Market Development: An Objective for Policies Affecting Commodity Prices?

Karen Ackerman and Stephanie Mercier
Economic Research Service, USDA

Most government programs that affect commodity prices and provide food assistance do not attempt to boost sales. The chief objectives of producer price support and supply programs are to stabilize, support and protect farm income and prices; assist in the maintenance of balanced and adequate supplies of food, feed and fiber; and aid in the orderly marketing of farm commodities. Domestic food assistance programs are designed to improve the nutrition of low-income people and other target groups and to provide an outlet for surplus agricultural commodities. Export price reduction and assistance programs counter the effects of competitors' export subsidies, help sell U.S. commodities at world market-prices, facilitate the financing of food imports from the United States, and provide humanitarian donations.

Market development, a widely-used term, is defined in this paper as the pursuit of sales through price and non-price strategies. Non-price marketing programs such as the Market Promotion Program (MPP) will be discussed in other conference papers. Pricing strategies to develop markets result in short-term sale and revenue increases because price discounts are linked directly to sales. However, the longer-term pursuit of new markets may require combinations of price and non-price strategies. For example, as the Uruguay Round Agreement of the General Agreement on Tariffs and Trade (GATT) reduces export subsidies, policymakers will consider how to design export policies to address longer-term price competitiveness.

In this paper, we will present the major government policies affecting commodity prices, discuss their performance in developing markets for U.S. agricultural products, and discuss options for modifying programs to emphasize market development. Our paper will focus primarily on major grains, the chief commodities assisted by domestic price support and export subsidy programs.

Major Domestic Grains Policies

The preponderance of U.S. domestic farm programs in the last several decades have dealt with the supply, not the demand, side of the grain market equation. Recent moves to increase the market orientation of the domestic programs have concentrated on making producers freer to respond on the margin to relative commodity prices. The largest incidence of governmental intervention in the agriculture sector occurs in the grains economy. Of the $14 billion spent on farm support programs in fiscal year 1993, more than 50 percent went directly to grain producers. First, we will examine how these programs operate and, second, we will look at how they might be changed to improve their sensitivity to market operations. The domestic portion of the U.S. Depart-

ment of Agriculture (USDA) programs for grains consists primarily of two functions: 1) price and income support, and 2) supply control. In practical terms, these types of programs are not actually separable, but in theory they do have discrete and different goals.

Price and Income Support Programs

The target price has been the foundation of the U.S. commodity programs since 1974. In essence, it offers producers of wheat, feed grains, rice and cotton who sign up for the program a guaranteed price for a certain share of their production. When the target price exceeds the season average price, the farmer receives the differential between the target price and the market price for whatever production the government designates as eligible for support. This differential, referred to as the deficiency payment, provides the bulk of U.S. government support to agricultural producers. Deficiency payments help make U.S. commodities more price competitive although government outlays increase when the differential between market prices and target prices widens. Deficiency payments were paid in all but two years for wheat and four years for corn when average market prices exceeded target prices.

The share of total production actually receiving support has declined slowly since the mid-1980s. Total coverage never reached 100 percent for most grains, as participation rates during that period hovered in the 70 to 90 percent range for wheat and feed grains and right at 95 percent for rice. In the 1985 Food Security Act (FSA), the yield at which payments would be made to farmers was frozen for the various crops, and in the 1990 Food, Agriculture, Conservation, and Trade Act (FACT Act), the flexibility provisions eliminated payments to farmers on 15 percent of their permitted acres. In 1994-1995, it appears U.S. farmers will receive deficiency payments on just 53 percent of the record 10.1 billion bushel corn crop.

The nonrecourse loan program and its accompanying loan rate have been fixtures in the menu of commodity programs since the 1950s, although their role has evolved over time. The program is designed to offer farmers the opportunity to use their grain as collateral for a loan from the Commodity Credit Corporation (CCC), an agency of the USDA, for a nine-month period. At the end of that period, they have the option to deliver that grain to the CCC rather than repay the loan. As a consequence of the Agriculture and Food Act of 1981, the loan rate was set at a level that made it attractive for farmers to forfeit large amounts of grain to the CCC and created immense government-held stocks in the mid-1980s. The level of wheat stocks in 1986 amounted to nearly 90 percent of that year's crop. Many of the program changes that were made in the 1985 FSA were a direct result of the provisions in the 1981 law that allowed the stocks to expand.

