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Agricultural Policy Reform in the Uruguay Round

Proceedings of a Workshop on Economic Issues and Research Needs

Keywords: Agricultural policy, agricultural trade, consumer subsidy equivalent, General Agreement on Tariffs and Trade, government intervention, multilateral trade negotiations, producer subsidy equivalent.

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ABSTRACT

The Uruguay Round of multilateral trade negotiations conducted under the auspices of the General Agreement on Tariffs and Trade has drawn unprecedented attention to global agricultural trade and policy issues. The negotiations are well into their second year and major participants have already presented proposals for agricultural policy reform. There is an ongoing role for economic analysis and a need for it to be presented effectively to policymakers to facilitate the negotiating process and elevate the policy debate. This workshop explored research and analytical needs in the areas of measuring government intervention in agriculture and the use of a measurement index in the trade negotiations, the regional and world effects of removing government support in the long term and during the adjustment period, defining and analyzing decoupled farm income payments and other transition measures, and exploring the commonalities and differences in developed and developing country interests in policy reform.

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Agricultural Policy Reform in the Uruguay Round

Proceedings of a Workshop on Economic Issues and Research Needs

INTRODUCTION

Nicole Ballenger

The principal objective of the Uruguay Round of multilateral trade negotiations, initiated at a September 1986 meeting of the ministers of the General Agreement on Tariffs and Trade (GATT), is an agreement designed to improve the performance of world agricultural markets. Since the 1986 meeting, several proposals for global agricultural policy reform have been offered to the GATT agriculture negotiating group by some of the world's major agricultural traders. These proposals have each called for greater market orientation for agriculture through the reduction in government support to agriculture. There are some key differences in the extent and nature of policy reform suggested. But, many agree that these talks have achieved a momentum not seen previously in a GATT forum.

Budget pressures associated with farm programs and the effects of price-depressing commodity surpluses have encouraged the United States and a number of other GATT members to come to the negotiating table. One possible reason for the momentum of these talks is the ongoing work at the Organization for Economic Cooperation and Development (OECD) on measuring all forms of government intervention in agriculture with an indicator called the producer subsidy equivalent (PSE). These quantitative measures of government support provide a firm empirical underpinning to the current talks. Several of the proposals for agricultural policy reform suggest that the PSE, or a similar measure of support, should have a pivotal role as a negotiating or monitoring device, possibly playing the role that tariff schedules have played in the past. Disagreement persists, however, as to how PSE's can be used in the formulation of an agricultural accord.

Agricultural economists have a unique opportunity to contribute to the formulation of a multilateral agreement liberalizing world agricultural trade. Economists have contributed to measuring government support to agriculture, to modeling the world price and trade effects of liberalizing agriculture, and to understanding the possible roles in the negotiations for a measure of government support. Considerable economic information and analysis will be sought to formulate and evaluate alternative proposals and negotiating strategies, and to build domestic and international constituencies for policy reform. For economists to contribute effectively to this process, they need to be well informed about the process and the time frame and to have access to the policymakers.

On February 26, 1988, the National Center for Food and Agricultural Policy, (Resources for the Future) and USDA's Economic Research Service sponsored a workshop on economic issues and research needs related to agricultural policy

reform in the Uruguay Round of multilateral trade negotiations. The principal goal of the workshop was to improve the quality of the policy debate surrounding the negotiations by helping to lay the foundation for stronger links between the research and policymaking communities. The following objectives were specified:

- o To identify the issues of interest to the U.S. agricultural trade negotiators and policymakers where timely analysis could improve the agricultural policy debate,
- o To elicit information on the kinds of analysis currently available on agricultural trade and policy reform issues,
- o To identify means of improving the usefulness of agricultural economic research and analysis for the policy process,
- o To establish a closer, ongoing working relationship between economic analysts and policymakers, and
- o To offer trade negotiators, policymakers, and policy analysts an informal, yet professional arena for discussing the domestic and international implications of agricultural policy reform.

Participants were selected with the objective of achieving balanced representation from USDA, particularly the Foreign Agricultural Service (FAS), the Office of the U.S. Trade Representative (USTR), other executive agencies of the U.S. Government (such as the Commerce and Treasury Departments), congressional staffs, economic research organizations, and universities. Participation was limited due to space constraints.

The conference agenda included: four concurrent morning sessions; luncheon remarks by Suzanne Early, Assistant Trade Representative for Agricultural Policy, and Charles Riemenschneider, Staff Director, Senate Committee on Agriculture, Nutrition, and Forestry; rapporteurs' reports on the morning sessions; an open discussion period; and final remarks on the contribution of economic analysis to the trade negotiations by Tim Josling, Stanford University.

Background papers were prepared by the conference organizers to establish a common level of familiarity among the workshop participants with the negotiating issues and available research and to organize and stimulate the workshop discussions. This proceedings presents background papers and the rapporteurs' reports on each of the sessions. Rapporteurs were encouraged to provide comments that would convey the flavor of the discussion--illuminating the issues and research topics--rather than the specific contributions of each participant. This proceedings includes a suggested readings list for economists and noneconomists interested in following the progress of and debate surrounding the Uruguay Round of agricultural trade negotiations.

THE ROLE OF AN AGGREGATE MEASURE OF SUPPORT

Maury Bredahl and M. Ann Tutwiler

INTRODUCTION

Only a few nations have explicit agricultural trade policies. Nearly all nations have domestic agricultural policies that require a companion trade policy or action. The nature of these domestic policies and their companion trade policies or actions varies greatly across nations, as illustrated by the U.S. section 22 provisions, export restitutions of the European Community (EC), and Japanese import quotas. These three examples illustrate several realities in agricultural trade negotiations. First, domestic agricultural policies significantly affect agricultural trade. Second, agricultural policies vary greatly within and across countries. Importers tend to use price support measures, such as import quotas, that transfer costs of farm support to consumers; exporters tend to use export and production subsidies at a large budget cost. Third, the General Agreement on Tariffs and Trade (GATT) articles and codes have not effectively governed agricultural trade because trade problems are largely an outgrowth of domestic policies, over which GATT has had no formal jurisdiction.

Governments have recognized the link between domestic policies and trade problems, and the reform of domestic policies is expected to be the focus of the negotiations in the Uruguay Round. Given the variability of policies across countries and their differing trade impacts, a key issue in the negotiations will be finding a consistent way to measure the trade impacts of these domestic policies across countries and commodities.

All proposals tabled by the developed nations at the GATT negotiations, except for the Japanese proposal, have included the use of an aggregate measure of support (AMS) to measure the impact of government programs on trade. This paper and workshop explore the use of an aggregate measure in the ongoing GATT negotiations. The paper reviews proposed uses of an aggregate measure and raises issues about its construction and use.

PROPOSALS FOR USING AN AMS

The United States proposed a two-tiered negotiation, with reducing aggregate support levels as the central goal. The first stage might include agreement on which policies to include in an AMS and on the timetable for reducing the AMS. The United States also proposed that trade-distorting policies be eliminated in 10 years. One interpretation of the U.S. proposal is that negotiation on the "policy coverage" of the AMS would allow countries to define policies that do not distort production or trade. For example, the proposal suggests that direct payments that are "decoupled" from production would be acceptable and not counted in the AMS. In the second tier, countries would submit plans for policy reform that would result in the agreed reduction in their AMS.

Canada's proposal reflects the role that quantitative restrictions and stabilization policies play in their agricultural policies. In many subsectors (such as dairy, eggs, and poultry), producers are guaranteed prices that exceed border prices but supply is constrained by production quotas. In the Canadian grains sector, the Western Grain Stabilization Program provides income support only as a stabilization mechanism. If Canada's cereal prices remain at current low levels, this program could become primarily an instrument of income support. The Canadian proposal reflects their effort to protect these policies from international influence. The Canadian view is that their dairy program is less trade-distorting than EC dairy policies because their subsidized, excess Canadian production is not "dumped" into international markets.

The Canadians proposed limiting policies in an AMS to those that distort trade. Once an agreement on the content of an AMS is reached, national policy changes would then be negotiated. The goal of a 50-percent reduction in the value of each country's AMS over 5 years is an attempt to offer an alternative to the total elimination proposed by the United States.

The EC proposal reflects its immediate objective of reducing the level of budget outlays associated with storing and exporting current levels of excess dairy, beef, and cereal production, and the longer run objective of increasing the efficiency of its agricultural sector. In contrast to U.S. and Canadian proposals, the EC proposal suggests commodity-specific negotiations as well as negotiations at the aggregate level.

The EC view of markets as mechanisms to discover the quantity that results in a "right" price is reflected in their proposal. EC negotiators are concerned with receiving credit for the supply control efforts already taken (dairy and sugar) and for those that might be taken before the completion of the GATT negotiations (cereals). The EC also views the "harmonization" of levels of support given to various sectors as essential. The duty-free binding on noncereal animal feeds and oilseeds is alleged to distort relative internal prices, lowering domestic absorption of cereals.

The Cairns Group (Australia, Canada, Hungary, New Zealand, and a number of LDC exporters) proposes a three-step approach: (1) agreement on short-term measures to balance world markets, (2) agreement on long-term reform measures, and (3) implementation of a longrun framework. No credit would be given for supply control measures. The AMS would be used for commodity-specific negotiations (short-term relief) and in the transition period as a monitoring device.

The Japanese proposal emphasizes the specific character of agriculture and asserts that trade conflicts should be resolved by the exporting countries. The use of an AMS is specifically rejected in their proposal.

AGGREGATE MEASURES OF SUPPORT

The producer subsidy equivalent (PSE) is an estimate of the revenue required to compensate producers if existing government programs were eliminated. It may be thought of as the sum of the transfers that farmers receive from taxpayers through government expenditures (receipts) and from consumers in the form of higher (lower) prices. The consumer subsidy equivalent (CSE) measures the cost (benefit) to consumers of the government programs.

Essentially, PSE's and CSE's are accounting frameworks that can include or exclude any combination of policy measures. The PSE's, as calculated by the Organization for Economic Cooperation and Development (OECD) in its trade mandate study, include:

- o Direct payments (deficiency payments, stabilization payments, and others),
- o Price enhancement (border measures that result in a gap between domestic and border prices), and
- o The budgetary value of other sector-specific measures (such as input subsidies, research, advisory and inspection services, and, in a few cases, economywide policies).

The trade distortion equivalent (TDE), proposed by the Canadians, distinguishes between policies that support producers and those that create large trade distortions. Only policy tools that create significant trade effects would be included in the TDE. Policies that support producers with little or no trade effect would be excluded from the TDE.

ALTERNATIVE ROLES FOR AN AGGREGATE MEASURE OF SUPPORT

PSE's were designed primarily as measurement tools, not negotiating tools. The content of any AMS depends on its role in the negotiations. The role of an AMS in the GATT negotiations could range from substituting for the traditional measure (tariff levels) to serving as a monitor of negotiated concessions or changes in rules.

A Negotiated Measure

The AMS would be treated like a tariff that could be GATT-bound and subject to negotiation. Bindings could be made on an aggregate or commodity-specific AMS.

