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NAFTA AND THE U.S. DAIRY INDUSTRY

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Mexico and the United States agreed to negotiate a trade agreement in June 1990. Canada subsequently joined the negotiations, and a provisional North American Free Trade Agreement (NAFTA) was signed in September 1992. This agreement, with minor modifications, was approved by the U.S. Congress in November 1993. The NAFTA will substantially reduce trade barriers between the United States and Mexico, yet it permits each country to maintain current domestic programs, policies and product standards. Because NAFTA will increase possibilities for trade in dairy products between the U.S. and Mexico, the dairy industries of both countries have a great deal of interest in the dairy trade patterns that will emerge as tariffs and direct import controls are phased out. In addition, new trade patterns have potentially important consequences for dairy producers, processors, and consumers in both countries.

This is the second of two leaflets examining the short- and intermediate-term potential of expanded dairy trade with Mexico. Prospects for increased U.S. exports of dairy products will depend crucially on future developments in Mexican production, consumption, and trade with other partners. Leaflet M-14 emphasizes recent trends in production and consumption in Mexico, and examines historical dairy trade patterns. This leaflet explores the possible consequences of increased dairy trade under the NAFTA for the U.S. dairy industry, and discusses issues of potential concern.

Proposed NAFTA Provisions

NAFTA provisions affecting the U.S.-Mexico trade in dairy products fall into three major categories: market access, sanitary and phytosanitary, and rules of origin. Because Canada excluded its dairy sector from the NAFTA, provisions would affect dairy trade only between the U.S. and Mexico. The agreement will result in the gradual elimination of all tariffs and non-tariff barriers either immediately or over a five- to 15-year transition period.

Market Access Provisions. Market access provisions deal with the interactions between freer trade and current dairy policies in the U.S. and Mexico, and establish guidelines for how trade will be liberalized. Although the market access provisions contain language encouraging the U.S. and Mexico to move towards domestic support policies that do not distort trade patterns and urge restraint in the use of export subsidies, the agreement essentially allows both countries to maintain their current domestic dairy programs. Market access commitments specify the quantities of products that may be shipped between the U.S. and Mexico without tariffs, and decreases in tariff rates during the transition period.

Under NAFTA, Mexico immediately will convert its import license for milk powder to a tariff-rate quota (TRQ), which will be phased out over 15 years. Under the TRQ, the U.S. can ship up to 40,000 metric tons of skim and whole milk powder to Mexico duty free. Imports over the quota, however, will be subject to an initial tariff of 139 percent. The amount the U.S. can ship duty free will increase as the agreement is phased in, and the "over quota" tariff rate will be gradually decreased. Mexico also will convert import licenses for cheese to a tariff of 20 percent, and this tariff rate will be reduced to zero over ten years. Tariff rates for all other dairy products will be frozen at current levels and phased out gradually over ten years.

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The U.S. will allow liberalized trade with Mexico in all dairy products, including those now covered by the "Section 22" import quotas used to maintain the integrity of the Dairy Price Support Program. Like Mexico, the U.S. will use tariff-rate quotas to allow improved market access for Mexican products, while gradually reducing tariff rates on imports in excess of TRQ amounts. For example, the agreement would establish an initial TRQ of 422 metric tons of milk powder for Mexico, and imports of milk powder in excess of the TRQ would be subject to a duty of 78 to 83 percent. The "over-quota" duty would be phased out over ten years.

Sanitary and Phytosanitary Provisions. These provisions concern the rights of NAFTA countries to establish health, safety, and environmental standards for products entering their borders. The agreement generally allows each country to maintain current health, safety, environmental, and product standards. State and local regulatory authorities may establish stricter standards, so long as these standards are scientifically defensible (that is, are not designed primarily to discourage imports). The most significant consequence of these provisions is that dairy imports from Mexico must meet the same health, sanitary, and product standard regulations applicable to dairy products produced and marketed within the U.S. This includes, for example, grade A certification for farms selling to processors for fluid uses, and inspection of processing facilities.

Rules of Origin. Rules of origin limit exports to other NAFTA countries of products containing components imported from non-NAFTA countries. Of most concern to the U.S. dairy industry, rules of origin will be implemented as permanent legislation to ensure that Mexico does not become an export platform for non-NAFTA countries. As a result, dairy products originating outside Mexico must be transformed significantly before receiving preferential tariff treatment under NAFTA. For example, non-NAFTA milk or components may not be used to make cream, cheese, yogurt, ice cream, or milk-based drinks exported to the U.S. The agreement does not preclude Mexico from importing products or components from non-NAFTA countries for domestic consumption, while exporting Mexican-origin products to the U.S. The possibility of this "import arbitrage" has concerned some segments of the U.S. dairy industry.

