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by

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The U.S. Congress approved and the President signed the Uruguay Round General Agreement on Tariffs and Trade (GATT) late in 1994. Other major trading nations also have approved the agreement. These approvals effectively gave the green light to implementing the GATT agreement which initiates trade reforms that begin in 1995 and extend to 2000 and beyond. While many parts of the U.S. agricultural economy expect to gain from the more open world markets produced by the GATT agreement, the U.S. dairy industry represents an exception. The U.S. dairy industry will lose border protection enjoyed under Section 22 import quotas. Export subsidies employed under the USDA's Dairy Export Incentive Program (DEIP) also will be reduced by the GATT agreement.

Farmers, officials of dairy cooperatives, dairy processors, legislators, and others concerned with economic prospects for the U.S. dairy industry have sought to expand exports of U.S. dairy products partly to offset expected losses of market under the GATT agreement. They also were prompted to find ways to expand dairy exports because of the maturing domestic cheese market, reductions in U.S. dairy price supports, and prospects for a greater market orientation for the U.S. dairy industry.

Their proposals include plans to use industry boards, marketing-agencies-in-common and producer-operated exporting organizations. Some would be entirely private organizations. Others would have powers granted by the federal government. After summarizing GATT agreement provisions that will affect U.S. dairy imports and exports, this paper analyzes the effectiveness of selected dairy export marketing organizations. The dairy exporting mechanisms evaluated are the Gunderson proposal (Gunderson Substitute for H.R. 4235), DariMac (an export marketing-agency-in-common for dairy cooperatives), and the New Zealand Dairy Board.

Impact of GATT Provisions on U.S. Dairy Imports and Exports

The Uruguay Round GATT agreement includes the following provisions that affect U.S. dairy imports and exports [8]:

- Countries are required to convert all non-tariff import barriers (quotas, import licenses, etc.) to tariffs and reduce those tariffs by an average of 36% over six years with a minimum reduction for individual products of at least 15% from 1986-88 base levels.
- Where current access to a country's market is less than 3% for a product (based on estimated consumption during a 1986-90 base period), the country must open its market to a minimum amount of access of at least 3%. This minimum access is to be increased to 5% by 2000.
- The amount of agricultural products exported with subsidy and budget outlays for export subsidies must be reduced by 21% and 36%, respectively, from 1986-90 base period amounts.

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Impact of Tariffication and Minimum Access Requirements

Prior to the GATT agreement, U.S. dairy markets were protected by Section 22 of the Agricultural Adjustment Act of 1933, as amended, which prevented dairy imports from interfering with the USDA's price support program. Under the GATT agreement, the Section 22 quotas will be converted to tariff-rate quotas and gradually lowered. These tariff-rate quotas are two-tiered tariffs that establish one duty for imports within the quota and a higher duty for imports exceeding that level of imports. The U.S. will convert its 110,999 metric ton Section 22 cheese import quota into a tariff-rate quota and increase the within quota access to 141,991 metric tons (28% more than under the 1994 quota) by 2000. The within quota cheese tariff will permit commercial trade in the product. Tariffs on out-of-quota cheese imports under the new GATT agreement initially will provide relatively high tariff barriers to out-of-quota imports.

The U.S. has established tariff-rate quotas for other dairy products. However, imports of the other products are expected to be limited in the near term. Consequently, the major impact of additional U.S. dairy imports under the GATT agreement will be felt in domestic cheese markets.

Impact of Lower Export Subsidies

Export subsidies under the GATT agreement are defined to include direct government or producer subsidies on exports, transportation and freight subsidies, marketing subsidies and the sale or disposal of government stocks below domestic prices [8]. Moreover, export subsidies cannot be extended to any new products that were not subsidized during the 1986-90 base period.