A Passive Monitoring Device

Negotiations could focus on the use of individual policy instruments, with the AMS serving as a measuring or monitoring device. In this case, negotiated changes in national policies would be bound. The AMS might serve as the starting point, with negotiated policy changes aimed at achieving a specific reduction in the AMS. The AMS would then serve as an informal measure of compliance. This would require that specific policy changes on the AMS be calculated.

An Active Monitoring Device

The negotiations would key on national plans, as in the first alternative, but compliance would be formally measured by periodic monitoring of the AMS for each country. Failure to achieve targeted reductions in the AMS would require adjustments in countries' policy reform efforts.

An Information Tool

An AMS could be used only for the purpose of helping to make policy discussion more "transparent," with negotiations relying on the framework of existing or

rewritten GATT rules and disciplines. Regardless of the outcome of the current negotiations, the regular calculation of an AMS could be a part of international agricultural relations.

Complexity

A negotiating framework that keys on an AMS is uncharted water. Is the concept too complicated to be used in an international negotiation? The Canada-U.S. Free Trade Agreement used about 15 pages to define the level of support provided U.S. producers of three cereals. Will negotiation of the policy content of the AMS be too time consuming to be an effective tool in negotiations? Could the AMS debate delay negotiations? The answers will depend on the role of the AMS and the resolution of some measurement issues. Regardless of the AMS role, policy coverage and certain measurement issues (such as the treatment of exchange rates and supply controls) must be resolved.

Policy Coverage

An AMS aggregates policies that may have very different impacts on trade, although the AMS may have similar impacts on farm income or revenues. This issue must be considered when comparing commodity-specific AMS's within a country or when comparing these measures across countries. An export subsidy may count the same as a deficiency payment in the AMS, even though the former distorts trade more than the latter. Furthermore, some transfers may not have a corresponding government expenditure. Border measures restricting imports indirectly force consumers to subsidize producers, with little cost to the government. This creates problems if the negotiations require governments to switch support from the relatively inconspicuous subsidies provided by consumers to the relatively more visible subsidies provided by taxpayers. Finally, the PSE's, as calculated by the OECD, reflect negotiation over what constitutes a PSE. In many cases, the negotiation process included the broadest possible range of policies. As such, the PSE's as defined by the OECD, may not reflect the policy coverage desired by GATT negotiators.

Few authors have offered specific recommendations for policy coverage that would be appropriate to the GATT negotiations. There appears to be some agreement on the types of policies that have desirable impacts on domestic production and on trade. Several GATT proposals identify income payments that would be designed so as not to affect production levels as one such policy.

There is a general understanding that research, extension, and pest and disease inspection and control programs could be excluded. It is likely that the political cost of reducing these "Mom and Apple Pie" programs, even though they may not be totally production neutral, would exceed the benefit derived.

One problem that must be addressed is which policies would be designated as acceptable in the context of the negotiations. One approach would be to establish general guidelines defining acceptable policies. The other approach would be the case-by-case examination of a nation's policies. An interesting extension of this approach was suggested by one of the OECD representatives of the EC. The approach would require each nation to offer a list of policies that would be excluded from the AMS. If agreement is reached to exclude a particular policy, all other nations could exclude similar policies from their AMS. This approach would be analogous to the request-and-offer approach used in tariff negotiations, and it would be consistent with the most-favored-nation principle.

Commodity Coverage

The AMS concept presents an attractive alternative for negotiators to settle agricultural trade differences between the United States, the EC, and Japan because they represent the largest players with the most contentious trade relations. Other countries will play a role, but the negotiators must address issues among the three major players. Could the AMS approach focus on only those commodities that are causing most of the tension on trade relations among the countries? If this were feasible, the AMS approach might be used only for troublesome commodities: cereals, oilseeds, sugar, beef, and dairy. Negotiations in other areas of GATT would be designed to cover other troubling aspects of agricultural policies, such as processing subsidies. Some observers would consider the negotiations to have been successful if the tension among these developed countries was resolved.

Supply Controls

Several nations have adopted supply control policies in recent years in response to large government expenditures. Some analysts argue that credit should be given for these actions. The extent to which the AMS adequately captures the effects of domestic supply control measures has been the subject of debate. One approach suggested to provide credit for the imposition of supply controls would require the use of the AMS multiplied by the level of output, rather than a per-unit or percentage measure. The base period AMS (times output) would be reduced as the quantity produced was reduced by supply control measures. Any increase in the per-unit AMS required to offset the income loss by farmers would be offset by the reduction in production.

Exchange Rates and Reference Prices

Changes in exchange rates and reference prices on the AMS are potentially difficult issues. These variables come into play when the gap between the internal price and a border price is the basis for calculating the AMS. Price gap measures are used in cases where internal prices are fixed (requiring an export subsidy or import levy) or import quantities are restricted by a quota. The AMS, measured on an annual basis, will vary with the reference price and may vary with exchange rate changes as well. The AMS of the EC and Japan will be primarily measured by the price gap. For these countries, changes in the value of the U.S. dollar have had a greater impact on their AMS than have legislated or administered changes in the level of domestic prices. The use of a 3- or 5-year moving average of the exchange rate, of the reference price, or of the AMS itself would seem to overcome this difficulty. The use of a moving average could also diffuse the contentious issue of the selection of the base period. If the AMS were used to capture a snapshot of support at a point in time and did not play a monitoring role, the contentious issue would be the choice of the base period.

CLOSING OBSERVATIONS

The experience at OECD suggests that the calculation of quantitative measures of government policies significantly changes the dialogue among nations. It should remain an important part of international economic relations. But, its application to all products and all nations, particularly to developing countries, will be difficult and time consuming. Therefore, it may be best to use it to address a subset of troublesome commodities for the countries that

are most involved in trade disputes. Is there room for that approach in the GATT agricultural negotiations? Such questions should not be neglected in the attempt to define and use an AMS. It may be too limiting to treat negotiations on commodities and those on an aggregate measure as separate concepts. Rather, a combination of the two approaches might be possible and successful. For example, the construction of an AMS for cereals could begin immediately with negotiations aimed at addressing alternative ways of reducing the AMS. Negotiations could simultaneously begin at a more aggregate level to define GATT rules and procedures that would guide longer term reform.

RAPPORTEUR'S REPORT

Nancy E. Schwartz

This workshop identified several areas where research would be useful in determining how an aggregate measure of support (AMS) could be calculated and applied in the GATT negotiations on agriculture. Specific measurement issues must be resolved for an AMS to be useful in the negotiations.

HOW THE AMS COULD BE USED IN NEGOTIATIONS

Early discussion focused on how the AMS might benefit GATT negotiations. The AMS could both hinder and aid the negotiation. The AMS could make it possible for countries to negotiate reductions in support without putting sovereign policies directly on the table. Individual countries would still need to determine how to change their policies to comply with negotiated reductions in the AMS. That flexibility could help ensure successful negotiations. An AMS would make it more difficult for special interest groups to prevent reductions in support of specific commodities.

There was some concern that the AMS approach could slow negotiations and ratifications by national legislatures. Too much time might be spent arguing about specific measurement issues and policy coverage. If all policies were included in the negotiations, then legislatures might balk at specific inclusions. While it was acknowledged that the GATT talks and the Canada-U.S. Free Trade Agreement (FTA) are using different aggregate measures, the FTA was mentioned as an example of how quantitative measures could be successfully applied to negotiations but might fail in legislatures. It was suggested that some members of the U.S. Congress might not easily understand the measures and may have trouble accepting the comprehensive policy coverage of the FTA. One stumbling block, for example, might be the inclusion of the Army Corps of Engineers' budget in the FTA calculations. It was suggested that simpler measures with a more limited policy coverage would be easier to negotiate and to ratify in national legislatures than more complex measures with broader policy coverage or economic content, such as effective rates of protection.

The question of how the AMS should be used in negotiations was addressed but left unanswered. The group noted that the AMS may be used either to monitor a country's progress or to establish compliance. In the latter case, the AMS may directly contribute to the settlement process by providing a quantitative measure of noncompliance that could figure directly into estimates of compensatory payments.

The role of the AMS as a monitoring device is not clear. If the AMS were a monitoring device, then negotiated reductions would have to be based on some other criteria, such as an agreed-to package of policy changes. In this case, compliance would not necessarily depend on calculated changes in the AMS. Instead, it could be determined by observation of whether or not the agreed-to

changes had been made. Moreover, observation of the agreed-to changes avoids measurement problems inherent in calculating and monitoring movements in an AMS.

How the AMS is used depends on the direction of the negotiations. There are at least three possible directions. Negotiators might choose: (1) an offer-and-request approach to reducing agricultural support, (2) a qualitative sorting of policies according to their trade-distorting effects, and (3) a quantitative approach to reducing support that either directly or indirectly relies on an AMS. The offer-and-request approach consists of commodity-by-commodity concessions. Qualitative sorting consists of establishing a list of policies that are acceptable according to some stated criteria (such as the criterion that policies should not distort trade) and then eliminating or reducing other forms of producer support. The quantitative approach consists of using an AMS to measure the initial amount of producer support and to establish the target value of a country's AMS. The target value may be achieved in two ways. Countries may agree to bind the AMS at an initial value and then change that value by agreed amounts, or countries may negotiate a package of policy changes. In the latter case, the AMS would be only one measure of compliance that would probably still have to be complemented by others.

Participants disagreed about the appropriate role of an AMS in the negotiations. In particular, how would the use of an AMS be consistent with the objective of changing the rules for agricultural trade in the GATT?

RESEARCH NEEDS IDENTIFIED

Beyond the general question of the role of the AMS in negotiations, several technical questions were raised about AMS calculations. Topics included product and policy coverage, the appropriate base period, and the treatment of supply controls, exchange rates, and reference prices.

First, there are several measurement issues relating to data that may be used in the calculation of the AMS. For example, how do different types of exchange rate measures affect the AMS? What are the implications of using moving average exchange rates, selecting different base years, and fixing exchange rates? Should the measure use purchasing-power-parity exchange rates? What do these different alternatives do to the measure? How do different reference prices, including moving averages, affect the measure? How do different base periods alter the magnitudes of the AMS?

Second, many countries want to receive some form of credit for their supply controls. These countries argue that the trade-distorting effect is overstated unless supply controls are taken into account. These countries may be willing to pay farmers high support prices in exchange for reductions in supply. Under certain conditions, controls may keep internal prices high but could restrict production to a level consistent with free trade. If support is paid in the form of production subsidies, consumer prices will be largely unaffected, and the overall trade effect due to supply controls may be negligible. If high producer prices are passed along to consumers through import barriers, there will be a trade effect even in the absence of a production effect.

In theory, it is possible to design supply controls so that the net effect on output and trade, and, therefore, world prices, is negligible. Some participants

suggested that supply controls could be included in the category of policies that have no output effect (that is, decoupled policies).

Supply controls, however, do tend to affect production and trade. Allowing credits for supply controls in the AMS is viewed by some as tantamount to approving of market sharing and cartelization of commodity markets--the antithesis of decoupled policies. In addition, providing credits for supply controls within the AMS may prove difficult, particularly because different types of supply controls (for example, a buyout versus a producer levy) may induce very different market effects.

