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POLITICAL ECONOMY OF AGRICULTURAL
POLICY REFORM

by

Gordon C. Rausser and Douglas A. Irwin

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Political economy of agricultural policy reform

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Summary

(There exists today an opportunity for significant reform of world agricultural policies. The central political-economic question--as yet unanswered--is how this reform can be brought to fruition in the face of powerful domestic interests against such a change.

One proposal is to impose external binding constraints under the General Agreement on Tariffs and Trade (GATT) code. At the same time, politically acceptable internal mechanisms for actually achieving reform must be sought. This necessitates first identifying whether existing policies are motivated by political economic-seeking transfers (PESTs) or political economic resource transactions (PERTs). Second, three issues related to PEST policies must be addressed: (i) transparency (revealing the winners/losers of existing policies); (ii) compensation (for the losers from reform), and (iii) institutional design (to ensure the implementation and maintenance of reform). From this analysis, strategies can be designed for internal reform of agricultural policies in individual countries/commodities consistent with external binding constraints.)

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The political economy of agricultural policy reform

1. Introduction

There exists today an opportunity for significant reform of agricultural policies throughout the world. Never in the postwar period has the pressure for liberalization of agricultural and food policies in western countries been so great.¹ With skillful negotiation, agricultural trade could be brought under the rules of the General Agreement on Tariffs and Trade (GATT) for the first time. The GATT could provide the external binding constraint needed to facilitate the transition to a liberal economic order in agricultural trade.

There is little doubt that such negotiations will be arduous due in large part to the entrenched power of agricultural interests throughout the developed world. These interests have historically been successful in securing and maintaining income transfers. In the developed world, the benefits of a transfer policy are concentrated on a few while the costs of the policy are disbursed widely and thinly. The activity of pursuing rents generated by the policy is highly profitable for the beneficiaries, while the transaction costs associated with opposing the policy are, in many instances, insurmountable by the rest of society. Accordingly, circumstances frequently arise where it pays to seek a transfer program, but it does not pay to oppose the implementation of such policies.

Even though pressures for agricultural reform have increased, these political economy considerations must be squarely addressed if reform is to be accomplished. In fact, these considerations must be confronted explicitly in order to facilitate and enhance the probability of significant reform. We shall argue that within each country there are three internal conditions that should be satisfied to enhance the prospects of agricultural policy reform in

the developed world: (i) transparency and the reduction of information costs related to current policy; (ii) actual compensation of those who lose from the transition to a new policy in the form of partial, not total compensation; and (iii) the introduction of new institutions which will ensure the maintenance of reforms once they have occurred.

Some have argued that making the effects of complicated and implicit transfer policies transparent is sufficient to achieve reform. In particular, the transparency of the costs current policy impose on society is viewed as a sufficient condition for gaining agricultural liberalization. Information on these costs, if widely disbursed among those who are harmed by instituted policy, will facilitate the elimination of the policy. The view will be developed here that, although transparency is an important feature of any proposed reform, it is not sufficient to counter the constellation of political-economic forces that are prepared to sabotage reform and preserve transfers. Instead, a carefully constructed reform proposal must be designed to increase the probability of reform taking place as well as to ensure that the reform survives.²

Once the effects of policies are sufficiently transparent, and winners and losers have been identified, a program of partial compensation of those who will lose property rights must be designed. Partial compensation recognizes that effective property rights do emerge from existing policy, but its real purpose is to reduce the potency of those who oppose reform in the political market.

Transparency with partial compensation, however, is still neither necessary or sufficient to achieve stable reforms that can be politically maintained. To facilitate and maintain policy reforms, we need not only external binding constraints imposed by institutional rules of GATT or some other

international forum, but also institutions within each country that operate to reduce the transaction costs of those who might oppose the current rent transfer policies. Those harmed by current policies are often silent in the political debate and the analysis that is conducted to justify current policy. Institutions designed to inform potential opposers to current policy and lower their transaction cost of entering political economic markets will add further momentum to policy reform.³

Reform would also have benefits besides reducing taxpayer exposure and consumer costs. It would eliminate the significant deadweight costs associated with current policy. There are various ways of transferring income from one group to another, yet current agricultural policies do so in one of the least efficient ways. Furthermore, reform would result in a rise in world prices and a large reduction in land costs and reduced price uncertainty in world markets, all contributing to farm welfare. Farming would become more land intensive, thereby reducing its reliance on capital-intensive methods (and, hence, its vulnerability to macroeconomic shocks) and its reliance on fertilizers and pesticides (alleviating serious environmental concerns). Liberalization would thereby reduce the direct and visible costs associated with current agricultural policies and eliminate the other less obvious distortions caused by government intervention presently blamed on market failure.

