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AGRICULTURE AND THE URUGUAY ROUND*

by

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General Agreement on Tariffs and Trade**

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I. Introduction

The goal of this paper is to discuss: (1) the scope that exists for an agreement on agriculture to be reached in the Uruguay Round; and (2) the merits of alternative negotiation procedures and possible agreements. The premise of the paper is that it may be most fruitful if negotiations focus on achieving agreement on specific rules regarding intervention in agriculture rather than specific reductions in the levels of agricultural support. In particular, it is argued that attempts should be made to negotiate a framework agreement that will lead to an equivalent set of rules applying to both agricultural and manufactured goods. The plan of the paper is as follows. Section II briefly summarizes the costs and benefits of government intervention in agriculture and the probable effects of a reduction of support levels. Section III focuses on negotiation positions taken by the major players in the Uruguay Round and analyzes the scope that exists for an agreement to be reached. In Section IV alternative approaches to negotiations are discussed, and Section V contains the conclusions.

II. Intervention in Agriculture: Background

Why do governments intervene in agriculture? Fitchett (1987) has distinguished five objectives that generally are pursued by governments: (1) stabilize and increase farm incomes; (2) ensure sufficient food supplies at stable prices (food security); (3) improve external balances; (4) support the development of other sectors of the economy; and (5) increase agricultural productivity. Attainment of all these objectives at once usually will be impossible as some of them are mutually inconsistent, and there is always a budget constraint to be taken into account. Note that these reasons are primarily economic. Even so, they make clear that governments are not interested solely in maximizing agricultural output through an efficient allocation of resources. Of course, one can argue that a government's reasons for (continued) agricultural intervention in large part must be *noneconomic*. Thus, for example, in Japan the political influence of the agricultural sector is substantial, and in general farmers exercise considerable political power.

It should be stressed that in many nations farm policies have been successful in terms of attaining objectives (2), (3), and (5). Indeed, their success has been the source of current difficulties in that the resulting increases in productivity and total output have led to excess supply. One should also note that agricultural policies apparently have not had a significant effect in stemming the steady decline of agricultural employment in industrialized nations. Farm employment in the European Community (EC), Canada, Japan, and the United States was reduced by 50% between 1960 and 1980 (World Bank, 1986). In large part this was due to productivity increases and the process of economic development,¹ but it is also a reflection of the fact that protection has had little effect on (real) farm incomes. Instead, it appears that the main beneficiaries of support policies are initial landowners.²

In general, government intervention can be divided into border and nonborder measures (NBMs). In agriculture both types of measures are prevalent, as NBMs often require border measures and vice versa. Thus, price support systems require import controls to be effective, whereas import barriers may require the use of input subsidies. Often, the goal of government intervention is to insulate the domestic economy, not just to support farm incomes. The major example here is the EC, whose policies stabilize domestic prices absolutely. As a consequence, instability on world markets is increased, since external supply and demand shocks have little or no effect on domestic output and consumption. Recently, excess supply has been the problem on world markets, as both the United States and the EC have followed policies of "dumping" surplus stocks on world

¹It is noteworthy that the increase of labor productivity in agriculture has exceeded that in manufacturing since the mid-1960s. See Stern and Hoekman (1987) for a discussion of how labor shifts into manufacturing and services as development proceeds.

²The main effect of support policies is to increase land and rental values, given that land is the only factor of production that is in fixed supply. Empirically, rates of return to all factors are determined in the economy as a whole, and thus the return to factors employed in agriculture tends to be independent of agricultural policies. Of course, this does not mean that farmers have no interest in maintaining the policies. Without them many would be forced out of business, as entry, borrowing, and production decisions have been taken on the basis of the existence of these policies.

markets. Insulation of domestic markets implies that adjustment in domestic output may not occur or be perverse, so that distortions on world markets tend to persist.³

Tables 1 and 2 report some of the estimates that have been made of nominal rates of protection and producer subsidy equivalents (PSEs) in agriculture.⁴ No matter what measure is chosen, we see that the same qualitative results are obtained. Dairy, sugar, and meat are among the most heavily affected agricultural commodities, while coarse grains are the least supported. Average protection for rice is very high due to the influence of extensive protection in Japan. With the exception of Japan, it appears that grains are not highly protected in OECD nations. Japan and nonEC European countries such as Austria and Switzerland are the greatest intervenors in agriculture, followed by the EC.

