



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*

6503

Agricultural policies 1989  
Schmitz, Andrew  
Towards a multilateral alignment of  
agricultural policies # 6503

1989

## Towards a Multilateral Alignment of Agricultural Policies\*

ANDREW/SCHMITZ  
Department of Agricultural Economics, University of California at Berkeley  
and  
DERMOT J. HAYES  
Department of Economics, Iowa State University, Ames

### Summary

*The paper contains reviews of four of the most promising proposals for the multilateral alignment of agricultural policies. The best aspects of the four proposed policies are combined, and a new set of objectives for multilateral policy alignment is developed. The properties of a new policy are then reviewed.*

Agricultural policies 39

UNIVERSITY OF CALIFORNIA  
DAVIS  
SEP 19 1989  
Agricultural Economics Library

---

\*Paper presented at the 1989 summer meetings of the American Agricultural Economics Association, Baton Rouge, Louisiana, July 30-August 2, 1989.

AAEA 89

Towards a Multilateral Alignment of Agricultural Policies"

Introduction

A recent estimate values the annual dead-weight loss because of agricultural protectionism in the Organization for Economic and Cooperative Development (OECD) at \$50 billion and the annual costs of these policies to consumers and taxpayers at \$150 billion (Sanderson, 1988). In addition, the agricultural protectionism issue has created tension among international trading partners and promises to escalate and to affect nonagricultural trade. Governments responded to these losses by making agricultural trade a priority on the agenda at the ongoing 1986 Uruguay Round of the General Agreement on Tariffs and Trade (GATT) negotiations. The Ministerial Declaration from the September 1986 meeting in Punta del Este, Uruguay, states that the GATT negotiations are expected to achieve greater liberalization in agriculture and to bring 'all measures affecting import access and export competition under strengthened and operationally effective GATT rules and disciplines' (BNA, 1989, p. M-1).

All the OECD participants have tabled proposals, which provides insight into the attitudes of the participants. The U.S. proposal, Harvest 2000, calls for the elimination of all trade-distorting policies within 10 years and a Producer Subsidy Equivalent (PSE) to monitor compliance. This PSE proposal has been adopted by all the negotiating groups except the Nordic countries and Japan. The PSE is simply a measure of the magnitude of the benefit of all trade-distorting producer support divided by the agricultural output valued at either domestic or world prices. If only the trade-distorting policies are included, the PSE is comparable to an ad valorem tariff. This trade-distorting PSE measure will likely be used in the GATT negotiations (Tangermann, Josling, and Pearson, 1987).

The European Community (EC) responded to the U.S. proposal with one that initially emphasizes short-term measures to stabilize the sugar, cereal, and dairy markets and that

---

"Journal Paper No. J-13480 of the Iowa Agriculture and Home Economics Experiment Station, Ames, Iowa. Project No. 2835.

uses a PSE measure adjusted for supply control and exchange-rate variation to monitor compliance. The EC proposal promises to cut the levels of support significantly over an agreed time period and to achieve a better balance between commodities (IATRC, 1988). During a second agreed time period, the EC would replace trade-distorting support with supply-neutral aid to farmers and negotiate maximum levels of support to stabilize markets (IATRC, 1988). The Cairns group (Argentina, Australia, Brazil, Canada, Chile, Colombia, Fiji, Hungary, Indonesia, Malaysia, New Zealand, the Philippines, Thailand, and Uruguay) proposed that both the short-term measures proposed by the EC and the long-term measures proposed by the United States be adopted. The U.S. government has indicated that it will support the Cairns group's proposal. Japan and the Nordic countries wish to take immediate measures to prevent further increases in excess supply and to gradually remove export subsidies and improve market access (IATRC, 1988). All the proposals would encompass domestic policies and border measures.