The main change directly affecting the non-recourse loan program was the establishment of a Findlay loan rate. This provided for a loan rate intended to encourage exports not the accumulation of stocks. The formula for determining the rate is rather complex and subject to the secretary of agriculture's discretion, but the result is an effective rate for corn that averaged 30 percent below the statutory loan rate over the last five years.

The marketing loan is a policy instrument that has been used widely by producers of cotton and rice, but has not yet been an effective mechanism in the wheat, feed

grains and oilseeds markets. It was instituted in the 1985 FSA and allows easier marketing of products abroad by paying farmers some set percentage of the differential between the loan rate and the prevailing world price when that world price falls below the loan rate. ERS analysis shows that U.S. cotton's competitive position has been strengthened by the cotton marketing loan concept although USDA has developed a number of proposals to improve the operation of the program. Though the GATT trigger provisions of the 1990 Omnibus Budget Reconciliation Act required that the secretary of agriculture implement marketing loans for wheat and feed grains if no GATT agreement was concluded by June, 1992, the programs were set up in such a way as to be relatively unattractive to producers of those grains.

The Farmer-Owned Reserve (FOR) is another program which saw its heyday in the 1980s. It was established in the 1977 act and allowed farmers to continue their storing their grain under loan after the initial nine-month program expired for up to three to five years. If the grain were held in storage for that length of time, the government would pay the storage costs. It was possible to redeem the grain and sell it onto the market when the market price reached a certain level, but the release mechanism did not function particularly well in the 1980s. At the peak of the stocks overhang in 1986, FOR corn stocks made up about a quarter of the total.

The FOR was also changed in the 1985 FSA (and later in the 1990 FACT Act) to make it both less lucrative and less available to producers. Under current law, admission to the Reserve for new crops is denied if the prices during a certain period exceed 80 percent of the loan rate and if the stocks-to-use ratios for program crops are below mandated percentages. In order to encourage redemption as prices rise, storage payments are stopped if the market price reaches 95 percent of the commodity's target price for a ninety-day period.

The price and income support programs tend to increase prices of U.S. agricultural commodities above world prices. In the early 1980s when target prices were set artificially high, the United States lost export markets and grain stocks accumulated while competitors boosted their production and sales. Currently, U.S. wheat supply and demand are more in balance with supply-to-use levels at about 22 percent. For future years, GATT Uruguay Round reductions in export subsidies are expected to raise world prices, decreasing the deficiency payments.

In addition, policymakers have begun to increase producer participation in private sector tools to manage grain price variability. The options pilot program initiated by USDA in 1993 and operated for corn, soybeans and wheat in thirteen counties during 1994 encourages farmers to give up their deficiency payments by subsidizing farmers' use of put options.

Supply Control Programs

Supply control in one guise or another has been a part of the policy environment since the 1950s. The objectives of this aspect of the commodity programs are to restrain excess production and more recently to reduce budget exposure. All producers of program crops who wish to enroll in the programs and receive the deficiency payments discussed above also must agree to abide by the annual Acreage Reduction Program (ARP) percentage announced before the beginning of the marketing year. They must idle that percentage of their

acreage base—for wheat producers, this number has ranged from 27.5 percent in the late 1980s to zero percent in the last two years.

Part of the reason for the decline in the rate of the ARP percentage for the last few years has been the increasing acreage enrolled in the Conservation Reserve Program (CRP). This program was designed to remove highly erodible land from production for a ten-year period. The law stated the intention to enroll 40 million to 45 million acres but the cost of the program and other factors have caused USDA to revise bid acceptance criteria and slow down the program's expansion. It now stands at 36.4 million acres. Aside from holding large amounts of land out of production for an extended period rather than the total withdrawal of land being subject to annual revision, it has had little effect on the fundamentals of supply and demand.

One additional supply-related program deserves mention in this context, although strictly it does not fit in either policy category. Provisions were implemented in the 1990 FACT Act to allow farmers increased flexibility in deciding between planting program crops and non-program crops. Producers were given the freedom to plant a non-program or another program crop on up to 25 percent of their base area, without having their ability to receive payments on that area diminished beyond the current year. For budgetary reasons, that provision was altered in subsequent legislation to withdraw all deficiency payments on 15 percent of a producer's base area, but leave them free to plant whatever crop they wish on it. Producers have the option to shift an additional 10 percent of their program area to other crops, foregoing deficiency payments but not surrendering the base history of that cropland.