Measuring the effects of existing agricultural policies and their reduction or elimination is difficult for any country, and comparing measures across countries is even more difficult. Nevertheless, many noteworthy attempts have been made. Generally, the efficiency (or real income) losses to the intervening economy of supporting agricultural production are substantial. Table 3 reports some estimates for the EC, Japan, and the United States. Total domestic costs are the highest for the EC, while the transfer ratio is the highest for Japan. The latter is a measure of the cost per unit of producer benefit, that is, a cost-benefit ratio.

Agricultural policies affect world markets in two ways: (1) by limiting access to domestic markets directly; and (2) by encouraging domestic production and thus limiting market access for foreign producers indirectly. If domestic production becomes sufficiently large, export subsidization may be required, and this will have effects in third markets. The main result of agricultural support policies is that world prices tend to be lower than

³Of course, given relatively stable climatic conditions.

⁴The nominal rate of protection can be defined as the difference between border and domestic producer prices; the PSE measures the subsidy to farmers implied by existing border and nonborder support.

they otherwise would be. Importers gain in those cases where commodities are traded at prices that are below equilibrium ("free trade") prices. This occurs for those products that are in excess supply and/or for those which are subject to export subsidies. In this case consumers and taxpayers in the country of origin not only support their farmers, but also foreign consumption. While many importing nations are developing countries, large importers include the USSR, a situation that is often remarked upon. Competing exporters lose from existing policies as they may not be able to meet the subsidized price and thus are confronted with declining market shares. Few of these countries can afford to implement support policies in an effort to retain traditional market shares, as the cost of this can be enormous.

Most, if not all, studies of the effects of reducing agricultural support conclude that world prices will increase. Thus, Valdés and Zietz (1980) concluded that a 50% tariff reduction by OECD nations would increase agricultural prices and raise the export revenues of the developing countries considered by 11%. Exports of meat and sugar would increase substantially and contribute a large share of this increase in revenues. In a follow-up paper, Zietz and Valdés (1986) investigated the effect of total elimination of OECD-country policies. They found that exports from developing countries would grow significantly.

These findings do not mean that all developing countries will gain, as the adverse shift in the terms-of-trade for net importers may imply a reduction in welfare after liberalization. This is due in large part to the expected increase in cereals prices. The implication of the Valdés/Zietz studies is that those developing countries that are not exporters of sugar or meat and are substantial net importers of grains will lose from OECD liberalization. Gains for developing countries will be distributed more broadly the greater is the commodity coverage of any liberalization. If products such as tobacco, coffee, and cocoa are included, the number of developing countries that gain should

increase.⁵ Also, if developing countries follow an OECD liberalization, any negative effects may be reduced. Tyers and Anderson, as reported in World Bank (1986), concluded that unilateral liberalization by either industrialized or developing countries will lead to great gains for the initiating bloc, but to losses for the other group. Multilateral liberalization, however, leads to gains for both groups. Thus, as can be seen from Table 4, to maximize gains (minimize losses) it appears crucial that developing countries follow an OECD liberalization.⁶

The picture that emerges from the liberalization studies is relatively clear. Given the massive tax on consumers that is implied by existing agricultural policies, liberalization must lead to net gains for the OECD nations. Exporters that have comparative advantage in agricultural production will see their exports increase and terms of trade improve. There will be a general increase in the prices for most commodities on world markets. While farmers in protected economies will lose, they can be compensated in principle. From a normative perspective the situation appears to be straightforward: liberalization can potentially benefit all parties concerned. The only exception could be those nations that import most of their food and will continue to do so after liberalization. Of course, this does not mean that most countries favor agricultural liberalization. The next section focuses on the negotiating positions of the major players.