On April 8, 1989, the ministers at the midterm review of the Uruguay Round of the GATT negotiations reached a provisional agreement to provide for 'substantial progressive reductions in agricultural support and protection sustained over an agreed period of time' (BNA, 1989, p. M-1). The text of the agreement states that this goal will be achieved by negotiating on policies and on aggregate measures and that the rules will apply equally to all parties. The ministers also agreed to discuss food security concerns and the treatment of net food-importing, developing countries. The participants also agreed to decouple income support and to harmonize sanitation regulations.

Although many issues remain unresolved, a surprising degree of similarity and agreement exists among the negotiating positions of the developed countries. Should an agreement be reached to gradually reduce trade-distorting producer support, many legislative bodies will need to make major agricultural policy changes that will be unpopular with some producers. These legislative groups may not have the political will or power to enact these policy changes. These groups, some of which are only indirectly

represented at the negotiations, may be somewhat surprised that their representatives have agreed to reduce national control over agricultural policies. Examples include the United States, where any agreement must be ratified in the houses of Congress, and Europe, where national governments will be asked to effect changes agreed to by their EC representatives. The U.S.-Canada free-trade agreement created so much dissension that the Canadian government was forced to call national elections. A GATT agreement that incorporates even the common aspects of the proposals will likely lead to political repercussions. To date, much of the research relevant to the GATT negotiations has been targeted towards choosing suitable measures of protectionism and estimating the likely impacts of liberalization at the international and domestic levels. The almost unanimous acceptance of the PSE measure and of the gradual elimination of trade-distorting policies indicates that this research has been effective.

A further challenge that now becomes relevant is that of designing politically acceptable agricultural policies that reduce or eliminate trade distortions. This task will not be easy; current agricultural policies distort trade for good political reasons that will not disappear just because countries accept the PSE reduction concept. It is not clear whether the best approach to this problem is to design country- or commodity-specific policy alternatives or to develop a policy for all commodities and all countries that can be easily adjusted for specific nations' needs. The latter approach has some obvious advantages. Should all countries adopt a single agricultural policy, the inevitable argument over the measurement of the degree of support would be weakened. By aligning agricultural policies, governments could use specific multilateral policy parameters as a basis for negotiation.

The obvious disadvantage of the multilateral alignment approach is that current programs have been designed to satisfy numerous objectives. The Tinbergen Rule states that the number of instruments should at least equal the number of objectives (Harvey, 1988). Any policy package that contains a sufficient number of instruments may be excessively complicated and may involve a large and politically unacceptable change in

current policies. This problem does not, however, preclude a solution. The purpose of this paper is to examine the attributes that are important to the individual countries or regions involved in the GATT negotiations and to propose a new policy that integrates as many of these desirable attributes as possible. (Harvey, 1988). The U.S. proposal calls for a reduction of

The authors will show that, although some compromises on the issues of trade distortions, economic efficiency, and food security may be necessary, a policy can be designed that meets many of the participants' stated objectives but that does not contain changes that might be deemed politically unacceptable in any of the negotiating countries. In the first section of this paper, the authors outline the required properties for any successful policy. The authors then discuss four proposed policies and combine the most promising aspects of the four to create a fifth proposed policy. This fifth policy is the principal contribution of this paper.

#### Desirable Properties for a Proposed Policy

For any policy to be successful, certain criteria must be met. From the perspective of all the participants, any policy must be politically acceptable and administratively feasible. A successful policy must reduce or eliminate trade distortions and must not be financially open-ended.

From the perspective of the EC, any policy must ensure that at least some of the many producers who operate small farms and whose assets prevent them from earning reasonable wages at protected prices are insulated from the full range of the policy changes. The EC also requires that any policy be both unbiased towards producers of any commodity or in any country and socially efficient (Harvey, 1988).

In addition to the properties already outlined, Japan and the Nordic countries will be favorably inclined towards a policy that maintains a minimum level of self-sufficiency in the basic food products (IATRC, 1988) and that allows certain inefficient husbandry practices and laws to continue or to expand; i.e. small rice fields and animal rights laws.