Third, what policies should be covered in the AMS? While ultimately the selection criteria may be a political decision, this was considered to be the most important area for research. To make a political decision, certain issues would need to be considered. The workshop discussion focused on the characteristics of trade-distorting policies. If policies could be ranked according to their trade-distorting effects, the selection of policies to be included in the negotiations might be simplified. The negotiators, for example, could elect to negotiate the most trade-distorting policies and to ignore the others.

The question of how to rank policies according to the trade-distorting effects has two components. There is a general question of how individual policies (including supply controls) affect production, consumption, and trade. The second question is whether or not a continuum of policy effects can be identified. Instead of a continuum, there might be a bimodal distribution of policies such that one can identify groups of "more" and "less" trade-distorting. If there is a continuum of policy effects, the least trade-distorting policies will be at the end of the continuum and may be easily left out of the negotiations. If there is a bimodal distribution, the decision of which policies to ignore in the negotiations becomes more difficult. The "less" trade-distorting category becomes a grey area because it contains a whole range of policies that individually may cause relatively few trade distortions but, as a group, may cause significant distortions. If the distribution is bimodal, there is no easily identified "tail" to leave out of the negotiations. Participants thought that some likely candidates for the grey area include input and transportation subsidies and tax policies.

A fourth related issue is how to map policies onto an AMS. That is, what type of measure should be used in the negotiations? Should the AMS be a measure of trade-distorting effects? If so, should it be based on trade volume or production effects, on percentage or absolute effects? Or should it be based on price effects? An emphasis on absolute trade volume effects would clearly allow small countries to make minimal concessions in the GATT, even if their policies heavily subsidized exports or taxed imports. Suggestions included using the PSE as calculated by the Organization for Economic Cooperation and Development and the Economic Research Service. Another suggestion was to use the PSE minus the CSE to give even more weight to border measures.

IMPLICATIONS OF AGRICULTURAL POLICY REFORM FOR THE UNITED STATES

*Stephen L. Magiera
Neil Conklin
Praveen Dixit*

In its July proposal to the General Agreement on Tariffs and Trade (GATT), the United States called for the phased elimination of all agricultural policies that directly or indirectly affect trade over a 10-year period. Under this proposal, producers and consumers would rely on market forces rather than governments to determine what they produce and consume. Permitted policies are direct payments that are "decoupled" from both production and prices, including those that provide a safety net against natural disaster or other extraordinary circumstances and bona fide foreign and domestic aid programs.

The objectives of this workshop are to identify policy reform issues where further economic analysis is needed and to provide a forum where policymakers, negotiators, and analysts can discuss these issues candidly. For this discussion, we have divided the issues into two types: 1) the medium- to long-term implications of global trade liberalization and 2) transitional issues.

REMOVAL OF AGRICULTURAL SUPPORT IN DEVELOPED COUNTRIES

The following is a summary of some of the more important preliminary results of a modeling effort now underway in the Economic Research Service (ERS). These results were generated by a comparative static model of world agriculture using 1984 as the base year. The model was used to simulate full trade liberalization by the developed market economies. Because such a scenario implies the removal of all agricultural support, it is not analogous to the U.S. proposal that would permit decoupled payments.

Models, such as the ERS model, are now fairly common and produce very similar results. The models view the world at a particular snapshot in time and examine the implications of policy changes, given all other conditions at that moment in time. They are unable to capture the dynamic efficiency gains that may occur from trade liberalization and, thus, may underestimate the overall gains from liberalization. Results can also vary depending on the base year (pre- or post-1985 Food Security Act). The impact of liberalization on U.S. grain exports, for example, would depend on the level of deficiency payments and the acreage set aside during the base period. Finally, the models summarize a vast amount of information on world agriculture, and their results should be viewed as being suggestive of likely directions of change, not predictive of actual changes. Thus, a more definitive answer to the impacts of global trade liberalization on any particular commodity sector would require a far more detailed analysis of that sector, including the structural changes that are likely to occur worldwide.

The ERS model suggests that complete agricultural trade liberalization, from a 1984 base, would bring about the following changes, assuming that all other economic conditions remain the same:

- o World prices for most commodities would increase. The rise in prices would be greatest for sugar and dairy products, followed by beef and rice. World prices for grains and oilseeds would increase modestly.
- o Production of most agricultural commodities in developed countries would decline slightly with the elimination of agricultural assistance. Increases in world prices, however, would partially compensate producers for the loss of farm subsidies. In the United States, the largest production declines would be in sugar, rice, dairy products, and wheat.
- o World agricultural trade would increase 10 percent. There would be substantial expansion in global trade in beef, rice, and sugar.
- o There would be no major changes in U.S. grain trade. Wheat and rice exports would be slightly less in a totally liberalized environment, while coarse grain exports would be modestly higher.
- o The United States would replace some grain exports with meat exports and switch from being a net beef importer to a net beef exporter.
- o U.S. dairy product and sugar imports would increase with liberalization. With the removal of import quotas, U.S. sugar imports could nearly double.
- o The U.S. agricultural balance of trade would improve by 20 percent, and the value of global agricultural trade would increase similarly.
- o For every dollar reduction in government support to U.S. producers, U.S. consumer and taxpayer costs would drop by \$1.40. The implication is that more efficient means of transferring income to producers could be designed.
- o Real income gains in the U.S. economy from agricultural trade liberalization (approximately \$4 billion) would be minor compared with the transfer of incomes within the country. Income gains to U.S. consumers and taxpayers would be over four times the national increase.
- o Net U.S. farm incomes would be 10-15 percent lower than in the 1984 base period if all U.S. Government support were removed concurrently with liberalization in other developed market economies. Higher international prices and increased exports would compensate producers for approximately 40 percent of the loss in income due to government assistance. This implies that, in the base period, net farm income could have been maintained through a combination of trade liberalization and nondistorting transfer payments that together would have reduced domestic taxpayer and consumer costs by 60 percent.

TRANSITIONAL ISSUES

In addition to the longrun effects of trade liberalization on U.S. agriculture, many issues about shorter run adjustment problems and alternative

policies for transition remain unresolved. To provide a starting point for the workshop, we have identified three critical issues: government-held stocks, supply controls, and structural adjustment in U.S. agriculture.

Stocks

Previous trade liberalization studies examined reductions in agricultural support over a medium- to long-term time frame. Those studies generally ignored the transitional period during which agricultural support was reduced, how that support was reduced, and the adjustment process. By concentrating on support to farmers, those studies ignored the other policy objectives of governments.

How Excess Stocks Are To Be Worked Off

Agricultural exporters normally support farmers via a minimum intervention price. When prices fall below the intervention price, the government may either acquire stocks or subsidize exports. During the transition to liberalized trade, agricultural support in these countries may be reduced in one of two ways. If support is reduced by phasing out export subsidies, government-held stocks may be little affected. Support could also be reduced by selling government stocks. In this case, a country's exports could expand even though support levels are being reduced. If enough countries follow such a strategy, world market prices might actually fall during the transition to freer trade. Of the current proposals before the GATT, the Cairns proposal recognizes this potential problem by calling for exporters to commit to responsible management and a nondisruptive release of stocks.

The United States is now reducing stocks by using the export enhancement program (EEP) to increase exports and by cutting back production. U.S. stocks might initially increase under a reform agreement that relaxes their acreage reduction requirements and calls for a phaseout of the EEP. Because the United States holds a significant share of world grain stocks, U.S. policy on stocks will have a major impact on world grain prices during the transition period.

Price Stability

In theory, trade liberalization should lead to significantly more stable world prices. Domestic prices, however, are likely to become more variable in countries that currently stabilize prices within a narrow range. Price or income stabilization is an important objective of farm policy in many countries, but this objective is only indirectly addressed in the proposals. The Canadian proposal would presumably exclude price stabilization programs that do not provide long-term support to farmers. The European Community (EC) proposal presumably is to retain EC price stabilization mechanisms by excluding the basic features of the common agricultural policy (CAP) from the negotiations.

Under what conditions, if at all, should price stabilization programs be allowed under a free trade arrangement? Should the responsibility for stabilizing prices be shared by countries and, if so, how?

Supply Controls

During the past 20 years, a number of Organization for Economic Cooperation and Development (OECD) countries have implemented supply controls for surplus

commodities. The primary objective of the supply controls was to limit government spending exposure on price and income supports. Supply controls provide a politically convenient mechanism for controlling farm spending because, in the short term, farm income can be maintained at little cost to governments. Although invariably meant to be temporary solutions to surpluses, very few supply controls that were implemented in the past 20 years in OECD countries have been dropped. Dairy and grains are the commodities where controls are the most prevalent among OECD governments.

The EC proposes a 1-year renewable market-sharing arrangement among major exporters to stabilize markets and reduce budget costs. Although the United States has rejected such arrangements in the past, it has unilaterally cut back production during periods of world market surpluses. The acreage taken out of production due to U.S. programs is currently the largest in history with the exception of the payment-in-kind (PIK) year of 1983. Both the United States and EC have unilaterally taken steps to cut back dairy production. In fact, nearly all OECD countries now use some type of supply management technique to control the cost of their dairy programs.

The existence of supply controls gives rise to several issues:

- o Given the political pressures to introduce supply controls and the fact that governments have unilaterally implemented such controls in the past, would it be preferable to negotiate such controls multilaterally? On the other hand, if market-share arrangements are negotiated multilaterally as suggested by the EC, what is to prevent the supply controls from becoming long-term measures that are politically difficult to remove? If such measures are applied only to commodities in serious surplus, will surpluses arise in other commodity sectors and, thereby, necessitate government involvement in these sectors?
- o The aggregate measures suggested for the Uruguay Round focus on income transfers to farmers resulting from government policies. Some argue that these measures overstate the trade effects of government policies when supply controls limit the quantity of production actually receiving support. Some have suggested that countries should receive credits on their aggregate measures for such controls, arguing that there is a precedent for this from previous negotiations because countries have received credits for unilateral reductions in their tariff rates. If credits for implementing supply controls are allowed, would this imply implicit approval of supply management techniques as a way of reducing agricultural support?
- o Even if supply control credits are not allowed, the method used to reduce support during the transition to free trade is important. Because of the voluntary nature of U.S. programs, elimination of price and income supports would lead to less participation in U.S. programs and possibly an increase in U.S. output. Other countries might argue that they be allowed to relax their production quotas as a means of reducing support. For example, Canada provides dairy support by means of quotas on both production and imports. A reduction in support will lead to increased Canadian consumption of dairy products, but such a reduction can be achieved in one of two ways. If support is reduced by relaxing production quotas, the increase in domestic consumption will be met entirely from domestic production. If, on the other hand, support is reduced by relaxing import quotas, the increase in consumption will be met entirely from imports.

STRUCTURAL ADJUSTMENT IN U.S. AGRICULTURE

The effects of global and domestic policy reform on U.S. agriculture are not limited to changes in the prices and quantities of various commodities and a shift from dependence on price and income supports to income from the market. Policy reform will lead to a fundamental restructuring of U.S. agriculture and will have a significant impact on:

- o Resource use and employment,
- o asset values and cost structure,
- o geographic distribution of production,
- o income distribution across regions, commodities, and farm sizes, and
- o number and size of farms.