III. The Scope for Agreement in the Uruguay Round

The Uruguay Round Ministerial Declaration states that

“Contracting Parties agree that there is an urgent need to bring more discipline and predictability to world agricultural trade by correcting and preventing restrictions and distortions including those related to structural surpluses so as to reduce the uncertainty, imbalances, and instability in world agricultural markets.

⁵See also Valdés (1987) on this.

⁶In principle one needs to investigate the effect of liberalization using general equilibrium techniques (models) as this provides information on economy-wide impacts. The qualitative effects remain the same, however. See, for example, Deardorff and Stern (1988) for a comprehensive simulation of agricultural and other forms of liberalization.

Negotiations shall aim to achieve greater liberalization of trade in agriculture and bring all measures affecting import access and export competition under strengthened and more operationally effective GATT rules and disciplines, taking into account the general principles governing the negotiations.”⁷

This is to be achieved by: (1) reducing import barriers; (2) “increasing disciplines on the use of all direct and indirect subsidies and other measures affecting agricultural trade,”⁸ both directly or indirectly; and (3) reducing the trade impeding effect of health and safety standards and technical regulations.

The Uruguay Round Declaration differs substantially from previous ones as far as agriculture is concerned. For one thing it is much longer and more comprehensive than earlier ones, reflecting the emerging consensus among major producers that something must be done about agriculture. The declaration breaks new ground in that: (1) *all* policies affecting agricultural trade are on the table, including domestic and export subsidies; and (2) the “special status” of agriculture is not mentioned explicitly.⁹ However, in the meetings of the negotiating group a distinction quickly emerged between those nations that preferred a commodity- (sector-) specific approach and those that preferred a general one encompassing the agricultural sector as a whole. Thus, the EC reportedly tabled a 75-page analysis of the problems (and their causes) affecting agricultural trade on a sector-by-sector basis, arguing that the situation differed so much by sector that a general approach would be unproductive.¹⁰ Other nations, including Japan, emphasized the need for agriculture to be considered a special sector. Japan put particular emphasis on the need to recognize specific aspects of farming such as food security, geographical and climatic

⁷GATT (1986, p. 11).

⁸Ibid, p. 12.

⁹This contrasts with the Kennedy and Tokyo Round Declarations, which emphasized the status of agriculture as a special (unique) sector and were oriented towards commodity-specific agreements. Although the elements that were important in previous negotiations do appear again in the Uruguay Round declaration, witness the language on stabilization and market access: no mention is made of specific commodities.

¹⁰Samuels (1987).

disadvantages, and wide dispersion in farm sizes between countries. The United States and the Cairns Group of exporters¹¹ emphasized the need to eliminate the trade-distorting government intervention in agricultural production and consumption, and opposed a continuation of the special treatment accorded to this sector in the GATT.

As was widely reported in the press, the United States has proposed that nations agree to eliminate all agricultural support programs within a ten-year period. The U.S. proposal has three elements: (1) a ten-year phaseout of all agricultural subsidies, including export subsidies; (2) a ten-year phaseout of import barriers against agricultural trade; and (3) the harmonization of health and sanitary regulations for agricultural products.¹² The Cairns Group has submitted a proposal that closely resembles the one made by the United States as far as long run goals are concerned. The aim is to attain free trade in agricultural commodities, to eliminate production distortions, and to bind undertakings to this effect.¹³ It is more realistic than the U.S. proposal, however, in that it states that the aim of an agreement is "... to provide the *means* to achieve fully liberalized trade in agriculture."¹⁴ Thus, while a ten-year period is again suggested in which to implement a reform program leading to a long-term framework to govern world trade in agriculture, it is not envisaged that free trade will be realized within ten years.

The EC has proposed that a three stage negotiation process be followed. The first is

¹¹The Cairns Group is a coalition of agricultural producers. It includes Argentina, Australia, Brazil, Canada, Chile, Colombia, Hungary, Indonesia, Malaysia, New Zealand, the Philippines, Thailand, and Uruguay.

¹²USTR (1987).

¹³Cairns Group (1987).