Although world negotiations, usually held under the auspices of the GATT, have failed in the past to stabilize and liberalize world trade practices, the current costly condition of world agriculture has made reform a priority for the major agricultural crop-producing countries. A consensus is emerging that the budget exposure resulting from agricultural subsidies and the trade friction generated thereby must one day lead to major reform. How this reform can be brought to fruition in the face of powerful domestic interests against

such a change, and how such reform could be designed and implemented to overcome such interests, are important issues that have yet to be addressed.

Prior to formalizing the necessary and sufficient conditions for internal reform of current agricultural policies (Section 3), we shall first examine the origins of distortions (Section 2).⁴

2. Origins of global distortions

Policies implemented in both developing and developed countries are direct results of political economic resource transactions (PERTs), political economic-seeking transfers (PESTs) (Rausser, 1982), or some combination of the two. Government intervention motivated by PERTs attempts to correct market failures by designing a set of rules to reduce transaction costs that would otherwise arise from the private economic system. The net effect of the PERT policies is to increase economic efficiency. It is important to recognize that, in the design and implementation of PERT policies, economic markets are viewed as separate from the political process.

Unfortunately, not only are markets sometimes perfect and incomplete but government policies are also less than perfect or complete in their design and implementation. Corresponding to the notion of market failure is government, or political, failure. For those who subscribe solely to this view, government is nothing more than a gigantic transfer mechanism for redistributing income and wealth. For extremists who have this perspective, the government is believed to have no separate autonomy; it is manipulated by powerful interest groups seeking to benefit their own welfare to the detriment of society as a whole. Government policies based on this perspective have been referred to as PESTs.

2.1. Political economic resource transaction (PERT) policies

Numerous market failures are alleged to exist in agriculture that justify PERT policies. They include inherent instability and uncertainty, the lack of a complete set of insurance markets for sharing risks, and the fixity of certain assets in farming.

For example, certain PERT policies have been designed to reduce the risk associated with high variations in commodity prices and production in the agricultural sector. Farm policies, such as price stabilization schemes and crop insurance, are designed so that the government absorbs some risk and eliminates some of the uncertainty faced by many farmers. Over short periods of time, government policy can and has succeeded in this respect.

However, governments which frequently change policies can also create risks by contributing to commodity market instability.⁵ In addition, the mere existence of governments is one reason why private stockholders may not store for extreme contingencies thus providing price stabilization.

If a complete set of risk markets existed, the inherent instability and uncertainty within the agricultural sector would not be a sufficient justification for government intervention through PERT policies. One reason a more comprehensive set of risk markets does not exist within the agricultural sector is because of extensive government involvement. So much of the risk is borne by the public sector that little incentive exists for the emergence of private institutions for managing inherent instabilities and risk.

Other justifications for PERT policies exist. For example, if income distribution enters as an argument in the utility function of private agents, then "equity" becomes in essence an "efficiency" concern and policies which redistribute income to financially stressed or low-income farmers become PERT policies. To the extent that the rural landscape is valued as an amenity by

society, PERT policies can also be designed to enhance and foster small- and medium-size family farming operations. PERT policies can also be designed to achieve other social goals such as maintaining viable rural communities.⁶

2.2. Political economic-seeking transfers (PESTs)

Political or government failure is a tendency of the legislative and policy-making process to be influenced by self-interested private groups. To the extent that the government intervention is directed by such groups, the public interest is not adequately served.⁷ Even policies that are originally designed as PERTs may be modified over time to serve political concerns. This is especially the case when policies become increasingly complicated and less readily understood by various groups affected directly or indirectly by interventions. As policies become less transparent, they are less likely to serve the original goals justifying their existence. Such policies frequently have many side effects and consequences that are unintended and often unanticipated.

Once it is known that the government intends to redistribute income from one group to another, specific economic groups may lobby the government in an attempt to gain for themselves at least part of these lucrative transfers. If for instance government has reduced the downside price risk in producing certain commodities, farmers will specialize in these commodities since they offer a less variable rate of return than was previously the case. They will then also have an economic incentive to push for the maintenance and expansion of that government program.

In the context of government failure, the political process is viewed as a market where unintended results of individual efforts aimed at maximizing returns on opportunities are "bads" rather than "goods." Competition in political markets, in contrast to private economic markets, generates social waste

rather than surplus. Strategically, even if the state or government designs an efficient policy, private interest groups intervene in political markets to alter the tactical implementation of this policy with resulting deadweight losses. In general, interest groups compete for political influence by spending time, energy, and money on the production of political pressure to affect both the design and implementation of government policies. The allocation of these resources is directed toward political gain-seeking transfers. In the context of economic efficiency or a first-best world, PEST activities are purely wasteful.

