy are likely to achieve some degree of success. This speculation has been fueled by developments of several forces combining to encourage a push for reform in the decade of the 1990s.

The most visible and obvious of these developments are the recent high levels of the commodity program's budgetary costs. These budgetary costs of agricultural policy rose to unacceptably high levels during the 1980s. In 1986 and 1987, the budgetary costs of agricultural commodity programs in the United States reached well over twenty billion dollars annually (see Figure 1).

FIGURE 1. Annual Commodity Credit Corporation Expenditures *

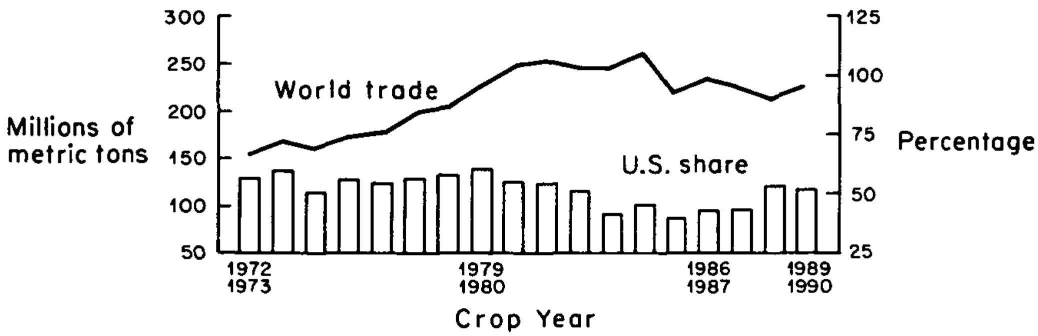


* source: United States Department of Agriculture

These costs dropped back to somewhat more manageable, although still high, levels in 1988 and 1989, largely as a result of the very dry weather experienced in the midwest during the 1988 crop year. The 1988 drought resulted in an abnormally small harvest, a rapid depletion of existing stocks, and consequent high market prices. Combined with the 1985 Farm Bill's increased flexibility in allowing loans to respond to market conditions, the poor crop year of 1988 allowed reduced levels of expenditures in both 1988 and 1989. Given current policies, however, changes in market conditions remained capable of rapidly escalating program costs. In a time of great political concern over the national budget deficit, these high levels of program expenditures have generated significant pressure for reform.

Several developments outside the United States also have contributed to an atmosphere more conducive to policy reform. Agriculture within the United States experienced a boom in the 1970s. This favorable period was related largely to the expansion of agricultural exports. A high growth rate in world demand for agricultural products made this possible. However, world demand for agricultural products stagnated in the early 1980s. Further, the dollar strengthened, competition from other exporters became more intense, and U.S. agriculture began to lose its previous marketshares (see Figure 2).

FIGURE 2. World Trade in Wheat, Coarse Grains, and Soybeans *



* source: United States Department of Agriculture

These developments in the export market were directly related to the commodity policies of the major exporting countries. The combination of high levels of output and world prices, which were significantly below what domestic producers in effect received for their products, ensured high levels of budgetary expenditures in the United States, the European Economic Community (EEC), and Japan. This combination also required that each employ commercial trade policies to protect their own domestic farm programs. Both the United States and the EEC subsidized agricultural exports and limited the access of imports to their markets while maintaining coupled transfers to farmers and keeping output high. Additionally, Japan has maintained particularly high levels of effective protection for its producers. Japan has severely limited imports of many agricultural commodities. These policies inevitably led to increasing tension levels over trade barriers and subsidies as each depended upon the expansion of their exports as a vital component in the maintenance of their agricultural industries' welfare.

These developments in the international arena have taken on great importance because of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) negotiations which began in 1987. The United States and the EEC entered the GATT negotiations facing extremely high farm program budgets. The EEC, concerned with its own agricultural programs' budgetary problems, adopted production controls for milk for the first time in 1984 and for its other major program commodities in 1987. Consequently, both the United States and the EEC were particularly concerned with reform from the outset of the negotiations. Although, both entered the GATT negotiations burdened by legacies of farm policy that appeared difficult, if not impossible, to change on a unilateral basis.