Consequences of NAFTA for the U.S. Dairy Industry

The ultimate consequences of the NAFTA for the U.S. dairy industry will depend on the nature of changes in U.S.-Mexico dairy product trade. U.S.-Mexico trade in dairy products will depend largely on changes in consumption and production in Mexico, although trade and production policies in countries trading with Mexico will also prove important. Growth in Mexico consumption of dairy products is likely to mirror income growth caused by NAFTA or other internal policies, as price changes per year will be relatively small as tariffs are phased out. Production growth in Mexico will respond to exports of inputs for dairy production and processing and incentives for investment in the dairy sector in Mexico. Dairy policies in both the U.S. and Mexico obviously will affect both consumption and production.

A number of recent studies have assessed the potential for increased U.S. exports of dairy products to Mexico, with sometimes conflicting conclusions. The National Dairy Board conducted an extensive survey of the Mexican market, concluding that U.S. products have a "strongly positive image among the Mexican populace." The NDB report[1] indicated that opportunities for increased exports of cheese, frozen desserts, and yogurt were all reasonably strong. A study sponsored by the American Farm Bureau Federation[2] predicted that the market for cheese and ice cream will be limited to the middle and upper income levels, but the U.S. is probably more competitive in these products than in bulk commodities such as nonfat dry milk.

In contrast, a 1992 study by Hallberg and others at The Pennsylvania State University[3] stated that the prospects for increased U.S. exports of soft manufactured products did not appear particularly attractive at the time due to high transportation and storage costs, and that U.S. cheese exports would be limited because the types of cheese consumed in Mexico are not widely produced in the U.S. The conclusions of the Penn State study conflict with the opinions held by potential U.S.

[1] National Dairy Promotion and Research Board. "The Mexican Dairy Market: Prospects for U.S. Value-added Products," June 1991.

[2] Harris, Harold Jr., and Emily A. McClain. "A U.S.-Mexico Free Trade Agreement: Potential Impacts and Implications for the U.S. Dairy Industry." Report prepared for the American Farm Bureau Federation, November 1991.

[3] Hallberg, Milton C., James R. Cranney, Stephen M. Smith, and Constanza M. Valdes. "The Mexican Dairy Economy and Potentials of Liberalized Trade for the U.S. Dairy Industry." The Pennsylvania State University, Agricultural Economics and Rural Sociology, July 1992.

