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ALTERNATIVE APPROACHES TO STABILIZING  
INTERNATIONAL MARKETS\*

W. Scott Steele

As a result of the recent world food situation, particularly the problem of repeated production shortfalls, the precipitous drawdown in grain stocks and the rapid increase in grain prices, widespread concern has developed over instability in food supplies and prices. Government officials and heads of international organizations have given considerable attention to stabilization measures, particularly grain reserves, as a means of offsetting fluctuating supplies and unstable prices of basic foodstuffs.

For the United States, the problem of fluctuations in grain prices and unstable markets is not one of domestic origin. At recent levels of production, grain supplies have always exceeded domestic needs in the past two decades. Wheat is a good example. U.S. exports of wheat as a share of domestic production went from about 40 percent in 1970-71 to about 70 percent in 1972-73. In recent years, U.S. overseas markets have been the main source of instability in grain prices. Instead of reducing grain consumption or relying on their own grain reserves, many foreign countries experiencing shortfalls in grain production used the world and U.S. markets to purchase needed supplies.

Most severe fluctuations in U.S. markets have been the result of variations in trade of the Communist Bloc countries, especially the Soviet Union. The magnitude of Soviet Union shortfalls in grain production and its intentions regarding purchases in world markets caught many countries and traders by surprise.

Grain production in the Soviet Union has been

very erratic, with severe shortfalls in 1963, 1965, 1972, and 1975. In 1972, Soviet grain imports were much larger than anticipated, based on their actual shortfall. These greatly affected world stock levels and prices. For 1975, it appears that the Soviets have suffered the worst grain shortfall in post-War history. Their crop has been estimated at only 137 million tons. In absolute terms, this would represent a 70 million ton shortfall from the 1960-74 trend in Soviet total grain production. The previous worst shortfall occurred in 1963, when the Soviets registered a 28 million ton shortfall from trend. Soviet grain imports during 1975-76 will probably reach about 27 million tons. The constraints of Soviet grain handling capacity are apparently determining the level of imports.

Analysis done by the USDA's Economic Research Service shows that over 80 percent of the deviation from trends in world imports of wheat since 1963, can be explained by changing Soviet Union imports. If all the centrally planned countries are included, their year-to-year variation in imports accounts for over 90 percent of the year-to-year changes in world wheat imports [2].

India also experienced severe shortfalls in grain production in the mid-1960s and required large grain imports. It then achieved considerable stability in production until a 1972 shortfall.

The European Community and Japan, the United States' largest commercial customers, have tended not to destabilize world markets.<sup>1</sup> Their imports have grown at a fairly steady rate over the past decade.

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<sup>1</sup>The European Community has, from time to time, been accused of destabilizing world markets as a result of subsidizing the export of surplus wheat; however, in times of surplus other countries, including the United States, have resorted to export subsidies.

Primarily because of their large grain stocks, the U.S. and Canada have accounted for a major proportion of the fluctuations in world wheat exports since 1963. The fluctuations in U.S. and Canadian exports can be directly related to fluctuations in import demand resulting from shortfalls in grain production in the Soviet Union, East Europe, the People's Republic of China and South Asia. Thus, development of U.S. policy with respect to market instability should take into account problems created in world markets by these particular countries.

Before alternative stabilization policies can be developed, the objectives for which these policies are designed have to be specified and elaborated on by decision makers. Stabilization policies can be aimed at differing and sometimes conflicting objectives. Policymakers have to clarify which objectives will be supported and to what extent. After objectives are clarified, analyses should be made to determine which alternative approach best meets the stated objectives.

For the purpose of this discussion, possible alternative stabilization approaches have been classified as (1) unilateral, (2) bilateral and (3) multilateral. Most of the grain market stabilization proposals that have originated in Congress, universities, the commercial sector and international organizations tend to fall into one of these three categories. The U.S. has taken action in all three, with recent emphasis on trying to develop bilateral and multilateral approaches to the problem.

#### **A UNILATERAL APPROACH TO MARKET STABILIZATION**

The unilateral approach to stabilization is a go-it-alone approach. It does not depend on negotiations or cumbersome agreements. A unilateral approach could be based on a government reserve policy, or the absence of such a policy, with emphasis on other stabilization measures to whatever extent they are effective.

While the United States has not favored a unilateral approach, it has had to take unilateral actions in terms of using export controls and production adjustments to meet unexpected variations in export demand. The other possible feature of a unilateral policy, namely government-held grain reserves, has not been supported, although there has been considerable public debate on this issue.

#### **No Government Grain Reserve Policy**

With no government grain reserve policy, it would be necessary to depend primarily on adjustment of grain production and livestock feeding, and the use of export monitoring and management to

moderate effects of unstable grain markets.

