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FARM POLICY AND INCOME-ENHANCEMENT OPPORTUNITIES

Presented at An Agricultural and Food Policy Workshop
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by
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Introduction

An often overlooked fact is that farm policy can and does have an effect on the number, nature, and type of income-enhancement opportunities in rural communities. Because of the ever-changing eating practices and social values of the U.S. consumer and the nature of the world market for food, many opportunities exist for adding value to farm commodities and to the resources used in food production. If these opportunities are to be fully exploited, farm policy must provide the proper economic environment.

Of the many income enhancement activities possible, the focus of the discussion in this paper will be on value-added activities. Value-added activities can enhance farm income and income in rural communities.

Value-added activities are defined as those that benefit farmers, food processors, and citizens in rural communities and consumers as well. If they do not benefit all of these constituents, then the activity is not economically viable for the long term. In economic terms, value-added activities are those that increase the flow of economic rent to the resources owned by farmers and food processors and distributors, and in this case residents and owners of resources in rural communities.

Farm programs of the past and most of those of the present provide short-term income benefits to farmers, but those same programs discourage investments in value-added activities beyond the farm gate.[3] They also discourage farmers from trying alternative high-risk, high-income enterprises on the farm.

In this paper the proper role of federal government is viewed as establishing policies and farm programs that will achieve the stated objective, of income stability or income distribution, but at the same time minimizing distortions in the marketing and distribution of food. Furthermore, federal

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[2] Professors David Blandford, Harry de Gorter, William Lesser, Donald Liu, and Bernard Stanton provided useful suggestions on content. Janelle Tauer provided editorial assistance and Shirley Arcangeli processed the text. Their help and insight are much appreciated.

[3] This statement refers to activities for the commodity being regulated. A farm program that discourages value added activities for one commodity might and probably does encourage, i.e. provide more opportunities for, value-added activities for other commodities.

policy should be coordinated with state policy to achieve the most efficiencies possible.

The presentation that follows will include some examples of value-added activities and a discussion of the environment in which viable value-added activities are likely to develop. This will set the stage for a discussion of six policy areas which will be preceded by a very brief evaluation of current farm programs.

Value-added activities come in many forms--some forms provide cost reductions in processing and distribution costs; other forms change the product in a way that adds value in the eyes of the buyer. Examples of value-added activities are further processing, the introduction of completely new products or new product attributes such as a more pleasing taste or a more appealing color, more attractive packaging, microwavable products, or advertising that conveys new knowledge about a product or commodity to consumers (e.g., dairy products provide a good natural source of calcium). As long as the new product or new information is valued more highly, consumers will pay more. As long as this willingness to pay a higher price more than covers the cost of providing the product, the services, or the information, there is added value and the potential for increased income at the farm and in rural communities. The nature of the activity and the nature of competition in the marketplace will determine how this income increase is shared among farmers, food retailers, and processors.

There are many examples of value-added activities. Farmers can and do engage in on-farm value-added activities--direct marketing to consumers through roadside markets, pick-your-own operations, or further processing. Pick-your-own and roadside markets are big business in some communities. Many large food companies started as small on-farm value-added operations. I know a large processed turkey operation that now employs over 150 people and operates two turkey restaurants. This business started as a small kitchen operation at a small turkey farm. I also know a yogurt operation that started in a dairy farmer's kitchen that now distributes yogurt nationwide.

Farmers can also change their product mix to higher-net-value-added commodities or products where growing and market conditions permit (Dickinson). The introduction of kiwifruit production in this country is just one example. The long-term success of experiments with other new crops such as canola is yet to be determined. New information conveyed to consumers through generic advertising has increased the sales and value of orange juice, fluid milk, and cheese.

