There Is A Way To Support Farm Income with Minimal Trade Distortions

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WORLD AGRICULTURE REMAINS IN DISARRAY. FARM programs of the United States and other industrial countries, especially the European Community, distort international markets, cause inefficiencies and erode living standards for many people throughout the world.

The current round of negotiations under the General Agreement on Tariffs and Trade (GATT) is focusing on agricultural policies and the distortions they cause. The United States proposes that all trade-distorting subsidies be eliminated. Other major participants, particularly the European Community and Japan, are reluctant to embrace such a bold step. They argue that countries must be free to support agriculture if they wish. These disagreements have led to a virtual stalemate in the GATT negotiations. To find a way out of the current impasse, new initiatives are needed.

The critical issue is whether there are ways whereby countries can satisfy their farm support objectives but nevertheless reduce trade distortions.

Admittedly, government payments of any kind are bound to lead to some behavioral adjustments by farmers as well as consumers. As a result, most policies will affect production, consumption, and trade in either the short or long run. However, negative income taxes, adjustment assistance payments, and welfare payments come close to having a minimal effect and should be encouraged. Some people suggest using direct payments to producers. Such payments, if unrelated to production decisions, could have minimal trade effects. But in most countries they would represent a radical change from current agricultural support mechanisms. There is little evidence that such payments are acceptable to farmers and therefore to policymakers.

The challenge is to find an approach that has similarities to traditional commodity programs, but minimizes trade distortions, i.e., generates production and consumption as close to free trade levels as possible. Further, the approach needs to achieve national farm income objectives, be politically acceptable to national governments, and be administratively feasible.

➢ New initiatives are needed in order to move the GATT negotiations forward. A Production Entitlements Guarantees (PEG) program would limit the quantity of production of individual farmers eligible to receive support payments. The payments would be tied to production. But the quantity of production eligible for support at the farm level would be limited and all other forms of direct or indirect income support to farmers would be dropped.

One approach that has these characteristics is what we call Production Entitlement Guarantees (PEGs). With a PEG program there would be a limit on the quantity of production of individual farmers eligible to receive support payments and therefore on the total quantity that receive payments. The per unit payment could be based on historical levels of price supports or "producer subsidy equivalents" and would be paid directly to farmers. But unlike proposals such as the 1987 Boschwitz-Boren proposal, governments would have the option of tying payments to production and therefore be free, hopefully, of the political objections often voiced against direct payments. The payments would not be "welfare" payments but would be earned through producing farm products. However, the payments to any one farmer would be limited to amounts less than he/she would receive if all his/her production were eligible to earn the payments.

The actual production of each farmer would not be controlled. Farmers would be free to decide how much to produce above the quantity receiving support payments. In order to minimize trade restrictions, all existing border measures would be eliminated as would all internal agricultural support measures, except for payments on the specified PEG quantities. This means that consumers and users would pay the open-market price and farmers would receive this price for their marketings. The important point is that the farmer would realize returns for some production as the market price plus the payment. But for the remaining production and any increases in production the anticipated return would be determined by open market prices.

Those acquainted with current farm policy will recognize that the essence of this proposal is already included in crop programs in the United States. The "maximum guaranteed quantity" program of the European Community could easily be adapted to reflect the essence of the proposal. A PEG program is not a radical new idea, but a natural evolution from the way support programs in many countries have been changing in recent years.

So long as all individual Production Entitlement Guarantees (PEGs) are set below the quantities which would be produced under free trade, farmers will decide how much and the mix of products to produce on the basis of the free market prices, not on the level of support payments. Total production will be determined by free trade prices. The reason this will be the case is that if farmers should "average" both the support payments and the market price received in making their production decisions, they will reduce their profits. They will make money by producing in excess of the PEG quantity only if the extra production costs are covered by market prices. Similarly, decisions by marketers, processors, and consumers will be determined by free market prices.