The literature on government failure has added much insight to positive as well as to normative analysis of governmental behavior. It has alerted us to transfer-seeking behavior on the part of interest groups, the role of political markets in transferring wealth, the potential waste that can result from a competitive political system, and the consequences of governmental policy on equity as well as efficiency. It has also alerted us to the potential outcomes of replacing private sector instability, or uncertainty, with government administrative instability. In other words, replacing one risk by another.

2.3. Analytical framework

An analytical framework is needed to explain the design of policy instruments as well as the changes in the set of instruments that are utilized by governments. The paradigm for the framework must admit both government failure as well as market failure. Unfortunately, no such paradigm exists in the literature; only various partial approaches are available which emphasize one or another of the two extremes. For the design of the paradigms, the appropriate institutional detail must also be determined.⁸ Regardless of the institutional design, however, the equilibrium flows, as well as the disequilibrium

flows of PESTs and PERTs, must be specified. A policy equilibrium is defined to occur when there is no pressure for the mix of policy instruments or the form of intervention to change. When a disequilibrium arises, the mix of instruments may change. The flows of PEST and PERT activities in a policy equilibrium are simpler than in a policy disequilibrium.

The above discussion refers only to activities; but there are also policies which can have PERT effects (lower transaction costs), PEST effects (wealth redistribution accompanied by efficiency losses), or a mixture of both. A useful taxonomy of PEST and PERT policies depicts government behavior as (i) a continuous choice problem characterized by policy-instrument change and (ii) a discrete choice problem represented by policy-set change.

A criterion function governing the actual continuous or discrete PERT or PEST choices is presumed to exist. This criterion function may be defined as a political preference function (Becker, 1982) reflecting the power and influence of various interest group coalitions, the allocation of resources to PEST activities, and whatever autonomy exists for legislators and bureaucrats. The general voting population has influence only through the autonomy of elected officials or appointed bureaucrats. The greater this autonomy, the more likely that PERT activities will occur. It is also presumed that interest groups compete to "purchase" votes by influencing the revealed preferences of voters with information, propaganda, and other appeals.

Political preferences have many goals, some partially competing, with differing weights on each goal. Efforts are made by economic interest groups to change preferences, or the weights attached to goals, or performance measures that relate to their well-being. How such weights evolve is a direct result of political economic demand and supply. On the supply side of this market, one of the most significant conceptual frameworks has been developed by

Downs (1957). On the demand side, the work of Olson (1965) is particularly relevant.⁹

The supply side, or what many would refer to as the political side, requires a public sector rule-making technology, involving at a minimum bureaucratic agencies, legislators, and their committees, and administrative law procedures. The composition of each of these behavioral groups is a relevant empirical issue. Each interest group is assumed to maximize expected utility of its profits, with the choice set defined to include the allocation of resources to PEST-related activities. In the case of the lobbyist, the utility function would be defined across the cost of maintaining an effective coalition. On the supply side, two-piece utility functions appear appropriate. That is, in the case of elected politicians, utility will be defined as a function of two arguments: probability of election and a vector of elements related to transaction costs or the deadweight losses (gains) resulting from alternative policy instrument settings. If the second vector of arguments vanishes from these utility functions, we are left with a government supply of intervention which has no significant autonomy. In effect, the demand side determines the level of government intervention. Such a formulation would preclude any significant effect of political institutions.

Given an equilibrium concept, the reduced form or governing criterion function can be derived. As shown in Rausser et al. (1982), this function can be represented in terms of performance measures for each relevant group of agents. Clearly, a large number of performance measures is possible. In any empirical specification of this relationship, the weights associated with the various performance measures will not be stable or constant parameters. Instead, the weights will move with changes in such things as the allocation of resources to PEST-related activities, the distribution of benefits and costs across

members of a particular interest group, and the cost of organizing direct supply and/or opposition.

The current negotiating positions of various countries largely reflect their governing criterion function and specifically the power of domestic groups and their influence over the government in the implementation of PESTs. Active domestic agents want either to maintain the current international system (which allows the continuation of economic distortions that alter relative prices in their favor), or to reform the system (which currently prevents their capturing markets which they would otherwise be able to supply). Consequently, two positions emerge in general--those from countries (such as the EC, Japan, and the United States) whose agricultural interests are pampered with PESTs in the form of price and income supports and those (such as Australia, Argentina, and New Zealand) whose farmers are denied full benefit of their comparative advantage in world trade due to import substitution policies of others.

Agriculture policy in the United States has been vexed by two different concerns. U. S. agriculture has been viewed by some as the world's most efficient farm establishment, yet at the same time requiring protection from cheap imports and in need of income support. For some products, the United States has clear production and cost advantages and, for this sector, world trade reform would be advantageous. Other less competitive products are beset by import competition. Both groups of producers lobby for PESTs (e.g. beef, rice, and rice producers), and such policies are pervasive in U. S. agriculture policy. Nevertheless, there is a growing recognition that current agricultural programs are costly and inefficient. In the governing criterion function, the Administration's efforts to reform domestic agricultural programs, by decoupling farm support from production and targeting benefits, may be assisted by

increasing political autonomy or by increase in the demands of opposing interest (those who benefit from reform).