This type policy also means greater reliance on the private sector for maintaining stocks. While grain marketing firms as well as some farmers are likely to carry over some quantities of grain from year to year (if there is no government-held grain reserve), there is great uncertainty as to the level of stocks they would hold. Incentives to carry stocks over and above working levels will not be high, unless there is an expectation of earning a reasonable profit. Usually, because of uncertainty and risk, it appears unlikely that there will be sufficient private incentives to hold stocks to meet unforeseen crop failures or sudden changes in agricultural policies of importing countries. Furthermore, it is apparently not in the interests of private enterprise to achieve a significant degree of price stabilization through speculative stockholding, since this reduces the opportunity for profit.

If privately held stocks are an insufficient buffer against market instability, then, in lieu of a government-held reserve, adjustment in grain production might be brought about to ease a tight market situation. In other words, grain in the ground strategy rather than grain in storage might be used as a stabilizing tool. Production adjustments, brought about by private enterprise evaluations and decisions or by government programs, might reduce the need for large stocks and help replenish reserves. However, without adequate forecast information, abundant resources and control over growing conditions, production adjustment could either lead to too little or too much of a change in supply. Furthermore, there is a time lag between the point when the need for additional supplies becomes apparent and when production from expanded crop acreage becomes available. Prices will react accordingly.

As 1974 demonstrated, production adjustment may be an undependable means of assuring supplies. Resources such as fertilizer were not available to the extent desired. The weather was unfavorable, despite efforts to achieve full American farm production. The great advantage of reserve stocks is their immediate availability as a solution to market shortages.

It has also been argued that the livestock sector provides a good buffer against market shortages. Allowing adjustments to take place in the livestock sector, by reducing amount of grain fed, will tend to make more grain available for other uses. However, adjustments in this sector will lead to fluctuations in supplies and prices for livestock products in later years.

If efforts to adjust production and livestock feeding are not enough to meet problems associated with fluctuating export market demands (in the absence of government-held stocks), then export management might be necessary to prevent

unacceptable domestic price fluctuations. The United States did, in fact, resort to the use of export controls in recent years. Soybean sales were embargoed in 1973, as were grain sales to the Soviet Union and Poland in 1975. In 1974, voluntary restraints were imposed on grain exports.

A policy that relies on export controls, however, may have undesirable effects associated with it. Not having supplies available for foreign buyers or charging them exceptionally high prices may affect the United States' credibility as a dependable supplier and affect longrun growth in trade.

Since there is some question regarding effects of non-grain reserve measures that have been described, many public officials and economists have advocated institution of a government grain reserve policy for moderating price instability.

### **A Government Grain Reserve Policy**

A government grain reserve policy does not necessarily mean that the government should take over the whole function of grain storage, excluding private trade. As noted previously, private trade will hold stocks from year to year if there are adequate financial incentives. The government, through subsidy or loan arrangements, might induce the private sector to hold some target level of stocks. On the other hand, the government might decide to make direct purchases in the market to acquire desired reserve stocks.

In the past, the Commodity Credit Corporation (CCC) gained possession of large amounts of farm commodities through a non-recourse commodity loan program designed to raise farm incomes. With the depletion of farm surpluses and stocks, and change in domestic farm policy to orient supply to market conditions, it is not immediately evident what will happen to future levels of grain stocks. However, if a critical level of stocks consistent with U.S. objectives were identified, then a program could be designed to accumulate that level of reserves and to minimize excessive accumulation of grain supplies.

A national stocks policy could benefit producers when supplies were greater than market demand. Levels of farm income would not be as susceptible to wide fluctuations. Given the more stable environment, farmers, input suppliers and investors would be able to plan ahead with more certainty. The reserve could also benefit consumers, especially low-income consumers, against high prices and short supplies. By contributing to a more stable cost-of-living, it may also tend to hold down increasing wage demands in the non-farm sector. Such a policy might also enhance U.S. exports of farm commodities. Having supplies available when foreign customers "need"

them would discourage countries from making uneconomic investments to become self-sufficient in food production or in developing alternative sources of imports.

These are some of the claimed benefits of a national grain reserve. There are also costs of storage and investment in the inventory. Costs of maintaining the reserve must be related to the benefits which accrue to society by having more stable supplies and prices.

In summary, the major advantage of a unilateral policy is that it does not depend on negotiations or cumbersome agreements to be put into effect. A unilateral policy may facilitate quick response to unexpected crisis situations and better achieve domestic objectives.