It is important that the national and, in turn, individual PEGs be set below the production levels which would occur without the commodity program. So long as this is the case, PEG payments will not distort domestic or world markets significantly, and production decisions will be made on the basis of market forces. The basic steps required for the introduction of a PEG scheme are as follows:

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- Establish national and individual PEG quantities upon which support payments are based that are less than the output that would be produced under multilateral free trade prices;
- Eliminate all other border and domestic support measures so that domestic market prices equal world prices.

Issues in Implementing the PEG Program

The most difficult task in implementing the PEG program is to select the quantities eligible for support in each country so that the world price determines farm production decisions. If national PEGs are set too high they will distort trade, since production will be higher than under free trade.

While the volume of production eligible for support under the PEG program would be determined through GATT negotiations, full discretion could be given to national governments to determine how and to whom the initial PEGs are issued. The PEG quantities would be bound under GATT. As long as these quantities cannot increase and are less than what would be produced at world prices, it would not be necessary to fix the PEG payment per unit because marginal output decisions would be based on market prices. However, it may be desirable politically to negotiate a limit on the maximum PEG payment. To prevent an increase in enterprises (farms or farmers and commodity sectors) receiving support payments, countries could agree to bind the maximum level of support for each commodity (using, for example, historical PSEs) and to bind the number of commodities receiving support. This would limit potential trade distortions due to the effects of PEG payments.

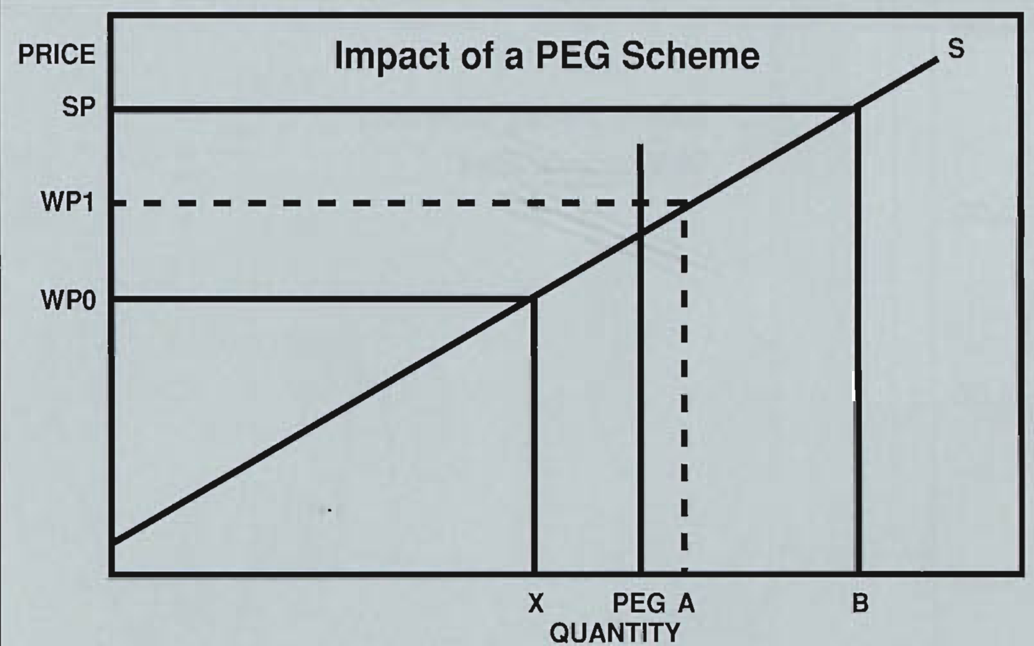
An argument can be made that PEGs should be transferable among farmers or farms on efficiency grounds. If PEGs are not transferable, high-cost producers would be encouraged to continue farming in order to receive benefits under the program. With a transfer option they could sell their PEGs to low-cost producers or to the government.

Individual PEGs could be issued to existing farmers on the basis of production quotas currently held in Canada and the European Community or on land "base" and "program" yields in the United States. New entrants to farming would either purchase (lease) PEGs from other farmers or obtain them directly from their governments. Otherwise, they would produce at world market prices and receive no PEG payments. PEGs could be tied to land and be transferred with the land. Alternately, they could be given to individual farmers or farm workers (in which case the value of PEGs would be reflected in the value of a certificate of eligibility if the government allowed this to be transferable).