The 1988 Yearbook of Agriculture is a virtual encyclopedia of successful value-added endeavors at the processing level. Chicken nuggets and chicken sandwiches have increased chicken sales dramatically. The introduction of the sale of turkey parts and an array of value-added products such as turkey ham have reduced the seasonality of turkey sales and increased value at the retail and farm levels. New technology in the use of cotton fiber has enabled cotton to compete successfully with synthetic fibers. Nutrient information conveyed to consumers through generic and brand advertising and through labeling has increased the value of several commodities. Foreign promotion activities, along with technical assistance in use and in marketing, have increased the export volume and value of raisins, grapefruit, and soybeans. And the list goes on. The food marketing system introduced nearly 10,000 new grocery products in 1988; nearly 50,000 since 1983.

The Environment

In evaluating farm policy and the way it influences value-added activities we need to understand the economic and technical forces at work. In order for any value-added activity to survive there must be a demand (Figure 1). Consumers must have a desire, willingness, and ability to pay high value (relative to costs) for new products or services. This willingness and desire will be strongly influenced by their economic conditions, their lifestyles, and their knowledge of available products. Advertising and promotion play a major role in informing consumers about product characteristics.

A second condition is that a reliable supply of the commodity must be available at a price that will make the value-added activity profitable. High support prices, surplus removal, and production restrictions tend to discourage value-added activities for the commodity affected. In addition, technology must be available or created. New products, new processes, and new ways of marketing must be continually developed if we are to have new value-added activities. New processes can reduce costs, thus adding net value to both farmers and consumers. New products will add value to the commodity base. Continuing research in both the private and public sectors is essential to keeping new technology coming on stream. Another factor, and probably most important of all, human skills in the form of entrepreneurial and technical skills must be there to pull it all off. Investments in education and research provide human capital. Fifth, capital must be available. Except for some small business ventures, capital availability is generally considered adequate.

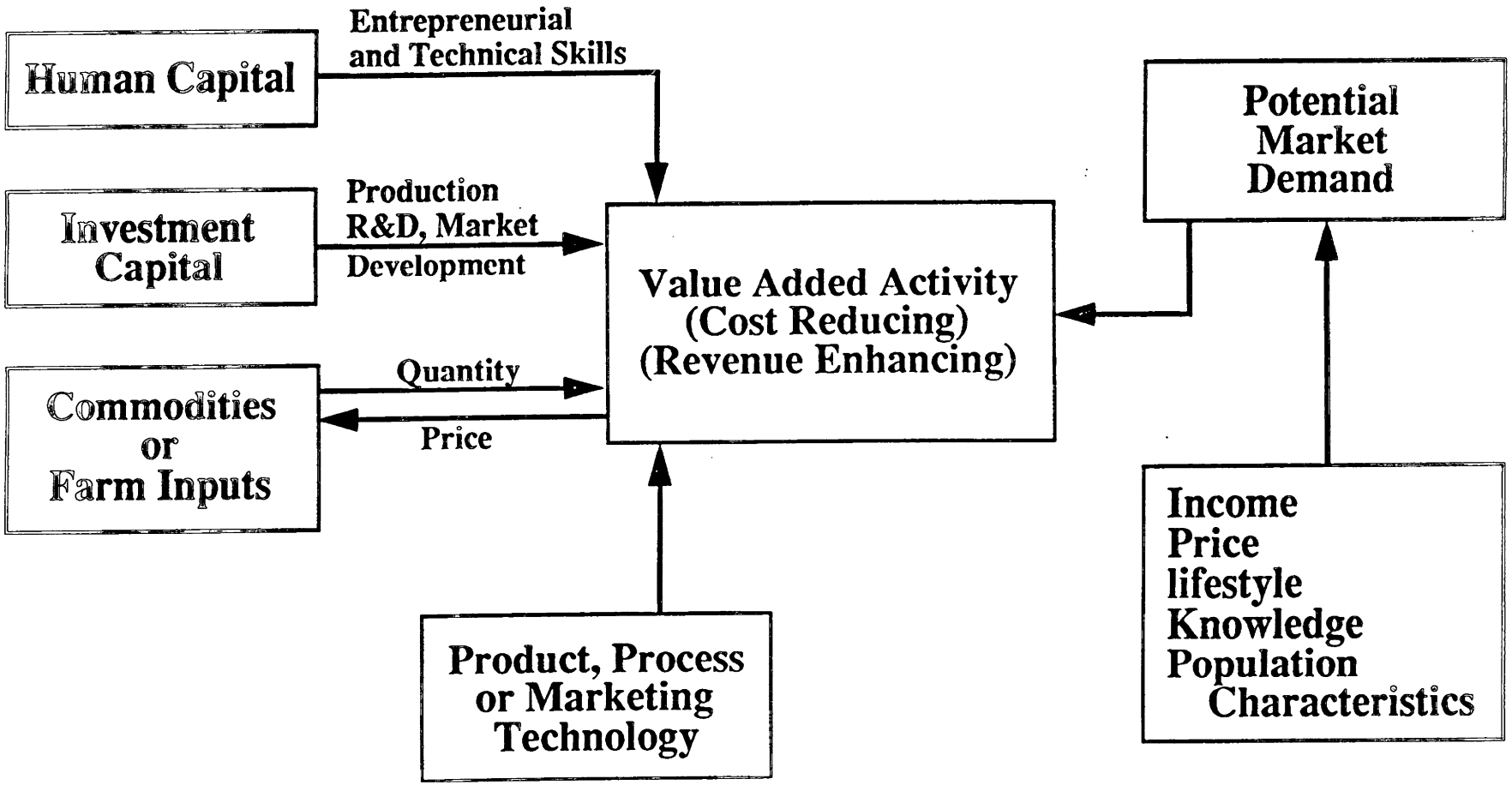
Many commentators (Sporleder and others) believe that the future is bright for more value-added activities. One major reason is that advances in technology and knowledge are continually coming on stream that enable marketing firms to design foods that can be economically produced in small volumes for a large number of small market niches. Biotechnology, for example, is making possible the more rapid development of a broader array of new products, or the modification of old products, designed to appeal to different lifestyles and ethnic groups at reasonable costs.

