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# Research and Marketing Issues Facing Commodity Promotion Programs

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Commodity promotion check-off programs are now an integral component of the set of marketing tools used by the nations' farmers to influence (and understand) the market for their output. Nearly \$1 billion are invested annually by U.S. producers in such collective demand-expansion activities as generic advertising and promotion, new product development, public relations and product research. Most of the funds used for these generic promotion and research activities are collected from farmers under the authority of federal and/or state legislation. Some programs authorize refunds and some exempt small producers.

State governments consider this a way to help maintain and support the agricultural sector of their economy usually without drawing on public funds to do so. From the perspective of the federal government, commodity promotion check-off programs provide producers a way to improve the demand for their output and thus reduce the need for direct government intervention. Consumers benefit from being informed about product characteristics. To the extent that private incentives are insufficient to provide the optimal amount of product information, commodity promotion programs act as a type of market-failure corrective. Check-off pro-

grams provide producers a way to influence the market collectively in a way that they cannot do as individuals.

From a legal point of view, the production of the commodity in question must be considered essential to the nation's or state's economy, expansion of the market must be vital to producers' welfare, the commodity must be valuable to consumers, and the commodity must involve interstate commerce. It is this latter point that provides the legal basis for involvement by the federal government (Forker and Ward, p.87).

Interest in promotion programs to expand the demand for agricultural commodities began around the turn of the century. State legislatures passed laws and appropriated public funds to advertise and promote the commodities grown within the state's boundaries; such action was considered good for economic development. Some states made arrangements to treat commodity trade organizations as (quasi) state agencies so as to legalize the use of public funds for this purpose. Such programs were relatively modest in size and scope.

During the early 1900's, commodity groups increased the scope of activities by establishing promotion organizations sup-

ported by voluntary contributions from producers. Beginning in the 1930's, producer groups began lobbying for and getting special legislation to establish self-help programs with a state-enforced assessment on all volume produced within the state borders. During the same period, the federal government passed the Agricultural Marketing Agreements Act of 1937, which established the enabling legislation for marketing orders. One provision authorizing the use of order funds for promotion was only modestly used. This set the stage for later public support for commodity check-off programs through federal legislation.

From the 1930's to the 1980's, the number of commodity groups with nationwide voluntary funding programs increased dramatically. Involvement of the federal government escalated in the 1980's with enabling legislation for nationwide check-off programs for dairy, beef, pork, honey, watermelons, mushrooms, pecans, limes and soybeans. During the late 1980's, the federal government substantially increased public funding support of export promotion programs.

In 1985, following a conference on commodity promotion (Armbruster and Myers), individuals from academia, government and industry who were engaged in research on the effectiveness of commodity promotion programs organized NEC-63, a Research Committee on Commodity Promotion. The goal of NEC-63 was to improve the quality of research and foster understanding of research results, thus providing a forum for discussion and sharing of information and ideas on research methods and results. Semi-annual meetings have been held since 1985 and

the group has published two books (Kinnucan, et al. and Nichols, et al.), a set of leaflets (Armbruster and Wills), an annotated bibliography (Hurst and Forker) and a research agenda for the 1990's (NEC-63). A third book based on NEC-63 symposia is planned for publication in 1993 (Armbruster and Lenz) as is a new book by Forker and Ward. A substantial amount of research has been completed since 1985 and the quality has improved. But there is still room for improvement and we have made only modest progress in creating a better understanding of the economics of commodity promotion programs.

The objective of this paper is to summarize the research issues surrounding commodity advertising programs and develop connections between these and the other marketing issues that are important to the agricultural sector and to public policy.

### Research Issues

Any discussion of research issues must take into account the funding mechanisms and goals of export versus domestic promotion. Export promotion in the United States is subsidized by the federal government; domestic promotion generally is not. Export promotion is intended to expand the demand for U.S. agricultural commodities in foreign countries; the goal of domestic promotion is to increase aggregate demand within the United States. Although the domestic and export promotion programs intersect on the crucial point of the legislation that is needed to secure funding, it is useful to separate the programs for the purpose of defining research issues.

## Domestic Promotion Programs

For domestic promotion programs, private-sector financing and the goal of expanding aggregate demand give rise to five research issues: 1) the mutual cancellation hypothesis, 2) mandatory versus voluntary funding, 3) optimal assessment level, 4) economic effectiveness and 5) program management.