The price/income support and supply control programs generally balance each other in the U.S. agricultural system. In the absence of restraints, the support programs would encourage producers to produce more than they would under a free market regime and thus lower market price. The various supply control regimes serve to rein in supplies and increase prices. It is not clear what the market clearing price for the major grain crops would be in the absence of both sets of programs, because the interaction of these policies is so complex. Although empirical evidence is mixed, it appears that, on average, U.S. commodity programs probably restrain production modestly and raise the price slightly above what would otherwise prevail.

Other Government Programs to Enhance Domestic Demand for Grains

Two specific programs are aimed at expanding demand for grains through the production and consumption of grain ethanol for use as a motor fuel. Because of regional concentration of production and availability of already existing facilities to process corn into starch, the stock material for ethanol, most of the impact of these programs has occurred in the corn sector. Many rationales have been used to justify these programs, including the fact that burning oxygenated fuels is better for the environment and it reduces U.S. dependence on imported oil. Federal and state tax incentives also helped encourage the market for ethanol in the 1980s and 1990s. The Environmental Protection Agency's (EPA) effort to mandate use of renewable fuels to fulfill oxygenated fuel requirements under the 1990 Clean Air Act would expand the demand for ethanol and, thus, for corn. The renewable fuels content requirement currently is on

hold while the courts decide a lawsuit filed by the petroleum industry questioning the authority of the EPA under the Clean Air Act to implement the requirement. Another minor (and non-price) but potentially promising set of programs involves an effort to expand demand for U.S. agricultural products by devising new industrial uses for them.

Export Programs

Export price programs help U.S. exporters counter subsidized competition in selected commodity markets. The primary U.S. export price subsidy program is the Export Enhancement Program (EEP). Smaller programs assist dairy product and vegetable oil exports. Almost 80 percent of export price subsidy program expenditures assist sales of grains (chiefly wheat and some barley), while the remaining 20 percent of program expenditures assist non-bulk products, mainly dairy products and vegetable oils. While accounting for 5 to 10 percent of total U.S. agricultural export value, export price subsidy programs accounted for 60 percent of wheat exports, 93 percent of barley exports, 55 percent of wheat flour exports, and 73 percent of cottonseed, soybean, and sunflowerseed oil exports. Other export programs that increase U.S. price competitiveness in export markets include the CCC export credit guarantee programs and PL 480 long-term credit sales and donations.

Export Price Programs

Market development is one of several goals of export price policies. The EEP was established in 1985 to find an outlet for the burdensome wheat surpluses that had accumulated when U.S. domestic wheat prices climbed steeply above world prices and other nations subsidized their grain exports. In the 1985 FSA, the EEP authorization included objectives of increasing U.S agricultural exports, challenging competitors who subsidize their exports, and encouraging U.S. trading partners to begin serious trade negotiations on agricultural trade problems. The FACT Act made the countering of unfair trade practices the primary focus of the EEP.

The EEP has been administered to match the prices offered by subsidizing competitors (in particular, the European Union) in selected export markets. The primary markets for U.S. price subsidy programs from 1989 through 1993 were the former Soviet Union, China and the North African countries of Algeria and Egypt. The EEP for wheat, however, has been used to assist sales throughout the world. Chief exceptions are Japan, the Republic of South Korea, Taiwan and some food aid recipients.

The EEP is a demand-driven program. As a targeted export subsidy, the EEP boosts exports more when it is more narrowly focused on countries that will respond to a price discount by increasing their imports. In the case of wheat, most importers do not increase total imports in response to price subsidies, but tend to switch suppliers in response to a price discount. Other factors that may increase the effectiveness of the EEP are competitors' excess supply elasticities, U.S. market share, global grain supplies, and importers' expectations of being targeted. From late 1985 through 1989, the EEP boosted U.S. wheat exports by less than 5 to 30 percent and, for 1991, by 10 percent. While the EEP has been somewhat effective overall in boosting exports, the EEP also contributed to rearrangement in trade flows in some years.