The lower export subsidies mandated under the GATT agreement will curtail the amount of dairy exports made with subsidy under the USDA's DEIP program by amounts shown in Table 1. U.S. exports of nonfat dry milk (NFDM)—the major export item under the DEIP—will be reduced most (41% from 1992-94 average by 2000) under the GATT agreement.

Table 1. Quantity of U.S. Dairy Products Exported under the DEIP and Maximum Allowable Exports with Subsidy under the GATT Agreement.*

Year and Program	Products Exported with Subsidy Under DEIP and GATT Agreement		
	Butter/Butteroil	NFDM	Cheese
	(1,000 metric tons)		
DEIP Program Bid Acceptances			
1992	23.4	113.1	3.2
1993	20.4	117.2	3.1
1994	37.9	118.6	3.4
GATT Agreement			
1995	43.0	108.2	3.8
1996	38.6	100.2	3.7
1997	34.2	92.2	3.5
1998	29.9	84.2	3.4
1999	25.5	76.2	3.2
2000	21.1	68.2	3.0
Subsidized Exports in 2000 as % of 1992-94 Average under DEIP	77.6%	58.6%	93.8%

*Source: U.S. Department of Agriculture, Foreign Agricultural Service, "Dairy, World Markets and Trade," FD 1-94, March 1994 and "Calendar Year DEIP Bid Acceptance Summaries, 1992, 1993 and 1994."

The European Union (EU) will remain a much larger exporter of subsidized dairy products under the GATT agreement than the U.S. The EU can satisfy GATT requirements for 2000 while still exporting with subsidies about 3.5 times as much NFDM and 100 times as much cheese as the U.S. However, the EU will be required to reduce subsidized cheese exports by about 21% from average amounts exported with subsidy during 1986-90 [1].

EU firms are market leaders (accounting for about 50% of world dairy exports) and collectively set world prices for major bulk dairy products. In particular, world prices for many bulk dairy products tend to equate to the internal supported price in the EU less the available export subsidy. When smaller quantities of subsidized EU dairy exports begin to enter international markets, this should exert upward pressure on prices.

The lower subsidized cheese exports and additional market access for cheese in the EU, U.S., and Japan are likely to enhance world cheese prices significantly by 2000—perhaps by as much as 20% in the late 1990s [7].

Evaluation of Export Marketing Organizations

A number of export marketing organizations have been proposed as models which might be used in the U.S. Three models, representing a cross section of proposals, are described below.

The three plans were evaluated using (1) general marketing and policy principles, and (2) criteria specified by the U.S. General Accounting Office (GAO) in a report entitled Strategic Marketing Needed to Lead Agribusiness In International Trade [9]. In the GAO report, the agency said that successful export marketing in the emerging market-oriented environment includes the following practices: (1) developing a long-term market development plan that identifies markets and growth potential; (2) designing positive product images to satisfy consumer needs and preferences, such as style, quality, and packaging; (3) improving the ability of distribution systems to deliver products efficiently; (4) positioning the products through competitive pricing and credit policies; (5) making consumers aware of the products through promotional activities in targeted markets, (6) differentiating products so they stand out; and (7) continually innovating to be ahead of global competition. To a substantial extent, the GAO report equates successful exporting with emphasis on exporting differentiated products.

Gunderson Proposal

Characteristics: In brief, this proposal (technically called the Gunderson Substitute for H.R. 4235) which was advanced by Congressman Steve Gunderson of Wisconsin, would [3]:

1. Require the Secretary of Agriculture to contract with an autonomous industry board which would export DEIP and other dairy products at an "export class" price. Under the plan, a Class IV export class price would be created in the federal order market system and the board would be given access to market order pool revenues to carry out export functions and cover administrative costs.
2. Require the Secretary of Agriculture to purchase 2.4 billion pounds of dairy products (milk equivalent total solids basis) for domestic and international feeding and donation programs on a bid basis. This is the average quantity historically purchased and donated by the USDA. No bids equivalent to less than $10.10 per hundredweight of milk would be accepted.
3. Delegate to the autonomous industry board the responsibility for coordinating the exporting of dairy products under the DEIP to the maximum extent permitted under the GATT agreement and purchasing 2.4 billion pounds (milk equivalent) of dairy products for government feeding and donation programs.
4. Call for no other government dairy product removals from the U.S. domestic market except in emergencies.
5. Reduce producer assessments to $.03 per hundredweight and refund the assessments to those producers who did not increase year-to-year milk production.