### *Mutual Cancellation Hypothesis*

The mutual cancellation hypothesis states that, because of intercommodity substitution and the limited capacity of humans to consume food, commodity promotion is a zero-sum game. That is, it is not possible to increase the demand for all food simultaneously. If pork industry promotions are successful at increasing the per capita consumption of pork products, this must come at the expense of such related commodities as beef, fish or chicken.

A corollary to the mutual cancellation hypothesis is that the substitution principle places similar limits on the effectiveness of advertising fiber products. For example, increases in cotton demand stemming from industry promotions result in reduced demand for other fibers, including wool. The upshot is that once one industry installs a promotion program, producers in related industries are forced to follow suit or face a cut in demand. Under this hypothesis, the only real winners are the advertising agencies that supply the commercials.

The mutual cancellation hypothesis may be faulted for taking an overly narrow view of the purpose and function of commodity promotion. Commodity promotion programs, *inter alia*, provide a mechanism

whereby producers can communicate with consumers *and* vice versa. Producers are made aware of consumer preferences as a by-product of the market research that is done to support the promotion activities. The two-way communication link forged by the commodity promotion program, as pointed out by Nichols, contributes to vertical coordination. The hypothesis also fails to recognize benefits derived from nutrition education programs, new product development and the potential lessening of search costs. Furthermore, switching among commodities may yield a net welfare gain if diets are improved. Still, the basic idea underlying the hypothesis – that consumers substitute among commodities – is valid and warrants increased attention in commodity promotion research.

Given the modest impact that most programs have on demand, some consumption gains can probably be realized without losses to substitute goods. For example, the beef check-off accounts for only three percent of the total variation in beef demand (Ward). Clearly, other economic factors are much more important drivers of demand. Product innovations occur, new technologies develop and consumers enter and exit the markets as demographics change. By providing information, commodity promotion programs may improve market efficiency by reducing the adjustment costs associated with changes in preferences, technology and other exogenous factors.

### *Mandatory Versus Voluntary Programs*

The trend in commodity promotion legislation has been toward mandatory assessments on all producers without provision for refunds. The central justification for doing away with voluntary

programs is the free-rider syndrome. Commodity promotion is a type of public good in that one producer's consumption of the services provided by the program (e.g., improved consumer goodwill) does not diminish the amount available to other producers and it is not possible to exclude non-paying members from participating in the benefits (e.g., enhanced market price).<sup>1</sup> As is typical for public goods, a problem of equity arises in that there is no direct incentive for an individual producer to pay for the good. Thus, the less public-spirited members of the group will seek to escape payment. One means of dealing with these "free riders" is to replace voluntary contributions with a mandatory assessment.

A related problem is the free riding that occurs when the promoted commodity competes with imports. For example, a generic promotion program funded by the U.S. citrus industry that increases the domestic demand for citrus products provides a direct benefit to countries such as Brazil that export citrus products to the United States. Exporter free riding can be eliminated through an import tax or other assessment mechanism. Even then, importers may benefit from the capitalized value of earlier promotion programs. Although the reasons for doing away with voluntary programs appear sound, the question still needs to be asked whether this is good policy. For one thing, the incentive to conduct effective programs and to be accountable to the producers who provide the funding may be weakened if program managers do not feel the need to justify their decisions and policies on an ongoing basis. The refund provision provides a ready mechanism for producers to register discontent with the program. The combination of increased resources and lessened accountability that are part and

parcel of the mandatory program is a source of concern. The effectiveness of alternative mechanisms for insuring accountability, such as periodic referenda, needs to be examined. (Despite the move toward mandatory assessments, several national programs have continued to require periodic referenda for the continuation of the program.)

### *Optimal Assessment Levels*

Intertwined with the issue of whether program funding should be compulsory is the question of the assessment level. The question has both political and economic dimensions. From an economic standpoint, the optimal assessment level in principle can be determined from cooperative advertising theory (Nerlove and Waugh). The theory posits that the optimal level of advertising in long-run competitive equilibrium is governed by the elasticities of supply ( $\epsilon$ ) and demand ( $\eta$ ), the advertising elasticity ( $\beta$ ) and the opportunity cost of advertising funds ( $\rho$ ) given by<sup>2</sup>

$$(1) \quad \lambda = \beta / [(\epsilon - \eta)(1 + \rho)]$$

where  $\lambda$  is the ratio of advertising expenditures to industry revenue that maximizes producers' surplus. Knowledge about the magnitudes of the parameters appearing in the right-hand side of equation (1) permits identification of the optimal assessment level, at least as a first approximation.