While the U. S. position reflects a mix of liberalizing and PEST-influenced priorities, the EC is a clear case of PEST-driven policies. The EC acknowledges the problems of world agriculture but repeatedly resists attempts to put its trade-distorting policies at the mercy of a strict, liberal international agreement.

Save Japan, the Common Agricultural Policy (CAP) of the EC is perhaps the most distortionary agricultural intervention in the world. A farmer's interest weighs heavily in the objective functions of both national governments and the EC apparatus itself. As a result, PEST policies are dominated by PEST interventions. Of course, the objectives of individual countries do vary. For example, Britain favors agricultural reform while France and West Germany staunchly oppose major changes in the CAP.

Japan is the world's largest net importer of agricultural products. It shields its domestic farmers from world agricultural prices perhaps more than any other nation. The political influence of agricultural producers has been especially strong in Japan due to gerrymandering of election districts in favor of rural voters. The widespread acceptance of the "food security" argument for protection, a notion which is deep in the Japanese psyche, along with the inordinate electoral power accorded to rural voters, accounts for the entrenched farm programs in Japan. This is translated into political power and the implementation of PEST policies through specific pro-agricultural institutions, such as the Central Union of Agricultural Cooperatives as well as the Ministry of Agriculture, Forestry, and Fisheries. This political structure makes PEST policies easy to maintain.

2.4. Assessment

It is uncertain whether or not reform will include the elimination of the primary PEST policies--income support coupled to production incentives--is uncertain. Current negotiations cannot successfully attack the principle of making transfers to agriculture. If a pure transfer from one group to another is a clear objective of numerous governments, then it reflects the priorities of those governing coalitions. What makes a transfer policy constitute an international PEST is its design and method of implementation. If the transfer in agriculture is coupled to production, the added distortion uses real resources and achieves its goal inefficiently with deadweight losses imposed on the economic system.

Ridding the domestic and international agricultural scene of these PESTs raises the issue of designing a method of reforming the current system. If it is made clear that income support to farmers will not end and that those who benefited from coupled transfers will be compensated, then the viability of arranging a more efficient transfer mechanism may be enhanced. Consequently, the movement from the current system to a reformed one, and what that movement entails for the beneficiaries, must be seriously considered.

3. Internal conditions for effective reform

The current state of world agriculture can be described as one in which many countries feel trapped; if any exporting developed country reduces its subsidies or limits its farm support, it will lose market share. With few exceptions, a country's unilateral action will rarely be sufficient to induce a significant rise in world prices. Thus, the rewards to individual countries from unilateral agricultural policy reform often seem too little to encourage change. Simultaneous action by many countries could, of course, break this

trap. How to achieve multilateral, systematic rationalization of policies across governed states with different resource endowments and policy mechanisms, if not policy objectives, remains a major challenge.

One way to escape the prisoner's dilemma facing agriculture throughout much of the developed world is to enforce a mutually agreeable binding code upon individual countries. Such a contract, if successful, can make all parties better off and, if enforced with sanctions for noncompliance, reduce the incentive for behavior that might make an individual participant better off but undermine the contract.

To achieve fundamental reform of agricultural policy, the adopted guidelines must be translated into quantifiable measures in order to implement binding constraints. The binding constraints would most likely be imposed across countries under the GATT, the agreement providing the legal framework for international trading arrangements.¹⁰ Without such formal binding constraints and corresponding sanctions, there is little hope that individual countries will be able politically to implement or maintain reform of their distortionary agricultural policies.

Given binding external constraints, each individual country could more easily proceed to develop effective internal reform strategies. External constraints impose discipline upon each country and effectively lower the probability of government failure. External constraints and disciplines, however, will not be sufficient to achieve reform within most countries. In fact, the failure to achieve reform within a particular country will ultimately limit the effectiveness of external disciplines. Hence, the conditions for reducing the cost of adjustment in moving from PEST policies to PERT-dominated policies must be isolated. The conditions for facilitating and maintaining internal reforms are (i) transparency of current policy and the

lowering of information costs; (ii) partial compensation of those who have effective property rights under current policies; and (iii) the establishment of institutions which lower the transaction costs of forming effective political coalitions among those groups who gain from policy reform.

3.1. Transparency

There are a large number of alternative frameworks for making the effects of agricultural policies transparent. In all cases, the desire is to identify the winners and losers of policy, with some degree of precision in quantifying the measurement. Each of these frameworks has limitations and advantages. They can be classified in terms of whether they address the direct effects, indirect effects, or the feedback effects.