Policy reform will initially reduce the rates of return to resources employed in agriculture. One consequence will be the shifting of mobile resources--labor, capital, and management--out of agriculture. Resources that are not easily transferred to other employment--land, some labor, capital, and management--could either fall in value or become unemployed. Price-flexible immobile resources (such as land) could fall in value, while resources with sticky prices (such as labor) could become unemployed.

Agricultural policy reform will have a disproportionate impact on regions of the country where production costs are the highest and where agriculture depends most on highly protected commodities, such as dairy and sugar.

The effects of policy reform on income distribution, farm sizes, and farm numbers will depend on transition policies. The United States has proposed the use of decoupled payments (payments independent of the current and future level of a farmer's production, input use, or commodity prices) to ease agriculture's adjustment to policy reform. Decoupled payments could influence the direction of structural change in different ways, depending on program duration, program targeting criteria, and the level of payment. For example, a short-term decoupled program that compensates farmers for declines in the value of land or other assets would likely speed financial restructuring. A long-term income support program based on a means test would allow more small- and medium-sized producers to remain in business and place more of the adjustment burden on larger farmers. Other types of transition programs might remove resources from agriculture through buy-outs, such as the Dairy Termination Program or the Conservation Reserve Program.

RAPPORTEUR'S REPORT

Kristen Allen

In July 1987, the United States presented a proposal before the General Agreement on Tariffs and Trade (GATT) that outlined plans for liberalizing trade in agricultural products and that would necessitate a new approach to agricultural support. This workshop focused on the implications of the changes called for by the U.S. proposal for U.S. agriculture. The discussion can be roughly organized as follows:

- o The use of economic analyses in trade negotiations,
- o multilateral versus unilateral trade liberalization,
- o stabilization,
- o decoupling, and
- o structural adjustment.

For each issue, the group tried to reach a consensus on why each issue was important in the context of trade negotiations, to identify what further analyses will be needed, and, when possible, to draw some conclusions.

THE ROLE OF ECONOMIC ANALYSIS IN TRADE NEGOTIATIONS

The discussion hinged on several key questions. The first was how should the results of analyses be presented? This question, of course, begs another: to what use will the results be put? Are the results to be used to sell a general idea, or will they be used to estimate the benefits and costs of a number of different positions? The answer to this question will provide guidance on subsequent ones. How much detail do negotiators and politicians want when they are negotiating policy changes? Are broad generalizations sufficient, or should all analyses come complete with commodity-by-commodity detail, showing regional and subsectoral consequences of any changes?

The group felt that the analytical support for the negotiations could be divided into four stages, with each stage having different analytical requirements. The stages and the types of analyses needed are as follows:

1) Setting the agenda--

Broad, general results are the most useful and static models are usually sufficient. The agenda for the Uruguay Round of GATT has been set.

2) The negotiating stage--

More specific analyses are needed, particularly showing regional and sectoral impacts of proposed changes in policies. The Uruguay Round is now at this stage, and there are a number of good analyses to be considered as the negotiations proceed.

3) International agreement--

At this stage, the issues will be reciprocity and measurement, in agriculture particularly, but also in general. The analyses would ideally measure changes in net national welfare, resulting from changes in policies. We might more realistically expect measures of the net gains and losses in each country in terms of production, consumption, and trade. Such measures would facilitate international comparisons of the benefits and costs of liberalization, somewhat akin to summing tariff cuts as was done in earlier GATT rounds.

4) Selling the agreement at home--

Specific analyses will again be needed, with economists providing politicians with objective results that show the domestic regional and sectoral impacts of the negotiated agreement.

Analytical needs are greatest for stages 3 and 4. More work is needed on the transition-period effects of policy change, and there is a need for analysis of the longer term implications of liberalization under several different policy scenarios.

MULTILATERAL VERSUS UNILATERAL TRADE LIBERALIZATION

In its proposal on agricultural policy reform in the GATT, the United States has stressed greater, worldwide gains from multilateral liberalization, compared with unilateral liberalization. The United States is concerned that if it were to unilaterally liberalize, other countries would refuse to follow with the policy changes necessary to liberalize trade. Other countries fear that the U.S. Congress will not go along with an agreement negotiated by the current Administration that calls for major changes in agricultural programs in order to bring about a more liberal trading environment.

The prospect of unilateral liberalization on the part of the United States raises many questions. The likely longevity of such an approach is one; the probable impact on U.S. agriculture under different liberalization scenarios is another. There was some support for the view that unilateral liberalization would not last long, which then raises the question: what are the other options?

Market sharing with domestic supply management is one option. This option has some support among other countries and, indeed, among some farm groups in the United States, because it would likely mean higher prices in the short run. There are, of course, problems with such an approach. One problem is that it would impose considerable hardship on food-importing, less-developed countries. Another problem is that it provides incentives for developed countries to grow more of the crops covered by the market-sharing agreement--thus, leading to the eventual breakdown of the arrangement.

The U.S. Administration has emphasized its commitment to multilateral trade liberalization and appears to be reluctant to consider the possibility that the GATT negotiations will not produce the desired result. Some analysts

argue that the possibility that the Uruguay Round will produce something less than complete multilateral liberalization suggests the need for analyses of several alternative domestic policy positions. The following scenarios are among those that most urgently need to be developed:

- o continuation of the 1985 Food Security Act,
- o mandatory supply controls, and
- o decoupling, with no land diversion program, both with and without export subsidies.

STABILIZATION

Stability and food security have long been used as arguments for farm programs. Unfortunately, there does not appear to be universal agreement on what the terms mean. For example, what should farm programs seek to stabilize: prices? (if so, which ones?), farm incomes? volume or value of exports? export shares? or some demographic criterion? Food security means one thing to the United States and Canada, but quite another to the EC and Japan, whose populations have felt the pain of famines and starvation.

The analytical needs are not clearly defined. Some sort of insurance scheme may be suggested as a response to some of the concerns, but the question remains, what should be insured. Is it the year-to-year fluctuations in farm prices and incomes that concern farmers, or is it the longer term trend (which had them riding high in the 1970's but plummeting in the 1980's)? Does food security imply food self-sufficiency? What are the appropriate policies to address different national fears and goals?

The one conclusion that was reached by the group regarding issues of stability and food security was that there is a useful role for "safety nets," but beware of "hammocks."

DECOUPLING

Although the term seems to have become integrated into the vocabulary of many people in the agricultural community, it became clear in this session that a single definition of decoupling is lacking. The accepted meaning for "decoupling" is payments to farmers that are unrelated to current agricultural production. This definition does not clarify the distinction between payments that do not affect production and those that do not depend on production. That negotiators from other countries construe the meaning of the concept differently than those from the United States could cause continued confusion in the negotiations.

At a recent conference on decoupling in Canada, it became clear that decoupling was taken by farmers to imply reduced and targeted farm income payments. As such, it is viewed as the thin edge of an undesired wedge leading eventually to desubsidizing and the capping of benefits. Predictably, the concept has encountered resistance from Canadian farm groups and from some groups in the United States.

A discussion about decoupling soon became a discussion on the purposes of agricultural policy. Such introspection is not bad, but as long as the goals of agricultural policy remain nebulous and incorporate objectives

that are not easily quantified, it may remain difficult to resolve the debate on decoupling. One message did come through; if it is deemed that farmers should receive benefits on the basis of production, for whatever reason, then there is no theoretical basis for decoupling.

Agricultural economists should, however, find comfort in the emergence of the policy debate on decoupling. It has provided much new fodder for the analytical cannon. Among the topics that will need to be examined, in addition to those mentioned above, are the following:

- o Would farmers have to be compensated, if decoupled income payments were the only form of government support, for such things as lower asset values?
- o Which farmers would have to be compensated? And would compensation be limited to farmers?
- o How would such compensation be calculated?
- o How would hidden transfers, such as higher consumer prices, be accounted for in estimating the amount of compensation?
- o If payments were to be targeted, how would it be done (given the heterogeneity of the farm sector)?
- o What would be the impacts on producers of nonprogram commodities, up- and down-stream industries, and rural communities in general?

STRUCTURAL ADJUSTMENT

Structural adjustment is another issue that requires more analysis. Even without radical changes in agricultural policy and programs, considerable structural adjustment is occurring in rural America. The changes in farm structure due to trade liberalization may well be minor compared with the changes spawned by ongoing technological change.

Structural adjustment encompasses a broader range of issues than just agriculture. For one thing, trade liberalization in the Uruguay Round covers more than agriculture. There will be trade-offs among sectors that will complicate the analysis for agricultural economists. Agricultural policy, although it has been used to solve many rural problems, cannot be expected to solve them all; other policies will be needed.

As noted above, the effect of liberalization on asset values will be an important area of inquiry, particularly in the context of structural adjustment. Some of the adjustment in asset values has already occurred in the United States; the adjustment has been much less in other countries, notably in the EC and Japan. (It should be noted that in Japan the adjustment in some asset values, such as land now used for agricultural production, might be up rather than down.)

Differential regional impacts of changes due to liberalization need to be addressed. As observers have noted in the past, liberalization of trade may result in significant differences in the fortunes of different regions within a country. More extensive liberalization would likely exacerbate the changes.

The effects of structural adjustment will depend on the transition programs used. Agricultural economists were admonished for having paid too little attention to structural adjustment problems and transition programs: we have not measured the effects of structural adjustment, we do not know what the costs of such adjustment are, and we have not helped design adjustment or transition programs.

CONCLUSIONS

Although the existing agricultural programs are often hailed as being extremely expensive, a move toward liberalization of agricultural trade would not be without cost. Without government support, it is likely that some agricultural activities in the United States would decline. It is also quite possible that the loss in agricultural income would be compensated for by expanded opportunities elsewhere. That the losers and gainers might not be the same individuals, or even in the same sector or geographic region, is obviously a keen concern of policymakers. The fact that the U.S. proposal does call for quite radical changes in agricultural policy suggests that there will be ample opportunity for research and analysis for many years to come.

INTERNATIONAL IMPLICATIONS OF AGRICULTURAL POLICY REFORM:
DEVELOPED COUNTRY ISSUES

Rekha Mehra

The developed countries are particularly important to the multilateral reform process as they dominate world trade in temperate-zone agricultural products. They are the world's leading importers and exporters of grains, oilseeds, meat, and dairy products. While the developed countries generally agree on the need for substantial agricultural policy reform, considerable differences of opinion exist on specifics, as is evident from the individual country proposals before the General Agreement on Tariffs and Trade (GATT). Differences arise from assessments of the impact of trade liberalization on the domestic and international economy, the practical problems associated with implementing reform measures (timing, compensation, measurement, and others), and the domestic and regional political realities in each country or region.

These divergent viewpoints raise several questions the developed countries are likely to confront as they negotiate on agricultural policy reform during the Uruguay Round. For example:

- o What will be the gains and losses from trade liberalization in each country? What adjustments will be required in the short and long terms, and by whom?
- o What are the areas of agreement and disagreement in the proposals made so far?
- o What are the practical problems involved with implementing a liberalization agreement? What would be an acceptable timetable, a monitoring procedure to verify mutually accepted reductions of support, and appropriate compensation for adversely affected farmers.
- o What are the individual country political and institutional constraints in negotiating significant reductions in trade distortions?