The major disadvantage of a unilateral policy tends to be that the United States could be forcing the rest of the world, or in certain cases particular countries, to make a costly accommodation to fluctuations in world markets, particularly if export controls are used. However, through bilateral and multilateral negotiations with other countries, more orderly stockpiling and commercial arrangements could be developed. These could avert many of the undesirable effects associated with a purely unilateral U.S. policy.

### **A BILATERAL APPROACH TO STABILIZING INTERNATIONAL MARKETS**

A bilateral approach to stabilizing markets could expand benefits to the United States and its negotiating partner, and reduce some uncertainty and costs of a go-it-alone policy. The United States has recently taken this bilateral approach in developing a number of long-term trade arrangements, so U.S. farmers can identify reliable markets and better anticipate future demands.

The countries with which the United States has developed long-term trade arrangements include Romania, Poland, Japan, Israel and—most importantly—the Soviet Union.

The new five-year U.S.-Soviet grain agreement is an attempt to turn a highly destabilizing country in world markets into a more regular customer, at least as far as the United States is concerned. The Soviet Union, of course, will have access to the supplies of other exporters and also will be able to sell in world markets. Thus, the agreement does not assure world market stability. However, the purchase of six to eight million tons of wheat and corn annually from the United States, providing supplies are over 225 million tons, will tend to remove the uncertainty and speculation about the size of Soviet purchases from

the United States and allow farmers to better anticipate future demand.

This does not preclude problems with the agreement. Had such an agreement been in force during the 1974-75 marketing year, a purchase of six to eight million tons may have put extreme pressure on available U.S. supplies and prices. Moreover, if a tight market situation should occur while the agreement is in force, with U.S. supplies only slightly over 225 million tons, the vulnerable countries are the developing ones which have neither long-term agreements nor the ability to purchase in tight market situations.

Bilateral agreements have several important advantages. Compared with a unilateral policy, based on grain reserves, there may be no direct government outlay required. Bilateral agreements are also easier to negotiate and administer than multilateral agreements. On the other hand, they probably would not control world market instability and they violate the spirit of the General Agreement on Trade and Tariffs.

#### **A Multilateral Approach to Stabilizing International Markets**

Unstable markets are not only of concern to the United States; they have worldwide repercussions. Many countries depend on world markets for their food supplies. In some cases, international trade means the difference between nourishment and starvation. Since the world has become so interdependent, there have been a large number of multilateral approaches proposed as a means of solving the problem of unstable grain markets. Although multilateral agreements are more difficult to reach and administer, they might enlarge the area of benefits to the United States and the world.

The World Food Conference was called in November 1974 to discuss ways to maintain adequate food supplies. One of the major topics for discussion and resolution was that of world food security and the role of grain reserves. The Conference called for adoption of FAO's International Undertaking on World Food Security. The Undertaking has four essential elements: (1) adoption of national stockholding policies, (2) establishment of national stock targets, (3) an improved worldwide information system and (4) expansion and coordination of assistance to developing countries wishing to participate [1]. The Undertaking also commits governments to consultations to consider necessary actions for meeting emergencies and shortfalls. As part of the Undertaking, FAO was requested to expand its Global Information and Early Warning System as a basis for early and urgent consultations. As of December 1975, 59 countries, including the United States, had indicated acceptance.

#### **U.S. Proposal on Grain Reserves**

With a view to accelerating implementation of principles contained in the proposed FAO Undertaking, the United States led in initiating discussions for establishing an international system of nationally-held grain reserves. Technical discussions conducted by representatives of the principal grain trading nations began in a preparatory group of the International Wheat Council (IWC) during February 1975, and have been continuing over the past year.

At the September 1975 preparatory meeting of the International Wheat Council, the United States launched its proposal for an international grain reserve system. Establishment of a global reserve of 30 million tons of food grains (25 million tons of wheat, and five million tons of rice) was proposed [3].

Responsibility for holding reserves and bearing costs would be shared among participants. Each participant country would be free to determine how its reserves would be maintained and what measures would be required for their acquisition and release. However, participants would have to assure their ability to fulfill their obligations under the agreement.

Internationally agreed-upon guidelines would be required to assure properly coordinated action. Action to acquire or release stocks would be triggered by a quantitative indicator, based upon stock levels and deviations in production from the long-term production trend.

Participants in the reserve scheme would receive assured access to supplies at market prices. Non-participants would not have the assurance of obtaining reserves held by others.

Participation in the agreement would be open to all interested governments, although special assistance probably would be needed for participating developing countries in meeting their obligation to hold a portion of global reserves.