From the perspective of the United States and of the members of the Cairns group (IATRC, 1988), the policy must also require that world prices influence marginal decisions, that consumers in all countries have access to agricultural products at world prices, and that countries with a comparative advantage in the production of a commodity be encouraged to produce that commodity. The policy must not become an overt producer welfare program.

To promote economic efficiency and welfare maximization, some additional properties may be desirable. The Ricardian rents from any policy change should accrue to the producers of agricultural commodities rather than to the fixed production factors. The policy should encourage producers to reduce production costs and to differentiate and market their output. The beneficiaries of any government spending should be located in the country or region ruled by that government, and the policy should be amenable to multilateral negotiations and should provide sufficient flexibility for individuals or regions to customize certain aspects of the policy that are not trade distorting. Finally, the policy should not differentiate among producers on a commodity basis.

Many of these objectives are in direct conflict. For example, the Japanese insistence on provisions that maintain a degree of food security (IATRC, 1988) conflicts with policies that eliminate government influence over output. The emphasis placed on maintaining a viable rural infrastructure by subsidizing producers with small farms (Commission of the European Communities, 1985) conflicts with the properties of efficient resource use and with the idea that policies should not be biased in favor of any commodity or region. Trade-offs will need to be made. The United States and the Cairns group will likely be forced to address the food security and farm size issues. Several comprehensive negotiating frameworks have already been proposed. Four of the most promising policy proposals are discussed next.

### Multilateral Decoupling

Senators Boschwitz and Boren introduced the multilateral decoupling concept into the 1985 U.S. policy debate, and the concept has become the cornerstone of the U.S. proposal at the ongoing GATT negotiations (NCFAP, 1988). The U.S. proposal offers no advice on how to implement decoupling but does point out that the program should be 'independent of the current and future level of a farmer's production and marketing, input use, or commodity prices' (NCFAP, 1988, p. 2).

Essentially, decoupling transfers income from taxpayers to producers and, applied in its purest form, allows each producer in a particular country to receive the same monetary payment. This policy meets many of the outlined objectives. Under certain conditions, however, the policy would be politically unacceptable. And when bureaucrats begin to define who would be entitled to the payments, the policy would be difficult to implement. Many farmers, as defined on census forms, sell such small quantities of output that they earn the majority of their income from off-farm jobs. Although the EC Commission has decided that the continued trend towards part-time farming should be encouraged, the incentives produced by a decoupling scheme would eventually ensure that the number of part-time farmers with low output levels would increase.

Difficulties occur in developing a method to define who would merit the payments without omitting the producers in genuine need. Presumably, farmers could be means tested; however, governments would find it politically unacceptable to pay farmers more money than urban welfare recipients are paid. In addition, the owners of large farms would receive visible cash payments, regardless of the profitability of the enterprise or of the year. Media attention would inevitably focus on situations in which agricultural profits were high because of favorable prices or climatic conditions yet farmers were receiving government 'welfare' checks. One could argue that this situation exists now, but an important advantage of current programs is that the income redistribution effects are not publicly visible.

Other disadvantages of this approach are that many producers would be repelled by the concept of welfare and that, if most of the producers with small farms qualified, payments to producers with medium-sized farms would be low. Although many of the small farms are operated by part-time producers, the full-time producers operating medium-sized farm would be worse-off than they were before decoupling. Finally, many countries, such as Australia and Canada, could not afford to provide income to producers.

#### Limited Support Payments

A limited support payment (LSP) reduces the total payment that a government will make to any one producer (Harvey, 1988). The LSP policy, in effect, reduces to a two-tier price system in which producers with certain small farms would receive price supports on all of their production while producers with large farms would receive support on only part of their output. The policy seems promising in terms of the previously stated requirements and solves the problem of defining who is a farmer. Producers with small quantities of output would receive small total payments. The LSP policy is administratively feasible, is not financially open-ended, and allows for the support of producers with small farms. The policy would achieve a trade-off between self-sufficiency and the absence of trade distortions, which is an essential requirement of any agreement.