Second, advances in communications and in marketing management skills enable processors, and marketing and promotion groups to convey information at a reasonable cost. Improvements in this area come from investments in research and education, and an economic environment favorable to risk takers.

Third, the character of the consuming population has been changing. Students of the marketplace point to the aging population, the increasing proportion of single-person, single-parent, and dual-income households, working mothers, the changing ethnic mix, the increasing concern over nutrition and food safety, and the concern over the environment. This continuous change in the marketplace means that opportunities are numerous and perhaps unlimited.

FIGURE 1

Economic and Technical Forces That Influence the Development of Value Added Activities



Current Policy

If I have stated the current situation correctly, many opportunities exist for the development of more value-added activities in the food sector. The challenge is to provide the proper support and the proper economic environment to encourage entrepreneurs to take the necessary risks and to encourage this development to occur in rural communities. So first let's ask ourselves how current farm policies affect entrepreneurs and their willingness to take such risks.

In general, current U.S. farm programs discourage, rather than encourage, risk taking in value-added activities. Their emphasis is on price enhancement and market stability of basic commodities which reduces risk at the farm level and increases price to processors. This reduces the incentive to invest in new products or other value-added activities. An additional effect of programs like the dairy termination and the acreage-reduction programs is to increase uncertainty about available supplies which also discourages risk taking in new value-added ventures.

With this in mind, let's review the federal policies that affect the development of value-added activities on the farm and beyond the farm gate. I will cover six policy areas. In each of these areas I will suggest a policy alternative.

Policy Alternatives

Increase Funding Level for Research and Education

There is plenty of evidence that returns on public investments in agricultural research and education are high. Studies indicate this to be true whether the focus is on the overall budget, regional or state budgets, or individual commodities (Smith et al.; Pardy and Graig). The research and education provided by the land grant system and the USDA, along with that of other public and private institutions, provide the continuous flow of new entrepreneurs and new technology that are essential for continuous progress. This flow is absolutely necessary if we are to keep the food industry in rural communities competitive. Funding levels for research and education continue to erode and must be increased if we are to have the entrepreneurs and technology in the rural communities.