#### **An International Grain Reserve Agreement?**

The U.S. proposal has been under active consideration by the International Wheat Council, together with points of view of other nations. While the United States was hoping to bring about the creation of such a reserve system at the earliest possible date, it appears that it will be sometime before all issues are resolved. Talks on grain reserves in the IWC recently reached an impasse, resulting from conflicting views between the United States and other grain exporters. The United States has been placing major emphasis on food security against that of market or price stabilization wanted by other exporting nations.

Besides the issue of what the focus of the agreement should be, there is also the question of how the reserve system would operate, i.e., how would reserves be acquired and released. For such a system to function effectively, it would be necessary to establish and disseminate guidelines for its operation.

Depending on the type of agreement, several different operating mechanisms could be used. Trigger mechanisms, based on price or supply levels, could be used to provide for a more or less automatic response to surplus or deficit situation. Such mechanisms could also be used to alert participating countries to enter into consultations or effective action to control extreme market situations.

The main advantage of using the automatic response type trigger mechanism would be quick reaction to adverse situations. However, agreement on an automatic triggering mechanism would, no doubt, be extremely difficult to achieve. Even if such a mechanism were agreed upon, it could lead to potential conflicts among countries, perhaps causing a breakdown of the agreement.

A reserve management system, which may be more feasible from a negotiating point of view, might be based on indicators and consultations. This system would probably be less effective in terms of meeting objectives. The major questions to be resolved for this type of agreement are: (1) what should be appropriate indicators to trigger consultations and (2) what actions would be taken? The United States has proposed supply or quantity based indicators.<sup>2</sup> Many other countries favor price based indicators. As long as indicators were not automatically triggering acquisition or release of reserves, but only consultations, some of the resistance to using a particular indicator might be reduced. The question of responses would remain though.

Probably the most immediate indicator of an approaching shortage or surplus situation would be movement of forward prices. They, to a large extent, reflect the collective view of buyers and sellers on future supply and demand prospects. However, prices can be subject to manipulation and speculative movements. Factors which may be unrelated to an impending crop failure or poor harvest may trigger short-run price increases. On the other hand, there are also problems associated with the reliability of

quantitative indicators. Because of the problems of getting accurate, up-to-date information on current and projected trends of production, consumption, trade and stocks, it would be extremely difficult to know when and to what degree action should be taken. By the time an apparent shortfall situation were verified through quantitative measures, effects of an impending shortage could have long been felt.

What is needed is to be able to act in sufficient time so that undesirable effects of a short supply can be negated. Thus, both price and quantity-based indicators will probably be needed to evaluate potential shortage and surplus situations, and provide information on how to deal with them. The system could operate by keeping watch on both price and quantity indicators.

An appropriate international organization would be expected to accumulate and analyze data on current and forecasted levels of production, consumption, trade, stocks and spots and future prices of major grains, and how these indicators may be deviating from expected norms. When these indicators reached some predetermined level (or if a rapid rate of change was evident), then participant countries would be alerted and called together to determine when and how reserves would be released or acquired.

Such an international grain reserve system is untried and untested. From the point of view of the United States, it would mean a more equitable sharing of costs. However, bringing such a system about will require considerably more compromise and cooperation than has been shown to date.

In the final analysis, successful stabilizing of international markets, depends essentially on cooperation from the Soviet Union. Because of its great variability in grain production and its monopsony power, the Soviet Union can easily disrupt orderly marketing processes. If the USSR does not cooperate, then the rest of the world must either accept the consequences of large and sudden destabilizing purchases, or measures must be taken to effectively deal with the problem. The IWC discussions have been a step in the right direction in seeking Soviet participation in an international grain reserve agreement. The U.S.-Soviet trade agreement is also very desirable; however, this type of agreement might have to be extended to include other major grain exporters, to

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<sup>2</sup> The United States has been opposed to using prices as a basis for operating a grain reserves program. Reasons apparently stem from experience with prior commodity agreements and the fact the present market orientation of farm programs makes government intervention to directly control commodity prices undesirable. Furthermore, there is probably concern that if price ranges were established, they would be too narrow to provide appropriate signals for farmers to change production level. Another potential reason is that any negotiated lower price of a range, triggering reserve accumulation, may be set at an unacceptably high level reducing the United States' ability to compete in world markets during periods of adequate supplies and causing additional governmental budget outlays to either limit production, accumulate surpluses, or expand P.L. 480 exports.

more effectively monitor and regularize Soviet grain purchases in world markets. This is especially true if an international reserve agreement with Soviet participation is not reached.

Some possible approaches for dealing with unstable markets have been presented. Further research

is needed to assess costs, benefits and problems of implementation. Perhaps some elements of the three approaches discussed may give best results. Moreover, a country cannot always depend on bilateral and multilateral agreements to work successfully, thus unilateral action may be necessary and should be planned for.

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