From the perspective of the United States and of the Cairns group, these payments might be acceptable because, at the margin, the bulk of the agricultural output would be produced in response to world prices. This approach might be acceptable to those governments interested in food security because a proportion of every producer's output would be responsive to supported prices. The trade-off between these two properties would depend heavily on the total output quantity for which the higher price would be paid, a negotiable variable.

The problems with the LSP policy are that the costs are more transparent than those of other policies and that individual countries or regions within trading blocs would find it

difficult to agree on a suitable upper production limit for which payments would be made. For example, typical grain producers in the United Kingdom produce significantly more grain than those in Germany produce. An upper payment limit that was politically feasible in Germany would be low in the United Kingdom; consequently, total payments to German grain producers would be greater under this policy than are current payments. The LSP policy would have some unusual effects on income distribution among producers of a particular commodity within a country. In years when commodity prices are low, payments per unit of production would be high; therefore, the total production output eligible for the subsidy would be small and would favor producers with small farms. In years when commodity prices are high, per unit subsidies would be low; consequently, only the producers with large farms would receive the maximum payment, and producers of small quantities of output would receive little assistance. This factor could become a problem in a mixed farming situation.

Another problem with the proposed LSP is that it applies to specific commodity programs--in particular, those programs that receive the most support under current policies (Harvey, 1988). Apart from encouraging the production of commodities that are either the most uneconomical or the most in surplus, this single-commodity approach would lead to unequal distribution of agricultural support, and payment visibility would be a political liability. Consider the following example. Producer A operates a small or medium-sized farm and produces equal quantities of commodities X and Y. Commodity X is covered by an LSP, commodity Y is not. Producer B operates a much larger farm than does producer A and produces commodities X and Z. Commodity Z is not covered by an LSP. If profits for commodities X and Z are high and profits for commodity Y are low, producer B would receive a larger government support payment than would producer A because the program favors producers with large quantities of output when prices are high. The LSP policy creates incentives that might alter the typical enterprise mix on farms in a way that runs counter to the purported policy aims.

### Production Entitlement Guarantees

The production entitlement guarantee (PEG) policy was recently proposed by a consortium of American and European agricultural economists (Blanford, de Gorter, and Harvey, 1988). A PEG is simply a prespecified limit on the quantity of production eligible to receive support payments. The PEG policy is similar to the LSP policy except that the PEG emphasizes the total output quantity supported by governments rather than the total payments that each producer can receive. The PEG policy's proponents suggest that the PEGs be allocated to producers on the basis of some fraction of historical production and argue that this policy would not distort needs as long as the supported producer-specific quantity was less than the output that would be produced under world price conditions.

This policy comes close to satisfying all the objectives outlined earlier. The PEG policy is nondistortionary and both politically and administratively feasible. No individual producer would lose at the expense of other producers, and the policy does not seem to be any more biased in favor of one set of producers than are current policies. The policy's disadvantages include payment visibility and the accrual of Ricardian rents to those producers who possess the PEG rather than to future producers.

The PEG policy seems like an excellent trade-off between food security needs and the elimination of trade distortion. By allocating PEGs according to historical production, countries could ensure that they retained a degree of self-sufficiency, even if the country no longer possessed a competitive advantage after liberalization. Although this freezing of production runs counter to the objective of eliminating all trade distortions, it does so in a way that would not be readily apparent to policy makers. The proponents of PEGs have made the claim that the policy would not distort trade, but they neglected to qualify this claim with 'any more than current policies do.'

The policy's principal disadvantage is that the EC, the Nordic countries, and Japan would not be allowed to support their small farms because producers would receive their PEG allotments on the basis of some percentage of historical production. Although PEG

payments would allow many uneconomical farms to remain in production longer than they would remain under complete liberalization, this situation would occur only where producers wished to remain in production independently of any economic incentives. The producers who operate small farms and who are open to economic incentives would eventually sell their PEGs to producers with large farms, thereby obtaining a lump sum payment to exit agriculture. The producers with large farms would have the incentive to purchase PEGs until 100 percent of their output was covered. The offsetting effects of both of these forces on the number of small farms is difficult to determine, and PEGs would not stabilize this number.