Target Small Businesses and Alternative Farm Enterprise Projects

To make sure that entrepreneurial skills and the new technologies are available in rural communities some funds must be targeted to institutions and states that can and do work with the small businesses and the farmers in rural communities. Why? The USDA currently invests very little support of value added activities, about $300 million annually (Food Marketing Review, 1988). Small farms, small food processing and distribution firms, and other small businesses in rural communities do not have adequate internal resources to review

alternatives, nor do most of them have connections with the university research establishment.[4]

The large food manufacturing corporations have their own scientists and internal capital to introduce new value-added activities. They interact directly with food scientists on college campuses. In 1988, food manufacturers invested $1.4 billion, or about 0.4 percent of sales, in research and development (Food Marketing Review, 1988, p. 7). This is a small amount compared to the percentage invested in research and development in other sectors of the economy. But even though the investment is relatively small, the large manufacturers will produce most of the new products that succeed in the marketplace.

The extension component of the land grant system has been successful in assisting with technology transfer and management at the farm level for many years. Success is less evident at the processing level although there are many linkages between universities and the private corporations who add value. The problem is that small businesses have less access to new knowledge.

Many states already invest substantial funds to try to increase the value of the agricultural sector's output. In addition to the funds supporting its educational institutions, New York State invests directly in small agricultural research and development projects. Since the program's inception in 1985, the State has committed $3.1 million to 122 projects. In addition, the state invests about $1.9 million annually in a Seal of Quality Program in an attempt to add a special New York value to about 11 different products. Many other states have similar programs. The jury is still out on these attempts to differentiate one state's product mix from another's. The producers of some commodities in some states will be better able to control quality and delivery in such a way to imply greater value to consumers. Those state programs will be successful. Where producers do not deliver quality, the state efforts will fail. Since the intent of such programs is to make both consumers and producers better off, the consumers' welfare and the returns to producers will provide the ultimate measures of success.

If federal policy is to increase value-added activity in rural communities, the funding should be targeted to small farms, small businesses, and small food processors. Since states are already involved in a big way, the most efficient way to influence activities in rural communities would be by directing funds through the state agencies. State agencies have direct connections and have the experience and structure in place for working with small businesses and small farmers.

Reformulate Farm Price and Income Policies

Our current farm and income policies discourage product diversification and the risk taking that go with value-added activities through their emphasis on bulk commodities. Farmers are encouraged to produce, regardless of the market conditions. Processors are encouraged to produce standard forms to satisfy

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[4] The definition of small farms or small food processing businesses is somewhat arbitrary. A reasonable definition for small farms might be those with $50,000-500,000 in farm income. Small food processing businesses might be those with sales of less than $10 million.

government product or storage specifications. Acreage removals and dairy termination programs increase the degree of uncertainty about the availability of future supplies. As a result, processors do not view favorably value-added investments for the affected commodity. Farmers continue to produce the regulated, less-income-risk commodity rather than invest in higher-risk value-added alternatives.

I recognize that Congress and society might want to reduce supplies for other reasons. Because of the inelastic nature of the demand for most basic commodities, supply reduction is a politically acceptable way to enhance farmer income. We need to recognize, however, that every time an action is taken that increases the uncertainty associated with the future supply of a commodity, we also decrease the incentive of firms to make investments in new marketing ventures associated with adding value to that commodity. This means we weaken the demand for the commodity in the long run.

The reform consistent with providing positive signals for value-added activities includes more reliance on price floors and direct payments to target groups of farmers, and less reliance on quotas and supply management. Price floors at responsible levels will reduce processor uncertainty about future supplies, yet provide a safety net on farm income. Targeted direct-income payments to small farmers will allow them to shift to enterprises that add more value to the farmers' own resources.