Direct effects.--Simple static, partial equilibrium welfare analysis has been widely employed to analyze the direct effects of governmental intervention in various commodity markets. This work has identified the losses borne by taxpayers and consumers, the gains accruing to producers, the administrative costs of government programs, and the deadweight losses that are, in effect, sucked into a large "blackhole." Measures used in the analyses that attempt to make transparent the effects of various policies in terms of consumer loss or producer gain are producer and consumer subsidy equivalents (PSEs and CSEs). Major limitations of these measures are that they neglect administrative costs, deadweight losses, and dynamic effects.

To achieve more effective transparency of direct policy effects, more work can and should be done in a number of areas. One area is in the application of dynamic partial equilibrium evaluations. Work in the United States has demonstrated that dynamic evaluations lead to much larger deadweight losses than those revealed by static assessments (e.g. La France and de Gorter, 1985).

This is because such formulations recognize the distortions in physical and human capital investment. (For example, in the case of the U. S. dairy industry, it has been found that it takes more than 10 years to adjust, so that the average annual dynamic welfare loss is three times the static deadweight loss from U. S. dairy support programs). More dynamic analysis is also needed as a foundation for determining the adjustment costs that are likely to result from the implementation of policy reform.

Further research is also needed on the distributional effects of policies across consumers and producers. On the consumption side, throughout much of the developed world, current agricultural policies harm low-income consumers to a greater degree than high-income consumers. On the production side, the coupling of price and income support with output provides the greatest benefits to the large, wealthier farms. Policies are inequitable to both consumers and producers. This issue is rarely discussed even among policy reformers, despite the fact that it is an important political-economic factor.

The ineffectiveness of many policies in achieving their stated goals must also be made transparent. For example, food security is often incorrectly equated with self-sufficiency. This masking and confusion must be clarified through transparency analysis. Similarly, the market-failure justifications associated with instability, risk, and asset fixity which lead to PERT policies (see Section 2.1) must be evaluated across different types and sizes of farming enterprises. Often these potential market-failure concerns are used to justify policies that are directed only at the segment of the farming population which is quite capable of managing, through normal channels, the risk and asset fixity that it faces. More information is, therefore, needed to make the distributional implications more transparent.

Indirect effects.--Turning to the indirect effects, the static computable general equilibrium (CGE) framework is an effective vehicle for making the intersectoral, employment, trade balance, and economic growth effects of agricultural policies more transparent. The CGE framework has also been employed to isolate adverse impacts of agricultural policies on other sectors of the economy (such as employment, investment and, hence, economic growth of countries).¹¹ These models have and can also be used to take into account the tax collection deadweight losses that result from the financing of agricultural policies from taxpayer revenues. For many countries, these deadweight losses are significant and add an additional cost to any taxpayer transfers that are made to the agricultural sector. In order to measure the indirect effects more accurately, however, it would be useful to extend the static CGE models to a dynamic framework.

Feedback effects.--The dynamic feedback effects of agricultural policies on the macroeconomy of a particular country have generally been neglected. These feedback effects result from the linkages of agricultural commodity markets with money and financial markets and, in particular, on interest rates and exchange rates. For the United States, recent empirical work has formally demonstrated that these dynamic feedback effects (above and beyond those isolated by applied general equilibrium models) occur through general inflation and government deficits (Rausser et al., 1986). For the United States, this empirical work has shown, for example, that the government outlays for U. S. agriculture have increased the government deficits which, in turn, due to inadequate domestic savings, has led to higher interest rates and a lower exchange rate than would otherwise exist. Higher interest rates create less incentive for investment and economic growth and, as a result, agricultural policy can be shown to impose further losses on the economy.

The dynamic feedback effects also admit the possibility of evaluating the linkages between economic and political markets. For example, current economic conditions in the United States dictate a direct correspondence between government deficits and the U. S. trade imbalance. The trade imbalance, in turn, has been employed by the protectionist interests to advance trade legislation which generates huge rents to particular groups within the U. S. economy and imposes large economic losses on the general consuming population. Moreover, it would seem that U. S. government has accepted the notions of fair trade, reciprocity, and other nebulous concepts. This is an instance in which agricultural policy has played some role as a causal mechanism for discouraging transparency. Vested interest groups have used the current levels of trade imbalances to befuddle and confound those groups (agriculture and consumers) who will suffer huge losses if such protectionist legislation is enacted.

3.2. Compensation

Major reform will entail substantial adjustment costs, particularly in highly protected industries such as grains in the EC and sugar, tobacco, and dairy in the United States. Agriculture is highly capitalized with equipment and land. Removing protection will cause the value of these fixed investments to drop. Reform proposals need to facilitate adjustment and to consider compensating those disadvantaged by removal of domestic programs in order to neutralize their resistance to change.