The difficulty of achieving unilateral policy reform has been due largely to some of the reasons noted above. However, it has been exacerbated by the fierceness of competition for export markets and the fear that unilateral agricultural policy reform would allow competitors to gain unfair advantage on international markets while continuing to restrict access to their own markets. This has led to a sort of "prisoner's dilemma" in which many countries feel trapped in their existing policy regimes. Each country fears that unilaterally reducing its own export subsidies or limiting its own internal level of support to farmers will result in the loss of marketshare. The action of one country on its own will rarely induce a significant rise in world prices. Consequently, each country finds that the potential rewards from liberalizing their agricultural policy do not warrant a unilateral move towards reform.

However, simultaneous reform by several important countries, if achieved, might provide an escape from this prisoner's dilemma. This line of reasoning characterized the mind set of participants at the outset of the GATT negotiations. In June 1987, Clayton Yeutter (then U.S. Trade Representative and currently the U.S. Secretary of Agriculture) remarked that: "We are clearly not going to reduce our level of government involvement [in agriculture] unless other people move with us. We are going to go down this road together, and we are going to go down it arm in arm, and we are not going to walk ten steps ahead of the Europeans or the Japanese or anybody else."[11]

With these factors in mind, the United States and the EEC, as well as the members of the Cairnes Group, entered the GATT negotiations with unexpectedly positive attitudes toward reaching a cooperative accord on agricultural trade issues. The accord would include the provision that internal commodity policies designed to protect farmers be lowered multilaterally. Thus, for the first time, participants arrived at the GATT negotiations with a publicly stated willingness to put the components of their own domestic agricultural policies on the negotiating table. From the outset of negotiations in Punta del Este in 1987, participants admitted the inclusion of internal policies. This provision recognizes that at the core of most distortionary trade policies are domestic governmental interventions. The major players' commitment to reach an agreement in the GATT negotiations is a strong reason for optimism about achieving reform of agricultural commodity policy in the early 1900s. If the GATT participants reach an agreement that calls for multilateral reform, they can carry this agreement to each of

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[11] D. Rapp, How the U.S. Got into Agriculture and Why It Can't Get Out 171 (1988).

their respective legislative bodies as a binding commitment. This might provide a mechanism to raise enough support to overcome the objections of the powerful and entrenched interest groups that will continue to oppose significant reform.

In the United States, Congress already has committed itself to either accepting or rejecting the entire GATT agreement without revision. Therefore, the political battle over accepting the GATT agreement will involve a great number of issues. This almost certainly will mean that battle lines will be drawn differently than they would be if the fight dealt only with agricultural issues. For the first time, the coalitions that form to pass or defeat a piece of legislation with a potentially major impact on agricultural commodity policy will be quite different than those that have ordinarily determined the content of Farm Bills. The coalition of interest groups that will determine this issue's outcome will not be dominated by the same interests that have prevailed in past debates over farm legislation. This could lead to passage of a GATT agreement that mandates significant reform of domestic agricultural policy. Thus, for several reasons, the GATT negotiations may significantly affect domestic farm legislation.

A final factor justifying optimism about the possibility for reform is a growing belief that the 1990s will be a decade in which the world demand for agricultural products will again expand at a rapid pace. This development would particularly benefit agriculture if the GATT participants can reach an agreement that would free world markets to accommodate such a development. Such a turn of events would significantly reduce the adjustment costs which agricultural sectors in the industrial countries would feel as they adjust their commodity programs.

Despite the fact that the near budgetary crises of 1986 and 1987 have eased somewhat in the United States and in Europe, both continue to issue statements indicating their continued commitment to reaching accord in the GATT negotiations. This is promising as many observers feared that support for the negotiations might erode as pressure from budgetary concerns lessened. However, as their public statements illustrate, this has not yet happened.

Current proposals before the GATT call for gradual phase outs of domestic agricultural programs that couple transfer payments to producers with output levels. Other current proposals seek to eliminate export subsidies and to convert all import restrictions to bound tariffs. By improving access to import markets and by fostering freer competition in export markets, these measures are intended to orient domestic production more effectively to market forces. Current proposals also call for improved and standardized sanitary and phytosanitary measures specifically aimed at protecting animal, plant, and human health. If adopted, these measures would bring agriculture into line with the regulations that GATT imposes upon other industries. They also would allow each government to take the agreement to their respective legislative bodies in the fast track manner suggested above.