Increase the Number and Scope of Federally Legislated Commodity Check-Off Programs

The research and promotion legislation of 1983-84-85 (dairy, honey, beef, pork, and watermelon) is an innovative approach to value-added policy. It places the focus of farm policy on the consumer. It addresses the issue of potential demand. Mandatory assessments on domestic marketings, and in some cases imports, provide targeted funding for the commodity in question. Costs are borne by those who stand to benefit--the producers or marketers of the commodity and consumers. Through a "representative" board of directors, program control is in the hands of those who pay. The USDA (AMS) has oversight responsibility to make sure that the programs are managed in accordance with legislation and agency guidelines. The potential exists for consumers to benefit from the information conveyed by advertising.

There are several good reasons why farmers should be given this authority. First, information has value to consumers. If producer groups can collectively generate knowledge (research) and convey it to consumers (advertising and promotion) at a cost less than the increased value realized by consumers, the commodity group gains and society as a whole also gains.

This cost-benefit relationship can be measured using current econometric technology to determine the increase in value perceived by consumers.[5] The commonly observed relationship between advertising expenditure levels and the value of total sales is depicted in Figure 2 (Blaylock and Blisard, Forker and

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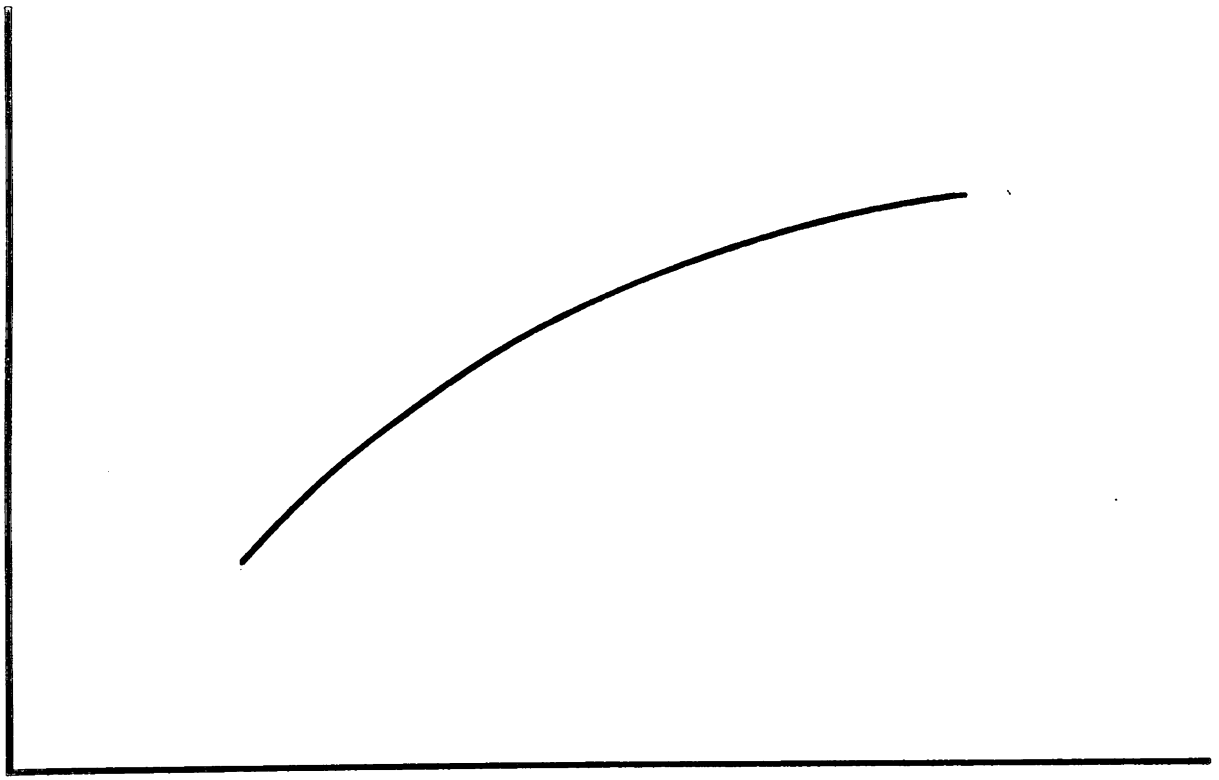
[5] The conduct of this kind of analysis requires that the promotion organization generate appropriate historical data on program expenditures and that the USDA or the promotion organization generate appropriate sales data.