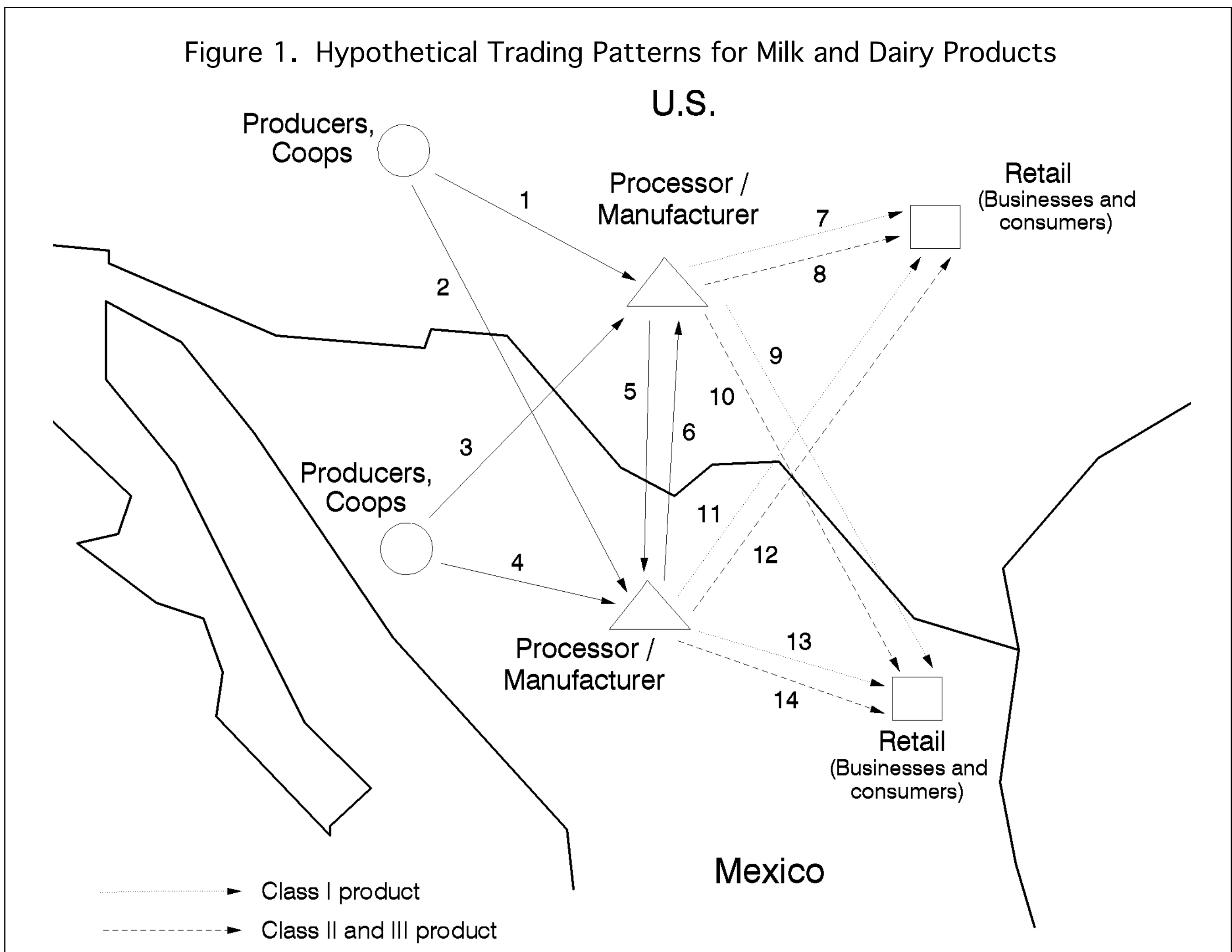
exporters attending a U.S. food products show in Mexico City in August 1992, who felt there would be strong demand for U.S. yogurts and ice creams.

Possible Cross-Border Movements of Dairy Products

To the analyst or manager assessing the future potential for U.S.-Mexico trade in dairy products, it is useful to consider the range of possible product movements across the border. Figure 1 presents a simplified diagram of possible dairy product movements. The three main parties involved in dairy trade are producers (and associated cooperatives), processors (who sell fluid products) or manufacturers, and consumers. These parties are shown as circles, triangles, and squares, respectively, in the diagram. Obviously, this simplifies greatly, as some cooperatives are also processors, and fluid processors engage in some manufacturing. Products likely to be traded include raw milk, fluid milk, and manufactured products. Raw milk moves from producers to processors and manufacturers, and fluid and manufactured products move from processors/manufacturers to final consumers.

In a world of perfectly free trade, raw milk could move from producers in each country to processors/manufacturers in either of the two countries (arrows 1 through 4). Processors and manufacturers in the two countries also could trade milk components and products among themselves (arrows 5 and 6). Processors could sell fluid products to consumers in both countries (arrows 7, 9, 11, and 13) and manufacturers could market products to consumers in both the U.S. and Mexico (arrows 8, 10, 12, and 14). In the real world under NAFTA (which does not imply perfectly free trade) such movements would need to satisfy the sanitary, product standards, rules of origin, and dairy policy regulations of both countries.

Figure 1. Hypothetical Trading Patterns for Milk and Dairy Products



Potential for Increased Exports of U.S. Dairy Products to Mexico

Prospects for increased U.S exports of dairy products to Mexico are favorable. Mexico has a rapidly growing population, and NAFTA is expected to have a positive impact on per capita income levels in Mexico in the long term. As the world's largest importer of NDM, Mexico presents a significant source of import potential for the U.S. dairy industry when incomes begin to rise. Currently, for much of Mexico's lower class (two-thirds of Mexico's population), the only milk available is reconstituted powdered milk. Improved income levels and expanded availability of fresh milk at competitive prices can be important incentives for increased demand for fresh dairy products. Rising incomes would expand the market created by middle income consumers.