6. Create a no-net-cost recourse loan program under the Commodity Credit Corporation (CCC) for processors who need to carry inventory from periods of peak production to peak demand.

Analysis: The Gunderson proposal is a quasi-privatization measure which places DEIP exporting, commercial dairy exports, and purchases of dairy products for government domestic and international feeding and donation programs largely in the hands of an autonomous industry board. Under the proposal, board personnel would have to learn to perform certain tasks now performed by the USDA. Presumably this would be a manageable job. Examples of successful privatization measures exist around the world. Moreover, the measure would be attractive to budget cutters because it would reduce CCC purchase costs by $400 to $500 million during fiscal 1995-fiscal 1999 compared to expenditures under the President's 1995 budget baseline and essentially cap expenditures for U.S. dairy programs.

The no-net-cost recourse loan program (under which the government would be under no obligation to acquire product put under loan) is consistent with a greater market orientation for the U.S. dairy industry. However, it is not clear why the inventory financing described in the proposal could not be handled through private lenders rather than the CCC.

Questions arise regarding the proposed quasi-privatization measure. How would California and Grade B milk producers, two groups of producers who do not market milk under federal orders, be included in the pool envisioned under the Gunderson proposal? Presumably their participation would be essential.

Second, it is unclear whether the autonomous industry board would be effectively a monopoly exporter. The board might find it advantageous to obtain monopoly powers such as those possessed by the New Zealand Dairy Board. But there undoubtedly would be opposition to giving such powers to the board from a number of sources, including private exporters who would lose business to the autonomous board. Administrative agencies (Justice Department, Federal Trade Commission, Council of Economic Advisers, etc.) that have a well known dislike for monopolies also might oppose the measure. A monopoly dairy exporting board undoubtedly would be a tough sell in the U.S.

Third, while the Gunderson proposal would leave in place tariff-rate quotas and thus provide significant price support for the domestic industry, downside pressures on milk and dairy product prices could arise under the measure. U.S. butter prices which occasionally have been supported by USDA purchases of a third or more of domestic butter production at times could fall to world price levels. U.S. NFDM prices also could come under downward pressure since DEIP exports of the product—which equalled about 28% of domestic production in 1992-93—will be reduced under the GATT agreement and price support purchases of NFDM (except for feeding programs and food aid) would be eliminated under the proposal. U.S. cheese prices probably would not be affected much by the proposal since USDA price support purchases of cheese have been small under the present price support program. These developments could put significant downward pressure on milk and dairy product prices, especially if BST, good crops or other developments expanded U.S. milk production by larger than normal amounts.

Finally, milk and dairy product prices would become more variable in the absence of price floors provided by the USDA's dairy price support program. Dairy firms could reduce the risks associated with more variable prices by using dairy futures markets.

The above developments would concern some domestic milk producers and processors. The level of industry support for the proposal would depend partly on how these questions and concerns are addressed.

The Gunderson proposal could serve as a vehicle for meeting certain GAO criteria which emphasize expanding exports of differentiated (value-added) products. For example, the board could develop a long-term market plan which identifies markets with growth potential, make consumers aware of U.S. dairy products, and improve dairy product images to satisfy foreign consumers' needs and preferences.

These initiatives are already being carried out in a limited way by the National Dairy Promotion and Research Board. The autonomous board could take steps needed to expand such initiatives.