¹⁴Ibid. p. 1. Emphasis added. Priority is to be given to phasing out export and production subsidies and measures to increase market access. In contrast to the United States, the Cairns Group puts emphasis on the need to agree on and implement early relief measures as soon as a long-term framework has been negotiated, or by the end of 1988, whichever is sooner. Relief is to consist of a freeze on existing market access, subsidies, and technical regulations; a commitment to dispose of stocks responsibly; and an across the board reduction of all export and production subsidies. However a precondition for this is that a long-term framework to reduce agricultural support is agreed upon first.

to consist of emergency measures for certain sectors, including cereals, sugar, and dairy products. Only in the second phase will liberalization of trade and a reduction of support policies be possible. Even then the goal will not be free trade, but achieving stability and equilibrium in world agricultural markets. The third stage is to consist of a bid-offer process for specific products along the lines of previous rounds. It is argued that stabilization of world markets will lower the need for, and the cost of, support measures. Savings obtained could then be used to give farmers more income support in compensation for the reduction in production supports that are required to stabilize world markets. The Community emphasizes that liberalization of trade will only be possible after the structural disequilibria on world markets are removed.¹⁵

Japan's position on agriculture is that in general market forces should determine production and trade. However, this is qualified by pointing out that certain social and other considerations may require government intervention.¹⁶ Japan would support an agreement that bans all export subsidies, and it follows the Cairns Group in calling for a freeze on export subsidy expenditures as a short run step, to be followed by a gradual phase-out. However, it is proposed to allow *domestic* subsidies to be used under certain conditions, although possible trade-distorting effects of domestic subsidies need to be addressed. The need to maintain a minimum (unspecified) level of self-sufficiency for national security reasons is the major motivation behind this stance.¹⁷

¹⁵It is argued that these disequilibria are caused in part by the current pattern of protection. For example, it is observed that the current zero (or low) tariff binding on oilseeds has led to severe "distortions" in the EC market. Therefore, the proposal is made that negotiations also aim to "rebalance" agricultural protection so that it becomes more uniform.

¹⁶"Japan cool on plan to reform farm trade," *Financial Times*, January 5, 1988, p. 4.

¹⁷The position of the net food importing nations (LDCs) will not be discussed as they are not really involved in the negotiations. However, they obviously will be affected by any substantial change in the status quo. As noted above, to minimize any adverse effects, there is a need for these countries to alter their own policies in response to any change agreed upon in the Uruguay Round by the major producers and exporters of agricultural products.

This brief discussion should make clear that the United States and the Cairns Group maintain positions that are far from those of the EC and Japan. The Community prefers a commodity-specific approach, as opposed to the United States and the Cairns Group. Not only are the short run "emergency" measures to be sector-specific, but the long run stabilization goal of the EC also implies a sector-specific approach. The Community states this explicitly, proposing that a reduction in production incentives be negotiated for wheat, rice, sugar, oilseeds, dairy, and beef.¹⁸ The United States and the Cairns Group both desire increased market access for their products, which runs counter to the Japanese insistence that some level of self sufficiency be maintained. These differences reflect in part opposing goals: the Community's primary desire is to stabilize markets, while the United States prefers to let prices be freely determined on world markets. The wide disparity in positions has led to heated discussions and some acrimony. The United States and the Cairns Group rejected Community proposals for "emergency" action for specific "crisis" commodities,¹⁹ stating that such measures would only be agreed upon after the Community makes a commitment to a reduce agricultural support and has agreed to a long term framework for the gradual dismantling of support systems.²⁰

Given the controversy, it is unclear what scope exists for an agreement to be reached. It is important to note that *all* participants agree that something must be done to reduce output in nations where excess supply has resulted from agricultural support programs. Indeed, the EC has been forced to begin to reduce its support levels unilaterally

¹⁸This reflects the long-run goal to balance supply and demand and to maintain stable domestic prices, not to liberalize trade.

¹⁹*Financial Times*, February 24, 1988, p. 5.