(When the United States displaced European Union [EU] sales to some markets, the EU entered third markets.) The U.S. share of the world wheat market has fluctuated, but, from 1991 through 1993, averaged one percentage point less than from 1982 through 1984, the years prior to the inception of the program.

Export increases due to the EEP slightly boosted U.S. wheat prices from 1985 through 1988. In the early years of the program, price increases were dampened by the release of stocks issued as EEP bonuses, but, since November, 1991, EEP bonuses have been issued in cash. According to Chambers and Paarlberg, cash bonuses expand exports by raising domestic prices and lowering world prices. The price-dampening effects from redemption of generic commodity certificates does not occur with cash bonuses. Higher wheat prices, the result of the EEP, decrease government deficiency payments to producers who participate in the wheat program.

Researchers also analyzed the EEP in conjunction with acreage reduction and price-income support. Haley indicated that the EEP would boost U.S. export revenues more if acreage reduction programs were relaxed because the EEP is more effective when grain supplies are plentiful. However, deficiency payments for both wheat and feed grains also would increase. The U.S. General Accounting Office (GAO) compared an increase in EEP funding with a similar increase in target prices (and the ensuing increased deficiency payments). The GAO analysis concluded that wheat producer income would increase by about 20 percent more from the higher target prices than from increased EEP spending, but that export sales would decline slightly. This could reduce sale revenues of wheat producers who do not participate in government programs (about 15 percent of wheat producers from 1986 through 1993) and lower returns to wheat marketing and transportation firms.

The two chief issues facing export price subsidies are the implementation of the Uruguay Round Agreement of the GATT and the U.S. budget. By the end of the six-year phase-in period for the Uruguay Round Agreement, developed countries will be required to reduce subsidized export volume 21 percent and subsidy expenditures 36 percent from the 1986 to 1990 base period on a commodity basis. Negotiations in Brussels in December 1993 culminated in a GATT agreement that requires member nations to phase down export subsidies in equal increments from 1991 to 1992 levels if these subsidies were higher than those of the 1986 to 1990 base period. Only products whose exports were subsidized during the 198 to 1990 base period will be eligible for future export subsidies.

Reductions in export price subsidies under the Uruguay Round Agreement of the GATT are expected to result in higher world commodity prices. In the short run, demand will dip in response to the higher prices, but, as global incomes improve due to greater market opportunities, importers will increase their demand for grains and other agricultural products. In the long run, higher world prices may decrease the need for price subsidies.

A challenge for program administrators will be now only how to operate the EEP and other export price subsidy programs to maximize the effectiveness of allowable subsidized exports and subsidy funding, but also to make a transition to increasingly market-oriented world markets for agricultural products. This will be particularly important for commodities such as wheat, barley, dairy products and vegetable oils, all

products whose exports have been heavily subsidized. U.S. implementing legislation for the Uruguay Round Agreement will remove the legislative requirement that the EEP be used only to discourage unfair trade practices. This could expand program administrators' flexibility in targeting countries, but raises a question about whether U.S. price subsidy programs should continue to battle substantial EU subsidies in price inelastic markets; target price responsive markets that will allow U.S. exports to compete without subsidies as subsidized competition declines; or combine the two approaches.

The administration also committed to use the EEP and other price subsidy programs to the maximum levels allowed under the Uruguay Round agreement and U.S. laws. However, budget pressures could further reduce congressional appropriations to export price subsidy programs.

Export Credit Guarantee and Food Aid Programs

USDA's export credit guarantee programs back commercial loans to importers facing foreign exchange constraints who need credit to purchase food. Under the credit guarantee programs, the Commodity Credit Corporation (CCC) guarantees repayment of 98 percent of the principal and a portion of the interest on credit extended for specified U.S. agricultural commodities to selected markets. The GSM-102 program covers private credit extended for up to three years, while the GSM-103 program covers private credit extended for three to ten years. Credit guarantee programs allow importers access to credit at commercial interest rates which, in effect, represents a subsidy of about 5 percent. However, guaranteed credit also loosens importers' budget constraints. Research has not yet been conducted to address the market development effects of expanding importers' buying power through guaranteed credit.