However, the autonomous board would find it more difficult to meet other GAO criteria. For example, it would be difficult for the board to differentiate U.S. dairy products so that they stand out and continually innovate to be ahead of global competition. In the past, U.S. dairy exports have consisted mainly of direct sales of bulk products by the government or under the DEIP. Moreover, most DEIP exports of NFDM have been made by U.S. affiliates of EU firms. This history limits the experience with differentiated products that U.S. dairy exporters could bring to the autonomous board.

Meeting the GAO criteria would not pose insurmountable problems since the board could purchase the services of experienced exporters from anywhere in the world. But the board would be a late mover in dairy exporting, putting it at a disadvantage to EU exporters, the New Zealand Dairy Board, and other experienced dairy exporters. It would be critical for the autonomous board to secure the services of experienced personnel and quickly gear up to do competitive exporting. This is so because the success of the proposal would hinge importantly on the autonomous board's ability to expand dairy exports to offset effects of eliminating government dairy product purchases (except for feeding and food aid purchases) and loss of market under the GATT agreement.

DariMac

Characteristics: Developed by Liebrand and Spatz, DariMac is a proposal for an export marketing-agency-in-common for dairy cooperatives. It would allow a group of cooperatives to operate under a common export marketing agreement. Liebrand and Spatz were guided in developing DariMac by experiences with seven other successful marketing-agencies-in-common. The Liebrand-Spatz proposal would have DariMac [4]:

1. Organized as a cooperative under which each member would commit a specified volume of manufactured dairy products for export. DariMac then would serve as the export department—finding buyers, negotiating sales, preparing and executing export documents, collecting from buyers, and paying the supplier.
2. Governed by a board of directors consisting of one director from each member cooperative. Each member would have one vote, plus additional votes based on a moving average of business with DariMac.
3. Financed using a base capital plan. Each member's contribution would be proportional to the member's current use of DariMac.
4. Require members to market their bulk and partially differentiated exports through the organization. The agreement with members would specify sales terms, contract modification and termination procedures, contract enforcement, and quality standards which would be strictly enforced.
5. Not be involved in domestic sales, except in unusual situations defined by the board of directors. These unusual situations could include those arising when DariMac found it impossible to sell all product acquired in the export market.
6. Sell highly differentiated products on a commission basis only.
7. Pool earnings and expenses associated with the sale of bulk and partially differentiated products without physically pooling the products. Government export assistance, such as DEIP subsidies, would be considered part of the pooled earnings.

Analysis: The Liebrand-Spatz plan represents a detailed description of how U.S. cooperatives might become more effectively involved in dairy exporting. It recognizes economies cooperatives could achieve from pooling resources needed for exporting, the specialized expertise needed for exporting, the need to be a reliable supplier of high quality products for export markets, that cooperatives produce a large share of bulk dairy products (83%, 91%, and 45% of butter, dry milk products, and cheese, respectively, in 1987) that would be exported, and applies to dairy exporting principles that work successfully in other common marketing agencies.

While DariMac would not have as many resources at its disposal as the Gunderson measure, it also could build upon the export promotion work of the National Dairy Promotion and Research Board to meet certain GAO criteria. These include identifying promising growth markets, making consumers aware of U.S. dairy products, improving the image of U.S. dairy products to satisfy foreign customers' needs and preferences, and positioning the products effectively through competitive pricing and credit policies.

However, questions arise about how well the plan meets GAO criteria calling for placing emphasis on exporting differentiated products. The architects of DariMac do, of course, recognize the importance of product differentiation, pointing out that [4, p. 25]:

> "Customized formulations and/or packaging to meet specific needs of foreign customers can add value to traditionally generic commodity products. For example, the Foremost Ingredient Group of Wisconsin Dairies (now Foremost Farms) manufactures about 50 specialized whey products. Through DariMac, foreign customers could obtain a wider range of products and product formulation capabilities."