FIGURE 2

Relationship Between Commodity Advertising Expenditures and Total Value of Commodity Sales



Liu, Liu and Forker, Ward, and Ward and Dixon). As expenditure levels are increased, sales increase but at a decreasing rate. This means that an economically optimum level of expenditure for each commodity can be determined. The small amount of economic analysis that has been conducted so far (dairy, beef, eggs, and wool) indicates that, at least over some levels of advertising intensity, the benefits exceed the costs. One study indicates that the dairy program has become more effective each year since its inception in 1984 (Ward and Dixon). Another study indicates that the Beef Board's promotion programs have been a major contributing factor to the improved demand for beef since 1987 (Ward).

Commodity check-off programs also provide producer groups a way to study their market and help determine what consumers want. This knowledge, when conveyed to farmers and food processors, can be the basis for new value-added activities. It can provide the basis for modification in the commodity characteristics that will make the commodity more valuable to consumers. This might be the most valuable long-run benefit of check-off programs, but one that is difficult to measure empirically. Certainly the beef and pork industries have learned a lot about consumers' preferences since their promotion program began, and they have made some meaningful adjustments in product quality.

Federally legislated programs, as compared to state programs of which there are many, have the potential for more efficient and effective programming and a more equitable sharing of the costs. Commodity promotion programs have a long history, with state-legislated programs dominating the scene until 1984. With each state having its own check-off program and in many instances different assessment rates, the programs are fragmented and the costs and benefits not equitably shared.

Economists for many years viewed advertising as a social waste with little if any redeeming value especially generic advertising. Many still hold that view. However, the modern view is that advertising is part of the marketing process. Ekelund and Saurman provide an excellent summary of this view in a recent book titled Advertising and the Market Process: A Modern View. Advertising always contains some information, even though it might be only a reminder, that has potential value to a consumer. Advertising then should be considered as any other marketing activity. The appropriate intensity and type can be judged on economic grounds. Generic advertising can also be considered part of the marketing process and is one tool that farmers can use to join together to influence, at least indirectly, the market outcome.

If all major commodity groups have the same check-off authority, then it is conceivable that programs will evolve that will generate and pass on a more near-optimum amount of new information of use to consumers and therefore benefit producers and consumers. If one major commodity group has the authority and another does not, then the one with authority has an advantage over those that do not.

I suggest two modifications to the existing legislation. One relates to the measurement of benefits; the other relates to the refund provision. First, each program must have a means of collecting the appropriate data and of conducting the appropriate economic analysis to determine the proper level of assessment. If this is not done, then some programs will be much larger and others much smaller than appropriate for the best use of the research and

promotion dollars. A requirement for an annual evaluation, such as that required of the dairy program, should be a part of every commodity promotion program.

Second, the refund provision should be eliminated on all programs. The current programs that require refunds are much less effective than they could be. Currently of total assessments, refunds are 45 percent for eggs, 35 percent for cotton, and 18 percent for potatoes. A program should not be implemented unless everyone who stands to gain also contributes. There is little economic justification for some to contribute voluntarily while others get refunds.[6]

This policy alternative has good potential over the long run. The major new programs now in place (dairy, beef, and pork) appear to be off to a good start. Research indicates that advertising expenditures can increase sales enough to more than justify the expenditures involved. Federally legislated check-off programs with no refund provisions can provide an equitable way to share the costs of commodity programs from which everyone benefits. Appropriate research will indicate when a commodity group is spending too much.