The U.S. government currently provides food aid overseas through the P.L. 480 program, through Section 416(b) of the Agricultural Act of 1949, as amended, and through the Food for Progress (FFP) Program established by the 1985 FSA. The goals of the food aid programs are to combat world hunger and malnutrition and their causes; promote broad-based, equitable and sustainable development (including agriculture); expand international trade; develop and expand markets for U.S. agricultural commodities; and foster and encourage the development of private enterprise and democratic participation in developing countries (Smith et al.).

Market development, while representing only one of 5 broad objectives for overseas food assistance programs, remains an important goal and justification for U.S. food aid. From the exporter's perspective, food aid promotes U.S. agricultural products to countries that could not otherwise afford to purchase them, benefiting U.S. farmers. For example, depending upon assumptions, U.S. food aid shipments are estimated to have boosted domestic U.S. wheat prices by 1 to 5 percent in the mid- to late-1980s (Price et al., 1992). However, reviews of PL 480 Title I as a market development tool are mixed. Some claim food aid helps develop consumer preferences for U.S. products and that Title I agreements establish trade relationships which give U.S. exporters an unfair advantage in future commercial sales. Others argue that food aid commodities are price sensitive, making it difficult to convert the concessional market share established through the Title I program into commercial market share

unless the U.S. offers competitive prices. Factors such as the cargo preference requirements, re-export restrictions, and commodity quality and eligibility limit long-term market development from PL 480.

Domestic Food Demand Programs

Domestic U.S. food assistance programs were originally created in the 1930s to dispose of food surpluses. Their main purpose today is to alleviate hunger and improve the well-being of poor people (Kinsey and Smallwood). The programs strive to accomplish these goals by expanding low-income people's buying power (food stamps) and by providing food benefits to needy populations deemed to be at nutritional risk (children, the elderly, pregnant women). Food assistance programs cost taxpayers $37 billion in fiscal 1994. Major U.S. domestic food assistance programs are the Food Stamp Program (FSP); the School Lunch Program (SLP) and other child nutrition programs; the Special Supplemental Program for Women, Infants, and Children (WIC); and other food distribution programs.

Food assistance programs generally are evaluated in terms of their ability to expand lower-income consumers' buying power, their administrative costs, and their ability to deliver food to populations at risk of undernutrition. Also, some researchers have analyzed the effects on domestic food assistance programs on food consumption. USDA economists estimate that the Food Stamp Program increases food stamp recipients' food expenditures by 5 to 10 percent for an increase in total U.S. food spending of 0.3-0.7 percent (Levedahl and Matsumoto). Higher food expenditures from food stamps programs slightly improve U.S. farm receipts. However, some food assistance in the form of commodity distribution may displace commercial food expenditures. For example, Levedahl estimated that 1986 Temporary Emergency Food Assistance Program (TEFAP) donations displaced approximately 80 percent of recipients expenditures on cheese. When food assistance programs involve distribution of commodity surpluses, they may result in lower retail food prices, while commodity purchases have the opposite effect. Levedahl calculated that 1986 TEFAP cheese donations decreased nonrecipients' expenditures on other foods by 0.02 percent, while expenditures on nonfood items increased by 1.6 percent.

Current issues for domestic food assistance include budgetary concerns and the use of food stamps for use away from home. Republican lawmakers propose in their Contract with America to consolidate all federal feeding programs into block grants to individual states and propose reducing programs by 5 percent from budget baseline levels. The impact of these proposed changes on agricultural markets will depend heavily on how states choose to implement their block grants. The impact would be heaviest if states chose to cash out the Food Stamp Program. Most economic research shows that the marginal propensity of households to spend money for food out of food stamps is two to three times greater than out of cash income.

Marketing Orders

Federal marketing orders are commodity programs authorized by the Agricultural Marketing Agreement Act (AMMA) of 1937 to allow industry-initiated regulation of specified agricultural commodities. Market-

ing orders were established to achieve orderly marketing to achieve parity prices to farmers; to protect consumer interests; to conduct research and promotion activities; and to promote an orderly flow of the supply of each marketing order commodity to market through its normal marketing season. Federal marketing orders may regulate commodity quantity and quality, container and pack standards, and the conduct of research and market development programs. Most marketing orders concentrate more on quality standards and market support activities than on quantity controls. There are currently thirty-six active federal marketing orders for fruits, vegetables, nuts and specialty crops and thirty-eight federal milk marketing orders.