A shortcoming of equation (1) is that it is based on a purely economic theory of cooperative advertising. It does not take into account the impact of the assessment rate on producer support for the program nor does it account for benefits that might arise from research and consumer

education programs funded by the check-off. In practice, non-economic factors, such as keeping the levy low enough to maintain producer support for the program, may outweigh profit considerations. Because of the public good nature of commodity promotion programs, there is a Pareto inefficiency in the sense that producers are unwilling to pay the price for the service that would maximize group utility. In situations in which market prices are determined by the government (e.g., dairy), equation (1) no longer applies and a new optimality condition must be developed that reflects the policy intervention. Recognition of the political as well as the economic dimensions of the assessment-level issue could lead to a more comprehensive theory of cooperative advertising.

### *Economic Effectiveness*

The economic effectiveness of a commodity promotion program hinges on two related questions: Has the program increased demand? If so, is the demand augmentation sufficient to cover costs? The first question can be answered by estimating market demand functions to determine the relationship between advertising and sales. There is disagreement, however, about the way advertising should enter the utility function: as a taste-shift parameter or as a variable that yields utility directly. Issues such as the correct way to model advertising carryover, measurement error in advertising expenditure data, proper treatment of zero observations and the appropriate functional form for the sales-advertising relationship have yet to be resolved satisfactorily.

The question of whether the increase in demand is sufficient to cover costs

depends on the slope of the supply schedule and the market power of middlemen. Industries with inelastic supply and competitive vertical market structures stand to benefit more from a commodity promotion program than industries with elastic supplies and noncompetitive marketing systems. Elastic supplies result in rent dissipation. A noncompetitive marketing channel thwarts the transmission of quasi-rents to the farm level. In assessing domestic promotion program effectiveness, greater attention needs to be given to supply response and the competitiveness of the food marketing channel. (For some initial research along these lines, see Liu, et al.; Zidack, Kinnucan and Hatch; Ward; and Wohlgenant.)

Policy interventions condition the economic impacts of commodity promotion. For example, a government purchase program may diminish the ability of advertising to affect producer welfare in that equilibrium prices are not affected unless the advertising increases demand sufficiently to eliminate surpluses. A deficiency payment scheme may become more costly to the taxpayer (without any corresponding benefit to the producer) if the advertising makes the demand for the commodity less elastic. The value of a crop affected by production controls in general will increase in the presence of advertising, but the gains may prove illusory if the higher consumer prices result in a loosening of acreage restrictions. Commodity advertising effects in the presence of farm programs are discussed more thoroughly in Forker and Kinnucan, pp. 36-43, and in Forker and Ward, pp. 264-273.

### *Program Management*

Evaluation research requires the ap-

plication of rigorous scientific procedure. The results must be free from political pressures and data must be accurate and free from reporting bias. Likewise, the researcher must have knowledge of the industry for which the evaluation is being done and how the programs are designed and implemented. Thus, a system must be in place for managing and using the evaluation effort. Otherwise, the results may not become part of the total decision making process. Thus, we note the concept of program management.

Program management has two important interrelated phases. Programs must be designed and implemented to address industry needs. Then, there must be a mechanism for evaluating the efforts along with a structure for using the evaluations for management purposes. Evaluation shows what has been achieved (or not achieved) and what could be achieved under different circumstances. Meaningful evaluation cannot be undertaken if program managers have no interest in the efforts. Similarly, if data bases and promotion activities have not been documented, the research process is compromised.

Four players need to have a role in the evaluation process if it is to be successful:

The *program manager* should want the information and be prepared to use it, react to it and implement the findings where appropriate.

The *advertising agency* should be educated about the usefulness of economic analysis in indicating the overall effectiveness of advertising in terms of market impacts. A new slogan may sound like a great creative idea, but the real test is whether it increases market demand. Al-

though advertising agencies should not be given primary responsibility for evaluation, neither should they be excluded from the process. Besides being an important source of data, the agency plays a pivotal role in implementing program changes suggested by economic research.

The *researcher* (usually an economist) must invest the time in understanding the industry being evaluated and the advertising programs that are implemented. Armed with this knowledge, the researcher can identify the key relationships that describe the economic impacts of the campaign and the data needed in the evaluation process.