Geographic location gives the United States an advantage in obtaining market share in Mexico for dairy products, particularly for fluid milk, ice cream, and other highly perishable products. A large resource base, improved technology, and high quality products would seem to give the United States a comparative advantage in the higher income niche of the Mexican market. However, U.S. companies likely will need strong marketing efforts to raise awareness of the attributes and quality of their products; a recent National Dairy Board study indicated that many Mexican consumers appear to know little about U.S. products such as cheese, or simply prefer Mexican cheeses.

Potential for Increased Mexican Dairy Exports to the U.S.

The deficit in Mexico's milk production makes it unlikely that dairy products produced from Mexican milk will be a threat to the U.S. dairy industry, especially in the short and intermediate term. However, it is conceivable that some Mexican producers could qualify as suppliers to U.S. processors and manufacturers if mechanisms were developed for their inspection by the appropriate state authorities. Thus, some raw milk potentially could move from south to north as the NAFTA is implemented, although the amount is expected to be small. Mexican products imported by the U.S. also would need to abide by U.S. health, safety and product standards. It appears that few Mexican dairy plants currently meet those standards, although a number of the larger and more modern plants in Mexico probably would require relatively small changes to meet U.S. standards. Definitive information currently is unavailable on the investments necessary to penetrate U.S. markets or the potential profitability of such investments. Prospects for the development of Mexico's processing sector by Mexican, U.S., or other foreign investors are uncertain, but the possibility exists of processing U.S. milk in northern Mexico for return to the U.S.

Investment in the Mexican Dairy Sector

If Mexico's dairy industry is to increase production sufficiently to come anywhere near satisfying its fluid milk needs, large investments will be required in Mexico's dairy industry. However, at present it is possible to make only some preliminary assessments about potential exports of inputs and incentives for investment. Investment and growth in Mexico's dairy industry may be viewed as competitive and disadvantageous to the U.S. dairy industry. However, there are benefits to U.S. dairy farmers, the most significant being the sale of replacement heifers. If Mexico wants to rapidly modernize and expand its commercial dairy sector, continued growth in the demand for dairy heifers from both the United States and Canada can be anticipated.

Moreover, it is not beyond the realm of possibility that some U.S. dairy farmers may decide to move or expand their operations to Mexico. Movements of dairies within the U.S. have been common as a source of regional shifts in milk production patterns. However, such movements and investments are dependent on the economic and political stability of Mexico, which may in part be dependent on the approval of NAFTA. There is much milk production, processing, and distribution-related-equipment and supplies that could be exported to Mexico's expanding dairy industry. For example, U.S. dairy suppliers have a long history of exporting semen to Mexico as a means of improving the genetic base for future milk production. Likewise, demand for modern milking equipment, transportation equipment, refrigeration units, and processing equipment can all be expected to grow.

Issues for U.S. Dairy Programs and Institutions

Implementation of the NAFTA raises a number of issues for U.S. dairy programs and institutions. Issues of particular importance include those for marketing orders, dairy cooperatives, and the Export Subsidy Program.

Marketing Order Issues

Many complex federal milk marketing order questions are raised by the NAFTA agreement, especially for orders in the border region. Federal or state milk marketing orders blanket the border with Mexico from Texas to California. These orders regulate the prices first handlers (processors) pay for milk on the basis of the dairy products made from the milk, regulation referred to as classified pricing.[4] Under classified pricing, raw milk for fluid use (class I) is priced higher than milk for manufacturing uses, and producers receive a "blend" price based on milk usage. Because milk prices differ by use, a key issue for the marketing orders is access to U.S. market areas by Mexican processors. If Mexican fluid milk products could be sold in U.S. market areas without some mechanism to equalize milk costs with those of regulated U.S. handlers, then the effectiveness of federal orders will be undermined.

A number of conditions will determine the likelihood of increased Mexican exports of raw milk and/or dairy products to the U.S. and, thus, the importance of this issue. First, economic incentives must exist after NAFTA for products from Mexico to be sold in U.S. federal order market areas. As previously mentioned, these incentives will depend upon future developments in the relative costs of production, processing/manufacturing, and transportation in the two countries. These costs are likely to be affected under NAFTA, but exactly how is a matter of speculation. A number of recent studies see incentives for increased U.S. exports of dairy products to Mexico, rather than incentives for U.S. imports from Mexico. However, many U.S. residents in western states are of Mexican heritage and may have a demand for certain Mexican products, particularly value-added specialties. Future developments thus could create opportunities for exports from Mexico, especially in the border areas.