Several marketing order provisions affect commodity supplies (and, thus, prices). Producer allotments assign a maximum quantity that a handler can market from each producer in a single season. Marketing allocations specify a maximum quantity that can be sold for a given use. For commodities with different elasticities of demand, producer revenues can be raised by segmenting the market and restricting the quantity eligible to enter the less elastic market. Reserve pools establish a procedure for withholding some marketable supplies if total supply exceeds estimated market demand. Prorates regulate the flow of product into the marketing channel, evening out periodic shipments.

Only nine horticultural product marketing orders currently use volume controls, although most marketing orders control the minimum quality of produce marketed (Neff and Plato). Supply-related provisions of marketing orders have different effects on consumer prices and market development. Reserve pools can help stabilize quantities shipped between seasons to the extent that the commodities stored during a current crop year are marketed into the primary market at a later time (Armbruster and Cropp). Marketing allocations that are used on a regular basis to restrict production benefit existing growers at consumers' expense. However, any competing production from outside the marketing area will restrict the potential gain from marketing allocations. Quality standards have been shown to have little effect on total supplies of marketing order commodities.

As fewer marketing orders continue explicit volume controls, other marketing strategies increase in importance. Other marketing order characteristics that affect market development are the research and promotion (non-price) aspects of marketing orders. In addition, some domestic and foreign consumers prefer the higher quality products required by marketing order grades and standards.

Implications and Options for Enhancing Market Development Potential

A review of current U.S. price support, export and domestic food assistance programs indicates a wide range of objectives for U.S. government assistance (Table 1). The chief programs that address consumer demand are the export programs and domestic food assistance programs. Price discounts and donations increase U.S. and selected foreign consumers' food purchases. Supply control programs alone may decrease U.S. competitiveness, while price and income support programs alone generally have little impact on market development.

As price and income support becomes more market oriented and supply control programs are reevaluated, is it desirable to advance market development as an objective

Table 1. Chief Benefits of Major U.S. Agricultural Policies Affecting Commodity Prices

Programs	Market development	Producer price/income support	Counter export competition	Domestic consumer income enhancement	Humanitarian relief
Domestic grains policies:					
Price and income support					
Target prices/deficiency payments	0	++	0	NA	NA
Loan programs	0	+	–	NA	NA
Marketing loans	+	+	+	NA	NA
Supply control:					
Acreage Reduction Program	–	++	–	–	NA
Conservation Reserve Program	–	+	–	–	NA
Flexibility provisions 1/	0	+/–	+	0	NA
Domestic food demand:					
Food Stamp Program	+	0	0	+	+
School Lunch Program	+	+	0	+	+
Special Supplemental Program for Women, Infants, and Children	+	+	0	+	+
Marketing orders	+	+	0	–	NA
Export programs:					
Price subsidies (EEP)	+	+	+	0	0
Credit guarantee program	+	+	0	0	0
Food aid	+	+	0	0	+

1/ Flexibility provisions are negative for producer income because payments are reduced, but positive because farmers can switch to more profitable crops.

++ = Strong positive effect, + = Positive effect, 0 = Little or no effect, – = Negative effect, and NA = Not applicable.

for U.S. commodity programs? Increased flexibility in crop production allows producers to respond better to market signals. While USDA's pilot options program is an experiment, it demonstrates a vehicle to transfer the sharing of price risk from the government to the private sector. Although, the current farm programs are unlikely to disappear in the near future, policies will continue their trend toward market orientation. Global trade agreements also will accelerate market orientation as export subsidies, import barriers and domestic support are reduced worldwide. When government protection is decreased, targeting products to individual consumers becomes more important.

What role can USDA play in facilitating this change? Politically and institutionally, it is easier to implement supply-related policies, because they can be administered more easily by government in conjunction with producers and agricultural firms, and, in the past, because they were better justified as support for U.S. farmers and domestic food security. However, demand-augmenting policies, by their very nature, change the program participants (or recipients) from farmers to agricultural marketing firms and U.S. and foreign consumers. Increased consumer demand benefits farmers as well as marketing firms, albeit less directly than government price support and acreage reduction programs. In making a transition to increased market orientation, some USDA intervention could help improve linkages between farmers and consumers.