The *government officials* responsible for oversight complete the management link. These officials can play a vital role in ensuring that the research is done correctly and that it has relevance for program management as well as public policy.

### Export Promotion Programs

Government subsidies and the goal of expanding U.S. exports give rise to a different set of research issues with respect to export promotion programs. The more salient issues are (i) the efficacy of price versus non-price promotions, (ii) the duration of government involvement, (iii) program performance and (iv) welfare effects.

### Price Versus Non-Price Promotions

Notwithstanding the ascendancy of non-price export promotion in recent years, price subsidies have been the mainstay of U.S. export promotion policy and represent by far the greater expenditure of

taxpayer dollars. (For example, Henneberry, Ackerman and Eshleman (p. 59) report that between 1986 and 1990 agricultural exports received about \$2.9 billion in direct price subsidies compared to only \$0.6 billion in non-price promotion subsidies.) A key question, therefore, is, "To what extent and under what conditions are non-price promotion subsidies more effective than subsidized reductions in price?"

The discount-equivalence concept introduced by Hadar (p. 125-130) offers a potentially useful approach to comparing subsidies for price versus non-price promotion.<sup>3</sup> The condition, derived from a model of profit maximization for an individual firm, is

$$(2) \quad P(Q^*, A^*) - P(Q^*, 0) > A^*/Q^*$$

where  $P(Q^*, A^*)$  is the price the firm charges in order to sell  $Q^*$  units of  $Q$  with advertising expenditures equal to  $A^*$ , and  $P(Q^*, 0)$  is the lower price the firm must charge if it wishes to sell  $Q^*$  units without advertising at all. Because the left-hand side of inequality (2) is the price cut that the firm must institute to offset an elimination of  $A^*/Q^*$  worth of advertising, Hadar (p. 127) refers to this price difference as the "...discount equivalence of the average advertising expenditure  $[A^*/Q^*]$ ." For advertising to be worthwhile, the discount equivalence must exceed  $A^*/Q^*$ . A comparison of the discount equivalence (computed from the appropriate empirical demand relationships) with the price subsidies offered by the federal government would provide a basis for assessing the relative effectiveness of the non-price export promotion program.

Because price and non-price export promotions increase domestic price (absent government price support structures), the discount-equivalence concept in principle can be applied to both types of programs. The concept provides an analytical framework for comparing gains from price reduction with gains from promotion. In essence, price subsidies involve price discrimination between the domestic and export markets. Promotion involves price enhancement in the export market. An alternative to the discount-equivalence approach is to employ a partial equilibrium model that incorporates price discrimination.

The implicit assumption underlying the foregoing analysis is that export promotion evaluation requires consideration of the opportunity cost of the expenditures. The opportunity cost of investing in non-price promotion includes, not only foregone returns from investing those same dollars in price subsidies, but in other market-development activities as well, notably commercial credit and food aid. For the latter, humanitarian and political objectives may outweigh economic considerations. Still, the profit-maximizing paradigm (perhaps modified to reflect social welfare) offers a rigorous method for establishing the *economic* effectiveness of price reduction vis-a-vis non-price promotion.

#### *Duration of Government Involvement*

Although there is no formal limit to the length of time that private-sector cooperator organizations can receive federal monies to undertake market-development activities, some reports have questioned the opened-ended nature of the subsidies (e.g., see U.S. General Accounting Office). The intent of the legislation



is not to underwrite trade associations but to provide a mechanism for promoting agricultural exports. "Once the mechanism is established and markets are developed, further government support should not be required; the cooperators' self-interest should be sufficient to maintain the market" (U.S. General Accounting Office, p. 19). Guidelines that establish when a market is "developed" and government assistance can be reduced or eliminated may prove useful in program management. A sliding scale might be considered in which the government agrees to support a market-development project under the proviso that the industry gradually assume full responsibility for the program costs. The implicit assumption here is that subsidies for export promotion are akin to other government-sponsored "seed" programs such as low interest (or secured) loans and public research. The ultimate aim is to privatize the programs.