In a special 1987 edition of the *European Review of Agricultural Economics*, academics responded to an EC Commission Green Paper on the future of the Common Agricultural Policy (CAP). Gunther Weinschenck (1987) contributed an excellent paper wherein he proposed the ecological way to policy reform. He focuses on maintaining a substantial number of workers in agriculture without increasing the financial burden and rejects the standard solution of reducing prices to equilibrium levels. Weinschenck argues that the necessary price adjustments would be so drastic as to be socially unacceptable and that lower prices would remove marginal producers from mountainous areas, a move that would be undesirable for regional policy and ecological reasons. He proposes an alternative solution whereby nitrogen use is taxed either overall or when usage exceeds specified amounts per hectare. He also proposes that direct income payments be made to guarantee a minimum income in less favorable areas but does not specify how to achieve this goal.

Unlike the other three policy proposals, this policy is not designed to be useful for more than one country. For example, many wheat producers in Canada use little nitrogen, and countries that depend heavily on nitrogen export revenues would likely veto the measure. An interesting feature of the proposal is that most producers would be affected;

most favored in a country in which *The Ecological Way* is implemented.

i.e. dairy producers would pay more for grass, and hog and cattle producers would pay more for grains. It would, however, be difficult to determine which producers and which regions were most affected by the tax. Nevertheless, the proposal seems sound.

By using duality theory, increases in production costs can be shown to have effects similar to those of price reductions. The benefits of the former approach are that a reduction in per farm output has less effect on producer incomes than do price reductions and that the financial burden is reduced (Weinschenck, 1987, p. 58).

Given the intuitive appeal of this proposal, the only requirements are a framework within which some countries or regions can experiment with this proposal and can apply these measures towards their liberalization efforts and a specific proposal for guaranteeing incomes.

#### Other Policies

The four policies already discussed represent a small sample. Other policies have not been discussed because each seems to be fatally flawed. For example, the policy of providing producers with quota rights that would allow them to maintain, but not exceed, current production would be politically unacceptable to American producers. This concept was proposed in 1987 by Senator Harkin and Congressman Gephardt and was quickly defeated by those who viewed it as excessive government interference in agriculture. The set-aside program operating in the United States and under trial in the United Kingdom and Germany would also fail because of the enormous expense of taking enough land out of production in Europe to reduce the oversupply of temperate foodstuffs in the EC. In addition, this program would have a free-rider problem; that is, each region would have an incentive to allow its producers to find ways to harvest the set-aside acres, and the impact of this additional production would affect everyone.

### Example of a New Proposal: Limited Profit Guarantees

The limited profit guarantee (LPG) policy combines the most useful properties of the four proposals discussed earlier but reduces or eliminates some of the problems mentioned. The LPG is a more sophisticated version of a concept originally proposed by the authors in 1988 (Hayes and Schmitz, 1988):

Under the LPG policy, each country must measure farm revenue distribution. Each revenue distribution would have a shape similar to that of the other distributions but a different mean. Countries would then negotiate the point on each distribution that should be most heavily favored. This point could be expressed in terms of the mean; for example, if countries agreed to most favor the mean minus 10 percent, then the farms most favored in a country in which the mean farm had gross annual revenues of \$10,000 would be those farms yielding gross annual revenues of \$9,000. The value of the point chosen (expressed relative to the country's specific mean) should be the same for all countries. The lower this number, the less would be the interference with international trade. If the negotiated values for this number were large, the number of small and medium-sized farms would stabilize or increase. A minimum level of self-sufficiency for a particular commodity could be guaranteed.

The following steps outline the procedure for implementing the LPG policy.