²⁰The rejection of the Community proposals on emergency measures for cereals and sugar led to an angry EC reaction. It restated that a 100% long-run phaseout of agricultural support was impossible. As stated by Peter Pooley, the EC deputy Director-General for agriculture, "we want to spend less and spend more effectively, but we will still be considerable subsidisers" (*Financial Times*, January 22, 1988, p. 4). The Community had proposed to agree on prices and quantities (market shares) for wheat and coarse grains), and to have major suppliers of sugar agree to reduce their exports by some percentage of previous supplies.

as the costs of its policies finally threatened to become unupportable. However, goals vary substantially across participants. The negotiating problem is, of course, to devise possible solutions that all can accept. Various possibilities are discussed in the next section.

IV. Possible Procedures and Agreements

The question is to determine what *feasible* agreement is the best. Closely related to this is the question of the best negotiating procedure. As a result of substantial preparatory work in the GATT and the OECD, the producer subsidy equivalent (PSE) has come to play an important role in agricultural discussions. The PSE can be used as a measure of support and/or as a negotiating instrument. While most nations may be willing to accept the PSE as a measuring rod, there appears to be more disagreement regarding the use of the PSE as a negotiating tool. The United States in particular has proposed that PSEs be used as a negotiating tool. The approach usually suggested is to bind PSEs by commodity and/or for agriculture as a whole. Over time these bound levels are to be reduced.²¹

In principle, the PSE approach allows nations some flexibility as to which of their policies they will alter, the only binding constraint being the level of the PSE that has been agreed upon. If this approach is followed, it is necessary to decide whether to stay with a commodity-specific approach or to augment the agreement with bindings on average PSEs for the whole agricultural sector. Furthermore, it will be necessary to decide on how to treat fluctuations in world prices and exchange rates, how to take into account the higher effective rates of protection on products such as livestock and dairy, and how to take into account policies that act to reduce supply.²² Finally, the question should be addressed

²¹There is a lot of similarity between the PSE and the "montant de soutien" concept which was introduced by the European Community during the Kennedy Round (see Evans, 1972). Neither the concept nor the idea of binding PSEs is new.

²²The lower the world price, the greater the measure of support will be. As prices are

how to interpret PSEs in those cases where import penetration is high and/or there is not much difference between domestic and world prices. The potential problem in this case is that the PSE may include policies that have little or no effect on trade. In general, there is a need to exclude policies that are trade-neutral.

The use of the PSE as a negotiating instrument appears quite attractive. Agriculture is supported in a plethora of ways and the PSE seems to allow negotiators to avoid discussions about specific policies. However, it can be inferred from the last comments made in the previous paragraph that it is unlikely that discussions of specific agricultural policies can be avoided. The effect of different policies on trade differ substantially, and in practice it will have to be decided which policies are to be covered and which not. Thus, the apparent simplicity of the PSE approach is misleading. Whether the approach turns out to be feasible in terms of nations accepting bindings and/or reductions is unclear at this point. However, complete phaseout of support is politically impossible in the short or medium run. The question then is whether the PSE approach is the best, *given* the constraint that governments will wish to continue to intervene. I will return to this question after discussing an alternative approach. This can be termed the policy specific approach, where the focus is on altering or eliminating specific policies. Depending on the policies that are targetted, different negotiating approaches may be taken.

One alternative would be to focus only on those policies that *directly* affect world markets and trade. The most obvious one is export subsidization, and one possibility would be for Contracting Parties to agree to a phaseout and eventual ban of export subsidies for primary products.²³ The goal could be to have identical rules for

often denominated on U.S. dollars, support measures will also be sensitive to movements of exchange rates. The PSE may not take into account taxes/subsidies on intermediate inputs and thus may overestimate the level of support for commodities which are forced to use artificially expensive inputs. Existing policies that act to reduce excess supply cannot be taken into account in the PSE, and some countries have argued that a procedure must be found to credit those nations that take measures to reduce agricultural output.

²³This was proposed by the United States during the Kennedy Round (Evans, 1972).

manufactured and agricultural trade. An immediate problem that arises is what to do with surplus production if the domestic producer price is above the world price. It is likely that elimination of export subsidies will be feasible only if domestic supply does not exceed domestic demand in those countries where support policies imply that producers cannot meet the world price. To avoid continuous stockpiling, the implication of banning export subsidies is that explicit price supports (intervention prices) will have to be lowered if there exists excess supply. If no excess supply exists, domestic prices will be determined by the import barriers that are in force. However, if there is excess supply, domestic prices will have to fall below what is implied by import barriers. Nevertheless, even if this occurs, existing trade restrictions will still protect domestic farmers.