If governments wish to have a pool of PEGs for new entrants, a fixed percentage of all private PEG transactions (farm-to-farm sales, parents to son/daughter, etc.) could be automatically reclaimed to pass on to these entrants.

Reclaimed PEGs could also be used to reduce national PEGs to less than free-trade output levels. Government purchases could also be used to transfer PEGs to new entrants, to eliminate ("buy out") high cost production causing trade distortions, or even to phase out support payments completely.

Allowing rental markets for the PEGs would facilitate international monitoring. Annual rental values of a PEG unit equal to the government's PEG payment, would indicate that trade distortions do not exist. (See box on the simple analytics of PEGs for an explanation). Overproduction can still occur when a national PEG for a commodity is set below the free trade quantity when PEGs are not transferable. Producers who would otherwise not wish to continue farming, for example because of high costs, will contin-



The Simple Analytics of PEGs

The diagram represents the supply of a particular commodity in a single country. The supply curve (S) depicts how production increases as the price received by farmers increases. At current support price (SP), production is at quantity B, and world price is at WP0.

Calculating per unit support payments to farmers as the difference between world market prices and the support level (SP) and limiting payments to the PEG quantity would initially lower production to that quantity. Otherwise production costs at the margin would be greater than revenues at the world price, (WP0). However, if all countries limit the production receiving payments under a PEG scheme and remove all other forms of market intervention, world prices would rise, to say WP1. In the diagram, the PEG quantity is less than the free-trade production level (A), and the "marginal" production (A - PEG) would receive competitive world market price (WP1).

If the PEG quantity is set above A initially, then farmers would only be willing to purchase or rent a PEG quantity for the difference between the supply price (given by the supply curve) and the support price (SP) on an annual basis. This is because their marginal cost of production would be greater than the world market price WP1. The resulting annualized transfer value of PEGs would be less than the PEG payment (SP - WP1). This would indicate that the national PEGs were too large, resulting in trade distortions. Hence, a rental market in PEGs provides a mechanism for the GATT to monitor whether the final PEG quantity is trade distorting.

ue to produce if other farmers are not allowed to bid for PEGs. Trade distortions will occur. However, governments need not require producers to supply the PEG quantity in order to receive payments. In this case, the scheme will not be trade distorting regardless of whether PEGs are transferable.

Consumer and Taxpayer Implications

A major political disadvantage is that all transfers under the PEG program are paid with government checks and hence are more visible than when government programs rig markets so that higher market prices transfer income from consumers to farmers. Maintaining a desired level of producer income by switching the entire current cost of support to taxpayers could increase government expenditures for some commodities, especially in Japan and the European Community.

There are several features of the PEG program that reduce budget costs and have potential political problems:

- World prices rise in response to the freeing of multilateral trade and the associated lower domestic consumer prices. The gap between world prices and the desired support price is therefore reduced. Consequently, the necessary taxpayer subsidy would be much smaller than existing payments for many commodities. Our estimates suggest, that on average, in industrial countries 20-25 percent of existing national support levels merely offset the price effects of other countries' support policies. Multilateral free trade would mean that these expenditures could be redirected to providing real income support through a PEG scheme.
- Efficiency of transferring income improves. Much of the current government expenditures, especially under EC and U.S. programs, are wasted in the sense that they are directed toward importing countries or are used simply to cover inefficiencies in production and consumption. They never reach domestic farmers. Again, preliminary estimates suggest that these wasted transfers amount, on average, to as much as 25-30 percent of the total. With a PEG scheme, all taxpayer support is transferred directly to farmers as income with little loss due to "overproduction" or to transfers to the rest of the world. Furthermore, PEG will benefit livestock, poultry and dairy farmers in many countries by reducing feed prices.
- Taxpayers are consumers. For the most part, taxpayers are consumers. All that the PEG program does is to alter the method by which income transfers to farmers are made. Using high consumer prices to support agricultural incomes is also generally more regressive than using tax revenues, since it tends to place the burden of paying for support on low rather than high income groups.
- All farmers are targeted and per farm payments are limited. If traditional levels of producer income cannot be maintained without unacceptable increases in taxpayer costs, governments could limit the per farm transfer to keep within budget constraints. Such targeting could be used to assist small or family farms, and disadvantaged areas, rather than providing support for larger or richer farmers.