1. Negotiate the point at which to make explicit the trade-off between the policies that have minimum impact on trade and those that maintain the rural infrastructure and the degree of self-sufficiency. Once negotiators see that this trade-off exists, they will be able to determine immediately whether an international alignment is feasible. If this point can be successfully negotiated, the importance of this trade-off will lessen.
2. Collect the production cost data from the farms of the targeted size for each commodity in each country, given the previous year's average prices. For example, each government would need to measure the cost of producing one tonne of wheat on farms with total revenues equal to the targeted revenue for that country.

3. Announce the proposed policy adjustments and make it clear that only producers who provide historical and current farm accounts would be eligible. All producers, regardless of off-farm employment income or of enterprise mix, should be

By encouraged to enroll.

4. Obtain annually every country's specified total finance cap for agricultural support or a total reference income for the farm of the targeted size. For example, a country might indicate that for farms with \$40,000 gross annual revenue, the maximum annual reference income is \$10,000. To maintain the proposal's political feasibility, each country or region must be allowed to determine this finance cap or reference income. Once the targeted farm size has been specified and provided that this size is below average, changes in the reference income for farms of that size would have little affect on output.

Countries could determine a fair value for the finance cap as follows. First, let production respond to world price levels. Then estimate the following price and quantity vectors by using the equation

$$(P_N Q_N - C[Q(P_N)]Q_N) - (P_p Q_p - C[Q(P_p)]Q_p), \quad (1)$$

where  $P$  = price vector of all commodities produced in the country or region,  
 $Q$  = quantity vector of all commodities produced in the country or region,  
 $N$  = current prices or quantities,  
 $p$  = actual prices and quantities produced after liberalization, and  
 $C$  = average cost of production for each commodity.

The difference between the two terms in braces is the financial burden that must be borne by taxpayers so that producers in the aggregate are just as well off under the new policy as they are now. Notice that this burden would be less than it is now because the dead-weight losses would disappear. For example, there would be no need to subsidize exports. Consumers in the EC would pay less for certain commodities than would consumers in other countries.

5. Measure annually the actual agricultural prices in each country.
6. Estimate annually the quantities of output,  $Q^*$ , that the farm of the targeted sized in each region would produce, given prevailing prices and climatic conditions.

7. Estimate the target price,  $P_T$ , for each commodity from the formula

$$(P_T - C^*)Q^* = \text{reference income}, \quad (2)$$

where  $C^*$  refers to the average cost that an efficient producer of  $Q^*$  would incur.

8. Estimate the per unit producer subsidy,  $S$ , for each commodity from the equation

$$P_T - P_p = S. \quad (3)$$

9. Sell all output at the price that the market will bear, ( $P_p$ ). Producers would receive a government check based on their sales. The maximum allowable output to be subsidized in this manner, ( $Q^*$ ), should be determined by using the equation

$$SQ^* + (P_p - C^*)Q^* \leq \text{reference income}. \quad (4)$$

10. Determine the commodity for which multicommodity producers choose to earn the subsidy. If most producers choose the same commodity, the cost or price measurements for that commodity are in error; consequently, the targeted price,  $P_T$ , and therefore  $S$  should be revised downward. If producers ask that more than one commodity be included, estimate  $\Sigma P_p^i Q^i$  such that

$$\sum_{i=1}^N S^i Q^i + (P_p^i - C^i)Q^i \leq \text{reference income}. \quad (5)$$

Although this proposed policy seems somewhat complex, the underlying motivation is simple. Producers would be guaranteed a minimum income level for as long as their output was equal to or greater than that of the farm of the targeted size. In this sense, the proposal contains the essence of decoupling except that there would not be a problem in determining who qualified for payments because producers with output levels below the targeted price would receive the support price only on their actual output. If this output level was small, total payments would be small.

The LPG policy is similar to the LSP policy in that the total payments to producers would be fixed and that there would essentially be a two-tier pricing system. The LPG policy avoids some of the problems of the LSP policy by focusing on total farm profits. Government expenditures would stop if world prices rose sufficiently, increasing the political acceptability of the program. Producers as a group would be no worse off under

the program in terms of net farm income than they are now. Taxpayers would be at least as well off as they are now and would benefit from world price increases as farm payments fell. This reduction in government spending would, however, be balanced by increased food prices.