Aside from equity considerations, compensation may be needed to achieve the efficiency that comes as a result of policy change. In essence, it may be needed to buy the concurrence of the losers to the policy change. This mitigates potential resistance to the policy reform from those adversely affected.

If reform of a policy will result in higher real income overall, then it will be worthwhile to compensate the losers from the winner and still be better off than foregoing the policy change. If the policy is beneficial for society, then some means must be found to placate coalitions of obstructionists, and compensation must be considered as an attempt to mitigate opposition.

There are, however, several arguments supporting the case that no compensation should be paid to those who lose as a result of reform. A variety of economic phenomena produce losses in real income for certain groups in society. These include changes in consumer tastes, discovery of new technology or resources, occurrences of nature, and altered patterns of international trade as well as changes in public policy. Compensation is rarely, if ever, paid out because of these and other changes in market conditions. There seems to be no prima facie case that changes in public policy should be singled out as requiring compensation for those adversely affected.

This line of reasoning insists that economic agents realize that public policy is not immutable to change and that there is no expectation that current policies will continue indefinitely. There is evidence that prospective losers recognize that they are taking a risk of policy reform when they purchase certain types of property and that these risks are reflected in asset prices. For example, U. S. tobacco quotas trade significantly below the capitalized value of the annual rents currently generated, as do California fresh Class 1 milk quotas.

It has also been argued that, because positive streams generated by policy are not expropriated by government, their elimination should not be compensated for by the authorities. Moreover, if markets were complete, agents could hedge risks in insurance markets, thereby diminishing the adverse effects of potential policy changes. Still another argument against compensation is that

it would merely introduce another distortion (e.g. in the gathering of revenue) into the system, something that should be avoided at all cost.

Compelling reasons have nevertheless been advanced by those who argue for compensation. First, many argue that legitimate property rights do emerge from longstanding policy. When a policy is instituted, economic agents shift their resource allocation to take advantage of the new arrangement. This devotion of resources to new activities takes place because of an implicit assumption that the government will not undermine them in the next period, i.e. that the government is credible. Thus, public policy is a contract with the public, a set of rules governing economic activity; and any change might be interpreted as a breach of contract for which compensation is due. If property or value is created by the government, does policy reform require the government to buy back that property right at its full value?

Once compensation is considered as an instrument in policy reform, the question arises: Should full or partial compensation be paid? The argument for full compensation (as outlined above) may be so riddled with problems as to make partial compensation a better alternative. How can the true value of the policy-induced change in asset values be determined when losses in income have multiple causes? The calculation of losses attributed only to policy changes is inherently difficult, shrouded with uncertainty. There is the additional question of how to identify losers from a policy change (some are more articulate and more well organized than others in the political process) and how to assign a value to their losses if their assets can move costlessly into another activity and earn a similar rate of return.

Another issue is that complete compensation for changes in asset values may overestimate the cost of policy change to losers. Even if a group is a net loser from a policy reform, they usually receive some benefits. For

example, if agricultural liberalization among industrial countries increases the stability of world markets, then farmers receive the benefit of reduced risk. They will also face higher world prices (not domestic ones) since world market prices will no longer be depressed by dumped surpluses and chronic overproduction.

Of course, if one does not accept the ethical justification for full compensation, one can view compensation as a necessary payment to be minimized in order to gain policy reform. Not all losers are paid, just those whose assent is necessary to produce a change in policy. Furthermore, the funds raised for compensation have an opportunity cost in terms of other uses. The financing of the compensation may entail other costs, such as the general macroeconomic burden of government debt, that introduce complications in favor of only partial compensation.

Above all, the existence of moral hazard in arranging transfers makes partial compensation preferable to complete compensation.¹² Even if policy reform is achieved with compensation paid, there may be nothing preventing re-entry into the political market to regain a program to the benefit of that group again. Since interest groups may gain twice, while the program is alive and when it is reformed, any effort to correct mistakes of the past must be combined with their prevention in the future. In effect, this means that the entry costs to political economic markets must be increased so, once the losing interest groups are compensated, they are less likely to return and seek rents again.

The second relates to the determination and payment of compensation and the associated problems of "compensation seeking." Unless carefully designed, the announcement of plans for compensation will result in the devotion of resources to compensated-related activities solely for the purpose of collecting

compensation. If, for example, it is announced at time t that those producing sugar at time $t + 1$ will receive compensation in exchange for a loss of import protection, then the number of acres in production of sugar at $t + 1$ will most likely be greater than that at time t . This production is not related to market-generated economic signals but to compensation seeking.