The following sections review the issues raised by each set of questions, the current status of information on these issues, implications for the developed countries, and the unresolved issues, problems, and information needs.

QUANTIFICATION OF THE GAINS AND LOSSES
FROM TRADE LIBERALIZATION

To evaluate the impact of trade liberalization on individual countries, governments are interested in knowing the effects of (1) present protection levels and (2) changes in levels of protection on commodity prices, price stability, changes in the production and consumption mix of each country, and any changes in trade flows.

Several empirical studies, including those of the Organization for Economic Cooperation and Development (OECD) (1987), the U.S. Department of Agriculture (USDA) (Dixit, Roningen, Sullivan, and Wainio), and Tyers and Anderson (1986 and 1987) provide information on these questions. Each report addresses the general question of how domestic and international markets react to reductions in government support.

Main features of the models include:

- o Commodity coverage: Tyers and Anderson's models include the products that account for about half of world food trade (namely, wheat, coarse grains, rice, ruminant and nonruminant meat, dairy products, and sugar). The OECD model also includes oilseeds, and the USDA model is even more comprehensive.
- o Policy coverage: The OECD and USDA models offer more detailed policy coverage than Tyers and Anderson's models, which capture interventions that are reflected as wedges between domestic and international prices.
- o Liberalization scenarios: The OECD and USDA examine the effects of unilateral and multilateral liberalization by developed market economies. Tyers and Anderson (1987) also examine the effects of liberalization by developing countries.
- o Shortrun and longrun effects of liberalization: These are generally static models although Tyers and Anderson (1987) incorporate a time path of adjustment.

Results of the models include:

- o World commodity prices: The results show that with industrial country liberalization alone world prices of major agricultural commodities would increase, dairy products and beef rising the most. Grain price increases would be modest.
 - o World price variability: Tyers and Anderson (1986) show that price variability would decline with liberalization.
 - o Trade volume: Trade in most commodities would rise with freer trade, the largest increases occurring for meat and dairy products and more modest increases for grains, especially rice. Trade volume would increase most if developing countries liberalized.
 - o Domestic market effects of trade liberalization in the developed countries: The models are generally in agreement on the direction of changes resulting from liberalization. Opinion on the magnitude of changes is more divergent.
- Producer prices and volume of production are likely to fall for products that are now protected. Domestic production of all major traded commodities would decline in Japan. All except wheat and nonruminant meat production would decline in the European Community (EC). In the United States, production of milk and dairy products would fall the most, wheat, rice, and sugar much less. Simultaneous liberalization would significantly moderate the domestic market impacts for all countries except Japan.

- Consumption: As prices fall in most countries, consumption would increase, particularly in Japan where dairy consumption could double and beef consumption quadruple. Beef consumption could increase significantly in the EC, but not the consumption of other commodities. Consumption increases would be larger under unilateral liberalization as prices would be lower than with simultaneous liberalization.
- Self-sufficiency: The most significant changes in self-sufficiency would be in dairy products, sugar, and beef. The EC would once again become a beef importer, the United States a net exporter.
- Welfare gains and losses: The studies generally show that all industrial countries would gain economic surplus from freer trade. In general, lower prices would reduce producer surplus, but consumers and taxpayers would gain up to 50 percent more than producers would lose. In Canada and the United States, taxpayer gains from reduced government support to producers would contribute as much or more to improved net welfare as would consumer gains. Among the OECD countries, Australia and New Zealand would gain the most from free trade.

What else would we like to know?

- o What are the economy-wide effects of liberalization?
- o What are the effects of less-developed country (LDC) liberalization on the developed countries?
- o What are the effects of including in the models tropical products important to LDC's?
- o What are the dynamic effects of liberalization?

NEGOTIATING POSITIONS IN THE GATT

Most of the developed countries now have proposals before the GATT clarifying their official positions. They fundamentally agreed on need for:

- o A greater market orientation for agriculture.
- o Negotiations to harmonize international health and sanitary regulations for plant and animal products.

They disagree on the degree of ultimate liberalization and the means to achieve it:

- o The United States and the Cairns Group favor total liberalization, whereas the EC, Japan, and the Nordic countries (Norway, Sweden, Iceland, and Finland) do not.^{1/}

^{1/} The Cairns Group includes Argentina, Australia, Brazil, Canada, Chile, Colombia, Hungary, Indonesia, Malaysia, New Zealand, the Philippines, Thailand, and Uruguay. They are primarily a group of exporters who account for approximately 25 percent of global agricultural exports.

- o The United States and Canada prefer an aggregate rather than a commodity-by-commodity (or request-and-offer) approach to the negotiations; most other countries do not.
- o All countries other than the United States give priority to short-term measures to deal with the current imbalances in world trade.

The general interest of each major developed country or region in the multilateral trade negotiations (MTN) and the main features of its proposal before the GATT are outlined below. Proposals on timing and measurement issues are reserved for later sections.

The European Community

The EC generally leans toward reduced support levels to address oversupply and budget problems. The EC has proposed temporary market sharing arrangements to deal with the current overproduction crisis. The EC's GATT proposal calls for:

- o Balanced and significant reductions in support levels, with the qualification that the main principles and mechanisms of the Common Agricultural Policy (CAP) be maintained.
- o Significant reductions in trade distorting supports on a reciprocal basis.
- o Improvement in GATT rules and enforcement procedures.

The United States

The United States proposal calls for:

- o The complete and concerted elimination of all direct and indirect subsidies that affect trade over 10 years.
- o Exemption from the subsidy cutback allowable only for direct "decoupled" farmer aids as well as domestic and international food aid.
- o The elimination of all barriers to market access over a 10-year period.
- o The harmonization of sanitary and phytosanitary regulations.

Japan

Japan is generally opposed to major agricultural policy reform. Japan's argument is that because of its position as the world's largest importer of farm commodities, its protectionism does not adversely affect trade. Exporting countries argue that Japanese imports would be much higher with less protection. Japan's cooperation in agricultural policy reform may be elicited through its desire to avoid retaliatory actions against its manufactured products. Japan's proposal calls for:

- o Phasing out export subsidies over a fixed time period and managing other subsidies to reduce trade distorting effects.
- o Reducing tariffs through the traditional request-offer method; negotiating on rules for import restrictions permitted by waivers; and articulating rules on the variable-levy and minimum import price systems.

The Cairns Group

The Cairns Group proposal comes closest to the U.S proposal in advocating complete elimination of trade and production-distorting subsidies. It is particularly noteworthy because every country in the group (except New Zealand) would have to make substantial and difficult changes in their own agricultural policies to achieve the proposed goals. The group includes both developed and developing countries, whose joint support could be important in the reform process.

The Cairns Group presented a three-stage proposal conditioned on acceptance of the long-term objectives to:

- o Eliminate all subsidies and other government support, except direct income supports not affecting trade.
- o Bind all tariffs at zero or low levels.
- o Prohibit all market access measures not provided for in the GATT, such as variable levies and minimum import prices.

The Nordic Group

This group has adopted a pragmatic approach, allowing for selective as well as across-the-board solutions to achieve greater liberalization.

Issues

Goals: What are the areas of commonality in the respective positions of the developed countries? How might these be used to promote agreement on outstanding issues?

Approach: What kind of concessions will be required and by whom? How can the concessions be elicited?

Priorities: How to meet the concerns of other countries for short-term remedial measures without losing sight of the ultimate objective of across-the-board liberalization?

IMPLEMENTATION ISSUES

Timing is important from the viewpoint of both objectives and implementation. There is disagreement over the single-time period to accomplish complete liberalization favored by the United States, and the dual or triple periods proposed by the EC, Japan, and the Cairns Group. The latter alternative includes short-term emergency measures (such as "freezes" on subsidies and tariffs) to stem the current crisis until agreement can be reached on major reforms.

The United States' objection to short-term measures is that they will lessen pressure for reform as agriculture recovers. Therefore, its position is to make short-term measures conditional upon agreement on fundamental reform. This accords with the Cairns Group's view, but not with the ideas of the EC, Japan, or the Nordics.

There is agreement that the reforms should be introduced gradually. There is not much agreement on specific lengths of time or on the end point to meet reform objectives:

- o The United States proposed a 10-year limit for ending all subsidies, and the liberalization of market access with implementing plans to be bound in the GATT.
- o The Cairns Group specified the end of 1988 for adopting short-term measures, a 10-year intermediate phase, and an unspecified "long term" to end all protection.
- o Canada specified a 5-year period for phasing in "major" reductions in protection but left unspecified the date for complete reform.
- o The EC, Japan, and the Nordics do not favor complete liberalization.

MEASURES OF SUPPORT

An agreement on reducing or eliminating agricultural protection across-the-board requires a uniform measure of support that permits cross-country and cross-commodity comparisons of levels of protection. Agreement on an aggregate measure of support is necessary to establish current levels of protection, targets for reduction, and an instrument for monitoring and verifying compliance, once agreement is reached on levels and methods of reduction.

Proposed alternatives include:

- o The producer subsidy equivalent (PSE) or an "equivalent" measure is acceptable to the United States, the EC, and the Cairns Group. The PSE is a widely used measure that has proven useful for comparisons between countries and commodities (OECD and USDA). The PSE incorporates estimates of all direct government payments and indirect subsidies arising from policies that raise consumer prices, such as import quotas and variable levies. One problem in using the PSE as a negotiating device is that it does not directly capture the effects of government intervention on trade.
- o An alternate measure is the trade distortion equivalent (TDE) proposed by Canada.

The technical problems involved in reaching agreement on an acceptable measure include the types of policies to be included, lack of data in many countries, the need for regularly updated estimates, the need for an independent agency to do the calculations, and the determination of a base year, the determination of world reference prices, and the treatment of quantitative restraints on production. These issues were discussed at length in Workshop I.

INTERNAL COMPENSATION MEASURES

The modeling results show that trade liberalization will result in gains and losses for producers, consumers, and taxpayers. Losses to producers will result from lower prices, declining government payments, and changing patterns

of production. There may be losses to agriculture-related input and processing industries as production volumes adjust. Some rural areas may be particularly affected. Even the most ambitious reform proposals recognize the need to compensate those who must bear the cost of adjustment. Direct government payments "decoupled" from production levels, and regarded as nontrade distortive, are allowed.

Unresolved issues:

- o What is the best means of compensation? A lump-sum annual payment? Transitional adjustment assistance?
- o Who will have to be compensated--farmers, other industries? What amount of support will be required and for how long?
- o What about the costs of readjustment for rural communities? Should support be given to encourage new industries?

The notion of "decoupling:"

- o What kinds of payments are production-neutral?
- o Should payments be aimed toward those most in need?
- o How much flexibility should be allowed for each country in the adoption of "decoupled" measures of support?

DOMESTIC POLITICAL CONSIDERATIONS

Domestic political realities in each country or region affect the MTN by having an impact on proposals, types of concessions sought and made, and on the eventual ratification of the agreements. They may act as facilitators or constraints.

Domestic political considerations may assist in the negotiation process. The rising cost of agricultural support programs in the United States and the EC was a significant contributing factor in the movement toward reform.