While DariMac would routinely export partially differentiated products—e.g., specialized whey products—the organization would sell highly differentiated products (frozen dairy desserts, yogurt, specialty cheese, etc.) on a commission basis only. Returns from the latter products would not be pooled. Moreover, DariMac members would not be required to consign highly differentiated products to the organization for sale; they could export those differentiated products for their own account. This concession probably is necessary since cooperatives that spend large sums for developing differentiated products might be unwilling to participate in DariMac in the absence of such a concession. However, it would remove DariMac from some lucrative and stable dairy exporting business. It also would appear to foreclose opportunities to develop a DariMac brand for a wide range of highly differentiated products. The issues surrounding exporting, and pooling of returns from, differentiated dairy products represent thorny problems for DariMac.

DariMac faces the same late mover problems that who would exist under the Gunderson proposal. As with the Gunderson measure, this problem could be remedied by hiring personnel from experienced exporters.

New Zealand Dairy Board (NZDB)

<u>Characteristics</u>: Established in 1924, this producer board which is headquartered in Wellington, New Zealand has accounted for about 20% of world dairy exports in recent years [6,10]. The NZDB had sales of $NZ 5.0 billion (about $U.S. 2.8 billion) in both 1993 and 1994 [6]. It employs about 6,000 people, 70% of whom are located outside of New Zealand. In terms of structure and operating procedures, the NZDB [2,6]:

1. Serves as single desk or monopoly exporter for all manufactured dairy products exported from New Zealand. Typically, the equivalent of about 85% of the milk produced by New Zealand's 14 thousand dairy farmers is exported. The NZDB does not control dairy products marketed inside New Zealand.
2. Receives no government export subsidies except for monopoly exporting privileges.
3. Is supplied by relatively large (170-cow average herd size) milk producers employing pasture-based systems that make them the lowest-cost milk producers in the world.
4. Has a 13-member board of directors, 11 of whom are elected by 15 dairy cooperatives in New Zealand in proportion to their sales through the NZDB. The remaining two directors are appointed by the government.
5. Operated 60 overseas subsidiary or affiliate companies for the marketing of dairy products in about 34 countries in 1994. Additional offshore NZDB companies are involved in financing and controlling the organization's operations.
6. Makes extensive use of joint ventures to acquire subsidiary or affiliate companies in foreign countries.

7. Has an experienced foreign exchange risk management unit.
8. Emphasizes exports of branded and other differentiated dairy products. NZDB brands include Anchor, Fernleaf, Chesdale, Anlene, and Mainland.

The NZDB eventually hopes to export nearly all New Zealand dairy products as highly or partially differentiated products.

Analysis: The uniqueness of the NZDB lies partly with its monopoly exporting privilege. Monopoly exporting gives the organization tight control over export product mix and export product quality. It also permits the organization to avoid "weak selling," and strongly discourages foreign firms from integrating backward into New Zealand to get a cheap source of milk.

"Weak selling" is competition among New Zealand dairy firms in foreign markets which forces down prices in those markets. Regarding integration, the NZDB speculates that Japanese and other foreign firms would acquire milk plants in New Zealand if the NZDB lost monopoly exporting status. But, forcing foreign firms to export through the NZDB and extracting for New Zealand farmers most profits associated with those exports removes most advantages foreign firms could obtain from acquiring low cost milk in New Zealand. It also eliminates almost all incentives for foreign dairy exporting firms to integrate into New Zealand's dairy industry.

The monopoly exporting privilege is a valuable export marketing and strategic tool which the NZDB will fight hard to retain [2].

The NZDB meets most if not all the GAO criteria mentioned earlier. Since the NZDB receives no exporting subsidies, it must do essentially all the things called for in the GAO criteria in order to be competitive in international markets. The NZDB's emphasis on exporting differentiated—as opposed to bulk—items is a product of the firm's experience. Differentiated products—especially highly differentiated products such as branded items—found more secure and profitable markets. P.V. Lough, a former NZDB official, describes the advantages associated with exporting differentiated products as follows [5]:

> "Supplying bulk natural cheddar cheese to a processor in Australia is not secure business—we can be dropped at a moment's notice. But having the equivalent quantity marketed under the Mainland Brand in Australia not only returns to the industry a higher price for the cheese, but we have more security of selling that volume of cheese in the years to come."