In the long run, banning of export subsidies should lead to a reduction in supply in countries where agriculture is heavily supported and thus eliminate the need for stockpiling. In the short run there is a need to agree also on what to do with existing stocks, assuming the 1988 drought in the United States does not solve the problem. The point to be made is that a simple ban on export subsidies should benefit most parties, domestic farmers excluded. However, the latter can be compensated through income support, preferably financed through a general tax. An alternative would be to utilize tariff revenues for this purpose. The latter procedure could create rent-seeking incentives, however. While any reduction/elimination of export subsidies will have implications for domestic price support programs if these have led to excess supply, this is not qualitatively different from the situations that can arise when agreeing on rules on trade in manufactured goods. Nevertheless, a political (or negotiation) problem may arise, as the burden of altering the status quo falls on those countries whose policies have induced excess production of commodities at prices that are not competitive on world markets. While it is in these countries own interest to alter their policies, it is likely that they will want to receive negotiating credit or a quid pro quo in return.²⁴

²⁴An alternative to banning export subsidies outright is to require that they be financed by

A complementary or alternative procedure to banning (phasing out) export subsidies is to focus on explicit production subsidies. The goal would be to phase out these subsidies, possibly converting them to income support. Given that production subsidies imply budgetary expenditures, in principle there should be few implications for government budgets from such a move. It is important to note that the production subsidy issue goes beyond agriculture, as it is also an (increasingly important) issue for manufactured products. There is a separate Negotiating Group in the Uruguay Round for subsidies and countervailing duties which presumably will (and should) address the general question of what rules could be applied. As far as the Group on Agriculture is concerned, the goal could simply be to agree that agriculture be treated equivalently to manufactures.

Banning of production subsidies may not have a substantial immediate impact in terms of reducing distortions in world agricultural trade as long as import barriers remain in effect (and can be raised). Nevertheless, establishing equivalent disciplines for manufactures and agriculture arguably would constitute an important improvement. Of course, it is by no means clear that this is feasible. A problem that pertains especially to agriculture is that production subsidies may be used primarily to encourage production and not to support incomes.²⁵ If income support is the rationale, reduction in production support should be possible. However, if domestic supply is less than domestic demand, reducing intervention prices and compensating through income support will imply increased budget expenditures. This means that costs will be distributed from consumers towards taxpayers. While in principle this should not be a problem, it will make protection much more visible, and thus is likely to be opposed by farmers.

producers. One way to attain this is to tax production and use the proceeds to subsidize exports. This will reduce the net price received by producers and thus should reduce output and excess supply. This procedure has been proposed by the GATT Committee on Agriculture (Valdés, 1987). In principle the tax could be such as to eliminate excess supply, but this does not appear to be the intention.

²⁵The same may apply to those industrial sectors that are considered to be "strategic," because of the existence of positive (local) externalities, for example.

More problems arise if self-sufficiency is the goal. Countries desiring to maintain a (minimum) level of self-sufficiency in food may be opposed to any measures that reduce their domestic production of "key" commodities. Thus, while they may approve of a ban on export subsidies, they are likely to oppose any proposals to substantially reduce production supports for these commodities. Arguments that food security should be equated to self-sufficiency are disregarded. For those nations that are truly risk averse, self-sufficiency is considered to be equivalent to national security. They can argue that no nation can *guarantee* another that agricultural supplies will always be reliable. In the context of the Uruguay Round, it appears that the acceptability of such a position is minimal to most parties.

A third alternative policy-specific procedure would be to agree on a general reduction in specific import barriers such as tariffs or nontariff measures. Note that for nations using variable levies, this will be equivalent to a reduction in intervention (support) prices. To a large extent production support and import protection are closely related, as a reduction in one may have implications for the other. In general, reduction of import barriers by way of a policy-specific approach is not a very good procedure, given the large number of trade-impeding measures that exist. The PSE-approach is clearly to be preferred if it is desired to reduce the level of import protection.