Constraints:

- o Budget constraints will stand in the way of the transition to "decoupled" payments in cases where protection is largely financed by consumers (the EC and Japan).
- o Structural factors such as approval processes may function as constraints. For example, changes in the CAP are slowed by the requirement that they must be unanimously approved by all 12 EC members.
- o Interest group influence has been very powerful in many developed countries in maintaining agricultural protection.
- o Intangibles, such as the concern for food security, have been used to justify protectionism. Japan has used the food security issue to maintain food self-sufficiency.

Unresolved issues:

- o To what extent will domestic political considerations constrain the negotiation process in general, and affect particular issues?
- o How predictable are these constraints?
- o What is the best strategy for overcoming them?

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RAPPORTEURS' REPORT

Mark Newman and Rekha Mehra

The discussion on the implications of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) negotiations for the developed countries began with a brief review of recent developments. A midterm review is planned for December 1988, either for stock-taking or for more substantive discussion. The U.S. strategy is to attempt to get agreement this year on the goals and directions for the negotiations. This will leave 2 years for working out the details of the arrangements. The general elections in France and state elections in Germany are expected to slow progress in the negotiations. The hiatus will be used to develop and clarify technical concepts pertaining to aggregate measures of support, decoupling, short-term measures, health and sanitation rules, and special and differential treatment. Work has already begun on these issues.

ISSUES RAISED

The discussion focused from the start on the practical problems associated with negotiating trade liberalization. Two major sets of difficulties were identified in the negotiating process: (1) those of obtaining agreement among the countries and regions represented in the GATT, and (2) those of generating political support for reform among domestic constituencies within the respective countries. The two sets of issues are closely related, as domestic political support or opposition impinges directly on a country's position at the negotiations. The issue of domestic political support is particularly important in this GATT round because, for the first time, the kinds of aggregate reductions of agricultural protection on the agenda imply major changes in domestic agricultural policies. The rest of the discussion continued in a political-economic framework.

The group clarified that there are important differences among the developed countries' proposals tabled at the GATT, in their respective approaches toward the negotiations and in the expected outcome. The differences arise due to differing ideologies, perceptions of national interests, and domestic political realities. In attempting to develop strategies that facilitate the negotiating process it is important to keep sight of these differences as they determine the feasibility of negotiating alternatives. Some examples follow:

- o The European Community (EC) does not regard agricultural subsidies as inherently bad. Therefore, it does not view trade liberalization and reduction of agricultural support levels as inherently necessary or particularly desirable. Hence, the EC is less than enthusiastic about the U.S. proposal for across-the-board elimination of all trade-distorting subsidies. The EC does favor some reform so that their ever-mounting costs for farm programs can be lowered. The EC would also like to negotiate improved access to third country markets, and it would like to see the U.S. Export Enhancement Program (EEP) eliminated.

- o The high political cost of agricultural policy reform in the EC and Japan may be a more important determinant of their respective negotiating positions than budget costs. Recent surveys in the EC and Japan show that over 50 percent of the population is in favor of maintaining farm programs. It is possible that the EC and Japan may deem the domestic political costs of trade liberalization too high to be acceptable.
- o The costs of adjustment and the benefits from liberalization also differ among countries. Some studies have demonstrated the benefits of multilateral liberalization for some U.S. farm sectors, while those of the EC and Japan were shown to incur losses. It is not surprising that the latters' enthusiasm for liberalization is limited.

Some of the issues raised were countered by pointing out that in the long run and in the aggregate all countries would derive benefits due to the efficiency gains from liberalization. The priority of social welfare over agricultural producer welfare is not automatically on the political agenda of all the developed countries, nor will it necessarily generate immediate public support. Furthermore, shortrun adjustment costs may be of greater political urgency than can necessarily be offset by the longer term benefits.

The discussion then turned to identifying: (1) the factors that impede reform, and (2) those that make countries more responsive to reform. A key factor cited in providing an impetus for reform within each country was budgetary pressure intensified by the high costs of farm programs. The United States has put great emphasis on the opportunity provided by the budget crisis to negotiate reform. In fact, one of the official justifications made for the U.S. EEP is to raise the pressure on the EC budget. Although financial stress is conducive to discussion of policy reform, it is not a sufficient condition for achieving agreement on liberalization. Some have recently voiced concern regarding rising agricultural prices and the potential loss of momentum in the trade negotiations due to lessening budgetary pressure.

A second factor identified as being critical to achieving salable results from the Uruguay Round is progress on improving rules for the functioning of GATT. The domestic policy reforms required in many developed countries are unlikely to be made politically acceptable unless there is confidence that agreements will be honored and that GATT panel findings will be accepted. However, agreement on rules alone is not likely to bring about liberalization.

A major constraint to agricultural reform within the domestic policy arena is the opposition from interest groups currently deriving benefits from agricultural support programs. Such interest groups are bound to question why they should bear the brunt of the adjustment to liberalization just because past programs benefited them. The discussants felt that more research is needed on interest groups that would lose from liberalization and on ways to compensate groups opposed to liberalization.

Three general solutions were suggested to attempt to mitigate interest group opposition to reform:

- o Convince interest groups that liberalization is in their long-term interest.

- o Buy out interest group opposition, which in effect, would imply shifting some or all of the costs of the adjustment from interest groups to the public such as consumers and taxpayers.
- o Attempt to mobilize support from those who would gain the most, that is, those who currently pay the costs of farm programs.

There are problems associated with implementing each of these approaches. As the first approach was regarded as being the least likely to succeed, it was not given much attention. The main problem with the second approach, that of buying out interest group opposition, is that it requires development of compensation schemes. This raises additional questions about who should be compensated (all farmers? small full-time family farms? farm input suppliers? rural populations?), by how much, and for what length of time?

Issues related to "decoupled" payments were raised.^{1/} A major difficulty with decoupling is whether such payments would be sufficiently production-neutral to be compatible with liberalization. Another difficulty is that payments linked to a land base (even though fixed) would keep land values high, thus providing continuing incentives for interest groups.

An alternative to directly confronting interest groups is to foster support among groups such as consumers and taxpayers who are the potential beneficiaries of reform. This process is hindered by the size and diffuse nature of these groups. There is not enough research identifying exactly which groups would benefit from liberalization so that they could be organized and lobbied for support. It would also be useful to have research that evaluates over different lengths of time whether social welfare gains from liberalization would be large enough to permit a politically acceptable level of compensation to losers.

A RESEARCH AGENDA

Current modeling of trade liberalization scenarios is generally of a comparative-static nature, examining bipolar scenarios--with and without complete liberalization. Models are generally limited to the farm sector, although some general equilibrium models have been developed that examine liberalization effects on nonagricultural sectors of national or regional economies. Additional research is needed on:

- o The impacts of alternative scenarios on nonfarm sectors;
- o The dynamic effects of liberalization in promoting structural change and productivity growth;
- o The effects of less than complete liberalization;
- o The effects of alternative transition paths to liberalization;
- o Clear identification of the gainers and losers from the alternate liberalization scenarios, with emphasis on identifying gainers and ways that their support for reform might be elicited; and

^{1/} Decoupled payments refer to transitional or permanent payments to farmers that are independent of current production.

- o The impact of liberalization on asset values.

While it is generally accepted that asset values will fall and that this will lower production costs, the impacts are likely to differ among countries. For example, these adjustments have already occurred in Australia and New Zealand.

Compensation Mechanisms

Much of the discussion on compensation focused on outstanding issues with respect to the adoption of decoupled payments:

- o The cost of decoupled payments;
- o The means for ending decoupled payments if they are to be transitional measures;
- o The extent to which the opposition to decoupling among farmers stems from a simple preference for current programs; and
- o The effects of decoupled transfer payments relative to current programs on nonfarm groups such as input suppliers.

Another area for research is the potential organization and impacts of alternate compensation schemes. One possibility to consider is a net farm income insurance program funded jointly with public and private financing.

Alternatives To Total Liberalization

The discussants gave some consideration to the types of analysis needed to determine feasible and acceptable alternatives to liberalization, if the across-the-board approach to policy reform implied by the U.S. proposal is not accepted. In other words, what are the relative effects of alternate fallback positions? Some of the alternatives proposed can be regarded as transitional measures that provide a safety net for agriculture during the course of achieving total liberalization. Topics for research on transitional measures include:

- o Classifying various policy instruments from most to least distortive and analyzing their degree of distortion and adjustment path if a class of policy instruments is eliminated. The research should identify gainers and losers and estimate the needed compensation.
- o Examining the effects of banning only certain policies; for example, those that are considered the most trade distorting.
- o Determining the best transition from export subsidies, quotas, variable levies, and state trading to tariffs.

Research is also needed on other types of safety-net programs. Some ideas based on the Canadian experience include tripartite programs jointly sponsored by the federal and provincial governments, and farmers; stabilization programs; and social-environmental programs. If such programs were proposed, the question from a political-economy perspective would be how the switch could be made attractive to the affected groups.

INTERNATIONAL IMPLICATIONS OF AGRICULTURAL POLICY
REFORM: DEVELOPING COUNTRY ISSUES

Nicole Ballenger

A slim minority of the 95 members of the General Agreement on Tariffs and Trade (GATT) are industrialized (or developed) economies. This minority has historically had the greater influence over both the agenda and the outcome of the multilateral trade negotiations (MTN's) sponsored by the GATT. Del Fitchett (1986) suggests that less-developed countries (LDC's) have purposely kept low profiles at past MTN's in order to avoid "questioning of the past preferential GATT arrangements relieving developing country members from fully implementing...liberalization measures...." He suggests that many LDC's appear to have perceived the costs of adopting the outcomes of the previous MTN's to be greater than the benefits derived therefrom. In adopting a "standoffish" stance, LDC's may forfeit a chance to influence the course and outcome of the negotiations to their benefit. Key questions for workshop participants to address include:

- o What are the costs and benefits to LDC's of participating in agricultural trade liberalization?
- o What interest groups in LDC's are best/worst represented at the GATT?
- o What issues are of special concern or interest to LDC's (or subgroupings of LDC's) that may not be addressed by the developed countries leading the policy debate?
- o If an (or several) LDC proposal(s) was to emerge, what ingredients might it (they) have?
- o What kinds of exemptions for LDC's might elicit strong support from LDC's for agricultural policy reform? For example, are "decoupled" farm income payments a reasonable exemption for LDC's?

To lay the groundwork for a discussion of these issues, this paper presents background information on the current status of LDC's and LDC issues at the GATT, discusses the applications of current research on trade liberalization to LDC issues, and lists a number of issues that may be of special concern to LDC's.

LDC PARTICIPATION IN AGRICULTURAL TALKS
IN THE URUGUAY ROUND

The Uruguay Round should be of special interest to LDC's because of the high priority placed on resolving agricultural trade issues. Agriculture's role is more important in many LDC's than in many developed countries. Primary commodity exports (other than fuels, minerals, and metals) accounted for 21 percent of all LDC exports in 1985. These same exports were only 13 percent of developed country exports. The value of agricultural production accounted

for 20 percent of gross domestic product of LDC's in 1985, only 3 percent in developed countries. Agriculture provides a much higher percentage of employment in LDC's than in developed countries (Ballenger and Mabbs-Zeno, 1987).