### *Program Performance*

The key questions in assessing the performance of non-price export promotion programs are: (i) Have exports been increased (or the rate of decrease slowed)? (ii) Have funds been allocated efficiently? (iii) Have the programs yielded a reasonable return on the investment? An essential first step in addressing any of these questions is analyses that link export trade flows to promotion expenditures. Estimated response coefficients can be used, *inter alia*, to test hypotheses about threshold effects, geographical differences in program effectiveness and market-development carryover (e.g., see Solomon and Kinnucan). More generally, a comprehensive set of econometric results on export promotion response would permit improved decisions about the allocation of

program dollars among commodity categories, geographical regions, developed versus less-developed countries, value-added versus bulk commodities, generic versus brand advertising, consumer versus trade promotions and so forth.

Despite the long history (since 1954) of federal subsidies for non-price export promotion and the need for improved evaluation procedures (U.S. General Accounting Office), the literature on non-price export promotion is sparse. Accountability requirements associated with the recently enlarged program budgets provide an incentive for program managers to get serious about evaluation. This should make it easier for researchers to gain access to data, lack of which has been a major limiting factor in promotion evaluation.

### *Welfare Effects*

Because tax funds are used to underwrite export promotion, the consumer as well as producer impacts of the program must be considered. To the extent that the programs are effective, they ultimately result in higher prices for domestic consumers than would have been the case without them. Thus consumer surplus is decreased, and unless there is an offsetting increase in producer surplus, social welfare might actually decline. Of course, in reaching such a conclusion any benefits from a more favorable trade balance must be considered as well as any reductions in farm subsidies.

A related issue is the distributional impacts of non-price promotion. Higher domestic prices for primary foodstuffs have disproportionate impacts on the poor. Large producers stand to gain more than

small producers in terms of aggregate benefits from any promotion-induced increase in export demand. And decisions about how funds are divided among commodities affect the distribution of benefits to the various producer groups.

Policy interventions affect welfare calculations. The domestic prices of commodities that receive relatively generous production subsidies (e.g., cotton) are less likely to be affected by export promotion than are less heavily subsidized commodities (e.g., soybeans). Distributional impacts, therefore, will depend in part on domestic farm programs. Budget allocation decisions that take into account differences in production subsidies across commodities could reduce government costs.

### **Marketing Institution & Policy Linkages**

As commodity check-off programs increase in scope, coverage and significance, their relationship with other marketing activities and policies is becoming more apparent. Although check-off programs spend the largest share of their budgets on promotion (56 percent according to Lenz, Forker, Hurst), other functional activities are becoming an increasingly important part of the picture. These include research and development of new products, quality improvement and industry communications. Successful check-off programs in the future will include the broader managerial focus and will move aggressively to find an optimal mix of activities of which generic advertising and promotion will be only a part.

Taking a holistic view of agricultural marketing within an industrialized food

sector is important. Commodity check-off programs do not exist in a vacuum. The success of generic advertising or new product development is conditioned by numerous external forces. Many of these are structural or market related, as described in earlier papers at this symposium. There are also important linkages among the various agricultural marketing policy tools supported through government action. Three of the key policy areas are grades and standards, cooperatives and marketing orders.

### **Grades and Standards**

Generic advertising and promotion are efforts to clarify and communicate information about certain commodity attributes that are thought to have value to consumers or industrial users. As with any marketing or sales message they must be backed by the ability of the supplier to deliver on advertised value. Commodity check-off organizations, however, are not sales organizations. They carry no order book. To be effective in the long run, they need a mechanism for assuring that the quality attributes promoted are delivered. The existence of appropriately designed systems of grades and standards, with independent third-party backing, can be crucial to successful demand-enhancement efforts.

The process of establishing and maintaining the system of grades and standards can be helpful in identifying the unique product characteristics that might provide the basis for a successful promotion program. In addition, information generated through marketing research by a commodity promotion program could provide valuable information to guide decisions regarding management and improvement of grading activities. The

change of grade nomenclature from good to select in the beef quality grading system is an example.

### **Cooperatives**

Even though they have declined in number, marketing cooperatives provide an important industry operating base for many agricultural commodities. They and their members have a direct ownership position in the commodity being promoted. Marketing cooperatives that pursue an aggressive market-development program may build upon the generic efforts of commodity check-off programs. Large, industry-dominant marketing cooperatives may become almost indistinguishable from generic promotion efforts in some cases. A large cooperative becomes the vehicle through which the quality and value promoted through the check-off are delivered to the marketplace. It is not necessary for cooperatives to be the organizational structure that does this, but often coordination among the groups may be significant simply because of similar producer-oriented goals held by members of the boards and management.