The LPG policy also has much in common with the PEG policy. Both policies focus on the subsidy per unit of production, and both would seek to limit total payments in a manner that is less trade distorting than are current programs. The LPG proposal would be acceptable to governments that wish to maintain the number of small farms. Whereas the PEG system would have, at best, a neutral effect on farm size, the LPG could be used as a tool to maintain the number of small farms in countries where the targeted farm size was the smallest unit that individual governments would like to see continue to operate.

The LPG policy could be used to maintain self-sufficiency in certain basic commodities because producers would be free to choose any commodity for which to receive their LPG. Producers with small farms would receive an incentive to produce at prices greater than world market prices, and the degree of government interference would depend on the targeted farm size. Any acceptable policy must inevitably force this trade-off between trade distortions, farm size, and self-sufficiency.

The LPG policy extends the minimum income property of the ecological way to all producers. The motivation for this extension is that low income, not location, motivates the provision of producer income support. The policy also offers a framework within which the production costs necessary in step 2 would be adjusted to compensate producers fairly for cost increases.

To see how the LPG policy would influence the income position and incentives to producers, consider Figure 1. The three marginal cost curves represent producers with small, medium-sized, and large farms that produce a commodity.

The producers with small farms receive  $P_T$  for all their output, which encourages them to expand output to  $Q^1$  by adopting a more intensive enterprise or by intensifying their

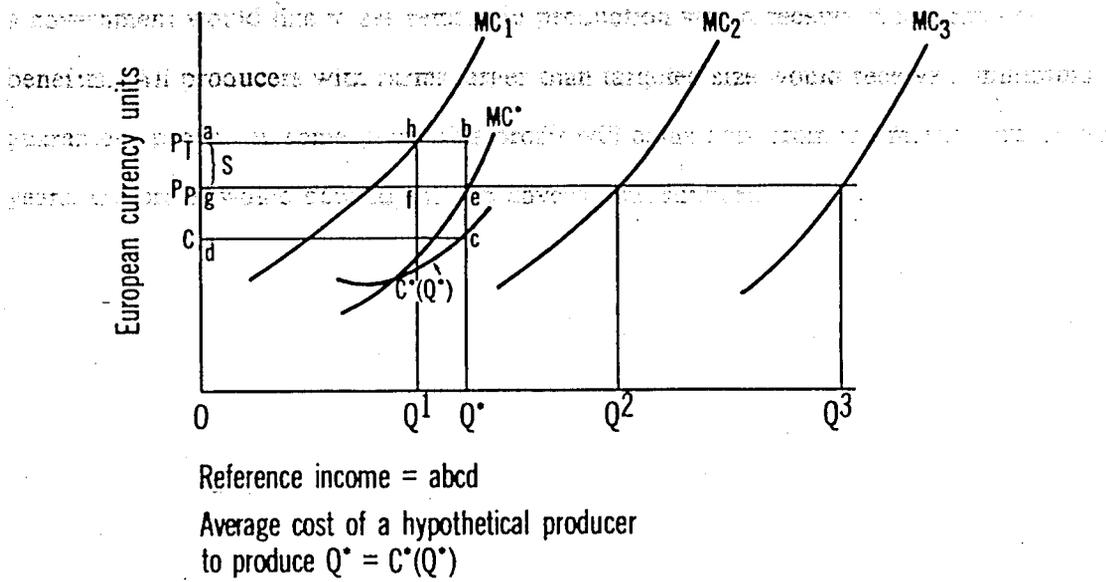


Figure 1. Price incentive facing producers, by farm size

Source: Hayes and Schmitz, 1988, p. 92.

present one. The producers with medium-sized and large farms are guaranteed the reference income,  $abcd$ , plus the income they earn by producing beyond  $Q'$ .

