World Commodity Markets:

There Are Ways To Improve Them

by Vernon R. McMinimy

History suggests that the current multinational trade negotiations (MTN) under the GATT will not accomplish much. But, where there is talk, there is hope even though general economic and trade conditions are probably worse than they were when past efforts were made.

More governments are more deeply involved in agricultural commodity markets than ever before. Thus, it is easy to understand why there is pessimism about the prospects for reducing or eliminating interventionist practices in the current MTN Round. It is possible, however, that previously those conditions that make the situation look so bleak are essential to success.

I myself am not wise enough to specify the conditions necessary for eliminating government intervention in world agricultural markets. However, the key negotiators and policymakers who are involved in the talks must believe that:

- Under present conditions, intervention costs outweigh benefits for individual countries trying to gain an advantage in international markets.
- Each country will be better off if all countries reduce their intervention in the agricultural sector.
- Fair and equitable ways to reduce intervention do exist.

Among past efforts to deal with the effects of government intervention in agriculture, the most notable were world commodity agreements. There were agreements for wheat, coffee, sugar, cocoa, rubber, and tin. All of these efforts collapsed. The clear lesson of these experiences is that greater intervention—even cooperative intervention—doesn't improve the lot of either the trading nations or the producers in them.

New Ideas

The failure of old ideas makes new ones necessary. One new idea is to quantify the magnitude of intervention in agricultural markets employed by each country and use that measure as the foundation for the elimination of intervention. The United States proposes that producer subsidy equivalents (PSE) be computed and used as the focus of the negotiations.

The essence of the PSE concept is that international comparisons of (1) the differences between world prices of a commodity and internal domestic prices and (2) total costs of various domestic farm subsidy programs make it possible to measure and compare the protection producers receive in different countries. Producer subsidies are viewed as the primary culprit. The idea is to get the nations of the world to reduce their PSEs by an agreed-upon percentage, period-by-period, until all PSEs in all countries are zero. At that point free trade exists in world markets.

Problems With PSEs

The trap in this approach is that unless the adjustments are applied equally for each commodity in each country at the same time, it is likely to result in an increase in the imbalance in intervention among countries and end in a re-escalation of intervention.

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This danger is present in the U.S. proposal of early July 1987. At that time the United States proposed that agreements focus on "aggregate" PSEs for each country. These aggregate PSEs would be based on PSEs for individual commodities. Each country would agree to reduce its aggregate PSE by, say, 25 percent by the end of the first period. There would be no requirement that each country reduce their PSE for *each commodity* by the same amount; only that the *aggregate* PSE be reduced by 25 percent. But, if the countries reduced their PSEs for each commodity by different percentages, the imbalance among commodities would be greater than before the policy changes began. Such an imbalance would likely lead to renewed pressure within each country to escalate intervention. The primary objective of establishing a free market for commodities would be thwarted.

The PSEs will be adjusted through political processes. In that process one expects the allocation of adjustments would be affected by the relative political strength of each commodity interest group. Each country has a different basket of commodities, with different weighting of importance. To expect the political strength of each commodity interest group to be the same in all countries seems unrealistic. Therefore, each country is not likely to adjust its PSEs for each commodity in a manner that maintains the competitive relationship with other countries.

We need to keep in mind that today's intervention came about through competition on a commodity-by-commodity basis. That is, intervention in feedgrains came as a result of problems in feedgrains and was apart from intervention in tea and sugar. Intervention grows within a commodity and must be resolved within that commodity. Intuitively, it is most unlikely that the world will eliminate intervention without a balanced disengagement on a commodity-by-commodity basis.

Governments can be very inventive in finding ways to maintain interventionist practices in different forms

There is another potential problem inherent in the PSE approach. A country could readily reduce its PSE by instituting direct payments to producers equal to the differences between the world price and the domestic price. The PSE would then drop to zero. However, unless this payment was completely insulated from production decisions, incentives for production would remain. Richer countries like the United States and the European Community where producers represent a smaller portion of the economy would most likely try to manage changes in this way. Countries where producers represent a larger portion of the economy would have greater difficulty managing changes in the same manner.

Governments can be very inventive in finding ways to maintain interventionist practices in different forms in response to pressures from other nations. The PSE approach requires intimate knowledge and close monitoring of policies and programs of a wide range of countries. The challenge of measuring the original PSEs may be the easiest task. Policing the reductions may be much more formidable.

There is great uncertainty about how these policy changes, as they arise from a GATT agreement, would affect producers. Government officials may placate the affected with assurances that "certainly there will be adjustments, but the world will be better off." The concern of each producer is not whether the world will be better off but, "Will I be worse off." They may prefer the devil they know rather than one they have not met.

The PSE approach does not necessarily shed light on whether any producer or group will be better off, worse off, or unaffected by reduced intervention. Coming to an agreement to reduce or eliminate government intervention would be easier if we knew how and to what extent producers and consumers of the world will be affected. What are prices likely to be without government intervention? Where will commodities be produced? What will producers' returns look like? What will happen to the values of fixed assets? The answers to these and similar questions will help determine producer support or opposition to reduced government intervention. Without answers to such questions, the removal of government intervention will likely vigorously opposed by a large number of producers. They simply prefer the devil they know.