Reformulate Standards of Identity and Product Labeling Rules and Regulations

Reformulated standards of identity and product labeling rules could make it easier to develop and introduce new products or product forms to satisfy the ever-changing consumer demands. The standards of identity used by the Food and Drug Administration (FDA) to guarantee consumers that they are getting butter, or apple sauce and not some diluted substitute, serve a useful purpose. The standard that a product can be called butter only if it is made from cow's milk and contains at least 80 percent butterfat prevents unscrupulous marketers from selling watered-down versions or vegetable oil spreads as butter. These same standards, however, also slow down experimentation and the introduction of new value-added products. Consumers have come to want spreads made of vegetable oil and milk with less butterfat, meat with less fat, and so forth. Some manufacturers have felt restrained by the FDA standards from developing products to meet the changing market conditions. Just recently food manufacturers have become more willing to break away from these standards and design products that more nearly satisfy consumer desires for more natural, healthful, and nutritious foods.

With the current desire for food designed to fit a very large number of different consumer wants, a more appropriate approach would be to require explicit product-label information about ingredients and specific nutrient content on every food item sold. Product labeling has been a hot topic for decades. Food manufacturers do not like to divulge their secret recipes. On

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[6] The argument for the refund provision states that producers should not be required to contribute if they do not believe in advertising or if they do not believe that advertising provides positive returns to them or the industry. This is philosophical reasoning and has political appeal but is not economic. The economic argument for the refund provision is that the threat of withdrawal of refunds will provide an incentive for the boards and program managers to make the most effective use of the funds available. If that threat is not present the managers will become complacent. This argument also has some appeal. However, as long as any individual can realize the benefit of the program at zero cost by asking for a refund then this latter argument fails.

the other hand, consumers have a right to know what they are eating. Many have special dietary goals. Others have serious allergies to certain foods or ingredients. Almost everyone is now sensitive to problems related to diet. It is about time we reformulate policy in this area so food processors can provide consumers with the food products that they want and that the contents be clearly identified so consumers are certain of what they are actually getting. Reform in this area should be positive relative to incentives and opportunities for value-added activity (Padberg).

Design Policy to Encourage Exports of High Value Food Products

The U.S. has a deficit trade balance in processed food, but the balance has become more favorable in recent years. In 1987 the deficit was $5.6 billion. In 1988 the deficit was down to $3.2 billion, partly because of the fall in the value of the dollar. If we eliminate trade in processed seafood, the trade balance looks more favorable at a deficit of only $109 million in 1988 compared to $1.7 billion in 1987 (Food Marketing Review, 1988, p. 101).

Instead of exporting value-added products, many U.S. food marketing firms invest in foreign operations. In 1987, U.S. food marketing firms invested 16 billion dollars in foreign operations. At the same time, foreign food marketing firms invested $22.5 billion in U.S. food marketing operations. There are valid economic reasons for investments in foreign operations. U.S. firms probably do not have a comparative advantage in many value-added activities. In many situations the labor and technology are more conducive to adding value near the consumers.

Policies that encourage exports will enable firms to identify the appropriate mix of commodity and value-added product exports that will yield the highest possible income in rural communities. Some direct assistance in foreign market development also seems in order.

Because a large part of U.S. agricultural exports are unprocessed grains and commodities, it seems especially appropriate and important to investigate value-added opportunities. The Targeted Export Assistance (TEA) program and the Cooperator program, with a combined budget of over $234 million, are designed to help commodity exporters or trade groups develop new or expand current overseas markets.

In general our trade, tax, and farm policies favor commodity exporting over the exporting of high-value-added products. Our basic farm policy focuses on moving surplus commodities into foreign markets without consideration of what the export markets really want or recognition of our comparative advantage. In addition, U.S. food manufacturers are less export oriented than their European counterparts, and they have been losing market share to other exporting nations (Handy and MacDonald). Therefore, some form of assistance seems appropriate.

There are many anecdotal success stories, including the introduction of french fries into Japan, California raisins into the United Kingdom, Florida grapefruit into Japan and Europe, and U.S. cotton into Korea. Successful introductions have been achieved through close coordination between the Foreign Agricultural Service, the commodity trade organization, U.S. food manufacturers, and the importing country's distributors. Note, however, that most of these success stories involve the export of a commodity, not a value-added product.