Even if entry by outsiders is barred, those within the sector-gaining compensation will have an incentive to enlarge assets used to determine compensation. False claims may be made to increase the amount of compensation granted. This could include an increase in the acreage attributed to production or overstatement of the value of the capital stock committed to a certain crop. In any event, the design should not allow real resources to be used to affect the size of compensation. When optimally designed, compensation should be thought of as a PERT because it is a payment necessary to achieve a Pareto-efficient outcome. If, however, compensation is badly designed, thereby constituting a moral hazard, the compensation scheme itself may be a PEST in addition to the policy it is attempting to remedy.

Given the basic arguments in favor of compensation, the problem of implementation remains. While compensation of losers is an attempt to prevent obstructionist policy tactics, it must also be acknowledged that winners will emerge from the reform process. To the extent that winners are concentrated and can be identified, they should share in financing the burden of compensation. In the practical implementation of compensation in promoting agricultural adjustment, both intracountry compensation and international compensation should be considered.

Within a country, there are many problems that must be faced in the operational implementation of actual compensation, some of which have been discussed above. Determining eligibility and interest group representation, fair

compensation under uncertainty, financing of compensation, design of credible deterrents, and reducing moral hazard concerns make implementation schemes difficult to structure. One solution is for taxpayers (who are all consumers of agricultural products), to be required to bear the burden of financing compensation.

In addition to intracountry financing schemes, multicountry transfers should be considered as well. Not only are the winners of agricultural reform, on a local or national scale, but there are clear winners in world markets from such reform. These winners are generally concentrated and have comparative advantage in a range of products. To the extent that they gain from agricultural reforms in other countries, they might well be prepared to bear some of the compensation burden. As in the domestic case, international compensation can act to spur reform in other countries by "buying" the offending countries off.

International tax arrangements appear difficult to arrange for a host of reasons, but other concessions can be given to compensate the reformers. For example, within the context of the GATT negotiations, these concessions can, for less-developed countries, be greater liberalization in service trade or, for more developed countries, reduced tariff rates on manufactured goods.

3.4. Institutions

Another critical feature in a strategy to defeat vested interests opposing reform of agricultural policies is the use of new institutions to create coalitions in favor of reform. As previously discussed, concentrated benefits and dispersed costs create an environment conducive to transfer activity. The losers from this activity, those paying the dispersed costs, fail to agitate in the political process because organizational transactions costs are high and because of the free-rider problem.

A first step is the creation of domestic institutions that will serve as a forum in government for interests that go largely unrepresented there. They would most likely be quasi-governmental, or independent bodies whose primary function would be to conduct analysis and disseminate information. Whether they would have a say in policy is another issue. (Two institutions that play a similar but limited role currently are the Council of Economic Advisers in the United States and the Industries Assistance Commission in Australia. The Council has a limited policy role, whereas the Commission has none.)

As permanent fixtures with a role in economic policy, these institutions would eventually gain sufficient credibility with private groups to coordinate and serve as a clearinghouse for presenting their views to the government. This is not to say that they would be designed to serve private interests. Rather, when appropriate, they could harness private interests to press for a certain policy positions. Because other governmental organizations already fully represent private constituents (Stigler 1971), there is no reason to feel threatened if the new organization were biased in another direction. As a coordinator, the institution would, in fact, lower the transactions costs and others burdens on private interests which favor reform of a distortive transfer or protective policy.

Such a scheme will not solve all of the free-rider problems, will not reduce transaction costs sufficiently for effective opposing coalitions to be created, nor will it be able to satisfy all the interests of those who have opinions on the shape of reform. Nevertheless, it is a step in the right direction and one that, with innovations over time, can lead to implementation and maintenance of reform.

5. Concluding remarks

Both internal and external pressures exist for agricultural policy reform throughout the developed and developing world. External pressures have been reflected in the OECD communique (May, 1987); in the Economics Summit of 1986 in Tokyo, and in the Economics Summit of 1987 in Venice. The Uruguay Round and the proposal tabled at GATT by the United States in the summer of 1987 all point to the formation of major external binding constraints. These binding constraints are the first formal condition that must be satisfied to facilitate political economic reform of world agriculture. If the external constraints come in the form of GATT rules and disciplines, or in terms of some smaller G-5 or G-7 agreements, the prisoners' dilemma that currently exist will be surmountable and the pain of adjustment within each individual country will be lessened. It is important to realize that both the economic and political costs of adjustment will fall as the external binding constraints become more effective. The economic cost will be reduced in large part because multi-lateral liberalizaion will ultimately lead to an increase in world commodity prices. The waste generated by PEST activities will also fall because the reward/cost profile of rent seeking will be favorably altered by external binding constraints.