Proposed WEP Trade Rules Applicable to Countries

Country categories	World price situation	
	World price below WEP	*World price above WEP*
	Trade rules	
Cost of production at or below world prices	No restrictions on exports or imports	No restrictions on exports or mports
Cost of production above world prices	Production not permitted to affect exports or imports	No restrictions on exports or imports

An Alternative to PSEs

Another approach may have a greater chance of being embraced by GATT members. It would be based on calculated world equilibrium prices (WEP). With today's analytical capabilities and computer technologies, it is possible to estimate the combination of commodity prices that is consistent with today's commodity demands and production techniques under a wide range of competitive conditions.

Calculation of the world equilibrium price will be based on physical input information—information that measures the quantity of labor, equipment, energy, land, and other resources involved in the production and distribution of all major commodities. With this and related price information, it is possible to estimate a schedule of quantities of commodities that would be produced at alternative prices.

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Using such specific cost estimates, it is possible to construct an approximation of an aggregate function for both variable and fixed costs for any commodity that is under investigation. Employing the economic principle that producers will increase production until the cost of the last additional unit of output is equal to its revenue, the specific production cost estimates can be used as an approximation of a world supply function for a given commodity. Simply stated, this approach would provide an estimate of the quantity of the commodity that would likely be produced at each of several price levels.

These specific cost estimates could be used to provide information regarding many different production circumstances, and therefore, would provide valuable information to negotiators, policymakers, and producers about the implications of any potential negotiated agreement.

The cost of developing these specific cost estimates would be substantial. However, these costs are inconsequential compared to the costs associated with direct and indirect government intervention in world commodity trade. They also may be small in comparison to the costs associated with an inadequate or ill-conceived international agreement. (I should also mention that the information generated for a WEP approach would be useful with the PSE approach as well).

In short the employment of WEP provides the world with a view of prices and distribution of production that would exist in the absence of intervention or, if all nations were not included in the agreement, partial intervention. With that information in hand, it is possible to gauge how much today's level of intervention is affecting, or, any level of intervention would affect the world market for commodities.

International Agreements Based on WEPs

Rather than measure PSEs based on fluctuating international prices, a proposed international agreement based on WEPs would incorporate rules for individual countries. When the world price is above the WEP, there would be no restrictions placed on production, exports, or imports.

When the world price is below the WEP:

- Surplus producing countries would be permitted to export if their cost of production and delivery were below the world price.
- The exports from such countries could be no greater than the difference between their estimated quantity produced on or below the world price and their domestic consumption.
- Deficit countries would import a quantity equal to its total demand less the volume of its production with a variable cost of production at or below the world price plus the cost of delivering imports.

By regulating trade when prices fall below the WEP this approach will reduce the extent to which the world price can decline. It will also allow production adjustments to occur so that over time production and prices would approximate those in a free world market.

Many issues need to be answered before the WEP approach can be implemented. They include:

- By whom is the world equilibrium price (WEP) calculated?
- What price or prices are used as the world price for comparison to WEPs?

- How are changes in exchange rates reflected in the calculations?
- How will the enforcement process function?

A danger inherent in the WEP approach is that it could be used as a tool to substitute world production controls and rigid trade regulations for today's style of government intervention. This danger is related to the frequency of updating the specific cost estimates. The more current these estimates are, the more they reflect the physical changes and economic pressures in the world and the more the WEP reflects the dynamics of a free market. As the specific cost estimates become obsolete, the less they reflect the dynamics of the real world, and thus the WEP tends to become simply a different form of government intervention. If the WEP concept were to be employed to lessen government intervention, it would require frequent updating of the production cost and demand estimates.

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Beyond Theory

Landell Mills, Ltd., a consulting firm in London, England, has undertaken studies that illustrate the use of the WEP. They estimated the supply function for caloric sweeteners by estimating the specific costs of producing caloric sweeteners, by country, with the use of production costs derived from physical input information. Their analysis covers production costs from the late 1970's through the mid-1980's.

They have used that information to derive what the world price of sugar would be in the absence (worldwide) of government intervention. The analysis also addressed what effect corn sweeteners would have on the total production and price of world sugar under free market conditions, and what impact that technology has on the world sweetener economy. Their analysis did not, however, address the allocation of production. However, that is readily possible using the information and analytical framework that exists.

The analysis indicates that with no government intervention, the world price of raw sugar in 1987 would have been 19.9 cents per pound. This suggests that extensive government intervention has severely depressed the world market price of sugar. Their analysis strongly suggests that producers in poorer countries would benefit substantially by the removal of government intervention. Results from this one commodity illustrate the ability of the WEP approach to provide us a view of some of the critical results of removing government intervention from world commodity markets.

Agricultural policy is very complex. Each country has its own reasons for its agricultural programs. Lack of understanding the effects of these aggregate policies in the world markets for commodities limits our ability to modify these agricultural programs and to lessen their negative effects. We have the capability to develop a reasonable simulation of what commodity markets would be like under alternative combinations of agricultural programs. This will allow us to gain understanding of the effects that government programs have on world markets. The development of specific cost estimates in a WEP framework would provide policymakers, negotiators, politicians, and producers with more complete information than they have had in the past. In turn these estimates would facilitate negotiations among countries and the coordination of changes in agricultural policies. C