Congress will probably pass the 1990 Farm Bill before the current GATT negotiations conclude. If this happens, existing farm policy will undergo few substantive changes. A slightly modified version of the 1985 Farm Bill will pass without much struggle. The agricultural policymakers then will focus their attention on the outcome of the GATT Round. They will have to present the mandates of the final GATT agreement before Congress. Congress then must draft special legislation to generate a domestic agreement that brings domestic policy into compliance with the GATT agreement.

The pieces are in place to permit this series of events to take place. Policymakers appear to be in a historically unique position that offers the potential for significant and momentous courses of action. Agricultural policy is suddenly experiencing a kairotic moment of its own as we head into the 1990s. However, significant action may not be taken. Whether policymakers at the GATT Round and in the legislative bodies of the participating countries will seize the moment of opportunity before them is far from decided.

In any event, developments in commodity policy will be largely determined in Geneva, through GATT, and not in Washington. The protestations of the commodity organizations notwithstanding, significant reform directed at increased market orientation for agriculture will benefit U.S. agricultural producers. U.S. agriculture will fare well in a more competitive environment in which technological innovation, value added, and product quality become increasingly important. Further, optimistic forecasts regarding the global economic outlook signal the possibility of expanded world demand for agricultural products, a demand likely enhanced and more readily accessed in a freer trade environment. Thus, in all likelihood, significant reform of U.S. agricultural commodity policies will benefit not only consumers and taxpayers, but also U.S. agriculture as a sector.

III. Emerging Agricultural Policy Agendas

While the potential for change in commodity policy attracts much attention, a number of other increasingly important issues also will confront agricultural policymakers in the 1990s. Almost certainly, policymakers will address these issues regardless of the fate of commodity programs. In some cases, new issues have arisen as a result of technological progress and the continuing development of domestic and global economies. In other cases, new policy issues have arrived on the agenda as a result of new understandings of the way in which policy does, and might do, its work.

An area certain to require increased attention in the 1990s is the rapid development of new biotechnologies. Advances are occurring rapidly in the animal sciences. The bovine growth hormone, which dramatically increases the milk production of dairy cows, is only one of many important examples. The plant sciences also continue to make headway in this area. These developments will push out the supply curves for agricultural commodities and will reinforce the long-standing trend toward fewer and larger farms. The continued development of these technologies will necessitate and will depend upon increased government involvement in providing appropriate regulation, establishing guidelines to determine property rights, monitoring the transfer of technologies, and providing public support for necessary research activities.

The development of new technologies in agriculture is closely related to the increasing political importance of concerns over environmental and health issues. Advocacy groups representing these concerns should enjoy increasing influence in the policy forum. These groups have become better organized and have benefitted from "learning by doing" during the 1985 Farm Bill debate. Several specific issues that are expected to arise in this context include the problems of groundwater contamination, coastal water pollution, soil erosion, and persistent chemical residues in the soil and in agricultural products.

Each of these specific environmental problems is linked indirectly to the nature of the coupled commodity programs. For example, commodity program benefits determine producers' production incentives and thus encourage excessive use of many inputs. In reacting to the incentives implicit in existing commodity programs, producers often behave in ways that exacerbate environmental problems. This type of interaction also occurs between commodity programs and other programs that fund and regulate technological advances. It will become increasingly important to understand these types of linkages between the effects of otherwise separate programs to evaluate the true costs and benefits of specific programs and to construct optimal policy mixes.

Another issue likely to receive increasing attention is the enormous impact that macroeconomic variables and events have upon the agricultural industry. The 1990s will see an increasing emphasis on designing ways to protect agriculture from the damaging effects of short-term fluctuations in the macroeconomy. Policymakers will deal with this issue in part by reforming government sponsored enterprises in agricultural-oriented credit markets. The linkages between agriculture and the macroeconomy are closely related to the importance of the international marketplace and the consequent impact of exchange rates, international capital markets, and the trade environment on the agricultural sector. These linkages currently receive much attention and almost certainly will find increased representation in formulating future agricultural programs.

Finally, increased attention likely will focus on targeting the impacts of income assistance efforts to agriculture in more careful and useful ways. Income assistance transfers to primarily large and relatively high income recipients in past programs will be a target of program refinement in future farm legislation.

Having outlined a number of ways in which agricultural policy might evolve and change in the 1990s, it is appropriate to conclude these observations by acknowledging that government regulation will continue to be pervasive in agriculture regardless of how particular rounds of legislation unfold. The major uncertainties lie in the degree of protection that the government will continue to afford producers through commodity market intervention and in the degree of legislative response generated by emerging issues.

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