Policies that encourage the development and operation of marketing cooperatives may provide one useful vehicle through which producers can capture a larger share of returns generated by the demand-enhancing activities of the check-off program. And block voting by cooperatives is often a pivotal factor in determining whether a commodity promotion program gets installed in the first place.

Although cooperatives provide useful functions, other structures may do as well in insuring that the benefits of promotion are transmitted to the farm level. If the

market intermediaries operate in a competitive market, the cooperative may provide no economic advantage to producers. The efficacy of cooperatives vis-à-vis alternative institutional arrangements must be determined on a case-by-case basis.

### **Marketing Orders**

Marketing orders provide functional coordination over several areas related to commodity check-off programs. Controls exercised over grades and sizes permitted to be shipped to market provide a more uniform product base upon which promotion and advertising messages can be based. Certainly, quantity flow-to-market restrictions, though used in limited cases, permit producers to capture returns from any higher prices that result from check-off demand enhancement programs.

Marketing orders themselves often contain provisions to collect funds for generic promotion. In this sense, at least for some horticultural and specialty commodities, they are the check-off program. In the dairy industry, however, the specialized nature of milk marketing orders combined with the existence of a truly national market for a largely undifferentiated product (in the case of fluid milk) gave rise to the development of an industry-wide check-off for demand development and expansion purposes. Coordination among these various entities, which may be viewed by some to have overlapping purposes, can also be a challenge.

### **Generic and Private Cooperation**

For many industries, private promotion of the products is substantially greater than generic efforts. The objec-

tives and program designs generally differ between the two types of promotion. Generic promotions are generally limited to non-price activities and focus on product attributes of a general nature (e.g., taste, flavor, place of origin, nutrition). Private or brand promotions can span the entire spectrum of marketing strategy, including price advertising and product differentiation through brand-name identification. Occasionally, opportunities arise in which a collaborative relationship between private firms and the relevant generic promotion entity makes economic sense. Scale efficiencies can be realized, advertising costs reduced and coordination with other marketing tools (e.g., price specials) accomplished. However, as argued by Ward, Chang and Thompson, brand and generic advertising programs may conflict. For example, the implicit claim of product homogeneity contained in generic messages may counteract brand advertisers' claims of product heterogeneity. The interplay of generic and brand promotion is a vital issue for industries in which both types of promotion are common. And the issue has public policy relevance in that the Market Promotion and Export Enhancement programs of the federal government permit brand advertising.

### **Concluding Comments**

Commodity promotion programs derive their authority from legislation that gives producers the right to secure funds privately through check-offs or to spend taxpayer dollars on export promotion. Since the public bestows privileges to a subset of agricultural producers, certain requirements appear appropriate as a condition for the use of such programs. Do they yield economic benefits? Is there adequate public oversight to insure that

funds are being used properly? Are the programs equitable in terms of the distribution of benefits and costs? Is a proper balance struck between domestic and export promotion; research and advertising? Although previous research has addressed various aspects of these questions, the answers are incomplete, and there is need for improvement in both theory and method.

Commodity promotion programs, while most often associated with generic advertising, serve many purposes. They are closely linked with other marketing activities and public policies. Commodity check-off programs may be viewed as an evolutionary stage in agricultural policy in which producers are given the structure for enhanced collective action in exchange for reduced direct subsidies, which, in many cases, will lead to greater exposure to market risk. Commodity promotion programs may provide the means and incentive for producers to look more closely at the total domestic and export food marketing systems, identify weaknesses and opportunities and provide the enhanced communications necessary to encourage adjustments in the operation of other marketing policies and institutions.

The issues discussed in this paper lead to four topics or policy proposals that might serve as useful themes for future symposia on commodity promotion programs.<sup>4</sup>

### **Incorporate Econometrics**

Econometrics has proven a useful tool in guiding funding decisions, especially when such analyses have taken place over an extended period, as has been the case with the New York dairy promotion pro-

gram. Yet only 24 percent of commodity organizations make use of econometrics in their evaluation exercises (Lenz, Forker and Hurst, p. 19). And it is clear from discussions with commodity organization representatives that existing econometric results are not being fully utilized.

One problem may be the differing goals and perspectives of researchers and program managers. Researchers tend to focus on questions of scientific interest that will yield publishable results in reputable journals; program managers want information that will be useful to them in day-to-day decision making. The two goals, however, are not incompatible. What is needed is better communication between the researcher and the program manager to find areas of common ground in terms of interesting hypotheses to be tested and the practical implications that might flow from the hypotheses.