Both the PSE reduction approach and the policy-specific approaches noted above have as a goal increasing the role of market signals in agriculture (decreasing the influence of government policies on output decisions). An alternative goal could be to attempt to agree on market sharing arrangements by commodity. As already noted, apparently this is what is preferred by the EC. Countries could negotiate market shares procedures to reduce the output of commodities in excess supply, dispose of surplus stocks, and stabilize world prices. A wedge between domestic and world prices could be maintained, with adjustments being made through quantities rather than prices. This requires a commodity-specific approach, of course. In large part these types of arrangements were

the object of negotiations in past GATT rounds. The failure to reach commodity agreements both within and outside the GATT framework does not bode well for this approach, but it is a distinct alternative to the other approaches.

As noted above, the question is what negotiating procedure is best given the constraint that nations have different preferences with respect to agriculture. All nations recognize that excess supply is a major problem that is disrupting international trade relations. This recognition is what allowed the negotiations to begin in the first place and appears to be one of the few things on which all players agree. The fact that major players have divergent goals and preferences is important, however, as it may lead one to doubt that the PSE-approach is the best negotiating procedure possible. Assuming a need for continued agricultural intervention, the apparent advantage of the PSE-approach is that it allows nations to decide how to attain PSE levels to which they have committed themselves. However, one can have doubts as to the credibility of any undertaking to reduce support to a specific level (but substantially greater than zero) in the absence of commitments regarding the use of certain policies. Also, use of the PSE-approach will require detailed discussions about definitions and adjustments for measures taken to reduce output. Most importantly, the PSE-approach would imply that different rules would continue to apply to agricultural as opposed to manufactured goods. The major advantage of the policy-specific approach is that it could lead to the abolishment of the special status that has been accorded to agriculture in the past. It can be argued that this would be a major step forward. Indeed, it may be a necessary condition for future reductions in levels of support. A policy-specific approach is much simpler conceptually than the PSE-approach. It may be more acceptable to nations which do not desire far-reaching reductions in the degree to which their agricultural sectors may be protected, but realize that measures must be taken to reduce the extent to which domestic policies impact on world markets.

It should be emphasized that the doubts raised here regarding the usefulness of the

PSE-approach are specific to agricultural negotiations in the Uruguay Round. In the long run, using a PSE-type approach is probably the best, and perhaps only, way to continue liberalizing trade in general. This is because tariff barriers have largely been negotiated towards zero, leaving nontariff measures as the major barriers against trade. Given the plethora of nontariff measures that exist or can be created, a policy-specific approach is unlikely to be very productive. To negotiate effectively downward the level of protection implied by these nontariff measures appears to require that they all be converted into PSEs or something analogous. In the short run, however, and specifically in the context of agricultural negotiations, arguably it is better to aim for an agreement that agriculture be subject to equivalent rules as pertain to manufactures. This will imply an eventual ban on export subsidies, and uniform rules on production subsidies. As noted above, the production subsidy question is a general one, in that it pertains to all sectors of activity, not just agriculture. Once it has been agreed that uniform rules will apply to *all* tangible products, it will be possible for future discussions to focus on improving the *general* rules that apply to trade in any kind of product.

V. Conclusions

Summarizing, it appears that there certainly is scope for an agreement on agriculture to emerge in the Uruguay Round, given a common perception that excess supply is a problem. The question is whether the PSE-approach is the best one in the context of the agricultural negotiations. It was argued that a policy-specific approach may be more fruitful in the short run. The PSE-approach is arguably a good procedure to use *if* barriers to trade are desired to be negotiated downward (toward zero). Indeed, it is applicable to all products, not just agricultural ones. However, not all countries desire a substantial reduction in agricultural support. In conjunction with the apparent agreement that "something needs to be done," a policy-specific agreement might be the best one can hope for. Concretely, negotiators could attempt to (re-) integrate agriculture into the GATT. Thus, attempts could be made to agree to apply identical rules to agricultural and

manufactured products. This will imply a ban on export subsidies and equivalent disciplines on production subsidies for agricultural and manufactured products. Explicit reduction of support levels (including production subsidies) may then be left for subsequent negotiations.