LDC interests in the current agricultural negotiations have been, to date, expressed most clearly by a few LDC's participating in the Cairns Group. The Cairns Group is a coalition of both developed and developing countries. It includes Argentina, Australia, Brazil, Canada, Chile, Colombia, Hungary, Indonesia, Malaysia, New Zealand, Philippines, Thailand, and Uruguay. The Cairns Group countries identify themselves as nonsubsidizing agricultural exporters. With agricultural exports being important to each of these economies, they share an interest in policy reforms that would benefit their performances in agricultural export markets.

From the inception of the Uruguay Round in September 1986, the Cairns Group has expressed a strong commitment to the Ministerial Declaration which called for:

- o Improving market access through the reduction of import barriers;
- o Increasing discipline on the use of all direct and indirect subsidies and other measures directly or indirectly affecting agricultural trade; and
- o Minimizing adverse effects of health and sanitary regulations on trade in agriculture.

The Ministerial Declaration for the new round includes a statement that: "developed countries do not expect LDC's in the course of trade negotiations to make contributions which are inconsistent with their individual development, financial, and trade needs..." and that "...special attention shall be given to the particular situation and problems of the least developed countries and to the need to encourage positive measures to facilitate expansion of their trading opportunities." Thus, the Ministerial Declaration paved the way for LDC's to receive preferential or "special and differential treatment" (S&D) under any new trade agreement forged by GATT members.

Since the ministerial, several formal proposals for agricultural policy reform have been offered at GATT Agriculture Negotiating Group meetings. These proposals pay relatively little attention to the specific interests of developing countries. The U.S. proposal, calling for the elimination of all trade and production distorting subsidies, makes no specific reference to LDC issues, although it does make an allowance for bona fide food aid.^{1/} Despite this, the United States has recognized the political importance of garnering support from LDC's for its GATT proposal. The Cairns Group proposal defines a number of exemptions from its call for full liberalization, including structural adjustment measures, consumer assistance not impeding trade, noncommodity specific aid such as research, disaster relief, and decoupled payments. For developing countries, the Cairns Group proposes a longer timeframe for implementing policy reform and exemptions for domestic economic programs to promote economic and social development so long as they are not

^{1/} In April 1988 the United States presented the negotiating group on agriculture with an elaboration of the U.S. agriculture proposal with respect to developing countries.

explicitly linked to export programs. A formal proposal from the European Community (EC) states that "it will be necessary to allow for S&D for the LDC's according to their needs." The Nordic proposal does not mention LDC concerns or interests at all.

An informal background paper, apparently based on input from Jamaica, South Korea, and Egypt, has also been presented. This paper addresses the concerns of LDC's from a food importing perspective rather than from the export-competing perspective taken by the Cairns Group. The paper notes that surplus production is an industrial country problem, that feast and famine exist side by side. It also suggests that although there should be "improved disciplines on the use of subsidies" that these disciplines should not preclude the use of structural adjustment measures, measures to expand domestic consumption, infrastructure development, and emergency measures for disaster relief and food aid. This paper also recommends that S&D should not be only exceptions to trade liberalization, but should be an integral part of improved rules for agriculture, which should be designed to promote agricultural modernization.

IMPLICATIONS OF TRADE LIBERALIZATION FOR LDC's: MODEL RESULTS

A number of empirical modeling exercises have been undertaken to assess global and country impacts of trade liberalization. These results have explicit or implicit implications for LDC's. Modeling efforts include the trade mandate study of the Organization for Economic Cooperation and Development (OECD), Tyers and Anderson (World Bank), Parikh and Tims (International Institute for Applied System Analysis), Roningen and others (USDA), and Valdes and Zeitz (Valdes, 1987). These models and other smaller-scale efforts tend to share a number of some characteristics:

- o They are based on systems of supply and demand equations for agricultural commodities.
- o They include some feed/livestock linkages.
- o They focus on temperate zone products except for a model by Valdes and Zeitz.
- o Most models are static (except for Tyers and Anderson, which includes limited dynamics) and contain no linkages between agriculture and the rest of the economy (except for Parikh and Tims, which is a general equilibrium framework).
- o They are net trade models, that is, they do not show bilateral trade flows.
- o Policies are generally modeled as price wedges at the border and, except for Roningen and OECD, consider only the effects of border policies (tariff and nontariff barriers) rather than the effects of all forms of government intervention in agriculture.

These models treat commodities and countries with varying degrees of aggregation. Some studies use broad commodity aggregates (IIASA), while others have considerable commodity detail (Roningen). The OECD study considers LDC's as a bloc, while Valdes and Zeitz's study considers the effects of developed country liberalization on 56 developing countries. They

differ in their definitions of the liberalizing country or region, and the extent of liberalization. They also vary in base period chosen, assumptions about supply and demand elasticities, and estimations of levels of protection.

These models are both rich and limited in their ability to provide information on the implications of trade liberalization for developing countries. Results typically include medium-run effects of liberalization on domestic and international prices and on quantities produced, consumed, and traded. These results can then be translated into effects on foreign exchange earnings and costs, producer and consumer welfare measures, and budgetary effects. These models are limited in their ability to explore distributional issues (such as distribution of income among different types of farmers, regions, and rural and urban factions), longer term adjustment issues (such as the effects of liberalization on investment, technology use and adoption, and, consequently, agricultural growth), and cross-sectoral issues (such as the relationship between exchange rate policies, industrial sector protection, and agricultural policies).

Valdes (1987) summarizes the effects of countries' farm policies on other countries as follows:

"...they depress world prices and thus developing country export revenues; they result in savings in developing countries' import costs; and they induce greater instability in world prices.... They all tend to lower world prices by artificially reducing domestic consumption and raising domestic production. As a consequence, the volume of exports from nonsubsidizing countries is reduced. Price and volume effects together translate into a loss to developing country exporters of foreign exchange and welfare. On the other hand, many developing countries have benefited from trade restrictions on cereals in developed countries as protection has led to lower world prices of their cereal imports."

Ballenger and Mabbs-Zeno (1987) note, that "many LDC's that depend heavily on food imports also have large agricultural sectors that have been adversely affected by low world prices" and that "...persistently low world prices may have harmed LDC agricultural growth rates and made it prohibitively expensive for some countries to obtain politically desirable levels of food self-sufficiency."

Model results suggest that the largest price impacts following liberalization would occur in dairy, sugar, and beef markets. These price effects translate into substantial foreign exchange gains for developing countries, although actual impacts vary considerably by model. Developing countries (classified either regionally or by income group) would not, however, share equally in gains from liberalization. Valdes and Zeitz (who look only at OECD country liberalization) show that middle- and high-income developing countries gain more in export revenues than low-income countries. At the same time, they show the cereal import bill increasing more for low-income countries. Their study also indicates that liberalization of sugar and beef would improve developing country net welfare, while liberalization of wheat and maize would decrease net welfare. These few results indicate that interests of developing countries will diverge according to the commodity being considered.

The actual effect of liberalization on any one LDC depends, in addition to many other factors, on both its own level of protection for agricultural commodities and the extent to which the country participates in policy

reform. For example, when Tyers and Anderson and Parikh and Tims look at global liberalization of cereals, they find no loss of welfare to developing countries, and they also predict losses rather than increases in foreign exchange. This is a result of the positive nominal protection rates for cereals, found in several developing countries.

SPECIAL LDC ISSUES

If developed nations write the trade negotiations agenda and direct the research on economic effects of liberalization, they are likely to underplay several issues that are relevant for LDC's, but considerably less so for developed countries (Mabbs-Zeno and Ballenger, 1988). These include:

- o The need for technological and infrastructural development in agriculture;
- o reliance on food aid;
- o dependence on one or only a few commodities for export earnings and, therefore, vulnerability to world market fluctuations;
- o the need to tax agricultural imports and exports because of insufficient sources of government revenues;
- o the current trend toward unilateral liberalization by LDC's (in response to pressure from international lending agencies) and, consequently, the loss of negotiating 'bargaining chips';
- o the need to redress deeply entrenched dualism in the structure of agriculture;
- o the traditional 'bias' against agriculture because of exchange rate policy and industrial sector protection; and
- o the fact that many LDC's currently tax their agricultural producers (either directly or indirectly), a situation that has been inadequately addressed by current GATT proposals.

Serious consideration given to these issues by researchers may help developing countries formulate their own GATT positions. This consideration may also help developed countries come to a better understanding of LDC issues to draw LDC's into a constructive dialogue of agricultural policy reform.

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RAPPORTEUR'S REPORT

Carl C. Mabbs-Zeno

Discussion of how the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) might affect less-developed countries (LDC's) was structured by introductory remarks from the chair and the rapporteur in which a lengthy list of concerns for LDC's was separated into interests shared with the industrialized market economies (IME's) and those distinctive to LDC's. This separation was justified by our interest in identifying research topics and policies related to LDC's, and the GATT in the context of a research environment dominated by institutions in IME's. The interests shared by some LDC's and IME's tend to be well researched, while providing the ground for coalition and compromise. The interests that affect primarily LDC's, however, will require initiative by researchers, especially those from LDC institutions, if they are to receive full consideration in the current negotiations.

ISSUES RAISED BY THE WORKSHOP GROUP

The workshop group recognized that most of the issues that generated support for the liberalization proposals introduced in the Uruguay Round by IME's are also important to LDC's. The principal exception to this pattern is the problem of accumulating agricultural stocks as a result of government-support programs, an IME problem.

Reduced government subsidization of agriculture would reduce government deficits in LDC's, as well as in IME's. Although LDC's tend to rely less on budgetary supplements than IME's, their much smaller government revenue means relatively small expenditures may rapidly become burdensome. The heavy debt of many LDC's, compared with their gross national product (GNP), introduces further pressure to reduce budgetary deficits. Tariff receipts, on the other hand, from agricultural imports and monetization of contributed or concessionary sales of agricultural commodities may be important fiscal receipts. LDC's can use the multilateral liberalization process of the GATT to improve certain macroeconomic measures, while gaining competitively in relation to IME's.

LDC's, like IME's, would gain from liberalization to the extent that it improves allocative efficiency. The largest gains in efficiency from liberalization would be from the reduction of relative protection in nonagricultural sectors. If the GATT achieved liberalization across sectors (perhaps using agriculture as a starting point for LDC's), substantial static welfare gains would be possible. The distribution of longer run efficiency gains from shifting resources to agriculture or from reallocating agricultural production among LDC's or between IME's and LDC's is less clear.

Trade liberalization would probably stabilize prices in international markets to the benefit of both LDC's and IME's. There would be efficiency gains for all participants from improved effectiveness of planning but some LDC's would particularly benefit. Many LDC's are dependent on one or a few commodities

for export revenue, so risk is not spread across many markets. LDC's trade balance is especially vulnerable to price instability, which is not offset by volume movements.

Improved GATT discipline would benefit both IME's and LDC's by allowing them to anticipate each other's effect on the market. Better discipline would assure that liberalization proceeds multilaterally, providing greater benefits than unilateral liberalization and facilitating the justification of liberalization to the domestic audience.