The NZDB locates most of its marketing personnel overseas. This is done mainly to permit its marketing personnel to be near, and responsive to, the customer. In other cases, overseas subsidiary or affiliate companies are used as facilities for purchasing, processing, and marketing dairy products produced in the foreign country. This use of subsidiary or affiliate companies allows the NZDB to partially circumvent import barriers that limit imports of New Zealand dairy products.

Would the NZDB be an appropriate model for U.S. dairy exporters? Probably not. Monopoly exporting would be difficult to adopt in the huge U.S. dairy market. It works in New Zealand partly because of the long history of monopoly exporting boards in that country and the relatively small size of the New Zealand dairy industry. New Zealand has only about half as many dairy farmers as presently operate in Wisconsin. It is easier to persuade the 14 thousand producers and 15 New Zealand cooperative exporters to operate through a monopoly exporting organization than would be the case with producers, processors, and cooperatives in the large U.S. market. Even in New Zealand monopoly exporting faces challenges. The largest New Zealand Dairy Cooperative—New Zealand Co-op Dairy Company, Ltd.—has stated that it wishes to export for its own account.

The emphasis on product differentiation found in New Zealand appears worthy of emulation. Export markets for differentiated products tend to be more profitable and secure. In addition, being supplied by low cost producers and selling differentiated products represent a sound combination since the benefits of the two strategies are additive.

Summary

1. The Uruguay Round GATT agreement and other developments which have made the U.S. dairy industry more market-oriented have given the U.S. dairy industry incentives to expand dairy exports.
2. Three models which might be used to expand U.S. dairy exports were evaluated in this report. They are the Gunderson proposal (Gunderson Substitute for H.R. 4235), DariMac, and the New Zealand Dairy Board.
3. The Gunderson proposal represents a quasi-privatization measure that delegates to an autonomous industry board responsibility for DEIP exporting, other dairy exporting, and purchases of 2.4 billion pounds (milk equivalent) of dairy products for government domestic and international feeding programs and donation programs. This proposal retains the border price protection provided by the tariff-rate quotas negotiated under the GATT agreement. However, since the proposal would eliminate USDA purchases of dairy products (except those for feeding and food aid programs), it could allow domestic manufacturing milk prices to decline below present support levels at times. The long-run success of the proposal would depend critically on how successfully the autonomous board expanded U.S. dairy exports to offset effects of reduced dairy price support purchases and market losses under the GATT agreement. The board could partially overcome disadvantages associated with being a late mover in dairy exporting by hiring personnel from experienced exporters.
4. DariMac provides a detailed description of how U.S. cooperatives might effectively expand dairy exports using a common marketing agency. DariMac represents an application to dairy exporting of experiences of seven successful cooperative marketing-agencies-in-common. It shows the economies and advantages that cooperatives could secure by pooling exporting resources. DariMac's emphasis on exporting commodity or partially differentiated dairy products (rather than highly differentiated dairy products) would limit the organization's opportunities in a lucrative and stable export market segment. The organization would face the late mover problems that would be encountered by the autonomous exporting board under the Gunderson proposal.
5. The NZDB is the world's largest private dairy exporting firm, accounting for about 20% of world dairy exports. The organization owes its success in part to being supplied by low-cost milk producers, long experience in exporting, monopoly exporting privileges granted to it by the New Zealand government, and the firm's emphasis on exporting differentiated products. While the NZDB probably is not a suitable model for the U.S., the emphasis on low milk production costs and product differentiation are worthy of emulation. Monopoly exporting which works effectively for New Zealand probably would be difficult to successfully introduce in the U.S.

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