Even though pressures exist for agricultural reform, current political economic conditions within each country do not readily admit the implementation of significant reform. If these conditions are not altered in some dramatic fashion, whatever external constraints might be established internationally will be seriously threatened and most likely unraveled. As a result, serious attempts must be made to change the political economic conditions that exist within each country. We have argued in this paper that these conditions can

be effectively altered so as to achieve significant reform of agricultural policies. We are concerned that the road that must be traveled in order to effectively alter the current political economic environment involves:

(i) transparency in the reduction of information costs related to current policy; (ii) partial compensation of those who lose from the transition to a new policy; and (iii) the introduction of new institutions that will enhance the credibility of government reform actions and facilitate the maintenance of reforms once they have occurred.

NOTES

1. The costs and distortions imposed by current policies have been well-documented; for example, see World Bank (1987).
2. To maintain a reform, the moral hazard problem of reentry into the market for politically allocatable rents must be effectively averted and managed.
3. It should also be noted that policies themselves can be designed so that opposition can be more effective. For example, the transfers from society to those within the agricultural sector can be divided into that portion borne by taxpayers and that borne by consumers, e.g., direct budget contributions vs. import barriers. Consumers are generally less vocal about policies that effect them only slightly, while taxpayer burden is more obvious not only to the taxpayer but also to their elected representatives who impose taxes and authorize expenditures. Supporters of current policies would prefer that more of the burden be shifted to consumers. This desire can be effectively countered by international rules, e.g., those that might arise out of the multilateral trade negotiations could restrict countries from burdening consumers. It might, for example, be required that, if transfers are made, they come through the budget. This would not only increase the transparency of policy but alter the political economic forces in favor of reform.
4. The current state of distortions and their origins must be recognized since we are dealing with reform and not design of policy. The optimal design of policy implicitly assumes, of course, that laws can be written de nova, as on a clean sheet of paper. Such design is a guide for policy in the Garden of Eden. In contrast, optimal policy reform must take as its starting position the existing policy system that is in place and the

fact that actual changes are slow and piecemeal. Everything we know about the theory of economic policy reminds one that optimal piecemeal policies cannot be made by haphazard steps in the direction of the global optimal and that a constrained second best policy cannot be guided by the conclusions of unconstrained optimization. Operationally, policy reform must be conditioned by the starting position and will be slow and piecemeal in contrast to the once- and-for-always character of policy design.

5. This has been especially true in the United States. After the Soviet grain deal of 1972, the absence of government-held stocks contributed to large price increases. With the Food and Agriculture Act of 1977, change in the commodity programs were introduced which permitted a wider fluctuation in prices. The export embargo in 1980, variations on the rules of the Farmer-Owned Reserve program since 1980, the payment-in-kind (PIK) program of 1983, and the introduction of generic commodity certificates in 1986 are some of the major changes in government programs that may have contributed to private commodity market instability.
6. The desire to maintain a large number of family farms is viewed by some as a social goal and by others as an economic goal. Economic efficiency is enhanced by policies which maintain and foster the family farm when principal agency market failure problems are sufficiently important in the management and utilization of hired labor.
7. As a result, the existence of market failure is a necessary, but not sufficient, condition for government intervention. A sufficient condition is that the loss of economic efficiency in the case of the uncorrected market failure is greater than the loss under the government remedy, accounting for potential failures in the implementation of design policies.

8. For example, recent theory of political behavior advanced by Becker (1983) neglects voters, bureaucrats, and politicians. Becker (1983) assumes extensive voters' ignorance and pressure groups which in effect "purchase" favorable votes with their PESTs activities. Politicians and bureaucrats simply enforce political rules; they are the custodians of the political process. They do not try to outwit pressure groups but instead implement rules in a straightforward manner. In the case of U. S. agriculture, at least, such a framework appears too simplistic.
9. The Downs (1957) framework determines the supply of collective good by evaluating the costs and benefits to government at the margin of particular policy decisions. Olson (1965) concentrates on interest group behavior and its implications for political demand. His framework fails to evaluate demand in terms of both costs and benefits; instead, he focuses on the cost of various economic interest groups seeking political action. His work highlights the free-rider problem that results in attempts to form effective coalitions of economic interest groups.
10. For a full discussion, see ERP (1987).
11. We need more work on determining the reliability of the estimated losses in GNP, employment and the like, which result from agricultural policies. Specifically, we need to determine how robust these results are to certain parameter values.
12. Moral hazard is the effect of poorly designed insurance schemes that result in suboptimal resource allocation. Two aspects of moral hazard relevant to compensation design can be distinguished. The first relates to the "buy off" argument for compensation. Losers could accept the compensation for the policy change and yet continue to resist the policy

change. An example of this comes from international trade adjustment in the early 1960s when workers adversely affected by tariff changes were given adjustment assistance while simultaneously their unions lobbied against the tariff changes. If compensation is given just to those whose assent is necessary to change policy, then there is an incentive to protest the change even if one is only marginally affected.

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