Second, Mexican raw milk and products must meet health, safety, and product standards, and Mexican companies must obtain proof of compliance through the usual U.S. administrative processes. Currently, Mexican milk sold for fluid use in the U.S. must be certified by the appropriate state authorities as grade A. Few arrangements now exist for certification of producers and processors in Mexico, and it is unknown how many Mexican producers or processors would be eligible for such certification. Significantly, the 1993 National Conference on Interstate Milk Shipments modified its constitution to allow non-U.S. countries, or political subdivisions of them, to become voting members of the Conference. Unless Mexico were to become part of the Interstate Milk Shippers agreement, it is possible that relatively little milk from Mexico will be eligible for sale in the U.S. as fluid products. Mexican products not meeting U.S. quality or identity standards could perhaps be sold under non-standard names.

If exports of milk and milk products from Mexico are profitable, and if they meet U.S. product standards, an issue of potential importance arises for federal milk marketing orders. This issue is whether or not orders will regulate Mexican handlers selling fluid milk products in a U.S. market area.[5] The orders generally contain language authorizing the regulation of all handlers selling milk in their designated market area, but the decision to regulate or not to regulate will likely be based on the potential for disruption of market order effectiveness.

The most likely scenario for such disruption would arise if processors in Mexico could aggressively market fluid milk (meeting U.S. grade and health standards; movement 11 in Figure 1) in U.S. market areas because their raw milk costs were lower without federal order regulation. In such a case, corrective action by the orders would be likely. In general, however, final decisions on how to treat Mexican raw milk and fluid products have not yet been made by border-area marketing orders or USDA.

If U.S. orders regulate Mexican handlers, it would seem likely that Mexican handlers desiring to sell fluid products in U.S. market areas (movement 11 in Figure 1) would be subject to something like the current system for "partially regulated" handlers. Partially-regulated handlers are those handlers with only a small fluid distribution in a given marketing area, and whose principal business is dairy product manufacturing or fluid sales in unregulated areas. Partially-regulated handlers selling packaged fluid milk products in a U.S. market area generally have the option of 1) contributing to the order's producer-settlement fund the difference

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[4] See Leaflet O-5 for a more detailed description of basic federal order provisions.

[5] A basic rule of federal orders is that processors are regulated according to where the sell milk products; where or from whom they buy milk is irrelevant for the purpose of regulation under the order.

between class I and blend prices of the order for sales not offset by purchases of class I products in the marketing area or 2) paying producers the price received from fully-regulated handlers.

Raw milk sold by unregulated Mexican handlers to regulated U.S. handlers (movement 6 in Figure 1) would be treated as "other source" milk and would most often be assigned to the regulated plant's surplus utilization. This procedure guarantees that the highest value is assigned to pooled milk from U.S. dairy farmers. Depending on the percentage utilization of milk for class I products, raw milk imports from Mexico could result in an increase in the blend price received by U.S. producers. If receipts of "other source" milk exceeded the plant's surplus use, the excess amount would be assigned to class I and the regulated handler would pay to the producer-settlement fund the difference between the class I price and the Mexican handler's pay price on the amount assigned to class I. With the possible exception of over-order premiums to U.S. producers, the U.S. handler's overall obligations to the producer-settlement fund would be the same regardless of the source of the raw milk.

Milk used in packaged U.S. products sold to Mexico (movement 9 in Figure 1) would continue to be priced under order provisions according to use. This raises the issue of competitiveness of U.S. packaged products in Mexican markets. If the price of raw milk (or cream) exported to Mexico is not regulated, some U.S. packaged products (especially fluid products) could be non-competitive with Mexican products. Thus, value-added markets could be lost to bulk product (raw milk) sales. This suggests the need for a consistent policy in the pricing and pooling of milk in raw and packaged forms.

Regardless of whether federal orders regulate Mexican handlers, raw milk from the U.S. sold by producers or cooperatives directly to unregulated Mexican handlers (movement 2 in Figure 1) would fall outside of federal order classified pricing and pooling provisions. For this option to be attractive for U.S. producers, the price received by the U.S. producers or cooperatives from Mexican processors would need to be at or above the blend price determined for the U.S. market. In cases where a U.S. handler sells bulk milk to an unregulated Mexican processor (movement 5 in Figure 1), classified pricing would likely apply, and the order would want to determine the usage of milk by the Mexican processor.