The effect of trade liberalization on food aid differs for LDC's from IME's. Even though food aid for emergencies may be exempted from liberalization, the reduction in food surpluses associated with reduced subsidies to IME farmers would probably lead to reduced food aid. It is not clear how much the reduction in food aid would raise effective demand on international markets. Its impact in the shorter run depends on the ability of consumers who would have been food aid recipients to pay for food. Probably that effect is small. The immediate impact on consumption may be significant, but a provision exempting emergency aid presumably limits the potential for disaster. In the longer run, reduced food aid or concessional food sales might spur food production in LDC's.

Institutional and infrastructural weaknesses in some LDC's may limit their ability to respond to liberalization compared with IME's. Continued government investment in and support of rural development and agricultural marketing may be necessary to assure growth in the absence of adequate private investment. Recent failures in privatization of marketing boards demonstrated that government institutions may be serving relatively well in some LDC's in providing quality control, trade negotiation, storage, and other marketing functions.

Much of the benefit to LDC's associated with trade liberalization derives from the elimination of policies that effectively tax producers, such as marketing boards with low-producer prices, export taxes, and overvalued exchange rates. This round of GATT negotiation may not include all of these in its definition of liberalization. The proposals tabled in the first 6 months of the Uruguay Round generally regard liberalization as the removal of subsidies, while remaining silent on the subject of producer taxes (or other negative producer subsidy equivalents). Several negotiators have apparently implied that another country's taxes hurt their own competitiveness so they would not be prohibited. The issue does not refer exclusively to LDC's since many IME's have programs that tax producers such as the U.S. dairy assessments, the U.S. loan forfeit benefits in some years, and the Canadian and EC producer levies. The importance of reducing producer taxes is, however, more important to LDC's, where such programs are more common even to the extent of sometimes yielding the net impact of all government policies negative on farmers.

The dualistic structure of agriculture in many LDC's also causes them to evaluate trade liberalization differently than IME's. A common pattern of dualistic agriculture has a commercial export sector, employing relatively little labor, in addition to a subsistence sector. Where trade liberalization favors producers of traded commodities, the inequities of dualistic economies are initially exacerbated. The gains from liberalization must be compared with losses in equity to determine net benefits. A dynamic comparison is needed to fully capture both types of effect.

Implicit throughout the workshop discussion on LDC interests at the GATT was the question of what special and differential treatment might be implied by the differences between LDC's and IME's. Although specific exceptions to the GATT principal of free trade were not defined, a consensus emerged that some exceptions would be needed. No particular exception was likely to be justified for all LDC's. Examples of possible exceptions include delayed implementation of liberalization, maintaining tariffs, and government investment on rural infrastructure. These exceptions for LDC's were not regarded as fundamentally different from the exceptions IME's are likely to seek, including decoupled payments and government spending on research and extension. Each exception is justified on a different basis.

The graduation of countries from LDC to some category of nations not needing exception was regarded as an oversimplification. No single measure, such as per capita GNP, is sufficient to classify all countries according to their need for exception. India, for example, has a relatively well-trained and experienced bureaucracy compared with Nigeria, which has a higher GNP per capita. Brazilian soybean producers need no further protection to be competitive internationally, but Brazilian producers of some other commodities are still unable to create much investable surplus. Each type of exceptional treatment should be extended only to the policies for which it is specifically justified.

POINTS OF CONTENTION AT THE WORKSHOP

Although discussion at the workshop ranged widely across national development issues, the points of contention could generally be traced to two familiar questions: to what extent is there a trade-off between aggregate growth and equity, and do importers gain from trade liberalization in the long run because of improved production efficiency? The paucity of fundamental questions separating workshop participants is a measure of the breadth of their shared discipline, but the frequency with which these points arose and the group's inability to resolve them attests to the weakness of relying exclusively on economic argument in negotiating policy. The answers to both questions probably depend on which country is under consideration so the point is strengthened that each form of exceptional treatment at the GATT should be related to specific qualifying parameters.

TOPICS NEEDING FURTHER RESEARCH

Dialogue at the workshop among researchers and policymakers brought out the importance of more fully communicating the present state of knowledge about levels of government intervention and the effects of liberalization. Considerable work has been completed on these topics but not assimilated by policymakers. With negotiations already underway at the GATT on agricultural policies, dissemination of existing research results should take a high priority. Need for new research was recognized in three areas: quantitative modeling of global liberalization, clarifying appropriate special and differential treatment within the GATT, and political economy of trade liberalization.

Future models of trade liberalization will need to address issues that have attracted little attention thus far. Tradeoffs with nonagricultural sectors need to be included since the shift in input use might be significant and

because liberalization of nonagricultural trade is also at issue. Tropical products are particularly important to LDC's. Within the GATT, tropical products are considered in a separate negotiating group from the one termed agricultural products, even though commodities in both categories are often substitutes from a production viewpoint.

Existing models of trade liberalization usually provide little detail on LDC effects. The models are not generally concerned with effects on LDC's because they were produced by IME institutions, data are poorer, and most LDC's trade only small volumes internationally. Even IME's would benefit from better modeling of LDC's because effects in LDC's must be known in order to justify their support for IME proposals at the GATT and because some LDC's are now important international traders. Additional country and commodity coverage added to present models would lessen present shortcomings. Specific LDC concerns that models might address include the effects of investment changes generated by policy changes associated with liberalization. Investigating investment would require dynamic models generally dissimilar in structure to most of the models now used to analyze the GATT proposals. Various forms of partial liberalization should be modeled to represent the transition to proposed lower levels of government participation and to represent different levels for government participation in these LDC's offered special treatment by the GATT.

Present proposals at the GATT are conspicuous for their lack of detail on special and differential treatment. Researchers must anticipate feasible forms of exceptional treatment and begin analysis immediately if they are to provide assistance on this topic during the Uruguay Round. Noteworthy issues include how to sequence policy changes in LDC's and what LDC's would benefit from particular policy exceptions.

Questions of political economy pervade the analysis of liberalization in LDC's. The diversity of economies and cultures among LDC's greatly limits our ability to model them as a group or in a standard format. A set of case studies was suggested at the workshop to reveal the likely response in specific countries to a decision to reduce government participation in agriculture. What factions would support liberalization? How influential are various factions? Which policy changes would be made to achieve a specific measured reduction in government activity?

Because of pressures from external debt, several LDC's have already accomplished various levels of liberalization, including trade reform. Do these efforts represent a special topic for research, and do they deserve some form of "credit" in the GATT negotiations?

CONCLUDING REMARKS

Tim Josling

It is said that you can train a parrot to be an economist by teaching it to say the words "supply" and "demand." At the risk of sounding like a parrot, let me use the time-honored dichotomy of market forces to reflect on the day's proceedings.

For the first time in my professional life there appears to be a real demand for the output of research on the issue of agricultural policy reform in the context of the Uruguay Round. Sensible policy research is always welcomed by those struggling with difficult issues, and agricultural policy papers abound whenever a farm bill is debated. But on this occasion, policymakers have set out boldly into uncharted waters and are asking mapmakers for some help. Whether the policy fleet makes the voyage successfully or ends up on a reef may depend in part upon our analytical skills.

This demand is coming from the U.S. Trade Representative in the form of requests for ideas as to how to negotiate and implement an across-the-board trade liberalization agreement. Previous negotiations have been either based on ad hoc requests and offers or on discussions of rules. The opportunity to deal with domestic policies in trade talks puts a premium on being able to compare such policies across countries. Once such an aggregate measure of comparison is agreed upon, the prospect of across-the-board negotiations is opened. Whether and how this can be done is an active research issue.

Congress and special interest groups (it is easy to think of the two in the same phrase) also have an interest in this process, in part because it poses a challenge to existing policy mechanisms. International discussions of national policy have never before had any particular impact on domestic decisions. If the GATT round were to reach any meaningful agreement limiting domestic policy, then the implications for domestic politicians and interest groups could be profound. But, apart from this implied threat, there is also a genuine interest in the possibility of designing domestic policies that don't have adverse consequences for trade--and if adopting such policies at home is a prerequisite for having other countries follow suit, then the "game may be worth the gamble."

Finally, international organizations are beginning to take an interest in the Uruguay Round, and its agricultural component. The impact on the developing countries could be far-reaching, both for those that are or will become GATT members and those that will be affected by market price developments. The World Bank and the International Monetary Fund (IMF) have preached domestic policy change in developing countries, but generally ignored developed country farm and trade policies. As the debate on policy reform proceeds, the unity of the world's trading system will become more apparent. The demand is there for research on the impact of proposed policy changes on the way in which world markets perform.

To meet this demand, analysts must get specific. General articles on broad policy types or issues are less useful. Though policy detail is complex, the issues can often be condensed to a few critical situations. As an example,

take the question of "credit" for supply control in a negotiation on support levels. The broad issue could be debated forever, but the actual question can be reduced to the treatment of U.S. cereals policy or EC dairy and sugar regimes. At this level, the analyst may be able to make a reasonably useful contribution.

The supply of research services in the area of agricultural policy reform (within the United States) comes largely from the Economic Research Service (ERS), and public and private universities. As an outsider, I have the impression that there is a considerable amount of well-focused research in ERS on domestic and overseas policy issues in connection with the trade talks and with domestic policy reform. Even if the Uruguay Round were to fizzle out, the information generated on overseas policy would have an impact on future decisions. And, if the round were to make progress, the empirical work would be invaluable for U.S. negotiators and others engaged in the policy reform process. Public and private universities seem to be placing on emphasis on trade issues in general and contributing to research on the Uruguay Round.

Much of this has been stimulated through organizations such as Resources for the Future that can stimulate interchange between university researchers and officials. In this connection, the International Agricultural Trade Research Consortium (IATRC) started to promote research and exchange information on agricultural trade issues 8 years ago, and this has proven to be a flexible and constructive way of promoting coordination in research. The market works if demanders and suppliers know of each others' existence. The IATRC has been particularly successful in this.

Academics are notoriously bad at presenting results in a way that is useful to others. If the demand for research in policy and trade reform is to be satisfied, we need to improve the presentation of results to the nonspecialist, distribute the results more widely, and be prepared to enter into public debate on current issues. When the role of the economist is mainly as a critic of government policies, a low profile is understandable. If I am correct that we are being asked for our advice on policy reform, it would be a pity to miss the boat for lack of involvement.

The market for policy-reform research will work only if the price is right. Sometimes the payment is tied up in institutional transfers designed to divert resources away from other tasks. Other times, the payment may be made more directly to those involved, on a consulting basis. But if the issue is important, it should be reflected in spending priorities of the "demanding" agencies and groups. Many of us received a letter recently from a western grain marketing agency posing a number of substantial research issues to do with agricultural trade. The letter ended up by asking the recipients to devote some of their own available resources to these issues. If there is widespread feeling that researchers spend their time idly waiting for someone to pose a research question, when the market may fail.

Among the commodities that are being demanded at present seems to me to be the following: (1) a quantitative indication of the effect of various actual and potential policies on output and hence trade; (2) a practical exploration of the mechanics of decoupling income support from output, targeting income support to particular groups, and recoupling domestic incentives with world market conditions; (3) ideas for the negotiation of agricultural trade agreements and rules that will reinforce and support domestic reform; and (4) an understanding of the political economy of such reform processes, both at home and abroad. This is an ambitious agenda, but if the demand is really there, we should step up the production line and try to meet it.

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