PEGs and the United States

For grains, rice, and cotton, U.S. target price/deficiency payment programs have evolved substantially in recent years towards a PEG model. Under the 1985 Farm Bill, each farm has an established base acreage and program yield upon which a farmer's payments are based. To make current programs PEG-compatible, all acreage reduction provisions and CCC loans would be eliminated. The government could still hold stocks for security reasons, but all purchases and sales would be made at world market prices.

Farm-level base acreage and program yields would be reduced and unconditionally frozen. Related policies such as export subsidies and CCC surplus disposal through payment-in-kind certificates would be eliminated. Payment limitations could be maintained, tightened or eliminated as U.S. political conditions demanded. For other supported commodities, notably sugar, dairy, tobacco, and peanuts, a scheme similar to the one described above for the target-price crops would be implemented. Existing measures which distort consumer prices, such as import quotas, would be phased out.

For example, for dairy, the government could issue a production "base" to each farmer determined by some fraction of historical production. Payments could be set at the current level of price support. The fluid price differential, import quotas and tariffs, and CCC support purchases would all be eliminated.

The Boschwitz-Boren bill, which was debated by Congress in 1985, closely approximates a PEG scheme for crops. It proposed freezing payment bases at or near current program levels

What Should the PEG Level Be?

One of the critical questions is what would happen to world prices if the PEG policy was implemented. The answer to this question is important to deciding on appropriate PEG levels. Conceptually, the PEG quantities should be no greater than the output which would occur under multilateral free trade. We used a world trade model to gain a perspective on the PEG quantities which could be negotiated in the GATT. Using the model we answered two questions:

- What would happen to world prices if each country set their national PEGs for each commodity "equal to" 1986 production levels?
- What would happen to world prices if each country set their national PEGs for each commodity level 80 percent of 1986 production levels?

In both cases, prices increased for every commodity. With PEGs equal to 1986 production levels world prices rise to 90 percent of the 1986 estimated free trade level.

If PEGs are set at 80 percent, prices increase to 98 percent of the estimated free trade level.

Thus, our model indicates that, under 1986 demand and supply conditions, PEGs would need to be set at something less than 80 percent of 1986 levels in order to eliminate most of the trade distortions created by existing price support programs.

Percent Adjustment of World Prices Towards Free Trade Levels with PEGs

	PEG 100	PEG 80
Beef	92.6	99.6
Pork	93.0	99.1
Poultry	93.0	99.5
Butter	93.5	99.5
Wheat	83.1	97.3
Corn	82.4	98.2
Rice	84.5	90.0
Soybeans	94.4	99.1
Cotton	92.0	99.0
Sugar	87.4	94.5
Average	**89.6**	**97.6**

and making future payments at a declining rate, independent of output or input decisions. The Boschwitz approach has so far failed to be enacted, but its time may come as part of multilateral agricultural policy reform. Although the PEG program does not necessarily require a phase down of the level of support, it requires the extension of the Boschwitz approach to other commodities currently receiving support in the United States.

PEGs and the European Community

PEGs provide a flexible and straightforward method for providing income support for Community farmers and the proposed approach is consistent with the now-accepted principle of limiting the quantity eligible for support through "maximum guarantee quantities." But under a PEG scheme support limitations would be applied at the individual producer level.

EC-wide production quotas, allocated at the national level, already exist for sugar and milk and have been discussed for cereals. The transition to a PEG program in the European Community would require the replacement of production quotas by limitations on the quantity of production eligible for support payments for any one producer.

