Grain Export Quotas: The Short View and the Long

CLIFTON B. LUTTRELL

GRAIN export controls have been suggested as a means of reducing the unfavorable impact on domestic consumers of the relatively small feed grain crop this year. The nation's feed grain crop has been estimated at 175 million tons, or 15 percent less than a year ago, as a result of extremely dry weather.[1] Production this year plus an estimated carryover of 22 million tons totals 198 million tons available for domestic use plus exports. This is 16 percent less than the total last year. The quantity of wheat and other concentrates available for feed plus exports is no greater than last year, thus there are no offsetting gains from these feed sources.

Exports of feed grains have risen sharply in recent years and accounted for 43.7 million tons or 20 percent of total usage last year. Such exports were up 50 percent from the 1972 level and 150 percent from 1971.

As a consequence of the sharp decline in the quantity of feed grain available and the prospects for large exports again this year, proposals have been made to establish export quotas.[2] Such quotas would limit exports to levels below those determined by market forces and increase the quantity of grain available to feed domestic animals. One writer argued that the establishment of export quotas "offers the only way in which the present food and feed situation can be fairly dealt with. It amounts to protection, on a reasonable basis, of the interests of the United States; timely warning to foreign claimants; and the establishment of fair and equitable access for them to a generous share of total U.S. supplies."[3]

[1]Short tons (2,000 pounds) of corn, sorgum grain, barley, and oats.

[2]For example, see "Government Weighs Grain Export Curbs . . .," *The Wall Street Journal*, 14 August 1974; "Midwest Drought: Economic Time Bomb," *U.S. News and World Report*, 26 August 1974; "World Trade," *New York Journal of Commerce*, 22 August 1974; and "Butz Sees the Light," *The Commercial Appeal*, 24 August 1974.

[3]J. Hans Richter-Allschaffer, "Farm Exports: Toward Timely Controls," *New York Times*, 4 September 1974, p. 38M.

THE SHORT-RUN VIEW

Grain export controls, as implied in the proposed quotas, could serve the nation with tolerable satisfaction in the short run. Such actions are simple and direct, and thus tend to appeal to many people. Direct export controls would have an early impact on the domestic food supply. The nation possesses a given amount of grain, and the less that is exported, the greater would be the amount available for domestic use. An increase in the quantity available for domestic use would tend to lower domestic grain prices, increase livestock feeding, and increase output of beef, pork, poultry, milk, and eggs, thus reducing food costs. Early results are assured in terms of smaller increases in food costs to domestic consumers than would have otherwise occurred, and this is the overriding factor to the proponents of export quotas.

Quotas Might Reduce Returns to Producers and Domestic Consumers

The early gains to consumers in terms of lower food prices is not the whole story, however, even in the short run. A decrease in feed grain exports resulting from the imposition of quotas might have an unfavorable impact on the incomes of grain producers and on the prices of imports. Given a relatively fixed quantity of grain following harvests, changes in the market price until the next harvest year largely reflect changes in demand conditions in the United States and abroad. If exports were limited by quotas the effective demand for U. S. grain would be less, and domestic prices would be lower. If the effects of lower domestic prices were not offset by higher returns from exports, gross returns to grain producers would decline.[4]

[4]Grain producer incomes could rise in the short run provided an export quota system is applied to each producer and foreign demand for U.S. grain is inelastic — that is, low cost feed grain substitutes are not available.

At the same time, the imposition of quotas could reduce the volume of imports available to domestic consumers. A reduction in the amount of grain available in world markets would raise world grain prices. Depending upon the availability of substitutes, total expenditures on U. S. grain by foreign buyers might either increase or decrease.

If relatively low-cost substitutes are available, then the increase in grain prices would be relatively small and would not offset the decrease in the quantity sold; total expenditures by foreign buyers of U. S. grain would decline. Any such reduction in total expenditures by foreign purchasers of U. S. grain would result in a decline in the demand for dollars and a decrease in the international value of the dollar. This would imply that the domestic price of our imports would rise. Consequently, the imposition of quotas would increase prices to U. S. consumers of imported commodities and those commodities which use imports as inputs to production. The gain to U. S. consumers in terms of reduced food prices could then very well be offset by an increase in the prices of other commodities. In this case there is a loss sustained by U. S. consumers and grain producers and a gain by producers of other exports.