### **Identify Promotion's Role**

As the federal government reduces subsidies provided through commodity programs, agricultural industries will be forced to become more self-reliant. Commodity promotion programs, because of their private funding, provide a viable institutional response for addressing challenges stemming from increased exposure to market forces. Increased competitiveness in international markets and the need for food products that more nearly match the changing preferences of consumers are just two of the issues that commodity promotion organizations might address through their research, consumer information and product promotion. Alternatively, the traditional functions of the commodity promotion organization might be expanded to include more broadly

defined research and development agendas and producer bargaining.

### *Limit Promotion*

The mutual cancellation hypothesis indicates a fundamental constraint on domestic promotion programs that is not shared by export promotion programs. The inability to increase total domestic food demand and the consequent tradeoffs between commodity groups from proliferation of generic promotion programs, raises the question of whether the programs should be limited to foreign markets only. Such a stricture would eliminate the problem of determining intercommodity producer tradeoffs and consumer-producer tradeoffs. The effects of exports on domestic commodity availability and prices would still deserve attention, but the implications are less problematic.

Exceptions might be granted in cases in which the available evidence indicates limited substitution among products; the substitution is between agricultural and nonagricultural sectors (e.g., cotton versus synthetics); the consumer-producer transfers of wealth are of minimal concern; or the commodity promotion program compensates for market risk and improves vertical coordination sufficiently to render other considerations less important.

### **Require Analysis and Review**

One of the ironies of the current evaluation situation is that Congress mandated an annual review of the dairy promotion program, which is industry financed, but placed no such requirements on the Targeted Export Assistance or Market Promotion Program, which are

publicly funded. Certainly public expenditures deserve the same level of scrutiny and public accountability as do private expenditures.

To insure that the public interest is being served, or at least not harmed, by commodity promotion programs, a benefit and cost analysis should be required that conforms to specific guidelines relating to content, scope and objectivity. The analyses could be done on a periodic basis depending on the size of the program; perhaps every five years for the smaller programs and annually for the largest. Effects on competing commodities, on consumers and on different size producers and marketing firms should be included. The analyses would be made part of the public record so that producers and Congress would have access to the information to initiate referenda or to vote on an informed basis.

One risk of mandatory evaluation is that it becomes an end in itself with little or no industry involvement. There are signs that this is occurring with the dairy evaluation. The National Dairy Research and Promotion Board now has little interest in or input into the evaluation process. Much of the research generated by the mandatory evaluation requirement is aimed at answering broad questions about economic impact and has little relevance for day-to-day program management. While the goal of comprehensive analysis is not necessarily to answer managerial questions, there is no reason why issues such as optimal regional, temporal and product allocations of the promotion budget could not be addressed as a by-product of the evaluation exercise. Ideally, the industry should initiate the evaluation process. Short of this, the legislation should

be written so that the analyses are useful to and become an integral part of the promotion entity's decision-making process.

The cost of conducting the evaluations could be deducted from program receipts in the case of the domestic programs. For the export programs, monies for the comprehensive evaluation could be earmarked specifically for that purpose. Although the total cost of evaluation will probably increase somewhat if evaluations are made mandatory, the added cost should not be burdensome as current expenditures for evaluation represent two percent of total expenditures for domestic promotion (Lenz, Forker and Hurst, p. 15) and less than one percent of the budget for export promotion (Henneberry, Ackerman and Eshleman, p. 73).

#### ENDNOTES

1. Since cases of pure public goods, i.e., those exhibiting non-rival consumption and non-excludability, are rare, Hardin (p. 19) prefers to use the term *collective* or *group* goods. Hardin's terminology also avoids the problem of confusing goods that groups seek with public goods per se. The term, *public good*, however, is adequate for our purposes.
2. The equation follows directly from Nerlove and Waugh's equation (7).
3. Strategic considerations, such as the legal treatment of non-price promotion *vis-a-vis* price subsidies in trade pacts between nations, may outweigh the profit maximization goal that underlies the discount-equivalence concept. Still, the concept provides a useful framework for assessing the efficiency of the two policy instruments from an economic point of view.
4. The last two of the policy options were first proposed by Ward, Thompson and Armbruster some ten years ago.

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