Table 1
Nominal Rates of Protection in Agriculture, 1980-82

Country Region	Commodity							Weighted Average
	Wheat	Coarse Grains	Rice	Beef, Lamb	Pork, Poultry	Dairy	Sugar	
Australia	1.04	1.00	1.15	1.00	1.00	1.30	1.00	1.04
Canada	1.15	1.00	1.00	1.00	1.10	1.95	1.30	1.17
EC-9	1.25	1.40	1.40	1.90	1.25	1.75	1.50	1.54
Other Europe	1.70	1.45	1.00	2.10	1.35	2.40	1.80	1.84
Japan	3.80	4.30	3.30	4.00	1.50	2.90	3.00	2.44
New Zealand	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
U.S.	1.15	1.00	1.30	1.00	1.00	2.00	1.40	1.16
Weighted average	1.19	1.11	2.49	1.47	1.17	1.88	1.49	1.40

Notes:

Nominal rates of protection are defined as the ratio of domestic to border (world) prices. EC-9 does not include Spain, Portugal, and Greece. Other Europe includes Austria, Finland, Norway, Sweden, and Switzerland. Weights are values of production at border prices.

Source: World Bank (1986).

Table 2
Net Percentage PSEs by country and commodity, 1979-81

Commodity	Australia	Austria	Canada	EEC-10	Japan	New Zealand	United States	Weighted Average
Wheat	7.3	22.1	14.8	27.9	95.7	-0.3	14.3	21.3
Coarse Grains	5.8	20.6	15.4	23.6	95.9	10.5	9.3	15.1
Rice	15.9	n.a.	n.a.	14.6	70.8	n.a.	6.8	63.1
Soybeans	n.a.	n.a.	n.a.	43.1	81.6	n.a.	6.4	7.8
Other Oilseeds	4.2	n.a.	15.3	40.0	n.a.	n.a.	n.a.	27.5
Sugar	-1.4	40.3	14.5	33.9	46.4	n.a.	15.4	27.7
Milk	33.4	65.6	73.7	66.7	78.8	20.0	55.2	63.3
Beef, Veal	74.8	36.8	10.8	41.9	53.4	12.7	8.8	25.5
Pork	5.4	26.1	8.0	6.8	22.3	31.8	5.4	8.6
Poultry	5.8	15.6	28.5	23.5	18.6	42.8	5.1	15.5
Sheepmeat	6.7	n.a.	n.a.	54.8	n.a.	20.0	7.1	39.9
Wool	6.7	n.a.	n.a.	n.a.	n.a.	17.6	41.0	11.2
Eggs	27.1	19.4	25.6	19.6	19.7	16.8	5.3	16.0
Crops	5.5	23.3	15.0	27.1	70.9	6.0	9.6	24.8
Other	15.9	41.6	30.8	40.6	40.0	18.6	20.5	32.4
All Products	11.4	36.3	23.6	37.1	57.3	18.1	15.7	29.5

Source: OECD (1987).

Table 3

**Annual Domestic Costs of Support Policies
(US \$ billion)**

Country	Year	Consumer Cost	Taxpayer Cost	Producer Benefit	Total Domestic Cost	Transfer Ratio
EC	1980	34.6	11.5	30.7	15.4	1.50
Japan	1976	7.1	-0.4	2.6	4.1	2.58
U.S.	1985	5.7	10.3	11.6	4.4	1.38

Source: Johnson et al. (1985).

Table 4

**Gains from Liberalization of Support Policies
(US \$ billion)**

Country Region	Unilateral Liberalization by Industrial Nations	Unilateral Liberalization by Developing Nations	Global (Multilateral) Liberalization
Developing Countries	-11.8	28.2	18.3
Industrial Market Economies	48.5	-10.2	45.9
European Non-Market Economies	-11.1	-13.1	-23.1
World	25.6	4.9	41.1

Source: World Bank (1986).

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