All producers have an incentive to increase the price they receive for their output, which they could do by marketing their produce so as to earn a price greater than  $P_p$  or by differentiating their product. The government would estimate  $P_p$  at a national level. Producers would have an incentive to reduce costs below those used to estimate  $C(Q')$ , and the producers of  $Q'$  at a higher average cost would be penalized. The government would mail a check for  $ahfg$  to the producers with a small farms, and the producers with medium-sized and large farms would receive at least  $abcd$  either from actual profits or from the government. Notice that if  $P_p$  is well above the commodity's production cost, producers with large farms would require no government payments and would earn the reference income without government assistance. Because most output is produced on large farms, the largest percentage of output would be produced in response to world prices. Also notice that, unlike most attempts to transfer income, this proposal would not reduce the incentive to work because the cost and output prices are for average or typical producers and not for individuals.

#### Summary and Conclusions

This paper has focused on the requirements necessary for any policy to be suitable as a basis for multilateral policy alignment. Although the probability for the success of any such policy is low, the issue is of sufficient importance to merit research. Academic debate could be useful in demonstrating to politicians the problems with the multilateral alignment approach and in proposing alternative policies. If this approach fails and the GATT succeeds, numerous lawsuits will inevitably be required to compare the degree of trade distortion of particular policies.

The LPG policy proposed here is an attempt to combine the more useful properties of four proposed policies. The LPG policy involves a two-tier pricing scheme in which producers sell all their output at the price that the market will bear and later receive a

government check for part of their output. The magnitude of the per unit subsidy should be set so that the producers with the smallest farms (in terms of gross annual revenue) that a government would like to see remain in production would receive the maximum benefits. All producers with farms larger than targeted size would receive a minimum guaranteed profit. In some years, this profit will come only from the market, but in other years, the profit would depend only on government support.

## References

- Blanford, David, de Gorter, Harry and Harvey, David (1988). Production Entitlement Guarantees (PEGS): A Minimally Distorting Method of Farm Income Support. Background paper prepared for the 1988 summer meeting of the International Agricultural Trade Research Consortium, Annapolis, MD. August.
- Bureau of National Affairs (BNA) (1989). Framework agreements adopted April 8, 1989, at Midterm Review of Uruguay Round Negotiations under General Agreement on Tariffs and Trade in Geneva. In *Regulation, Economics and Law Text*. Section M, No. 68. Washington, D.C.: BNA. April 11: M-1 - M-3.
- Commission of the European Communities (1985). Perspectives for the Common Agricultural Policy, COM (85) Brussels.
- Harvey, David (1988). Decoupling and the European Community Agricultural Policy. Paper presented at the 1988 annual meeting of the International Agricultural Trade Research Consortium, San Antonio, TX.
- Hayes, Dermot and Schmitz, Andrew (1988). "The Price and Welfare Implications of Current Conflicts Between the Agricultural Policies of the United States and the European Community." In Robert E. Baldwin, Carl B. Hamilton, and Andre Shapir (eds.) *Issues in US-EC Trade Relations*. Chicago: University of Chicago Press.
- International Agricultural Trade Research Consortium (IATRC) (1988). *Bringing Agriculture into the GATT: Designing Acceptable Agricultural Policies*. Summary Report Prepared by the IATRC, Annapolis, MD.
- National Center for Food and Agricultural Policy (NCFAP) (1988). *Decoupling Farm Programs: A Briefing Book Issued in Conjunction with Washington Briefings Held on April 28, 1988*. Washington, D.C.: Resources for the Future.
- Sanderson, Fred H. (1988). *Agriculture and International Trade*. Washington, D.C.: The Council on U.S. International Trade Policy.

Tangemann, S., Josling, T. and Pearson, S. (1987). International Negotiations on Farm Support Levels: The Role of PSE's. IATRC Working Paper No. 87-3, International Agricultural Trade Research Consortium, Stanford University, CA, June.

Weinschenck, Gunther (1987). The economic or the ecological way? Basic alternatives for the EC's agricultural policy." *European Review of Agricultural Economics* 14:5, 50-60.