If low-cost substitutes are not available, however, total expenditures by foreign grain purchasers would increase. An increase in total foreign expenditures in the United States would lead to a rise in the exchange rate and thus a lowering of the domestic price of imports and a rise in the foreign price of U. S. exports. If substitutes are available for our other exports, then U. S. exporters of these goods would incur losses. As a result, domestic grain producers and domestic grain consumers gain at the expense of other U. S. exporters and foreign consumers.

Thus, consumers in the United States would stand to gain in the short run from the controls only if demand for grain in the world market were inelastic — that is, if few grain substitutes were available and the reduced quantity of grain were sold to foreign purchasers for more dollars.

Another consideration in the imposition of quotas is that they might induce retaliation. Suppose, for example, that oil-producing nations decided to retaliate by imposing quotas on their oil exports to the United States. This would raise the domestic price of oil, and again, U. S. consumers could be worse off than before.

The above analysis indicates that in the short run the net effect of the quotas could be a decrease in the quantity of imports and an increase in the quantity of grain available to consumers in the United States. One should be reminded, however, that if feed grains were more valuable to domestic consumers than the imports, the market itself would guarantee that no grains would be exported. In other words, if domestic consumers were willing to pay more for grain than for products from abroad, grain producers would be able to sell their grain for higher returns in the United States than in the world market. In this context, instead of purportedly increasing consumer well-being, the imposition of export quotas, even for a period of one year, would actually decrease well-being.

THE LONG-RUN IMPACT

In contrast to the possibility of some short-run gains to domestic consumers from grain export quotas, over the longer run such quotas would be harmful to both domestic and foreign consumers. Given time for retaliatory policies and resource adjustments, export quotas on grain would, in the long run, tend to: (1) reduce grain exports; (2) reduce domestic grain production; (3) decrease domestic farm incomes; (4) reduce the overall quantity of goods and services produced, thereby lowering the well-being of consumers in the United States and the rest of the world; and (5) cause further increases in domestic prices.

Reduces Grain Exports

In addition to their immediate impacts, export quotas which limit the quantity of grain exported in the current year would tend to reduce the value of future grain exports. For example, if the United States permits grain importing nations free access to our grain markets only during years when production is equal to or above the trend level, this nation would cease to be a dependable source of grain supplies. Consequently, those nations which have heretofore depended on the United States for a portion of their grain would likely take action to assure a relatively stable supply, rather than depend on U. S. imports on an intermittent basis. Food consumption habits develop over a period of years and do not change readily for the convenience of such on and off trade.

Grain importing nations could provide for alternative sources of grain supplies in several different ways. They could increase their own production in the long run because of the increase in the cost and unreliability of U. S. grain. They might also negotiate bilateral trade agreements with other grain producing nations for a greater portion of their grain supply. Such agreements might be accompanied by protective tariffs and import restrictions applied during the years that this nation had larger than average supplies, or had surpluses if price supports were used to prevent price declines. Either of the above routes to a more dependable source would ultimately result in less U. S. grain exports and a corresponding reduction in imports of foreign goods and services.

Reduces U.S. Grain Production

If the quotas were at all effective, they would result in lower domestic grain prices and, therefore, in decreased production. Since farmers operate under competitive conditions, they produce at the level where the estimated cost of producing the last unit of output is equal to the projected price. Production of additional units entails higher per unit costs of production, and a decrease in price caused by export quotas implies that some of the output is being produced at a loss unless the producer anticipated the lower prices at the time of planting. Consequently, each farmer would reduce production and total grain output would decline.

From the domestic consumers' point of view, such a decline in production is not objectionable. He would get a somewhat larger quantity of grain at a marginally lower price than otherwise. Hence, the direct burden of reduced U. S. grain output would be borne by foreign consumers who receive less grain at higher prices and domestic grain producers who would incur capital losses as resources were transferred from the production of grain to the production of other products. But, as will be seen later, there are secondary effects which would work towards reducing the well-being of U. S. consumers.

Another factor which tends to reduce production under a quota regime is the greater price risks taken by producers. Under export controls the price signals received by producers reflect not only world supply and demand conditions but also the uncertainty with respect to the restrictions. The political forces which determined the controls would be the result of compromises between feed grain producers, feed users, and consumer groups. The result of such compromises and their impact on prices is difficult to predict. Hence, producers and farm credit suppliers would have to make allowance for these additional risks in their production and lending plans.