In California, state law establishes the milk marketing order. Because a state cannot regulate product flows from another country independent of the federal government, it would likely be more difficult to prevent imports of Mexican products from undermining the effectiveness of the California's regulatory programs. Although lack of profitability or health and safety standards could prevent rapid growth of imports from Mexico, economic regulations alone would prevent little dairy trade in the long term. Still, large increases in exports from Mexico to California in the long run are unlikely for two reasons. First, under California's state regulations, prices are generally lower than under federal orders. Thus, there may be fewer incentives for Mexico to export to California. Second, if a large influx of imports from Mexico were to occur, producers in California would have recourse in establishing a federal order that could regulate Mexican processors selling in California.

Cooperative Issues

Issues of milk pricing, pooling, marketing, membership and member relations relevant for cooperatives have been implied in the above discussion of federal milk orders. Some of these issues may be viewed a being internal to cooperatives. However, because cooperatives have substantial impact on federal order policies and provisions, they are in a unique position to influence the outcome of the federal order pricing and pooling issues. Moreover, cooperatives have flexibility within the federal order system to charge premiums over federal order class prices and pay producers more or less than the federal order blend price. Cooperative and federal order strategy, therefore, are interrelated and will require careful analysis and planning.

In addition to issues related to federal orders, NAFTA and its associated economic integration raise three other important cooperative policy issues. These issues are 1) direct sales of raw milk by current cooperative members to Mexican processors, 2) membership by Mexican producers in U.S. cooperatives, and 3) joint ventures/mergers between U.S. and Mexican cooperatives.

The first issue is whether cooperative members will choose to sell milk to Mexican processors or manufacturers on their own account. Typically, cooperative members are obligated to ship all milk produced to the cooperative. However, several border-state producers are large enough to sell tankers of milk to Mexico

without involvement of the cooperative. There may, in fact, be substantial financial incentives for some producers to sell milk directly to Mexico, even if they are currently cooperative members.

Questions will inevitably arise concerning whether Mexican dairy farmers can become members of U.S. cooperatives. Such membership may be particularly advantageous for Mexican dairy farms located near the border because of the potential flow of both raw and packaged milk across the border. Eligibility for cooperative membership is an issue for cooperatives themselves to decide, although it may have implications for federal order decisions concerning dairy product flows from Mexico.

The concept of multinational cooperatives in grain arose in the late 1970s. It died when U.S. grain cooperatives began to lose export market position, in part because they were not multinational. NAFTA creates a compelling reasons for cooperatives to include a multinational dimension in their strategic planning activities. With freer trade, it will be important to both Mexican and American farmers that they consider coordinating their cooperative activities to help maintain their marketing outlets.

Export Subsidy Policy

As indicated previously, Mexico has relied heavily on subsidized imports of nonfat dry milk, often under DEIP, to fill its consumer needs when its milk production dropped sharply in the 1980s. Although these imports have been targeted to fill the consumption needs of the poor who could not otherwise afford to buy fresh milk, subsidized imports of this type may reduce the demand for fresh milk. The effect is to lower pressure for increases in the state or regional producer milk price, which tends to discourage fresh milk production.

For U.S. milk producers, subsidized imports of nonfat dry milk are a mixed blessing. On the one hand, the demand for U.S. nonfat dry milk is increased (excess supplies removed from the domestic market), yet on the other hand, exports of fresh milk (either in packaged or raw form) are reduced. In addition, the price received for fresh milk exported to Mexico is reduced. Such tradeoffs need to be considered by the U.S. and Mexico policy makers in establishing their domestic and international dairy policies.

One additional export subsidy issue exists. At present, it appears that products such as nonfat dry milk sold to Mexico under DEIP can be re-exported to the U.S. without restrictions other than those in NAFTA's market access provisions. If incentives exist for this kind of product movement, the effectiveness of the DEIP in maintaining U.S. milk prices could be undermined.

All of this may well become moot as dairy export subsidy programs are severely reduced or eliminated under the new international General Agreement on Tariffs and Trade (GATT).

Concluding Remarks

NAFTA appears to hold substantial positives for the U.S. dairy industry with relatively few potential negatives. It creates issues for federal orders and cooperatives that merit considerable forethought and planning. These issues have already become apparent without NAFTA being approved.