In addition they are anecdotal, and, in general, have not been subjected to economic analysis.

Based on the anecdotal success stories, the continuation of direct assistance to encourage exports should be continued. However, a comprehensive economic review during the next two to three years is needed to determine the extent to which the subsidized promotion effort contributes to an increase in overall demand.

A real problem with the Targeted Export Assistance (TEA) program is the limitation that funds can be used only in countries where there is a felt need for trade retaliation. The probability for successful use of the federal funds will be greatest if firms and trade organizations are allowed to select the countries where their intelligence network indicates the greatest opportunity for market development for their commodity.

The direct export assistance programs provide a way to nurture and assist U.S. firms in adding value by helping them develop markets abroad. Another way to assist firms is through improved financial arrangements. The Commission on Agricultural Finance concludes that agricultural exporters, especially small-scale U.S. exporters, do not have adequate financial help in facilitating export transactions and that we are not as accommodating as some of our trading competitors. The Commission recommends in its recent report that the nation should "expand agricultural export financing alternatives..." especially "... small companies serving a niche market abroad" (Report of the National Commission on Finance, pp. 19-20). The Commission makes two practical suggestions: "1) extend the authority of the National Bank for Cooperatives to finance U.S. agricultural exports without restriction to only cooperative origination, and/or 2) devise some form of guarantee available to institutions providing financing to support countries otherwise not credit worthy for straight commercial credit on their U.S. agricultural imports."

Summary

Every one of the policy alternatives discussed above has the potential of a positive influence on income in rural communities. I have argued that increases in value-added activities will enhance income in rural communities, either in terms of increased farm income or increased economic activity in food processing. The increased returns from value-added activities will not all filter down to the farm or even to the rural communities, but some of it will. Any expansion in market opportunities that results in an increase in demand for the commodity will result in a relative increase in income after supply adjustments have occurred. Even those value-added activities that merely add convenience or any other attribute desired by consumers, but that do not increase the quantity of the basic commodity demanded, strengthen the market and thus make the producers and marketers better off.

Several alternative policies can have a positive influence on value-added activities. In general the policies need to provide a favorable economic environment for entrepreneurs and for risk taking. In addition, they need to provide the appropriate technology and the capital so that the entrepreneurs will be encouraged to make the necessary investments.

Six policy alternatives have been discussed. Each has the potential for having a positive influence on value-added activities.

First, an increase in funding levels for research and education will over the long run provide the entrepreneurial skills and the technology that will be conducive to risk taking, and the development of new products, diversified products, and alternative enterprises that will be desired by consumers.

Second, a focus on small businesses and farms in rural communities will increase the certainty that value-added activities will occur in the rural communities. Directing some of this effort through state program activities could be beneficial and efficient.

Third, a reformulation of farm price and income policies toward price floors and targeted direct-income payments would provide a more favorable environment for risk taking that is necessary for farmers to select higher-value, more-income-risk enterprises and for processors to invest in value-added activities associated with basic farm commodities.

Fourth, federally legislated check-off programs will provide farmers the ability to act as a group in the identification of market needs and in the promotion of their commodity products. All of the research and promotion activities authorized under these programs have the potential to expand demand and increase farmer income through increasing the value of the commodity in the eyes of the consumer. In order for check-off programs to be more efficient, I suggest the elimination of the refund provision and the introduction of an annual economic review of the effectiveness.

Fifth, a reformulation of the standards of identity and the establishment of product labeling rules are called for so that processors and distributors can design products that consumers want and so that consumers can know what they are buying.

Sixth, since most of the agricultural export volume of the U.S. is in the form of basic commodities, an investigation of value-added opportunities is justified. Some market development assistance for new markets and improved institutional arrangements for financing are appropriate.

I am very pleased that this topic was placed on the agenda for this conference. Too often, farm legislation is passed without first properly exploring its implications with respect to the market and its impact on future demand. The policy to have federally legislated research and promotion check-off programs is a step in the right direction--toward encouraging farmers and commodity groups to seriously consider the marketplace.

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