Reduces Farm Incomes

Farm incomes would be less under export quotas than with free trade. The lower prices per unit received for grain combined with a reduction in grain output would probably result in a sizable decline in gross sales. Consequently, incomes to grain producers and returns to their resources would decline.

Reduces Well-Being for U.S. and World Consumers

In the discussion of the short-run effects of the imposition of grain export quotas, the possibility of a decline in the well-being of U.S. consumers was discussed. The possibility exists because of a potential increase in the prices of imports. In the long run, instead of just the *possibility* of a loss, the loss becomes a certainty. If quotas were effective, grain production and grain exports would decline. In the short run, domestic consumer gains or losses would depend on whether foreigners could find substitutes for our grain. In the long run, substitutes are always available and the quotas would result in trade losses.

The losses occur because in the long run our foreign currency earnings would decline and we would be able to buy less foreign products, such as oil, sugar, coffee, and raw materials for the manufacture of steel and aluminum. Again, one could make an argument that a decline in the domestic price of grain would offset the increase in the price of oil and other imported products, and that domestic consumers would be as well off with the export quotas as prior to their imposition. This reasoning, however, completely overlooks the source of the foreign trade gains. Why, for example, was the United States producing wheat in the first place and exchanging it for oil rather than producing all of the oil that the nation consumed? The simple answer is that by producing wheat and trading it for oil we gained wealth. That is, the process used up less of our resources than if we had taken resources used in the production of wheat and used them to increase the production of oil. Through trade we have obtained more oil and more wheat than we could acquire by attempting to become self sufficient in the production of both wheat and oil.

This is the fundamental reason for all specialization and for all trade, domestic and international. Individuals, as well as countries, have different natural and technological endowments, and by specializing in the production of some goods and services and exchanging them for others, they can increase the total amount of all products that are available for consumption.

Despite the artificial quadrupling of oil prices by the oil producers' cartel, it may still be cheaper to exchange grain for oil than to produce additional quantities of oil domestically. An imposition of quotas would shift our resources from the production of grain to the production of oil and we would thus forego the savings accrued from exchange. The opposite shift would take place in foreign countries. As a result, all consumers, both domestic and foreign, would be worse off.

Thus, what appears to many people as a reduction in food prices and an increase in the welfare of U. S. consumers from the establishment of grain export quotas, actually becomes a net loss. This country has opposed the imposition of artificial restrictions on oil output by the oil-producing countries. It is argued that such restrictions could cause a worldwide decline in the standard of living. Yet, some analysts are proposing that the United States practice the same tactics and the same consequences would likely be in prospect.

Increases Domestic Prices

Grain export controls over the long run would tend to cause the domestic price level to be higher than would have prevailed without the controls. To the extent that the controls reduced international specialization of production and exchange of goods, they would reduce the total quantity of goods available to consumers in both the United States and foreign countries. This reduction in supply, assuming no offsetting change in the rate of monetary growth, would cause higher prices. Thus, instead of contributing to a lower rate of inflation, as contended by some of the proponents, export controls would actually cause further price increases.

CONCLUDING SUMMARY

The quantity of feed grain available for domestic use plus exports is down this year from the level of a year ago. The decline will tend to reduce livestock feeding and cause higher food prices.

Proposals have been made to limit feed grain exports through export quotas to avoid the upward pressure on food prices from the reduced grain supplies. This proposed solution is simple and direct, and may appeal to many people. However, such quotas could actually reduce the economic well-being of the nation in the short run and would certainly reduce well-being over a longer period.

In the short run domestic food prices would be lower with the quotas than without them. However, depending on whether or not there are substitutes for U. S. grain in foreign markets, the prices of U. S. imports could rise significantly. As a result, U. S. consumers could end up with more grain and fewer imports than they would have in a free exchange system. In such a situation, both this nation and grain importing nations would lose as a result of the quotas. In addition, the quotas might trigger some harmful retaliatory measures by foreign nations, such as the actions of the oil cartel last year.

Over the longer run, export quotas would be even more damaging than in the short run. In the long run they inhibit domestic grain production and reduce domestic farm incomes. But of greater importance, they reduce the long-run gains from international specialization, thereby greatly reducing the overall output of goods and services, the well-being of consumers, and cause further price increases in both this nation and abroad.