In the case of milk, the existing quota mechanism would be changed to a right of individual producers to support payments rather than a right to produce. This right would be tradeable among farmers within countries. Reductions in the amount of milk production eligible for support could be achieved by the intervention authorities buying in quota rights, rather than surplus milk products. Limits on the quantity eligible for support could be used to target aid to smaller producers without seriously distorting the pattern of production. Achieving the necessary changes on the demand side is straightforward in principle, but presents more problems for the political acceptability of the policy. In order to ensure that the price for EC consumers is the world price, intervention purchases of dairy products, export subsidies, and import levies would need to be phased out.

The PEG program also provides a realistic and practical policy alternative for the cereals sector of the European Community. Intervention and market prices of cereals would be allowed to fall towards competitive world levels. The resulting budget savings would be used to provide support payments. These would be limited per farm, enabling the benefits of the policy to be targeted rather than determined by level of production, as at present. Since the PEG program allows for a degree of national flexibility, it offers the negotiating room necessary for the scheme to be politically acceptable within the Community.

The EC sugar regime already involves the concept of limitations on the volume of production eligible for support. "A" quota sugar receives the full Community support price, "B" quota sugar is taxed with a co-responsibility levy, while "C" quota sugar receives the world sugar price. Converting this system to the PEG involves elimination of border protection measures and payment of a limited subsidy for "A" quota sugar to make up the difference between the domestic support price and the world price.

Current proposals for the reform of the beef market within the Community envisage replacement of the intervention mechanisms with a payment per head for breeding cows, on a limited basis per farm. Providing border protection is also eliminated and the production levels eligible for support are kept within nondistorting bounds. This proposal is also consistent with the PEG program. Similar arrangements are possible for other EC products.

The most difficult part of this reform proposal from the EC's point of view, is the shift of the burden of support from the consumer and user to the taxpayer. However, the world price and transfer efficiency arguments outlined above apply strongly in the EC case. Existing levels of producer support can probably be maintained within current budgetary limits, at least for the large majority of existing farmers. If not, payments could be targeted to particular groups of farmers in order to meet the social objectives of Community agricultural policies.

Conclusions

Governments intervene in agricultural markets to achieve farm income support objectives. The role of the GATT negotiations is to minimize the international trade distortions resulting from these measures, not necessarily to reduce "protection" of the farm sector. In order to achieve less-distorting farm income support we advocate a measure called "Production Entitlement Guarantees" (PEGs). This measure would limit the quantity of production eligible for support at the farm level and would replace all other forms of direct or indirect income support to farmers. The advantages of the PEG program are that it:

- Provides a means for governments to reduce trade distortions while maintaining farm income support.
- Allows countries to realize mutual gains from freer trade through increased world commodity prices, reduced consumer prices, and involves a known and limited level of budgetary expenditures.
- Is consistent with traditional commodity programs which provide support based on production.
- Is a more cost-efficient mechanism for transferring income to farmers than current agricultural programs.
- Provides substantial national flexibility in the targeting of support in terms of commodities, farms, farmers, or regions.
- Is consistent with recent trends in limiting support payments in many countries.
- Can provide a mechanism for transitory compensation and adjustment if desired.
- Is easily implemented at the national level, as a relatively minor change to existing programs.
- Lends itself to negotiation and monitoring through the GATT.
- Enhances the world's international trading relations and reduces the threat of agricultural trade conflicts. C

For Further Reading

This article is only one product of many background studies that contributed to the IATRC Symposium "Bringing Agriculture into the GATT" in Annapolis, MD, August 1988. These studies are listed and summarized in three reports:

- Designing Acceptable Agricultural Policies, D. Blandford and H. de Gorter (eds.).
- Assessing the Benefits of Trade Liberalization, D. Blandford (ed.).
- Negotiating a Framework for Action, S. Magiera (ed.).

For further background on the article in this issue of *CHOICES*, see:

- Harry de Gorter, "Analyzing Agricultural Policies and Trade Distortions."
- David Blandford, Harry de Gorter, and David Harvey, "Production Entitlement Guarantees (PEGs): A Minimally Distorting Method of Farm Income Support."
- Bruce Gardner, "Domestic Policies to Make Trade Liberalization Politically Possible: The U.S. Case."
- David Harvey, "Decoupling and the European Common Agricultural Policy."

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