USDA intervention, while desirable, will be limited by budgetary concerns. Current federal budget rules now impose a cap on total agricultural program expenditures. The 1995 farm bill could see some retrenchment from those levels. In order to establish and fund new programs, dollars would have to be diverted from existing programs. It seems difficult to envision a scenario in which agricultural producers would accept shifting what they see as their money to a program in which a substantial share of the benefits would go outside of production agriculture. However, existing programs and government-sponsored activities could be modified to better serve market development goals.

One important area in which government can play a role is in tailoring government demand-enhancing export programs to individual consumers. Particularly for grains and other USDA program commodities (grains, cotton, dairy products), there is a basic need to integrate U.S. domestic and trade programs to enable better responsiveness to individual markets for agricultural goods. This linkage is well established for products marketed by agricultural cooperatives. However, consumer needs are communicated less quickly to producers of grains and other major government program commodities. Responsiveness to consumers would allow U.S. producers, middlemen and traders to better differentiate U.S. products from those of our competitors, and make them more attractive to potential customers. Along these lines, we need to both improve the quality of U.S. grain and improve the accessibility of information about the quality characteristics of grain that is available in the market. USDA can assist the development of this process by improving the flow of information between buyers and producers and by modifying existing programs to emphasize individual consumer needs.

In its role of information provider, USDA can provide better information on product characteristics such as end-use quality. For example, USDA's Agricultural Marketing Service is now reporting prices

for various cuts of meat in several importing countries. USDA could also encourage more research and development of high-value grain and/or more accurate measuring technology. For example, inspection certificate information might include measures that provide a better indication of gluten quality in wheat. The government already offers to measure protein and oil content, which are key intrinsic characteristics, for soybeans. USDA could also help disseminate quality information more widely, to let buyers and sellers know what is going on around the market on an equal basis. The further encouragement of research and development of high-value grain and oilseed varieties and more useful and/or more accurate measuring technology would aid this effort. In this role, USDA basically reduces the cost of disseminating information for all parties in the grain sector and does not influence who are winners and losers in the process.

The second role would involve more active intervention in the market, with USDA attempting to differentiate the program incentives between producing high-quality and low-quality grain. In order to move better quality grain onto the world market, the U.S. marketing system must achieve two objectives: 1) make sure that higher-quality grain is available in the pipeline, and 2) market that grain as a retail commodity to individual markets with its quality as only one aspect of the package being sold.

The 1990 FACT Act already contains language that encourages USDA to help to improve U.S. grain quality. In response, ASCS adjusted the way it sets discounts to reduce the incentive for producers to forfeit low quality wheat to the CCC. That incentive to distinguish low- and high-quality grain would be enhanced by:

- Providing premiums for a larger set of class-specific quality factors.
- Increasing the size of premiums and discounts.
- Announcing that certain varieties have not consistently met minimal quality standards and that they will not be permitted to be forfeited to the CCC.

In terms of marketing higher-quality grain on the world market, USDA could help demonstrate to the world that it is indeed better. This could include refinement of U.S. grades and standards to provide a 'premium' grade and the use of trade programs such as the EEP and PL 480 to encourage importers to buy grain of this grade.

In the long run, a decrease in global export subsidies may highlight differences in importers' quality preferences, which already have been highlighted by the quality emphasis of the Australian and Canadian Wheat Boards. Importers who respond to small price differences by switching suppliers will continue to purchase based solely on price (or price and credit) considerations. However, some middle-income wheat importers may look more closely at quality and consistency of quality in addition to price. EEP sales to relatively more quality-conscious importers require lower EEP bonuses because higher-quality wheats are more costly on U.S. and world markets. However, price-conscious importers will eschew special classes or qualities of wheat unless prices are competitive with lower-quality wheat. This could increase EEP bonus costs with little potential for long-term market development.

It also has been suggested that USDA could offer premium-quality wheat to P.L. 480 recipients as a means of promoting

quality. This would increase the cost of food aid shipments in an era of shrinking food aid budgets and potentially increasing food aid needs. In addition, food aid recipients are likely to be more price inelastic once they enter the commercial market.

NOTES

Karen Ackerman and Stephanie Mercier are Economists with the Economic Research Service, U.S. Department of Agriculture.

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